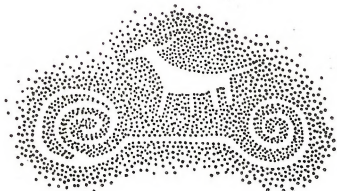


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GRAND GULCH PLATEAU MANAGEMENT PLAN



moab district, utah

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GRAND GULCH PLATEAU
MANAGEMENT PLAN

October 1980

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Moab, Utah 84532

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comments due: november 30, 1980

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contents:



introduction



management objectives



management actions



coordination



implementation plan



plan modification



appendix

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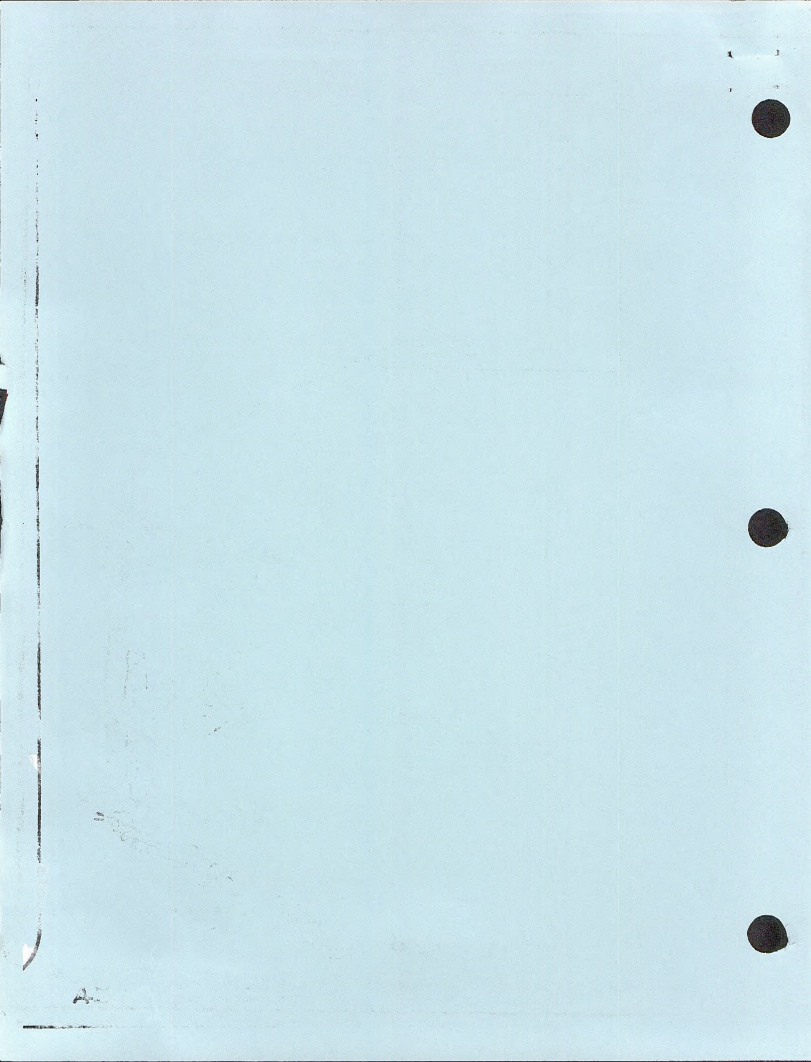
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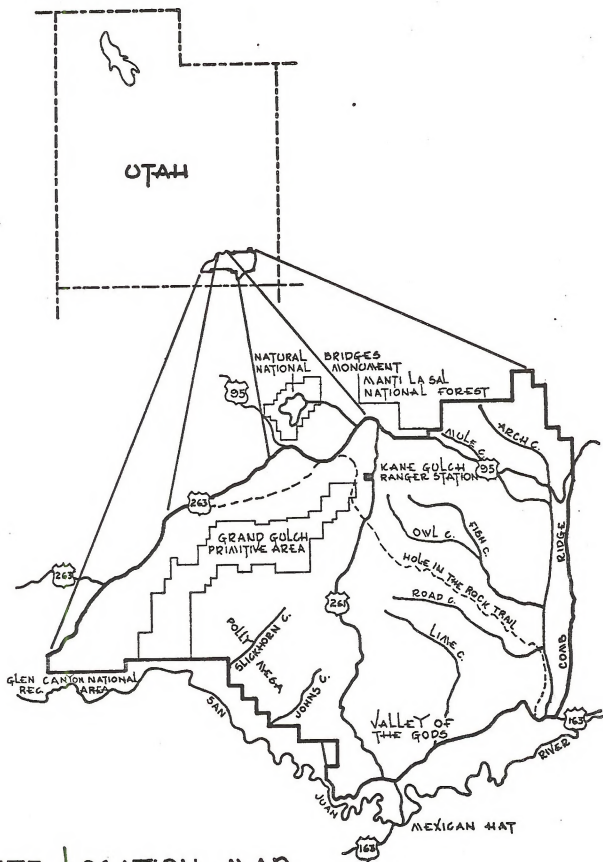
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THE PURPOSE FOR THIS PLAN IS OUTLINED UNDER

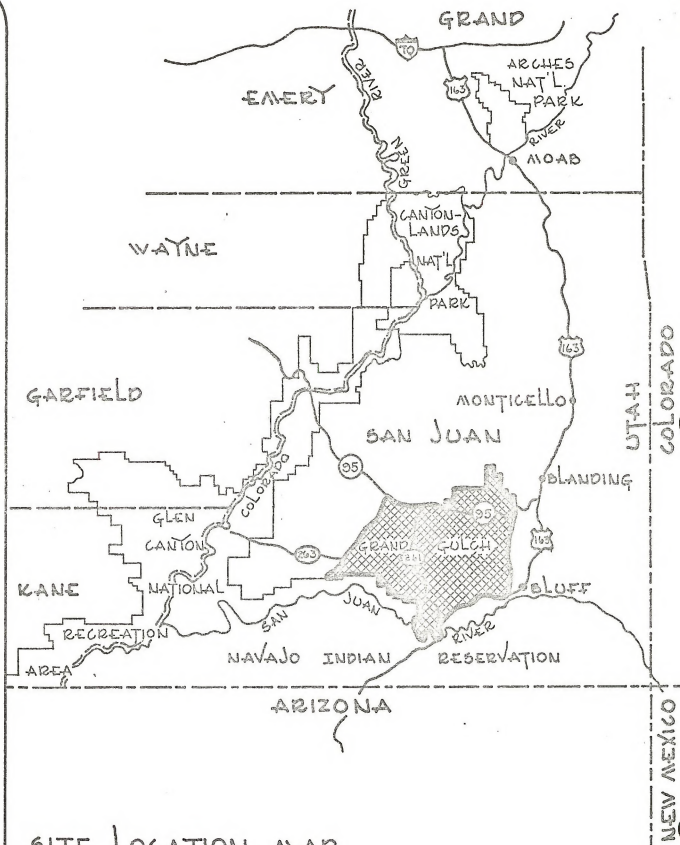
management objectives

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SITE LOCATION MAP
 GRAND GULCH PLATEAU MANAGEMENT AREA



SITE LOCATION MAP
 GRAND GULCH PLATEAU MANAGEMENT AREA



introduction

PURPOSE AND SCOPE OF PLAN

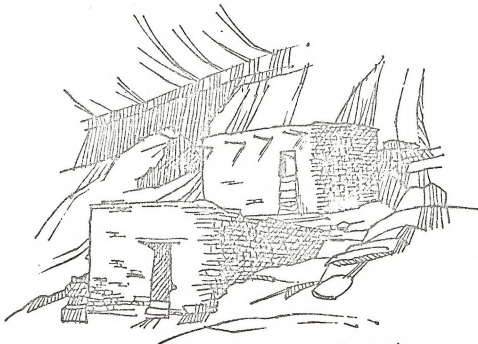
This plan is to establish management direction for the Grand Gulch Plateau. The plan focuses on the management of the recreational and cultural values, but must also consider many other resources.

Recreation visitation has been increasing at an average rate of 30% yearly, as have other uses of the Plateau. The resulting impacts have made it necessary to revise the existing management plan in order to protect the unique, non-renewable resource values.

This plan will define the resource management objectives and will detail the actions needed to meet these objectives in the short-term and long-term perspectives. Interim management decisions will be made where there is insufficient information to allow full management planning.

Congress, through the Federal Land Policy and Management Act (FLPMA), directed that all Bureau of Land Management lands be inventoried for wilderness potential. Nine areas within the Grand Gulch Plateau Management Area have been identified for wilderness study. Pending final Congressional action, these areas will be managed to retain the option of wilderness designation.

To facilitate the planning effort, the area is divided into five management units: Grand Gulch, Cedar Mesa, Arch and Mule Canyons, Valley of the Gods and Comb Wash-Butler Wash. Some management actions apply to the entire Plateau, while others are identified for only one management unit.



split-level ruin

Program History

Up until the Classification and Multiple Use Act, Grand Gulch Plateau was managed primarily for livestock grazing. Although the archaeological values were noted as unique recreational resources in this area, there was little attempt to manage them until Grand Gulch was classified as a primitive area on September 24, 1970. The primitive area classification was to protect the unique archaeological and scenic values of the canyon, but the boundaries were set in a hurried fashion in order to have the classification accomplished before the Classification and Multiple Use Act expired.

The main concern was to make sure the actual canyon was protected, and little thought was given to protecting other unique areas adjoining Grand Gulch or to providing an adequate buffer zone to protect the primitive character of the canyon.

Also in 1970, livestock use was eliminated in the Gulch itself, through agreement with the livestock operator.

In 1964, Utah State University was given a contract to conduct stabilization work in Grand Gulch. These early stabilization attempts were stop-gap efforts performed with lightly-trained personnel that have resulted in a visual intrusion to present visitors.

During the early 1970's BLM acquired special funding for management and protection of the area. The primary concern was for the protection of the archaeological values in the area that were being vandalized as a result of a lack of on-the-ground protection. In late January 1974, \$95,000 was made available, and the Grand Gulch program was born. The immediate objective was to stop archaeological vandalism in the Gulch. By the first of March, 1974, there were two rangers on the ground.

During the early years of the program, several things were discovered:

1. The mesa tops surrounding Grand Gulch have to be a part of the Grand Gulch Program because: (a) access to Grand Gulch is across this mesa; (b) archaeological values on the mesa are being vandalized as well as those in the Gulch; (c) the rangers have a better feeling for the activities in the Gulch when they are able to contact people and manage activities on the mesa; and (d) recreational values in addition to archaeology are present and worthy of intensive management on the entire Grand Gulch Plateau.
2. A contact station is required at the trail head (Kane Gulch) because most visitors entered the Gulch at this point, and an effective site or central location is needed for visitors to contact rangers for information, assistance and permits.
3. One ranger needs to be available at the station at all times so visitors can depend upon seven-day-a-week service.

If visitors find no one at the station, they soon feel that if it is not important to have rangers available, it's not important to check in.

4. In order to provide seven-day-a-week coverage at the ranger station and make effective patrols, at least six rangers are required.
5. To effectively patrol such a large area broken by steep canyons and supporting a dense growth of pinyon-juniper, ground patrols need support from the air.

By the end of April 1974, a temporary ranger headquarters and contact station were established at the trail head (Kane Gulch), and the ranger force was expanded to four rangers. All rangers had temporary 130-day appointments which was 90 days less than the length of the season (March 1 to November 30). On August 1, 1974, we were authorized to hire a Chief Ranger/Recreation Planner, this being a permanent position.

By early spring of 1975, six WAE (When Actually Employed) rangers had been authorized and hired. A full-time maintenance worker was added to the program in the fall of 1974 to relieve rangers of maintenance duties and to provide a knowledgeable person to maintain the water and sewer systems, generator, temporary housing facilities and other equipment.

The Grand Gulch facilities initially consisted of a surplus 12' x 60' trailer. One bedroom was converted into an office, with two rangers housed in the remaining portion of the trailer. Water and sewer tanks were installed, with water hauled from Monticello and sewer-pumping contracted from Cortez, Colorado.

A holding corral and small metal tackshed provided for the pack stock. A one-bedroom 10' x 40' trailer, which had been a field camp located at Natural Bridges National Monument, was used to house two rangers. Two trailers have since been added to house the additional ranger staff. One is a 10' x 40' two-bedroom trailer, and the other is an 8' x 20' one-bedroom trailer. Power is supplied to the main station by a 12 KV generator.

The use of aerial patrols was tested beginning in 1974, and helicopter patrols proved very efficient. Some public relations problems were encountered from contacting visitors directly from use of the helicopter, but the effectiveness of helicopter patrols cannot be denied. At the start of the 1976 season, procedures were changed to minimize direct contact of the visitor by a helicopter patrol.

Since its beginning in March 1974, the program has been responsible for the conviction of thirteen individuals for antiquity violations.

Perhaps more important, there has been a marked decrease in the level of antiquity vandalism in the Grand Gulch Plateau area and Grand Gulch itself since the program was initiated.

Information service to the public, particularly to the backpackers, has been greatly enhanced by having knowledgeable people available to them in the field.

Because of the urgency for curbing vandalism and getting control of the other recreational management problems, the management plan was delayed in favor of immediate interim management. Rough outlines and drafts were started in January 1975.

It was determined that the entire Cedar Mesa area is involved from the standpoint of management, visitor use, topography, and cultural values. Therefore, a management plan needed to be developed which would include the entire area currently covered by this plan.

A plan providing for management of the Grand Gulch Primitive Area and interim management of Cedar Mesa was written; it was approved by the District Manager on September 21, 1977. This plan proposed that the area immediately outlying Grand Gulch Primitive Area be studied and designated an outstanding natural area. Due to the passage in 1976 of the Federal Land Policy and Management Act, the interim plan was not fully implemented. The Federal Land Policy and Management Act directed the BLM to inventory its lands to see if any lands had outstanding wilderness characteristics of at least 5,000 acres in size.

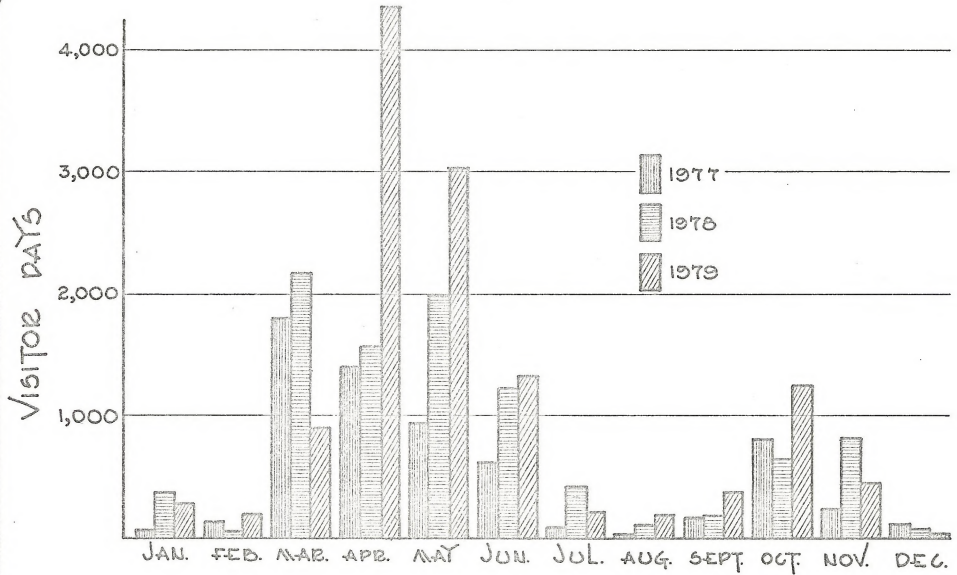
In 1977 the Grand Gulch program was authorized six park technicians to monitor and protect archaeological resources of the area. During that time period, the rangers had Grand Gulch under control as far as archaeological damage to the primitive area was concerned. The program expanded to other canyons in the immediate area of Grand Gulch because of the increased visitation to these areas.

Although visitor use increased steadily, the 1977 level of staffing was not maintained during 1978.

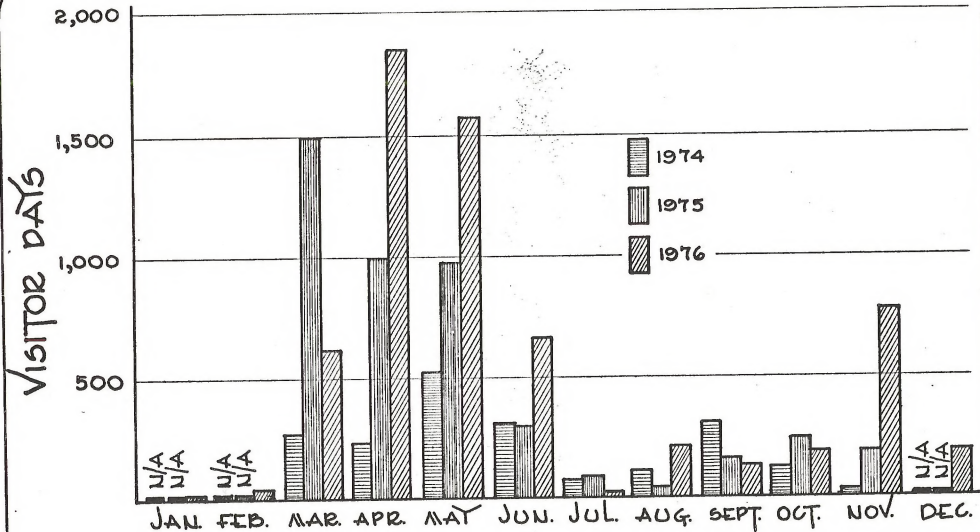
In 1979 the funding level was \$85,000 for personnel, equipment and helicopter use. Visitation increased from 2,000 visitor days in 1974 to 13,000 visitor days in 1979. During the same time period, there was a 50% decrease in WAE and permanent positions. In FY 1980, six ranger positions were authorized for the management of Grand Gulch Plateau, and the funding level was set at \$105,000.

Base?

It wasn't until FY 80 that the program had a base funding identified in the WOI. Due to

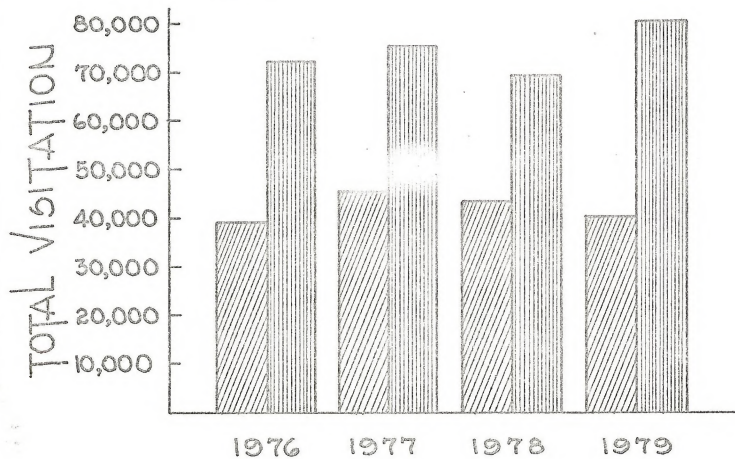


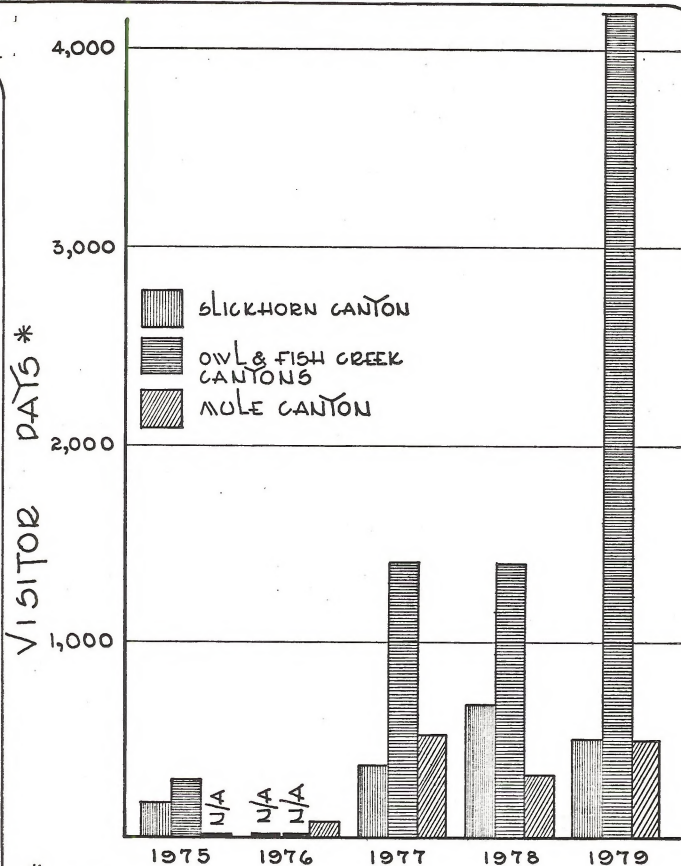
GRAND GULCH PRIMITIVE AREA VISITATION



GRAND GULCH PRIMITIVE AREA VISITATION

■ NATURAL BRIDGES NATIONAL MONUMENT
▨ GOOSENECK STATE RESERVE





*NOTE:

1. 60% OR LESS CONTACT SUCCESS.

VISITOR USE IN SLICKHORN, OWL & FISH, AND MULE CANYONS.

POLICY AND REGULATIONS

Management planning occurs within a framework of laws, regulations, policies and commitments that guide and constrain the choice of management objectives and the means for achieving them. The following provides a brief overview of the mandate, guidelines, and commitments which influence management planning for the Grand Gulch Plateau and Grand Gulch Primitive Area. A full review of all applicable management direction is beyond the scope of this plan.

The primary source of guidelines for the management of designated primitive areas is contained in the Code of Federal Regulations, Title 43, Subpart 8352. This subpart sets forth general guidelines for protecting, and providing for recreational use of, primitive areas. Secondary guidance is found in BLM Manual, Section 6221. Section 6221 states Bureau policy on a number of specific issues of primitive area management.

Two primary pieces of legislation relating to management of Grand Gulch Plateau and Grand Gulch Primitive Area include the Antiquities Act of 1906 and the Archaeological Resource Protection Act of 1979. The requirements of that legislation are reflected in 43 CFR, Part 3. These regulations confer jurisdiction over cultural resource sites located on the public lands on the Secretary of Interior, specify antiquity permit procedures, and provide for the apprehension of "any person or persons who appropriate, excavate, injure, or destroy any historic or prehistoric ruin or monument, or any object of antiquity" on public lands.

Several other pieces of legislation relating to antiquities focus on management of the Grand Gulch Plateau area. The thrust of these laws is brought together in Executive Order 11593, "Protection and Enhancement of the Cultural Environment". Basically, this order directs the federal agencies to ensure the preservation of cultural resources under their control through inventory and proper management. The Federal Land Policy and Management Act of 1976 provides for protection of wilderness, recreation, and cultural values.

Finally, Utah State law provides a tool for the apprehension and prosecution of individuals who vandalize or otherwise injure objects of antiquity in the State. This law is useful since it provides more expedient prosecution of minor antiquities violators than federal law.

Additional management direction for the Grand Gulch Plateau area has been identified through the Bureau planning system and is summarized in the Management Framework Plan for the area. In it, three specific decisions were made:

1. Protect the Grand Gulch Plateau lands from all forms of entry and from activities which would disturb or introduce mechanical equipment into the area.
2. Clear the Grand Gulch Plateau lands of State sections through the process of exchange.
3. Maintain the Kane Gulch area west of U-261 in its natural condition.

DESCRIPTION OF THE AREA

GRAND GULCH PLATEAU

The Grand Gulch Plateau is located in southeastern Utah, approximately 25 miles east of Blanding and 10 miles north of Mexican Hat. It is a part of the San Juan Resource Area of the Bureau of Land Management's Moab District. It is bounded by the Manti-LaSal National Forest on the north, on the east by Butler Wash, on the west by Highway 263 and Clay Hills Crossing Road, and on the south by Glen Canyon National Recreation Area and Highway 163. It comprises approximately 400,000 acres of public lands managed by the BLM. The remainder is composed of approximately 33,000 acres of State of Utah land and less than 1,200 acres of privately owned land. Grand Gulch Plateau is a pinyon-juniper-covered plateau with an average elevation of 6,000 feet. It is cut by numerous deep, narrow, winding canyons (Grand Gulch being the largest) which drain directly into Comb Wash to the east and the San Juan River on the south.

The area is relatively undeveloped, with no permanent residences on the Plateau. Access is provided by Utah Highway 95 on the north and Utah Highway 261 which runs through the middle of Grand Gulch Plateau, as well as numerous dirt roads on the mesa top. The canyons, due to their rugged nature, are relatively undisturbed. There are no known locatable minerals found in the Plateau area. Exploration for oil and gas has been extensive in the last few years. As yet, no known commercial discoveries have been made. Livestock grazing is the other major resource use of the Grand Gulch Plateau area. A small amount of firewood and cedar posts are cut on the mesa for local use.

The archaeological resource of the Grand Gulch Plateau area is very rich. The area was extensively occupied by the Anasazi culture from before 500 A.D. to 1270 A.D. In surveyed areas, site densities of 20 to 200 sites per square mile have been recorded. The sites are of many types, consisting of lithic scatters, petroglyph and pictograph panels; Basketmaker components consisting of pit houses and pit structures; and Pueblo components consisting of kivas, multi-room surface dwellings, granaries and cliff dwellings. Many are nearly or totally intact. The area contains probably the greatest concentration of Basketmaker II and III sites in the Southwest (See Table #1). Grand Gulch is particularly known for its well-preserved cliff dwellings and variety of pictographs and petroglyphs. Numerous artifacts have been removed from the area, both legally and illegally since the 1890's, but an enormous amount of material remains for scientific study by archaeologists.

PRESENT

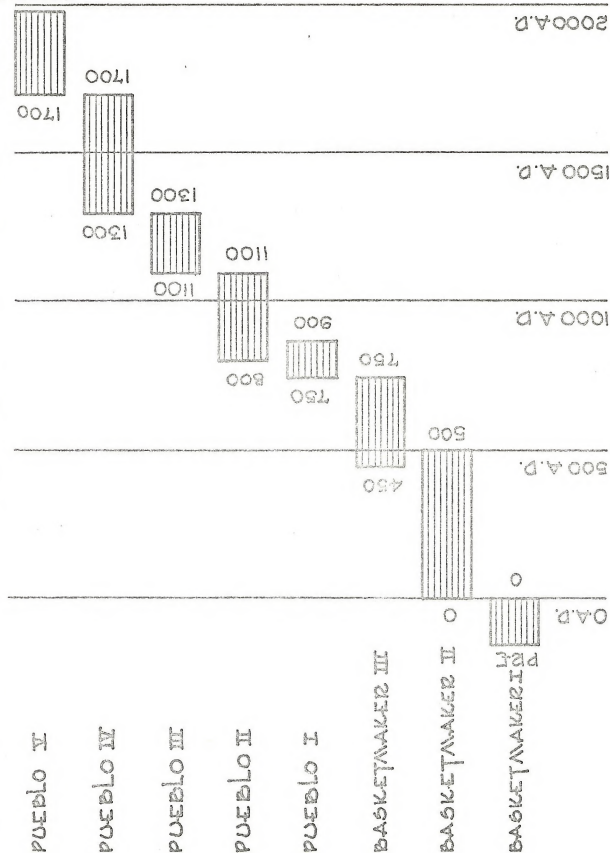


TABLE 1 ANASAZI CULTURAL PERIODS *
 * (AFTER JENNINGS, 1968)



management objectives

PLATEAU MANAGEMENT OBJECTIVES

OBJECTIVE A

PROTECT AND PRESERVE THE CULTURAL RESOURCES

Since the 1890's, the Grand Gulch Plateau Management Area has been recognized as a possessor of unique heritage values, an array of Basketmaker and Pueblo resources unequalled anywhere. The scientific potential is established by a century of research, but also present is a dramatic educational and recreational opportunity for enjoying the preserved remnants of a past culture within a pristine environmental setting. Continued research will enhance and fulfill the promise of the Plateau's antiquities.

Protection of the cultural resources within the Grand Gulch Plateau Management Area is mandated by legislation and directed through regulations.

OBJECTIVE B

PROTECT, PRESERVE, ENHANCE AND MAINTAIN THE NATURAL CHARACTER, ISOLATION, SOLITUDE, INSPIRATIONAL VALUE AND SCENIC QUALITY

The scenic quality and the natural character of the Grand Gulch Plateau Management Area are important elements of the recreational demand for this area. Natural bridges, arches, pinnacles, buttes, spires, mesas, monoliths, and canyons are some of the unique geological features that attract the visitors.

The canyon environment, with its unique riparian zones, is a sanctuary for birds, animals and plants. Development or overuse by humans could cause these values to be damaged or lost.

The visual and scenic values will be evaluated through the Bureau's Visual Resource Management Program, which provides for the classification of scenic and visual resources. Developments should be planned so they are not evident to the casual observer. They should maintain the existing landscape elements of form, line, color and texture, as viewed from the same points where the majority of casual observations take place.

OBJECTIVE C

PROVIDE FOR CONTINUED MULTIPLE USES

The Grand Gulch Plateau Recreation Management Plan provides for a continuation of multiple use management. These uses will be managed in a manner which will not distract significantly from the important cultural values of the area or the outstanding recreational and scenic values.

OBJECTIVE D

OPTIMIZE RECREATION OPPORTUNITIES

Grand Gulch Plateau Management Area lends itself to a wide variety of recreational pursuits; these include but are not limited to: hiking, picnicking, camping, hunting, sight-seeing, exploring, horseback riding, rock climbing, bird watching, and four-wheel driving.

The Plan provides a wide variety of recreational experiences within a framework of resource protection.



desert bighorn ram



cottonwood



management actions

GRAND GULCH PLATEAU

The Grand Gulch Plateau consists of five units: Grand Gulch, Cedar Mesa, Arch and Mule Canyons, Valley of the Gods and Comb Ridge-Butler Wash.



MANAGEMENT ACTIONS

GRAND GULCH PLATEAU (GGP)

MANAGEMENT ACTION: GGP #1

NATIONAL CONSERVATION AREA

Relates to Objectives A, B, C & D

Establish through Congressional designation a National Conservation Area (NCA) using the boundaries of the Grand Gulch Plateau Management Area.

Rationale

The Grand Gulch Plateau contains numerous highly significant resources, including archaeological and historical values, an outstanding scenic resource, a variety of recreational experiences which include an intensive primitive area management program. The plateau also contains other multiple use values, including potential for oil and gas development, wildlife, grazing and other values. A NCA designation would provide for conservation and protection of sensitive resources in a framework of multiple use.

Implementation

Seek Congressional support for the proposal through the Department of the Interior. A supportive package detailing the proposal will be prepared and forwarded through the Department to the Utah Congressional delegation.

Alternative

Designate Grand Gulch Plateau a National Historic District.

MANAGEMENT ACTION: GGP #2

DESIGNATIONS

Relates to Objectives A, B, C & D

As part of the overall National Conservation Area concept, establish additional designations within the area. These designations will depend on the final results of the current wilderness review process as mandated by Congress and upon the finalization of the Interior designations. Recommended designations are as follows:

<u>AREA</u>	<u>DESIGNATION(S)</u>
Entire Area	Cultural Conservation Area or Archaeological District
Grand Gulch	Natural Area
Slickhorn Canyon	Natural Area
John's Canyon	Natural Area
Owl and Fish Creek Canyons	Natural Area
Road Canyon	Natural Area
Lime Creek Canyon	Natural Area
Mule Canyon	Natural Area
Arch Canyon	Scenic Area
Valley of the Gods	Scenic Area
Comb Ridge	National Natural Landmark
Butler Wash	Cultural Research Area

Rationale

Decisions regarding wilderness designation are beyond the scope of this plan. Areas with wilderness qualities will be managed to protect future designation options.

Grand Gulch was designated as a primitive area in 1969. During the course of management, conflicts have been identified with wilderness/primitive concepts and the management and protection needs of the many archaeological resources found in the canyon. This includes stabilization and hardening of structures, signing within the area, and patrol methods. Constraints on management activities limit the degree of protection that can be afforded the archaeological resource.

Designation as a Natural Area will allow the area to be managed as a roadless area but afford a greater degree of archaeological protection.

Should Congress decide to designate Grand Gulch as wilderness, BLM should seek special legislation that would allow for the management and protection of the archaeological resource.

Several canyon systems offer an outstanding potential for development as hiking areas and further add to the spectrum of opportunities within the management area. A Natural Area designation will allow trail development, signing, sanitary and other facilities. The areas will be managed as roadless areas where foot or horse travel is the primary means of access.

Scenic Areas will be managed for their outstanding scenic values and will have limited vehicle access. New access is not proposed at this time.

The Comb Ridge monocline extends for over 100 miles and is a very prominent geologic feature. Its western face forms a nearly sheer escarpment of 600-800 feet from its base in Cottonwood Wash to its top. The monocline also has been an important influence on the history and prehistory of the region by limiting the mode and location of travel. A National Natural Landmark designation will recognize the value of this feature.

Butler Wash contains a wealth of cultural resource values and contains many sites of interest to the scientific community. Several universities use this area for field schools.

Alternatives

Possible designations range from very restrictive to none at all. Final decisions must also depend on finalization of current draft regulations.



cottonwood

MANAGEMENT ACTION: GGP #3

LAND EXCHANGE

Relates to Objectives A, B, C & D

Secure a land management agreement with inholders which would be compatible with land uses recommended for the Grand Gulch Plateau Management Area.

State Lands - Legal Description

T. 37 S., R. 17 E., Sections 32, 36	1050 acres
T. 37 S., R. 18 E., Sections 32, 36	1280 acres
T. 37 S., R. 19 E., Sections 32, 36	1280 acres
T. 37 S., R. 20 E., Sections 2, 16, 32	1920 acres
T. 38 S., R. 15 E., Section 36	100 acres
T. 38 S., R. 16 E., Sections 2, 16, 32	1040 acres
T. 38 S., R. 17 E., Sections 2, 16	800 acres
T. 38 S., R. 18 E., Sections 32, 36	1280 acres
T. 38 S., R. 19 E., Sections 2, 16, 32, 36	2560 acres
T. 38 S., R. 20 E., Sections 2, 16, 32, 36	2560 acres
T. 39 S., R. 14 E., Section 36	320 acres
T. 39 S., R. 15 E., Sections 2, 16, 32	1600 acres
T. 39 S., R. 17 E., Sections 16, 32, 36	1920 acres
T. 39 S., R. 18 E., Sections 16, 32, 36	1920 acres
T. 39 S., R. 19 E., Sections 2, 16, 32, 36	2560 acres
T. 39 S., R. 20 E., Sections 2, 16, 32, 36	2120 acres
T. 40 S., R. 17 E., Sections 2, 16, 36	1920 acres
T. 40 S., R. 18 E., Sections 2, 16, 32, 36	2560 acres
T. 40 S., R. 19 E., Sections 32, 36	1120 acres
T. 40 S., R. 20 E., Sections 2, 16, 32	1880 acres
T. 41 S., R. 18 E., Section 2	640 acres

Rationale

The present configuration of State sections within the plateau area is impossible for the State to manage properly. The State could have an opportunity to block up their lands, to reduce existing and potential conflicts and simplify management, both for the State and for BLM.

Implementation

Acquisition of State lands will be made by exchange with the State of Utah. All land transactions will occur upon agreement of both parties.

Alternatives

1. Do not acquire State sections located within the Grand Gulch Plateau Management Area.
2. Acquire State sections only in selected areas.

MANAGEMENT ACTION: GGP #4

ADMINISTRATIVE SITE AND SUPPORT

Relates to Objectives A, B, C & D

Design and construct facilities for administration of cultural and natural resources within the Polly's Mesa area. These facilities will be constructed in T. 38 S., R. 18 E., Sec. 2, and will consist of the following:

1. Visitor Contact Station Office
2. Residences for ranger personnel
3. Support facilities (maintenance area, horse corral, etc.)
4. Trailhead development
5. Amphitheater and campground

See Support for detailed breakdown and costs.

Rationale

A contact station will be centrally located so as to provide easy access for the visitor. At the station, visitors may find answers to their questions and additional information through personal contacts with a ranger. Displays, photos, and area maps may be included in a reception area for interpretive values. A museum-type development is not to be pursued through the contact station. Local museums will serve as repositories for antiquities.

A manned station will relieve the area office of unnecessary disturbances which arise in common patrols. Only those instances which are significant would be brought to the attention of the area office.

Ranger patrols both on Grand Gulch Plateau and in the various canyon environs need a dispatch point for safety, visitor contact and as a control for the economic placement of ranger manpower.

The availability of a ranger force for visitor management and proper protection of the archaeological resources require on-site residences. Travel time of rangers based in nearby towns decreases available patrol time, and after-hours contacts with visitors eliminated unless excessive overtime pay is provided.

Consideration was given to three locations for establishment of an administrative center.

Expansion of the Natural Bridges National Monument administrative site to include BLM's needs was considered. In public meetings held to discuss the future of the monument, opposition was expressed to the construction of any new facilities in the Monument. The Park Service does not plan on any substantial expansion of its present facility.

The Park Service plan will specify no further construction of facilities in the Monument. This left the sites at the junction of U-95 and U-261 and a site in Sec. 2, near the present temporary facility, as alternatives. If the junction site were utilized for housing and maintenance facilities, the contact station and trailhead development would be needed at Kane Gulch. Experience has shown that the most effective point to contact the user is on the perimeter of the prime use area. If ranger personnel were housed away from the major trailheads, contact with people who arrive late and leave early would not be established. If the contact point is not centrally located, its effectiveness is diminished.

It is recommended that the most efficient use of manpower and funds would be to develop the contact station, trailhead and administrative facilities together so that a single water system, sewer system, and power system could suffice.

Recognizing the public's comments that they do not wish the support facilities to intrude on the remote nature of the area, the facilities will be designed so that the public will be routed to the trailhead and contact station without seeing the housing or maintenance facilities. Water is available for the Sec. 2 location, but its availability at the junction of U-95 is questionable; a 700-foot deep well drilled there was dry. The wells drilled in similar strata at Bridges National Monument do not provide adequate water for their needs.

The administrative site design will provide for minimal tree removal, and any development will be screened from travel corridors and access points used by visitors. The base housing complex will include sufficient housing to provide for the rangers, with support facilities such as sewer, water, electricity and gas. A housing unit with multiple sleeping, shower facilities and a community kitchen will be included to accommodate a portion of ranger staffing, visitors, and other BLM personnel. This additional unit will share the same support facilities as the residences.

Access roads to the facility will be designed for two-way traffic and will have all-weather surfacing.

The site plan will provide for the addition of future housing, should it become necessary.

Provisions in design may include solar panels and the use of windmills in addition to the conventional diesel generators. Such considerations for alternate power sources will not be overlooked.

There is a need for an all-weather facility for equipment repair and minor vehicle care. Storage for equipment used in the various patrol functions should be included in such a structure. The structure will be screened from the view of visitors, residences, and the visitor contact station.

A holding corral and small pasture area will be designated within the administrative facility. The holding corral shall include holding and loading areas, an access gate, and a capture area, with watering tanks, feeding bins and tree cover for shade.

The trailhead located at the ranger station shall have a designated camping area with established fire rings and picnic tables. An overflow location will be planned to accommodate excess campers.

Sanitary facilities and drinking water for visitor use will be at the ranger station.

Implementation

Phase 1 - Develop a site plan.

Phase 2 - Design the contact station and trailhead facility.

Phase 3 - Construct the contact station and trailhead.

Phase 4 - Design residence facility.

Phase 5 - Construct a residence facility.

Phase 6 - Design a maintenance building, workshop and equipment storage areas.

Phase 7 - Construct a maintenance building, workshop and equipment storage areas.

Phase 8 - Design corral facilities.

Phase 9 - Construct corral facilities.

Alternatives

1. Develop a site at Natural Bridges Monument.
2. Develop a site at Junction of Highway 261 and Highway 95.
3. Do not develop an administrative site or support facilities.



MANAGEMENT ACTION: GGP #5

SURVEILLANCE OF CULTURAL SITES

Relates to Objectives A & F

A surveillance program will be carried on to insure protection and long-term utilization of the rich cultural (archaeological and historical) resource present on the Plateau.

Rationale

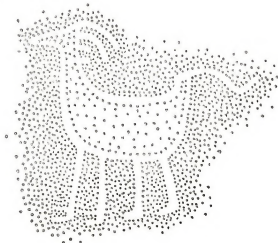
The patrol program will serve to deter and detect cultural vandalism, to monitor deterioration due to natural erosion and visitation wear-and-tear, and to provide visitor education on cultural values and history.

The highest long-term benefit of the patrol effort to the cultural resources will be the education of the visiting public to the values of the resource, the regional history and prehistory, and ruin visitation etiquette.

Implementation

To accomplish these aims with efficient use of manpower, multiple modes of transportation will be used, including foot, horseback, vehicle and aircraft, as appropriate. Within Grand Gulch, only the former two methods will be used unless its status as a potential wilderness area changes. Direct contact with visitors may be accomplished by any transportation mode, but contact by helicopter will be held to a minimum.

In addition to cultural vandalism detection and deterrence, patrol personnel will also gather information on the current condition of cultural sites. A key element in this process is photo trend plot records. Continual monitoring for significant deterioration will assure that physical protection needs are addressed and programmed for in a timely manner.



petroglyph

MANAGEMENT ACTION: GGP #6

LAW ENFORCEMENT

Relates to Objectives A & B

Provide law enforcement authority within the Grand Gulch program.

Rationale

The primary means of enforcing the rules, laws, and regulations in the management area is through education and cooperation; however, some means of dealing with violators is needed. Law enforcement training for ranger personnel is necessary, even though they will not have law enforcement authority at this time. This training will help the rangers know proper methods for dealing with dangerous situations, safeguarding evidence, and exposing them to investigation techniques.

Locating a second special agent in Southeastern Utah would allow faster response to identified violations.

Continuation of the enforcement contract with San Juan County will be an added deterrent to violations.

Implementation

1. Seek federal law enforcement authority for one or more of the permanent ranger personnel.
2. Continue the local contract for law enforcement services with the San Juan County Sheriff's Department.
3. Provide a law enforcement capability through either the County Sheriff or State Office Law Enforcement Specialist.
4. Provide adequate federal law enforcement training for all permanent and WAE personnel to enable them to conduct investigations, gather evidence, and handle sensitive law enforcement situations.

MANAGEMENT ACTION: GGP #7

INVENTORY AND SYNTHESIS OF CULTURAL RESOURCE INFORMATION
Relates to Objective A

Conduct an inventory of all cultural resources within the management area. Evaluate the significance, utility, and condition of individual sites or groups of sites for meeting the scientific and recreational objectives.

Rationale

Only a portion of the total management area has been inventoried for cultural resources. In order to provide protection for all important sites, more must be known about the location, type and condition of cultural resources.

All known data must be evaluated in order to set priorities for protection and management. With a continuing evaluation process, new inventory data can be used to adjust the programming for protection priorities.

Implementation

Because of the extensive and highly varied nature of the resource, this inventory will be done in stages over an extended period of time. Part of the work will be done by Bureau cultural and use supervision personnel and part by contract. Structural and large rock art sites will receive attention first. Because of their unique values and need for preservation, sites in the canyons will generally be inventoried before the mesa-top areas, with Grand Gulch having first priority among the canyons.

Existing available cultural data on the Plateau area will also be collected and synthesized in order to better plan physical protection and general management and to avoid duplication of effort. Data involved will include records of early archaeology in the Gulch (e.g., Wetherill, Nelson), stabilization contract reports, vandalism cleanup reports, site condition reports, dendrochronology records, site maps, forms, reports and articles resulting from modern research. All such materials will be assembled and maintained in a separate library research file with appropriate materials available at Kane Gulch Ranger Station to answer routine questions. From the assembled data, a chronological and cultural synthesis (eventually by units) will be developed to aid in ranger orientation.

Files for individual sites will also be established containing all pertinent information on each site to avoid having to refer to numerous other documents to determine the extent or location of previous digging, stabilization or other work. Such files will include current condition

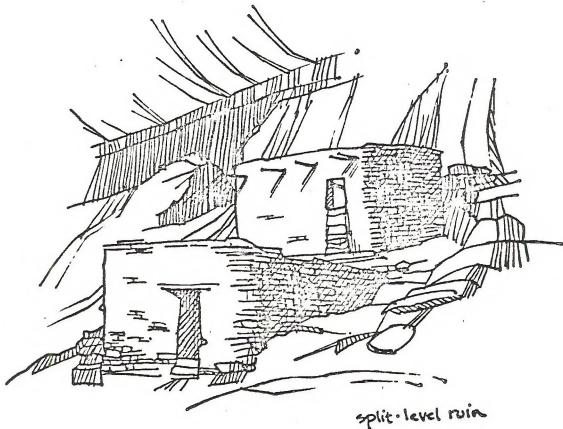
and trend reports on the ruins as well as recommendations on needed work. Past stabilization work with names of stabilizers, dates of work, summary of the nature and extent of work or maintenance performed, and reference to reports shall be maintained in each site file.

The evaluation will be based on the current data inventory and synthesis and on results of the photo trend studies. Evaluations will begin in 1981 and will be updated at least annually thereafter, using any new information available.

Grand Gulch will, in general, receive the first priority in this effort.

Photo trend plots will be established at key sites (and continued where existing) to monitor and visually measure any changes in condition. These will be serviced on a continuing basis (at least semi-annually) and the narrative evaluation accompanying the photographs shall serve as a basis for planning and updating the action list for physical protection needs and visitor management. Each item on the action list will include a brief description of (1) protection type; (2) estimated cost; and (3) date of last updating. This list will then serve as the basis for funding requests for stabilization, site hardening, etc. (See Action GGP-9, Physical Protection.)

Periodic meetings will be established with key professionals of the archaeological community, to seek advice on management of the archaeological resource.



split-level ruin

MANAGEMENT ACTION: GGP #8

PHYSICAL PROTECTION

Relates to Objectives A, B & C

Perform limited physical protection (not including visitor management) on cultural resource sites.

Rationale

Natural and human forces cause cultural site deterioration which must be controlled to assure availability of the resource for future generations.

Implementation

To avoid introducing foreign elements or appearances, efforts will focus on "freezing" or holding structural sites in their present state rather than attempting restoration or hypothetical reconstruction. However, some slow deterioration is natural and will be allowed.

Using this philosophy, physical protection measures will be limited and will be used only where accelerated deterioration demands. Ongoing evaluations will provide a prioritized list of sites needing work, especially of unique and archaeologically-important sites. Needs known at this time are identified in individual unit actions.

Site stabilization and hardening, interpretive signing or other needed physical protection will be undertaken as needs are identified in priority order. Wherever possible, original or similar looking materials (such as mortar) shall be used so as to preserve the authentic appearance of the ruin. Site hardening will be used to firm up middens or visitor pathways to decrease erosion caused by visitor traffic. Interpretive signing will be kept to a minimum in Grand Gulch and other canyons, but is recognized as the least coercive and most palatable visitor management installation. Fencing or visitor channeling by rock or vegetation placement are also options for decreasing site deterioration. In a few unique cases, a welded steel plate dome may be placed over an isolated structure to preserve it for future use.

MANAGEMENT ACTION: GGP #9

ARCHAEOLOGICAL SITE MAINTENANCE
Relates to Objectives A, B & C

Perform vandalism cleanup and repair as needed on cultural resources.

Rationale

Cultural sites disturbed by vandals are unsightly to visitors, invite further disturbance, and pose a safety hazard. Properly done, cleanup and repair will remove these problems and, through documentation, provide the starting point for future scientific investigations. It will also establish a basis for defining the nature and extent of any future illegal digging.

Implementation

Selected significant sites will receive recording and mapping of vandalism disturbance, followed by backfilling of the holes with their spoil dirt after lining with heavy black plastic sheeting. Such work, performed preferably by a qualified archaeologist, will be carefully executed and documented to avoid inflicting further damage on the resource.

Any collections from such cleanup operations will be properly documented and curated, as noted in Action GGP #11.

A maintenance program will be established for all stabilized sites located within the management area.



MANAGEMENT ACTION: GGP #10

ARCHAEOLOGICAL RESEARCH PERMITS
Relates to Objective A

Continue approving requests for research permits, ensuring that objectives of the Plan are met.

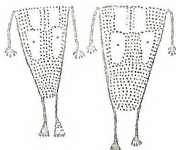
Rationale

Past research has been instrumental in identifying the importance and uniqueness of the cultural resources of the plateau. Hence the opportunity will be provided to continue archaeological and related environmental research. This will enhance the value of the area by providing more information for public interpretation and by contributing to scientific knowledge of the region and Southwestern prehistory in general. Such studies will aid in the ongoing evaluations (Action #3-CRM) by further defining the significance and nature of the cultural values present in similar sites. This, in turn, will help to refine and sharpen the management and programming functions.

Implementation

Review of research antiquities permit applications for the plateau shall follow normal channels but shall include special examination of the research objectives to assure conservation and scientifically-valid use of the resource. Detailed research designs would be required to explain and justify the data disturbance to the archaeological resource in terms of the yield of scientific cultural information. For example, proposals which would be essentially training for students or redundant of previous work will not be acceptable.

Research will be encouraged in areas which are difficult to protect or where developing research needs or interests of the Bureau or profession indicate. This will involve a flexible approach which will seek to accommodate BLM's needs and decisions and will complement outside research proposals.



photograph

MANAGEMENT ACTION: GGP #11

CURATION AND DISPOSITION OF CULTURAL DATA
Relates to Objective A

Edge of the Cedars Museum (ECM) will be the major depository for cultural resource information and artifacts collected within the Grand Gulch Management Area. Detailed reports and information will also be available to qualified historians and archaeologists at the San Juan Resource Area Office.

Rationale

ECM is an excellent local (Blanding, Utah) curation facility. Copies of major BLM cultural reports (e.g., contract reports) for the Grand Gulch Plateau Management Area will be placed there to provide background reference material for scholars and researchers working in the region. This curation process will build local cooperation and appreciation for the cultural resource program, assuring adequate curation and retrieval for future study and allowing appropriate public display.

Implementation

Artifacts collected in connection with vandalism cleanups and development-related site salvage excavations, as well as any donated or returned artifacts, along with accompanying documentation, will be deposited after study in ECM.

Upon request, more detailed information, including condition and descriptive data on individual sites, will be available for qualified historians and archaeologists at the San Juan Resource Area Headquarters in Monticello. To improve accessibility, separate file and library areas should be established solely for Grand Gulch Plateau documents.

MANAGEMENT ACTION: GGP #12

HISTORIC REGISTER NOMINATION

Relates to Objectives A, B & C

Complete the nomination of Grand Gulch proper to the National Register of Historic Places. Consideration shall also be given to recommending the Gulch for National Historic Landmark Status.

Rationale

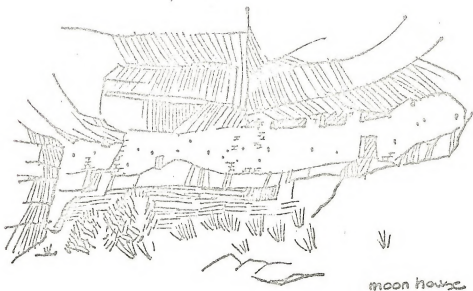
Grand Gulch, as a nationally important area, should receive official recognition of its outstanding cultural resources. Being listed on the National Register also provides a measure of increased protection through professional review of proposed actions in the area and a greater probability of increased funds for protection measures.

Implementation

After consultation with the National Register staff in Washington, D.C., the data for the Grand Gulch nomination will be assembled and submitted during the 1981 fiscal year. A request for consideration for National Landmark status will also be submitted at that time.

Although inadequately documented as yet, many of the other canyons appear to have qualifications for being recognized by this special status. As other areas are inventoried and evaluated, significant sites and districts will also be nominated to the National Register.

It should be noted that neither National Register nor Historic Landmark status would preclude other special designations.



MANAGEMENT ACTION: GGP #13

SECTION 106 COMPLIANCE
Relates to Objective A

Develop a statement describing ruin stabilization, site hardening and stabilization maintenance techniques as well as vandalism cleanup to comply with the requirements of Section 106 of the Historic Preservation Act of 1966.

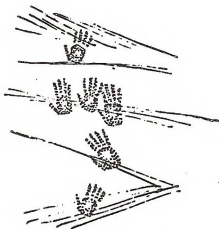
Rationale

This action will eliminate the need to prepare a 106 statement for every proposal, project or action. This will establish the general direction and intent of any future work and will avoid misunderstanding when work is required under extremely short deadlines, such as emergency ruin stabilization or vandalism repair.

Implementation

A 106 Case Report will be submitted to the Utah State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation in blanket format describing stabilization techniques and methods to be used generally.

This basic information will be supplemented as needed by site-specific work statements and EAR's supplied to the SHPO for final review and concurrence on individual actions.



handprint pictographs

MANAGEMENT ACTION: GGP #14

OFF-ROAD VEHICLE (ORV) USE & MOTORIZED USE
Relates to Objectives A, B & C

Restrict vehicle travel to designated roads and trails throughout the planning area.

Designate the major portion of Grand Gulch Plateau under the limited ORV category, where vehicle use will be limited to existing roads and trails. (There will be no open designated areas.) Motorized vehicles will not be allowed in the following special management areas: Grand Gulch, Slickhorn Canyon, John's Canyon, Owl and Fish Creek, Road Canyon, Lime Creek and Huile Canyon. In John's Canyon, vehicles may travel on the County-maintained roads, but will not be allowed to travel farther than the drill hole (four miles).

Rationale

ORV designations are mandated by the Presidential Executive Order. Because of the many cultural resources and other natural values, restrictions on ORV travel are necessary. Many archaeological sites found on the mesa tops are highly susceptible to damage from increased access and vehicle use.

The special management areas listed above have been set aside for the protection of the unique archaeological resources and pristine canyon environments. Off-road vehicles would contribute to the destruction of the values. Vehicle use will be allowed only in emergencies and for administrative purposes.

Implementation

An ORV implementation plan, included as an addendum to this Plan, will cover the following:

1. Designations
2. Physical closure of certain roads and trails
3. New trail construction
4. Trail maintenance
5. Signing
6. Public education
7. Enforcement
8. Maps

MANAGEMENT ACTION: GGP #15

COMMERCIAL RECREATIONAL USE

Relates to Objective C

Through a bid prospectus, issue up to ten land-based recreation use permits per year within the special management area. No more than five (See GG#9) of these can be authorized for Grand Gulch. Commercial use will not exceed 25 percent of the total authorized use in any management unit.

Rationale

Commercial use authorizations will provide the opportunity for the public to choose between a do-it-yourself trip and a professionally guided experience. Some visitors choose not to invest in expensive equipment provided by the outfitter. Commercial guides can also provide a significant interpretive and educational experience.

Implementation

1. Issue permits to outfitters offering a spectrum of trips. Attract qualified applicants through a bid prospectus. Existing permitted outfitters will be given preference, providing they meet the requirements.
2. Permits will be issued for three-year periods.
3. Each outfitter will be given his required use, not to exceed 750 user days per year. Should commercial demand reach this limit, use allocations will be reevaluated.

Alternatives

1. Adjust the number of permits up or down.
2. Allow unlimited number of permits.
3. Do not permit commercial recreation use.
4. Adjust the amount of commercial use above or below the 25 percent limit.
5. Allocate use on an historical basis plus 25 percent.

MANAGEMENT ACTION: GGP #16

INTERPRETATION AND INFORMATION

Relates to Objectives A, B, C & D

Establish an interpretation and information program centered around the Anasazi, early explorers, cowboy history and resource protection.

Rationale

As attention and recognition are drawn to Grand Gulch Plateau Management Area through national magazines, books, newspaper articles, television, special designations and wilderness reviews, more and more recreationists will be seeking this area for new experiences. Increased use means increased impacts on the resource and an increased need for visitors to develop attitudes of stewardship. The success of future visitor use management programs will depend on securing the public's understanding and cooperation through education and interpretation. The major concern of the BLM's interpretative program is to better serve the recreational user of Grand Gulch Plateau, and at the same time, protect and preserve the resources.

Interpretive programs will focus on providing the visitor with practical and interesting information designed to create an awareness and appreciation for resources within the management area.

Implementation

A detailed interpretive plan will be prepared for the management area that will consider the following items:

1. Interpretive Trails
2. Informational Signing
3. Directional Signing
4. Interpretive Exhibits
5. Interpretive Amphitheaters
6. Trailhead Shelters
7. Overlooks
8. Audio and Visual Programs
9. Brochures and Maps
10. Dispersion of Visitors
11. School and Civic Programs

In the interim between the adoption of this plan and the completion of the Interpretive Plan, the following interpretive informational measures will be implemented:

1. The rangers will continue to design and develop audio-visual programs for use in the local schools and for visitor programs at Kane Gulch Ranger Station and Edge of the Cedars Museum.

2. Develop an informational ramada at the junction of Highways U-261 and U-95 to provide information to the traveling public.
3. Informational signs for major areas of use will be prepared and installed.
4. Directional road signs will be placed at locations where visitors may become confused because of the numerous roads leading to trailheads.
5. Interpretive exhibits will be designed and placed at Mule Canyon Ruin and Butler Wash Overlook.
6. One permanent ranger will have skills in interpretive management and will receive interpretive training.

Alternatives

1. Do not have an interpretive program on the Plateau.



prickly-pear flowers

MANAGEMENT ACTION: GGP #17

IMPACT EVALUATION

Relates to Objectives A, B, C & D

Continue to monitor the impacts identified by the 1976 Grand Gulch Management Plan. Monitoring will be accomplished in two ways. First, the rangers will document and record attitudes on how many other parties the user met, if the user felt his or her experience had been impaired, and if the user mentioned any level of environmental impacts which he/she felt were impairing his/her experience. Second, a system of monitoring environmental impacts (developed in 1978) by using photo trend plots and vegetative trend plots at campsites, archaeological sites and trails, will continue.

Rationale

These systems of monitoring impacts are an effective tool for resource managers. If impacts to archaeological sites, trails and campsites are significant, an area can be closed or limited to adverse uses.

Photo trend plots are set up in specific areas to monitor heavily used sites on a yearly basis. Photo trends will be analyzed and compared with the previous year's records.

Vegetative trend plots are useful in the documentation of vegetation and changes that occur biologically by natural and man-caused processes.

Visitor contacts with rangers are important in documenting their experience and the observations they make. Sociological experiences of the visitor will be of prime importance in determining management actions now and in the future.

Implementation

Set up a minimum of 30 photo and vegetative trend plots. Photo trend plots will be recorded and analyzed in August of each year. Compile a book for comments by visitors for use in the decision-making process.

Alternatives

1. Do not establish photo or vegetative trend plots.

MANAGEMENT ACTION: GGP #18

INFORMATIONAL RAMADA

Relates to Objectives A, B, C & D

Develop an interagency informational ramada at the junction of State Highway U-95 and U-261 which will be manned during heavy use periods.

Rationale

The Grand Gulch Plateau is a remote area in southeast Utah. The recreational opportunities on the Plateau and the lands surrounding it are unique and varied. The recreational opportunities that are present in this area are: backpacking, snow skiing, viewing natural bridges and arches, horseback riding, big and small game hunting, four-wheel driving, powerboating and swimming, rock climbing, viewing scenic overlooks, photography, nature and geologic studies, and archaeological and historic site exploring.

The junction of U-95 and U-261 is at the approximate center of these activities. Thousands of vehicles pass this intersection each year. By placing an information ramada at this location, visitors could be assisted in their recreational pursuits. Items of interest could be: maps of special management areas, parks, recreational areas and forests; interpretive displays identifying flora and fauna of the area; and low impact camping policies. Other benefits derived from public land use could also be identified. The displays would be changed periodically for the visitor's enjoyment.

Implementation

Phase 1 - Pursue cooperative agreements with all government agencies involved in the informational ramada.

Phase 2 - Survey and design.

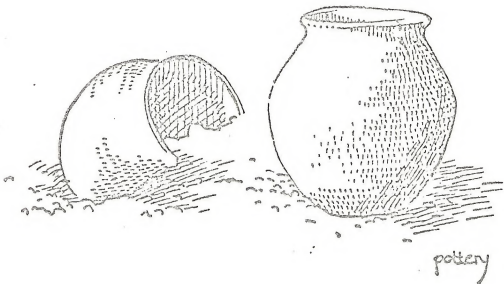
Phase 3 - Environmental assessment and archaeological clearances.

Phase 4 - Construction

GRAND GULCH UNIT

The Grand Gulch Unit is the area north of the Glen Canyon National Recreation Area boundary, west of Highway U-261, south of Highway U-95, and east of the Clay Hills Crossing Road and Highway U-263. It includes the following canyons, mesas, and flats: Grand Gulch Canyon, Slickhorn Canyon, John's Canyon, Polly's Mesa and Grand Flat.

Grand Gulch, Slickhorn and John's Canyons have been identified as special management areas where special management considerations will be provided in this plan.



GRAND GULCH UNIT

Grand Gulch Primitive Area is located on the west side of Grand Gulch Plateau. It encompasses approximately 24,080 acres. There are no private or State lands within the primitive area. The canyon is serpentine in configuration, with a total length of over 70 miles. The vertical canyon walls tower up to 800 feet above the canyon floor. Access is limited to the heads of side canyons, many of which are blocked by sharp drop-offs.

Grand Gulch contains the best collection of cliff dwellings in the Grand Gulch Plateau Area. It also has the most diverse collection of rock art in the entire area. There are several other areas of Grand Gulch Plateau that contain outstanding scenic (See Appendix C, Geology) and archaeological values.

Slickhorn Canyon is located in the south-central portion of San Juan Resource Area. It encompasses approximately 6,080 acres. It is southeast of Grand Gulch and northwest of John's Canyon. It drains off Polly's Mesa to the southwest for approximately 10 miles where it enters the San Juan River.

Slickhorn is an area of branching canyons carved in solid sandstone. The canyon depth varies from 300 feet in the north end to 800 feet as it approaches the San Juan. The canyon walls are in varied shades of yellow, brown and red which form a contrasting background to the series of pools and chutes, with green vegetation growing along the stream bank.

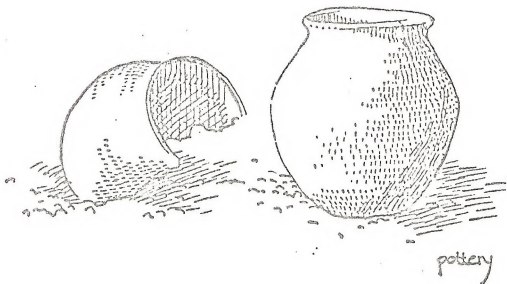
Slickhorn Canyon is an important natural extension of Grand Gulch and possesses the same characteristics which resulted in the designation of Grand Gulch itself as a primitive area. Some of these features include extensive archaeological values and high scenic qualities such as abrupt changes from flat mesa tops to sheer-walled deep canyons and unique rock formations. Slickhorn is currently undisturbed by recent man's activities and remains in a natural condition; hence, its potential for special management designation.

Present use of Slickhorn Canyon has increased rapidly since 1976. It is estimated that Slickhorn Canyon received about 4,000 visitor days of use in 1979. No comprehensive archaeological surveys have been conducted in the Slickhorn Area, but 16 cliff dwellings have been located on USGS quad maps in the upper reaches of the canyon. It is reasonable to assume that there are numerous other sites in the canyons.

GRAND GULCH UNIT

The Grand Gulch Unit is the area north of the Glen Canyon National Recreation Area boundary, west of Highway U-261, south of Highway U-95, and east of the Clay Hills Crossing Road and Highway U-263. It includes the following canyons, mesas, and flats: Grand Gulch Canyon, Slickhorn Canyon, John's Canyon, Polly's Mesa and Grand Flat.

Grand Gulch, Slickhorn and John's Canyons have been identified as special management areas where special management considerations will be provided in this plan.



Grand Flat is the largest flat on Grand Gulch Plateau and in this plan it will be considered as part of Polly's Mesa. It is bounded by Kane Gulch and Grand Gulch on the east, Clay Hills Crossing Road and Utah Highway 263 on the west, Utah Highway 95 on the north, and Glen Canyon National Recreation Area on the south.

There are six drainages that bisect the unit, generally running in a north-south direction. Grand Gulch, Steer Gulch and Whirlwind run into the San Juan River, and three drainages run into Grand Gulch, including Dripping, Step and Green House Canyons.

The Collins Spring trailhead road to Grand Gulch Primitive Area is the only well-maintained road on Grand Flat.

The Hole-in-The-Rock Trail cuts through the northern section of the unit (See Appendix D, Hole-in-the-Rock Trail). This portion of the trail is used primarily by four-wheel drive vehicles.

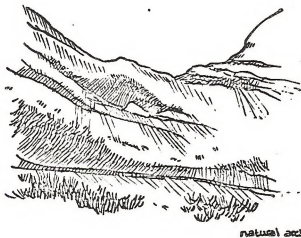
Due to the rugged character of this flat, very little road development has taken place; however, there are a few vehicle trails in this unit.

There are a few developed springs and stock-watering ponds. One section of State land was chained and seeded.

Grand Flat is part of two grazing allotments and has spring and fall grazing.

Due to the nature of the geologic formations, very little mineral or oil and gas activities have taken place.

Grand Flat has been used in the past years as a deer hunting area. Deer populations in this unit are down, and the area is not now considered a prime hunting area. Large numbers of deer do use these flats during the winter. Wildlife biologists have designated Grand Flat as a critical winter deer habitat area.



GRAND GULCH SPECIAL MANAGEMENT AREA

MANAGEMENT ACTION: GRAND GULCH (GG) #1

BUFFER ZONE

Relates to Objectives A, B & C

To protect Grand Gulch from heavy developments such as oil and gas exploration and mineral exploration and development, the following areas will be protected:

- T.39S., R.16E., Sec. 2, E₂, 320 acres
- T.39S., R.16E., Sec. 11, E₂ and SW₂, 480 acres
- T.39S., R.16E., Sec. 15, E₂, 320 acres
- T.39S., R.16E., Sec. 22, E₂, 320 acres
- T.39S., R.16E., Sec. 27, E₂, 320 acres
- T.39S., R.16E., Sec. 34, E₂, 320 acres
- T.40S., R.16E., Sec. 3, 640 acres
- T.39S., R.17E., Sec. 4, 640 acres
- T.39S., R.17E., Sec. 5, E₂ and SW₂, 480 acres
- T.39S., R.17E., Sec. 6, SE₂, 160 acres
- T.39S., R.17E., Sec. 1, SE₂, 160 acres
- T.39S., R.18E., Sec. 5, excluding NE₄NE₄NE₄, 630 acres
- T.39S., R.18E., Sec. 6, 640 acres
- T.38S., R.18E., Sec. 3, E₂, 320 acres
- T.38S., R.18E., Sec. 5, SW₂, 160 acres
- T.38S., R.18E., Sec. 7, SE₂, 160 acres
- T.38S., R.18E., Sec. 17, S₂SW₂, 80 acres
- T.37S., R.18E., Sec. 33, E₂, 320 acres
- T.37S., R.18E., Sec. 34, W₂, 320 acres
- T.37S., R.18E., Sec. 27, W₂, 320 acres
- T.38S., R.17E., Sec. 11, 10, 9 & 8, 2560 acres
- T.38S., R.17E., Sec. 13, N₂, 320 acres
- T.38S., R.17E., Sec. 14, N₂ and N₂SW₂, 400 acres
- T.38S., R.17E., Sec. 15, N₂ and N₂SW₂ and N₂SE₂, 480 acres
- T.38S., R.17E., Sec. 17, N₂ and N₂SW₂ and N₂SE₂, 480 acres
- T.38S., R.17E., Sec. 18, N₂ and N₂SW₂ and N₂SE₂, 480 acres

Rationale

In examining the present boundaries of the primitive area in the 1976 Grand Gulch Primitive Area Plan, it is noted that the present boundary line does not meet the management objectives.

There are several locations where the boundary line comes close to the rim. The present boundary line in these areas does not insure isolation or solitude.

The present boundary also cuts across major side canyons which provide access to Grand Gulch. Within these canyons are outstanding geological

formations, highly significant ruins, and access points for entering Grand Gulch. Some areas identified for withdrawals are currently being inventoried for inclusion as contiguous areas adjacent to Grand Gulch Instant Study Area. If the wilderness proposal is approved by Congress, the areas identified for withdrawal within this plan will be amended to match the wilderness area.

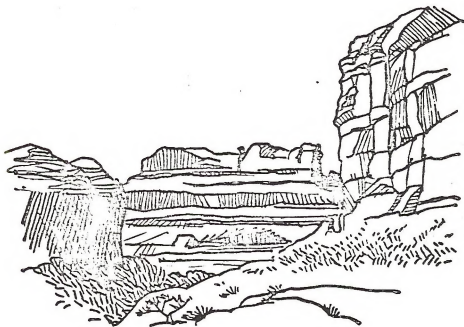
Implementation

Include the above area in the "No Lease" or "No Surface Occupancy" categories of the Bureau's leasing program.

Do not authorize requests for drilling in the previously mentioned buffer-zone areas.

Alternatives

1. Do not expand the boundaries of Grand Gulch.
2. Include a larger area of Grand Gulch for withdrawal as a buffer-zone.



canyon view

MANAGEMENT ACTION: GG #2

STABILIZATION

Relates to Objective A

Perform or have performed stabilization and hardening at Turkey Pen Ruin, Junction Ruin and Split Level Ruin.

Rationale

These sites currently have an urgent, immediate need for emergency stabilization of structures and maintenance of previous stabilization. Midden and pathway hardening will also serve to decrease degradation due to foot traffic and slumping of cultural fill.

Implementation

As noted in the Plateau-wide action, stabilization will be limited in scope and use techniques and materials so as to preserve the authentic appearance of the ruin. Most work will be contracted.

The following list provides the currently known (May 1980) critical needs in priority order:

1. Turkey Pen Ruin
 - a. Work needed: Stabilization maintenance and pathway hardening.
 - b. Cost: \$19,000
 - c. Date of estimate: May 1980 (Note: A contract to do some of this work is currently being processed.)
2. Junction Ruin
 - a. Work needed: Midden and pathway hardening and stabilization maintenance, including removal and replacement (as necessary) of some of the most mismatched and intrusive cement mortar from earlier work.
 - b. Cost: \$45,000
 - c. Date of estimate: May 1980
3. Split Level Ruin
 - a. Work needed: Midden and pathway hardening and stabilization maintenance, including removal and replacement (as necessary) of some of the most mismatched and intrusive cement mortar from earlier work.
 - b. Cost: \$38,200
 - c. Date of estimate: May 1980

4. Todie Canyon Site Salvage

- a. Work needed: Excavation of eroding pithouse on edge of Grand Gulch streambed.
- b. Cost: \$15,000
- c. Date of estimate: May 1980



MANAGEMENT ACTION: GG #3

TRAILHEAD ASSIGNMENT

Relates to Objectives A, B & C

To disperse visitation in Grand Gulch, establish a group trailhead assignment system. A total of 12 individuals per day will be allowed to enter the canyon at each of the four trailheads: Kane Gulch, Bullet Canyon, Government Trail and Collins Spring. One commercial trip (totaling 12 individuals) will be allowed to enter the canyon each day. The ratio of commercial to private use is 1 to 3.

Rationale

The trailhead group distribution is an effective tool in distributing use and avoiding overcrowding at one or two trailheads. Approximately 70% of the visitors who hike Grand Gulch use the Kane and Bullet trailheads for entering or exiting the canyon. Visitor use of the primitive area was 12,678 in 1979 (See Visitor Use Chart). Congestion at these two trailheads was frequent during the spring use season (March 1 to July 15). Many hikers who use the area are unfamiliar with the Collins and Government Trails into Grand Gulch. Cultural and primitive values are similar throughout the canyon.

Use supervisors of Grand Gulch Plateau will inform users of the other two infrequently-used trails. Dispersing visitors in Grand Gulch will have a positive effect on the visitors' primitive recreational experience. Visitors will meet fewer people in the canyon. Camping sites will be less crowded, less likely to receive resource damage from high concentration of visitors in a small segment of the canyon. Also, water sources will not be overtaxed by recreationists.

Implementation

Beginning in the 1981 use season, the group trailhead assignment system will be implemented. A total of 12 individuals per day will be allowed to enter Grand Gulch at each of the four trailheads. Groups entering Grand Gulch at the San Juan River must comply with all the provisions of the management plan. The average length of a trip in Grand Gulch is 4.5 days. By calculation, this would allow 216 people in the Gulch at one time. This many people in the Gulch at one time may never occur because of historic private-use party size of 4.6 persons.

In the future when it becomes necessary, access from the San Juan River will be managed as a fifth trailhead. After the private reservation deadline has passed, the commercial operator and private user will compete for trailhead assignment on a first-come, first-served basis.

Alternatives

1. Permit two groups of 12 to enter the canyon at each of the four trailheads.
2. Develop more trailheads in the lower portion of Grand Gulch.
3. Do not establish a trailhead assignment system.



MANAGEMENT ACTION: GG #4

MAXIMUM PARTY SIZE FOR OVERNIGHTERS
Relates to Objectives A, B & C

Establish a maximum party size of 12 individuals per group for overnight use.

Rationale

The Grand Gulch Management Plan of 1976 required a group of 15 to 25 persons to have reservations prior to entering Grand Gulch. A maximum group size of 25 individuals for a backpacking party was established in 1976 through visitor permit stipulations.

Large parties tend to have a greater impact on the user's perception of crowding and on the environment than do the same number of individuals in smaller groups.

The size of a group has more of an impact on intergroup contacts than does the number of contacts. It is felt that one large group is a greater detraction to a wilderness experience than are several small groups. A large group will have greater impacts on a campsite, with several fires being built and more vegetation being beaten down by tent and bedding sites and a larger area having foot traffic.

Grand Gulch has several factors that affect intergroup contacts of the users. One is that the narrow width and steep walls of the canyon prescribe a linear pattern of use. Groups traveling the canyon will most likely meet or pass each other at least once during their trip.

Water is the other main factor in intergroup contacts. The Gulch has a dry environment with an intermittent stream flow and a limited number of springs. Stream flow is usually present in March, April, and May, but by June the flow is decreasing and may occur for only short distances before again disappearing underground. Users tend to camp at known water sources, resulting in overcrowding at specific sites. During the 1979 season, only 2% of all commercial and private groups exceeded the 12 person party size.

Implementation

It is believed that the reduction in party size from 25 to 12 can be accomplished without significant negative impacts on either commercial operators or private groups.

Implementation of the 12-person party size for overnight trips will begin with the 1981 use season. At no time will groups be allowed to have more than 12 individuals. A group that has over 12 individuals must split up and use different trailheads, if no group has that trailhead reserved for that day. This action applies to both commercial and private trips.

Alternatives

1. Continue to use 25 persons as a maximum party size.
2. Do not have a party size on overnight groups.
3. Reduce the party size below 12 individuals.



cottonwood

MANAGEMENT ACTION: CG #5

RESTRICTION OF CAMPFIRES

Relates to Objectives A & B

Reduce the impact of campfires on the canyon by the following actions:

1. Permit only driftwood to be used as fuel.
2. Allow no fires in alcoves or within 200 feet of any ruin.
3. Permit building of fires only in wash bottoms.
4. Encourage use of campstoves.
5. The above actions will be modified as necessary pending the outcome of studies established to monitor impacts of campfires.

Rationale

Wood in Grand Gulch and its side canyons is slowly disappearing. There are only a few places where there is a large supply of driftwood to support a large number of fires. No matter how carefully fires are used, residue will be left for other users to see, and evidence of recent fires will remain for hundreds of years. Campfires of the Anasazi still remain after hundreds of years, even in open camps. Some campfires in the past have been built from prehistoric roof timbers and within the ruins themselves. Dendrochronological and archaeomagnetic dating techniques are thereby rendered useless for identifying the age of a site. When fires are built in the wash bottoms, spring floods will remove fire residue from canyons annually. The use of driftwood in wash bottoms will preserve the aesthetic wood that lies on the benches above the wash.

Implementation

Conduct a study on the availability of firewood in Grand Gulch immediately. The study will include written and photo documentation of the inner canyon supply of firewood and campfires. If a study shows that firewood is scarce in the inner canyons, open campfires use may be restricted.

Visitor contacts by ranger personnel will be extremely important in fire management policies in Grand Gulch. The interpretive module will stress proper campfire procedures along with low impact camping techniques. Rangers will encourage visitors to use campstoves and to build fires only when absolutely necessary.

Alternatives

1. Restrict the use of fires during heavy use periods.
2. Restrict the use of fires all season long.

MANAGEMENT ACTION: GG #6

DAY USE

Relates to Objective C

Provide for day use recreation within Grand Gulch. Day use will be subject to the same restrictions placed on overnight users, except for the reservation system and trailhead limit on the number of groups entering the canyon.

Rationale

Day use in Grand Gulch has been light compared to the overnight use. This has to do primarily with the number of miles a person can travel in one day. A person entering at the major trailhead may travel four or five miles into the canyon before heading back to the trailhead. This day use affords the opportunity to visitors to see geology, terrain, scenery and archaeology so they can make plans for extended trips. It is not anticipated that a great number of visitors are going to use Grand Gulch for a day hiking area. However, there are a number of side canyons to Grand Gulch that offer interesting features. The use supervisor will inform the day users of interesting and rewarding day trips. The use supervisor will spread day use out to a variety of side canyons so that users will have a quality recreational experience.

Implementation

Continue to have day use in Grand Gulch. Day users will not need reservations and are not subject to trailhead group limits. They are subject to all stipulations that overnights have, including group size. Day users must check in at the contact station and must not carry sleeping bags into the canyon.

Alternatives

1. Limit day use trips into Grand Gulch.



Squawbush

MANAGEMENT ACTION: GG #7

USE RESERVATION SYSTEM, PRIVATE

Relates to Objectives A, B & C

The following reservation system for private parties in Grand Gulch will be instituted: reservation requests in writing or in person must be made two months in advance of the trip date. Reservations will be used only in the heavy use seasons (March 1 through November 31).

At the close of the application period, reservations will be accepted for available dates on a first-come, first-served basis.

Rationale

This reservation system gives the visitor the opportunity to make plans nearer to the actual trip date. In a regular-type reservation system, an applicant would have only one chance a year to acquire a permit. The proposed system would allow an applicant to apply for a permit at least six times during the heavy use season. With this system, trip cancellations and "no show" situations would be reduced. Workload in managing the reservation system would be spread more evenly through the use season. This system was used on the Colorado River at Westwater Canyon in 1979 and 1980, and it appears to be working successfully.

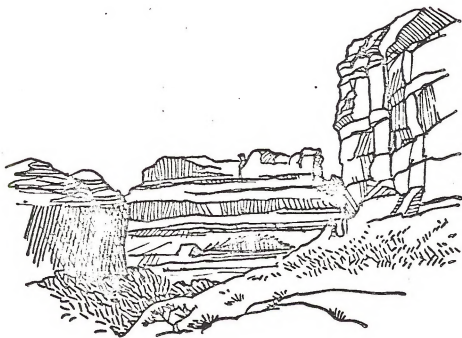
Implementation

Applications received in: January	For Trip Dates in: March
Applications received in: February	For Trip Dates in: April
Applications received in: March	For Trip Dates in: May
Applications received in: April	For Trip Dates in: June
Applications received in: May	For Trip Dates in: July
Applications received in: June	For Trip Dates in: August
Applications received in: July	For Trip Dates in: September
Applications received in: August	For Trip Dates in: October
Applications received in: September	For Trip Dates in: November

This reservation system will be in effect on Plan Approval Year (PAY), plus one. (PAY is the year the plan is approved by the Bureau of Land Management. Plus one, plus two or plus three means that the action will be effective one, two or three years after approval.) Private users will be allowed three trips by reservation and two trips on a first-come, first-served basis. Reservations will not be necessary during December, January and February. It would be advisable to contact the San Juan Resource Area office to see if the trailhead or date is open for use on your trip date. If trip conflicts occur during the off-season months, a first-come, first-served system will be utilized. When numerous conflicts occur in off-season permits, the same reservation system will be used as is used for the heavy visitation season. Design a permit-reservation form during PAY.

Alternatives

1. Implement a reservation system wherein the applicant applies one time a year (January 1 to February 15).
2. Do not implement a reservation system.



canyon view

MANAGEMENT ACTION: GG #8

NO REPEAT RULE

Relates to Objectives A, B & C

Trip participants, commercial and noncommercial, will be allowed only one trip per year when use levels reach the point where first-time users are being turned away.

Rationale

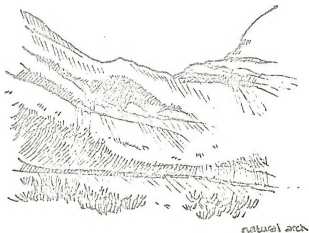
Use in Grand Gulch is steadily increasing and presently nearing capacity. If present use patterns are allowed to continue, some first-time users could be excluded from a trip. Other management actions in this plan such as group size reductions and trail horse limits will reduce use to some degree. However, at some future point, the no repeat rule will be necessary to give all users an equal opportunity to use Grand Gulch in any one year.

Implementation

Beginning the PAY plus one, all trips entering the canyon will be required to list the names of all participants. Records will also be kept of those individuals who are turned away because available trip starts are full. When this number becomes significant, all individuals, including commercial passengers, will be allowed only one trip per year.

Alternative

1. Implement the No Repeat Rule at the start of 1981.
2. No action.



natural arch

MANAGEMENT ACTION: GG #9

COMMERCIAL OPERATORS

Relates to Objectives A, B & C

Reduce the number of commercial operators from six to five. This will be accomplished through the process of attrition. If any one of the six existing commercial outfitters wishes to discontinue his permit, a new permit will not be issued to another operator, i.e., the total number of such permits will be no more than five. If the number of commercial operators decreases to less than five, new operators will be allowed to bid for unassigned permits.

The two commercial operators who are authorized pack stock will be asked to include some hiking with their pack stock trips during the 1981 season.

Rationale

Six commercial outfitters in Grand Gulch is adequate at this time to service the public's needs. If at any time the number of commercial operators drops below five, new operators will be allowed to bid on unassigned permits.

The public has expressed a desire to hike with pack stock in Grand Gulch. The BLM will work with two commercial operators and ask them to provide in their brochures for at least two to four walking with pack stock trips in 1981. This type of trip would enable some of the general public who are not accustomed to carrying heavy packs on their backs to see and experience Grand Gulch.

Implementation

Continue with the same number of outfitters authorized to run Grand Gulch in 1981 (six). Encourage the two pack stock operators to run hiking with pack stock trips in PAY, plus one.

Alternatives

1. Do not allow commercial operators to run trips in Grand Gulch.
2. Increase the number of commercial operators in Grand Gulch.
3. Decrease the number of commercial operators in Grand Gulch.

MANAGEMENT ACTION: GG #10

COMMERCIAL RESERVATION SYSTEM

Relates to Objectives A, B, C & E

Institute a reservation system where commercial operators are required to obtain reservations at least 120 days (minimum) in advance of any trip.

Rationale

Commercial use has been light for the past four seasons, with two trips or fewer each season. Hence, a commercial allotment of user days is not needed at this time. Reservations will insure that conflicts with private users are kept to a minimum.

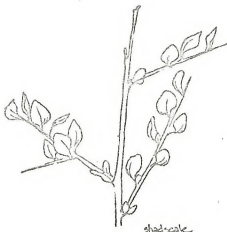
Implementation

In the PAY plus one, implement the commercial reservation system.

If an outfitter wishes to run commercial trips into the Gulch after the deadline for reservations has passed, he must compete on a first-come, first-served basis with the private groups. These requests should be made to the San Juan Resource Area Office.

Alternatives

1. Establish an allocation of user days for commercial outfitters.
2. Assign days of the week to a commercial operator for the start of a trip.



MANAGEMENT ACTION: GG #11

PERMIT SYSTEM

Relates to Objectives A, B & C

Continue the use of permit system established in the 1976 Grand Gulch Primitive Area Management Plan. All visitors entering the Gulch will be required to have a permit prior to their entering the canyon.

Rationale

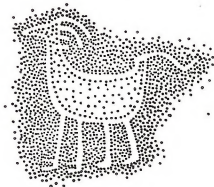
The Recreation Use Permit (RUP) was chosen as a standard means of recording visitor use data for the Grand Gulch Primitive Area. The RUP served as an accurate record and insured that each visitor was personally contacted. The personal contact gives the ranger on duty the opportunity to explain the ranger program, resource protection, water availability, archaeology, hiking conditions, access, and weather conditions. This contact also gives the ranger an opportunity to receive comments from the visitor.

Implementation

Continue with the permit system established in 1976.

Alternatives

1. Discontinue the use of a permit system.



petroglyph

MANAGEMENT ACTION: GG #12

STOCK TRIP SIZE LIMITS

Relates to Objectives B & C

Reduce the impacts of horse and stock use in Grand Gulch through the following actions:

1. Reduce or eliminate use when studies show impacts and damage above acceptable levels.
2. Reduce the maximum number of stock per trip from 15 to 12.
3. Allow only one stock party in the canyon at any one time.

Rationale

Horse and stock use in Grand Gulch has had a definite impact on the resources in the canyon. Most water sources are found in the bottoms of the drainages and are easily polluted. Vegetation and soil damage are evident along trails and at campsites after a stock party has used the area. Some backpacking parties are also adversely affected when encountering a stock trip. However, the past use of stock in Grand Gulch has been light as compared to backpack use. The average size of a stock trip is 8.5 animals per group. During the time period from 1974 to 1979, the number of stock groups entering the canyon has been below 20 groups per year.

Use of horses in Grand Gulch does let a wider variety of recreational groups use the canyon, such as the handicapped visitor or individuals unable to walk long distances.

Implementation

Beginning the PAY plus one season (January 1), the maximum number of stock in any one group will be 12.

At the beginning of the 1981 field season, BLM will establish a monitoring system to monitor the impacts of stock trips in the canyon. Trend plots will be set up at trailheads, trails, campsites, fragile vegetative areas and in other canyons where stock are not allowed for comparison. The water quality of selected springs and seeps will be recorded semi-annually to determine the biological and mineral content of the water. Visitor perception questionnaires will be drafted for evaluation of the visitors' experience while visiting the area.

When damage or impacts are determined to exceed an acceptable level, horse and stock use will be curtailed or eliminated. Except in emergency situations, this will be effective the following use season.

Alternatives

1. Do not allow horse use in the canyon.
2. Keep the maximum horse group size to 15.
3. Increase the number of stock allowed in one group.
4. Decrease use to fewer than 12 animals.
5. Phase out stock use over a four-year period.
6. Eliminate stock use in 1981.
7. Allow only commercial users to use stock in the canyon.



desert bighorn ram

MANAGEMENT ACTION: GG #13

EDUCATIONAL & INTERPRETIVE PROGRAM
Relates to Objectives A, B & C

An interpretive presentation will be available to all groups or individuals. The presentation will include, but is not limited to, the following subjects: low impact camping, archaeology, geology, flora and fauna. The program will emphasize the protection of the cultural resources and the natural resources within Grand Gulch. Youth groups will be required to view the interpretive program before entering the canyon.

Rationale

Such a program would aid in the preservation of the unique values associated with Grand Gulch. Many violations of the permit stipulations occur because of the lack of knowledge of fragility of the canyons and the archaeology. The program will assist the visitor in understanding the values of the canyon. Visitors will be given the location of water sources, weather conditions, hazards, and emergency exit trails. Information will be given on the Anasazi culture and their domain. Information will not be given as to the exact location of any ruin sites as this will spoil the sense of discovery and exploring and would lessen the quality of the trip.

A majority of visitors entering Grand Gulch are requesting this orientation and information programs. Youth groups have presented a number of problems to the canyon environment and the archaeological sites. A proper orientation of these groups (including the leaders) should eliminate many of the problems encountered in the past.

Implementation

During the 1980 and 1981 winter season, develop a interpretive program. The presentation will not be over 10 minutes in length. It will not be necessary for repeat visitors to view the program during the same calendar year. Each year the program will be revised so returning visitors from previous years will not be bored with the program. It will also be necessary to procure a rear-screen projector and screen.

Alternatives

1. Require interpretive programs for all visitors entering Grand Gulch.
2. Require interpretive programs for only overnight users.
3. Do not require interpretive programs for youth groups.

MANAGEMENT ACTION: GG #14

CAMPGROUNDS

Relates to Objectives A, B, C & D

Construct minimum camping facilities at Bullet Canyon Trailhead, Collins Spring Trailhead, and at Government Trail Trailhead. Camping sites should consist of sanitary facilities, parking facilities, drinking water facilities, picnic tables and campfire rings. The roads in the campgrounds should be graveled to keep the dust down.

Rationale

Visitation is increasing at a fast and steady rate. Large groups (both private and commercial) use the heads of trails for staging areas for their trips and usually camp one night at these locations. At the present time, there are no facilities available.

Human feces and other litter are being deposited at these staging areas. Sanitary problems may occur if facilities are not developed. The first heavy rain during the recreation season will wash debris from the staging areas directly into the primitive area, thus polluting the scarce water sources.

With minimum facilities placed at trailheads, the hiker or horseman may spend additional time on the plateau, thus reducing the impacts caused by overuse of the canyons. Overnight users may plan to stay one or two nights in these campgrounds before entering the canyon.

Day hikers may use these facilities as a base camp. Campgrounds are located so that users of other canyons can utilize these areas before or after their planned trips.

Implementation

Phase 1 - Develop site plans

Phase 2 - Survey and design

Phase 3 - Construct campground

Alternatives

1. Do not develop minimum camping facilities.
2. Develop sanitary facilities and drinking water only.
3. Construct campgrounds in other locations.
4. Do not allow camping on plateau.

MANAGEMENT ACTION: GG #15

TRAIL DEVELOPMENT

Relates to Objectives A, B & C

New trails will not be developed. The Kane Gulch Trail and Collins Spring Trail will continue to be maintained for horses and hikers. The Bullet Trail and Government Trail will be maintained for foot traffic only.

Rationale

Multiple trailing occurs in some areas of Grand Gulch, and certain other trails are eroding badly. This causes a hazardous situation for hikers and damages valuable vegetation. Multiple trails need to be blocked off and a single, visible hiking trail maintained. Erosion should be halted with the use of hand tools, but further upgrading of existing trails is not needed.

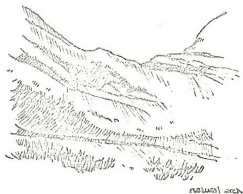
Implementation

Continue the hand maintenance of existing trails for foot and horse use. All maintenance of trails will blend in with the existing terrain.

The canyon trail maintenance program will be held to an absolute minimum. In areas where there are multiple trails or where heavy erosion is occurring, water bars, erosion control devices or blocking off a trail, will be carried out. All maintenance will be by hand and will blend into the natural setting.

Alternatives

1. Develop new trails into the lower portion of Grand Gulch.
2. Do not maintain any trails in Grand Gulch.



MANAGEMENT ACTION: GG #16

CONTROL PET USE IN CANYONS
Relates to Objectives A, B & C

Monitor the impacts of pet use and establish controls where significant impacts are identified.

Rationale

An increase in the numbers of backpackers has brought an increase in the number of dogs and pets. A number of users have complained about dogs.

When water in the canyon was confined to a few springs, unrestrained dogs have contaminated the water, thus creating problems for the humans using the spring for drinking purposes. Pets can add to the sanitation problem in the canyon.

Implementation

A study will be conducted on the impacts of pets to archaeological sites and water sources. The data will be evaluated and pets will be either restricted from entering the canyon or otherwise controlled.

The studies will include but will not be limited to the following: trend plots, visitor perception questionnaires, water quality tests and documentation by field personnel.

Alternatives

1. Allow pets and dogs to accompany users as long as they are on a six-foot leash.
2. Do not control the use of dogs and pets in the canyons.



squawbush

MANAGEMENT ACTION: GG #17

MOTORIZED USE

Relates to Objectives A, B & C

Motorized vehicles will not be allowed to enter Grand Gulch Special Management Area except in emergencies and for administrative purposes.

Rationale

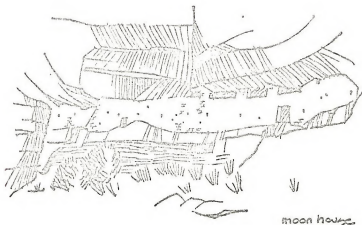
Grand Gulch, since becoming a primitive area in the early 1970's, has been closed to off-road vehicles and motorized use and will continue to be closed to motorized use. Additional lands identified in this management plan for the protection of the scenic, recreational and natural values of Grand Gulch will also be closed to motorized use. During emergencies, vehicle use will be for search and rescue, delivering emergency messages, and evacuation. Administrative vehicle use will be for collecting water samples and hauling supplies in for stabilization.

Implementation

Continue to restrict motorized use in Grand Gulch Primitive Area. Motorized use on lands identified for inclusion in the Grand Gulch Special Management Area will not be allowed.

Alternatives

1. Allow motorized use on lands identified for inclusion in the Grand Gulch Special Management Area.



SLICKHORN CANYON SPECIAL MANAGEMENT AREA

MANAGEMENT ACTION: SLICKHORN CANYON (SC) #1

SLICKHORN BOUNDARIES

Relates to Objectives A, B & C

Define the boundaries for Slickhorn Canyon as follows:

T.40S., R.17E., Sections 4, 5, 6, 7 & 8	3200 acres
T.39S., R.17E., Sections 33, 27 & 22	1920 acres
T.39S., R.17E., Section 34 N $\frac{1}{2}$	320 acres
T.39S., R.17E., Section 29 S $\frac{1}{2}$	320 acres
T.39S., R.17E., Section 21 S $\frac{1}{2}$	320 acres

A total of 6,080 acres should be included in the Slickhorn Canyon Management Area.

There is one State section located within this special management area (T.39S., R.17E., Section 32) which was not included in the boundary of Slickhorn. To make this unit more manageable, a land exchange between the BLM and State of Utah needs to be consummated. However, the boundaries stated in this action are adequate to protect the cultural resources located within Slickhorn Canyon.

Rationale

In examining the proposed boundaries of the Slickhorn addition in the 1976 Grand Gulch Plan, it was determined that the addition was too large. The 1976 plan stated that 32,000 acres of Slickhorn should be studied for an outstanding natural area or a primitive area. It is felt that 6,080 acres is sufficient to protect the archaeological resources located within the canyon, considering the more intensive management to be given the Plateau in general under this management plan.

The boundaries thus delineated are one-quarter to one-half mile from the main canyon rim.

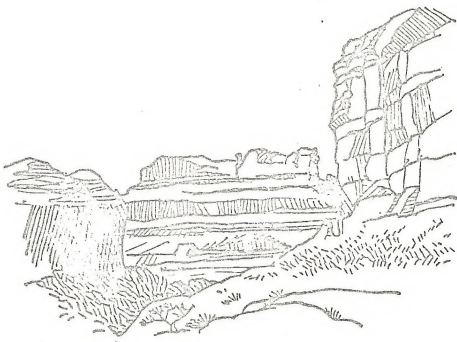
Implementation

The boundaries of Slickhorn Canyon will be established effective PAY. File with the State of Utah for a land exchange to acquire Section 32 in T.39S., R.17E. Do not allow any oil and gas leasing.

Include the above area in the "No Lease" or "No Surface Occupancy" categories in the Bureau's leasing program.

Alternatives

1. Increase the size of the boundaries of Slickhorn Canyon Special Management Area.
2. Decrease the size of the boundaries of Slickhorn Canyon Special Management Area.
3. Do not have any boundaries of Slickhorn Canyon Special Management Area.



canyon view

MANAGEMENT ACTION: SC #2

MAXIMUM PARTY SIZE

Relates to Objectives A & B

Groups entering Slickhorn Canyon will be restricted to six individuals per group. Only two groups will be allowed in the canyon at one time.

Rationale

Slickhorn Canyon is rich in archaeological resources. The early explorers and archaeologists did not disturb or excavate any of the sites, and modern archaeologists have not conducted any excavations to date.

Large recreational groups using the area, by their sheer numbers, are impacting the archaeological sites and the water sources.

This area is special and should be preserved for future scientific work by professional archaeologists. By limiting the size of a group to six individuals, little impact will be expected if the low impact camping ethic is emphasized. Smaller groups can also be better controlled and supervised.

Slickhorn Canyon is a pristine, living museum which will be available for scientific research for future generations. Groups that are purely recreation-oriented will be encouraged to use other canyons in the area for their recreational pursuits.

Implementation

At the start of PAY plus one, implement the group size limitation in Slickhorn Canyon.

Alternatives

1. Do not allow any visitors in Slickhorn Canyon.
2. Require an archaeologist or anthropologist to be a part of each group entering Slickhorn Canyon.
3. Do not restrict use in Slickhorn Canyon.
4. Increase the group size.
5. Allow only one group to enter the canyon each day.

MANAGEMENT ACTION: SC #3

NO REPEAT RULE

Relates to Objectives A & B

Each group will be authorized only one trip during the calendar year. Scientific communities requesting more than one trip to complete scientific studies must have written authorization from the Area Manager or District Manager.

Rationale

To allow more individuals, universities, and scientific organizations to visit and to do research in Slickhorn, a no repeat rule must be established.

It is expected that some groups conducting research in Slickhorn will require more than one trip into the canyon to complete their research. In these special cases, a waiver of the no repeat rule will be made by the Area Manager or District Manager after receiving a written justification statement by the applicant.

Implementation

In PAY plus one, implement the no repeat rule. If dates are not scheduled in Slickhorn at the end of the reservation deadline, applicants can request those dates for use if all of the prerequisites are met.

Alternatives

1. Do not implement a no repeat rule.



petroglyph

MANAGEMENT ACTION: SC #4

NO OPEN CAMPFIRE

Relates to Objectives A & B

Prohibit open campfires and require self-contained stoves for all groups.

Rationale

Slickhorn Canyon is set aside for the protection of the cultural resources. Campfires in this canyon could destroy the unique cultural resources found within the canyon. To maintain the pristine condition of the inner canyon and to minimize human impacts, fires will not be allowed.

Through past experience, it has been documented that campfires have been made from the beams and timbers of ruins. This destruction of valuable scientific information cannot be allowed to occur, especially in an area that has been set aside for the protection of the cultural resources.

In this arid climate, fire scars will last hundreds of years as evidenced by the Anasazi fire rings that exist today.

Implementation

Implement the no open fire policy PAY plus one in Slickhorn Canyon. Groups entering the canyon or its tributaries will be required to carry self-contained stoves, and no other fires will be allowed.

Alternatives

1. Continue to allow campfires in Slickhorn Canyon and its side canyons.
2. Implement the same fire policy as stated in Action #5 of the Grand Gulch Special Management Area.

OTHER MANAGEMENT ACTIONS

The following management actions previously outlined in the Grand Gulch Special Management Area also applies to Slickhorn Canyon:

Management Action # 7	Reservation System, page 54
Management Action #10	Commercial Reservation System, page 58
Management Action #11	Permit System, page 59
Management Action #16	Control Pet Use in Canyons, page 65

MANAGEMENT ACTION: SC #5

GRAZING

Relates to Objectives A & B

Permit grazing of cattle, horses or sheep on the mesa above Slickhorn Canyon but not in Slickhorn Canyon proper.

Rationale

At the present time, there is no grazing of cattle permitted in Slickhorn Canyon. In the past three years, there has been no recorded grazing use in the canyon even though the Perkins Brothers have paid for six head (of a permitted 20 head) of horses.

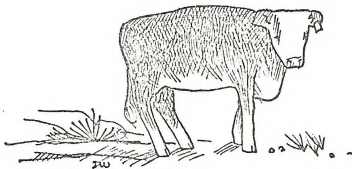
Cattle and horses tend to rest or sleep in areas which are sheltered from elements and the wind. Generally the only shelter that can be found in these canyons are alcoves and caves which is also where most of the archaeological sites are located. To prevent the ruins from being trampled, and the artifacts from being broken, grazing will not be allowed in the canyon.

Implementation

Discontinue grazing permits for Slickhorn Canyon or its tributaries. Do not maintain any trails into the canyon for grazing. Continue to allow grazing on the mesa above Slickhorn.

Alternatives

1. Continue the horse grazing permit in Slickhorn Canyon.
2. Construct trails into the canyon for grazing purposes.



Grazing

MANAGEMENT ACTION: SC #6

TRAILHEAD IDENTIFICATION
Relates to Objectives A & B

Identify only one trail (T.39S., R.17E., Sec. 10) using rock cairns.

Rationale

To limit access and to protect and preserve the unique cultural resources in Slickhorn Canyon, only one trail will be maintained.

Implementation

Implement trailhead maintenance in PAY. A small parking area will be established for parking of up to four cars. Floatboating visitors will not be permitted to hike more than four miles up Slickhorn Canyon from the river without a separate permit.

The river ranger will inform the water recreationists that they can hike up Slickhorn Canyon to the National Park Service and BLM boundary.

Scientific research groups and recreationists with a reservation and permit will be allowed to enter Slickhorn Management Area from the river.

Alternatives

1. Develop more trailheads.
2. Do not mark the proposed trail into Slickhorn.



JOHN'S CANYON SPECIAL MANAGEMENT AREA

MANAGEMENT ACTION: JOHN'S CANYON (JC) #1

BOUNDARIES

Relates to Objectives A, B & C

John's Canyon boundaries are as follows:

- T. 40 S., R. 17 E., Section 25, 600 acres Forty (40) acres in the southwest corner is not included. The road makes a loop and cuts out a forty acre parcel.
- T. 40 S., R. 17 E., Section 24, $5\frac{1}{2}$, 320 acres
- T. 40 S., R. 18 E., Section 30, 19, 18, 7, 6, 5, 8, 17, 20, 4 and 9
7,000 acres
- T. 40 S., R. 18 E., Section 29, Boundary follows old road, 400
acres
- T. 40 S., R. 18 E., Section 10, Boundary follows old road, 280
acres
- T. 40 S., R. 18 E., Section 3, Boundary follows old road, 320
acres
- T. 39 S., R. 18 E., Section 33, 640 acres
- T. 39 S., R. 18 E., Section 34, Boundary follows old road, 320
acres
- T. 40 S., R. 18 E., Section 21, Boundary follows old road, 250
acres

This area contains approximately 9,930 acres.

Rationale

Boundaries are needed to protect scenic, recreational, and archaeological values from oil and gas exploration and mineral activities.

John's Canyon offers the visitor an excellent area for day hikes and overnight trips. The archaeological resources in this canyon are numerous, as suggested by the topographic map which has listed five cliff dwellings. Other archaeological sites (47) are known to BLM.

The interior of the canyon has few man-made intrusions. The large drainage of John's Canyon cuts through many formations and exposes over 800 feet of sandstone.

The eastern boundary follows an old road which meanders south one-quarter to one-eighth mile parallel to the canyon rim. It is felt that the boundaries identified are sufficient to protect the solitude of the visitors and many of the archaeological sites.

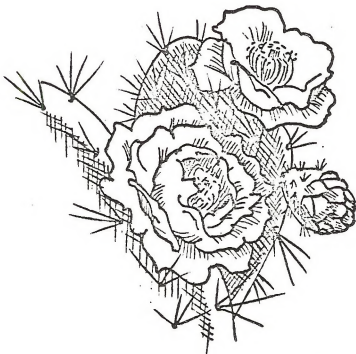
John's Canyon was named for John Oliver who was shot and killed by a horse thief in the early 1930's. His cabin is still present today, offering potential for historical interpretation.

Implementation

Include John's Canyon in the "No Lease" or "No Surface Occupancy" category on the Bureau's Leasing program.

Alternatives

1. Do not implement the boundaries proposed for John's Canyon.
2. Increase the size of the boundaries suggested in this action.
3. Do not exclude some or all mineral development.



prickly-pear flowers

MANAGEMENT ACTION: JC #2

TRAIL DEVELOPMENT

Relates to Objectives B & C

Design and maintain a single hiking trail from Upper John's Canyon to the drill hole in lower John's Canyon.

Rationale

Hiking conditions in lower John's Canyon are relatively easy. The lower part of the canyon is a broad alluvial valley and fairly level. This tends to lead to multiple trailing, resulting in erosion and unnecessary loss of vegetation.

In the upper part of the canyon, there are tributaries with large pour-offs which are inaccessible for hiking. One access route will be marked in the upper part of the canyon by cairns and the lower part of the canyon by unobtrusive mileage posts. Where there is an erosional problem, water bars of natural materials will be used.

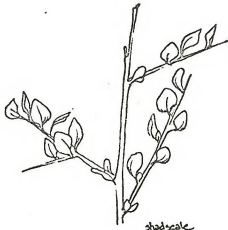
This will aid the recreationist in finding a safe way out or a way into the canyon. If a hiker wishes to explore and take another trail out of the canyon, it will be up to him.

Implementation

Design and develop the trail in John's Canyon during the PAY plus one.

Alternatives

1. Do not develop a trail in John's Canyon.
2. Continue with the multiple trailing.



MANAGEMENT ACTION: JC #3

ACCESS ROAD

Relates to Objectives B & C

Maintain the access road into the lower end of John's Canyon to the drill hole.

Rationale

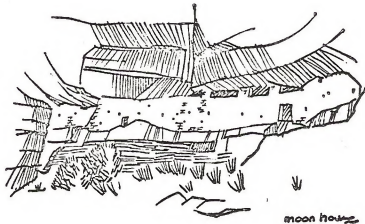
The primary point at which hikers begin or end their trip is the drill hole in lower John's Canyon. This road is about four miles long. It is used by 4 x 4 vehicles and high centered vehicles and will be maintained in such a manner that these vehicles can enter the canyon. This road is also used by cattle operators for unloading and loading their cattle in lower John's Canyon.

Implementation

Continue the maintenance on the John's Canyon road. Work on a cooperative agreement with the County on the maintenance of this road.

Alternatives

1. Do not maintain the road.



MANAGEMENT ACTION: JC #4

INTERPRETATION

Relates to Objectives A, B, C & D

Develop interpretive aids for John's Canyon.

Rationale

John's Canyon is a fairly short canyon with a wide diversity of plant and animal life. The canyon also has some unique geological and archaeological features. The casual visitor misses or does not understand the interrelationships of the natural communities. Modules, brochures and a small number of interpretive signs will enhance the visitors' experience.

Implementation

1. Design and place interpretive signs at the beginning and end of the trail PAY plus two.
2. Develop an interpretive slide module and design a visitor brochure PAY plus three.

Alternatives

1. No action.
2. Develop or design a portion of the interpretive aids described above.



MANAGEMENT ACTION: JC #5

MONITOR USE

Relates to Objectives A, B, C & D

When visitation reaches 2,000 persons per year, evaluate for more intensive management.

Rationale

At the present time, John's Canyon is receiving light use. If visitation increases to 2,000 visitors annually, resource damage may occur.

Implementation

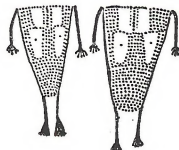
Place visitor registers at trailheads in PAY.

When visitation reaches 2,000 visitors, evaluate suggested actions below for implementation.

1. Group Size
2. Reservation System
3. Trailhead Assignment
4. Campfire Policy
5. Camping Limitations
6. Permit System
7. Campground Development
8. Pet Control

Alternatives

1. Implement the above actions immediately.
2. Implement a portion of the above actions.
3. Do not implement any action when annual use increases to 2,000 visitors.



picography

POLLY'S MESA MANAGEMENT AREA

MANAGEMENT ACTION: POLLY'S MESA (PM) #1

DEVELOPMENT ACTIVITIES

Relates to Objective D

Development of oil and gas can take place on Polly's Mesa as long as it does not unnecessarily disturb the archaeological or scenic resources.

Grazing activities can continue in the same manner and degree as in the past.

New road construction will not be allowed unless it is directly connected with oil and gas exploration and development. No straight lined roads or seismograph work will be allowed.

Support facility development will be allowed only at Bullet Trailhead, Government Trailhead and Kane Gulch Trailhead.

Rationale

Polly's Mesa is a large, flat area covered with pinion-juniper and sagebrush.

At the present time, the mesa produces approximately 3,200 animal unit months of forage for livestock grazing during fall, winter and spring. Spring and reservoir development will be essential in dispersing the cattle over a greater area. Seedings can be accomplished in a manner that does not destroy the aesthetic appeal of the mesa. A Landscape Architect and a Soils Scientist could design a seeding that blends into the natural setting of a pinion-juniper forest.

This Resource Area has been receiving requests to drill for oil and gas in the Grand Gulch Plateau Management Area. Grand Gulch Plateau was drilled prior to passage of the Federal Land Policy and Management Act of 1976. Results of this drilling are not known.

The support facilities would be constructed so that they cannot be seen from road corridors and will blend into the natural settings.

Implementation

In PAY, emphasize stipulations on all exploration and development on Polly's Mesa.

In PAY, do not renew any leases within the "No Lease" oil and gas category.

In PAY plus one, readjust the oil and gas categories on this unit. Some of the sections now in "no surface occupancy" could be placed in the more liberal category of "open with special stipulations".

Alternatives

1. Do not allow any development on Polly's Mesa.
2. Do not place restrictions on oil and gas, grazing activities and mineral developments.



cottonwood

MANAGEMENT ACTION: PM #2

ROAD MAINTENANCE

Relates to Objectives A, B, C & D

Maintain roads for trailhead access and multiple use activities.

Rationale

Roads on Polly's Mesa are a necessity in primitive recreation management. The roads disperse visitors over a large area, which aids in the protection of resource values. With too few roads, the visitors tend to congregate in a small area, thus creating an overbalance in road-end canyons. The roads which are suggested for routine maintenance will assist the visitor in gaining access to canyon trailheads.

Grazing operators also need to use these roads to monitor their cattle operations and move their stock. All roads identified for maintenance are County and BLM roads now being used by recreationists and cattle operators.

Implementation

In PAY plus one, set up a road maintenance program for Polly's Mesa Trailhead road.

Coordinate with the County to see that all roads listed for maintenance are maintained.

The following roads will be maintained:

1. Upper John's Canyon Trailhead Road - 1 mile
2. Government Trail Road - 9 miles
3. Slickhorn Trail Road - 7.5 miles
4. Collins Trailhead Road - 5 miles
5. Bullet Trailhead Road - 1 mile
6. Coyote Flat Road - 3.5 miles
7. Todie Flat Road - 1.5 miles
8. Lower John's Canyon Road, Action #3 of John's Canyon Unit - 3 miles
9. Ranger Station Road - 1 mile

Alternatives

1. Develop more roads on Polly's Mesa.
2. Do not maintain the roads on Polly's Mesa.

MANAGEMENT ACTION: PM #3

INFORMATIONAL SIGNING

Relates to Objectives B & C

Informational signs will be placed on the main highway where trailhead roads leave the highway. A directional sign will be placed at intersections where the visitor may become confused and at the end of the road where the trail begins.

Rationale

The biggest problem to the visitor is getting lost. There are numerous roads on Polly's Mesa without the proper signing. This leads to confusion which may cause the visitor to use his vehicle off-road to get to an area where he intended to go.

Signs would also aid the ranger personnel in explaining to the visitor which road he should take to arrive at a trailhead.

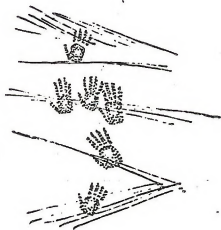
Implementation

In PAY plus one, order all the necessary signs for main roads and trailheads.

In PAY plus two, place all signs at their proper locations.

Alternatives

1. Do not place informational signs on highways or roads.



handprint pictographs

CEDAR MESA CANYON UNIT

The Cedar Mesa Canyon Unit is the area north of the Valley of the Gods, west of Comb Wash, east of Highway 261 and south of Highway U-95. It includes the following canyons, mesas and flats: Owl and Fish Creek Canyons, Road Canyon, Lime Creek Canyon, Lower Mule Canyon, Dry Wash, Cedar and Ballies Mesas.

Fish and Owl Creek, Road Canyon and Lime Creek have been identified as special management areas for which special management considerations will be provided for in this plan.



Description of Cedar Mesa Canyon Unit

The Cedar Mesa Canyon Unit includes deep canyons so rugged that it has been bypassed for road building and other forms of development. Consequently, it has remained as one of the most undisturbed and primitive portions of the Grand Gulch Plateau.

One main road, which is maintained by the County, passes through the canyon unit in an east-west direction. A portion of this maintained road follows the Hole-In-The-Rock Trail. Other maintained roads lead off the highway and are used for canyon access by hunters, woodcutters, archaeological sightseers, four-wheel drivers and cattle operators.

The area is characterized by a series of narrow, steep-walled sandstone canyons, averaging from two to six hundred feet deep. There are numerous domes and rock spires along the canyon walls with several outstanding arches. The streams drain into the east side of the Grand Gulch Plateau and have water during the spring months. They dry up during the summer months, and water can only be found in the canyon bottoms.

Vegetation consists of pinyon-juniper on the mesa tops and gambel's oak scattered on the talus slopes. Ash, cottonwood and hackberry are found along the stream bottoms. Their green foliage forms a striking contrast to the reds and browns of the canyon walls.

The area contains over a hundred surveyed ruins, some of which are well preserved cliff dwellings.

Fish and Owl Creeks contain numerous, unsurveyed archaeological sites which are in excellent condition. These canyons are rugged and steep-walled, and hikers must negotiate large boulder fields to traverse them.

This area was considered as an alternative area for hikers who wish to be completely alone and see few, if any, other parties. In the past two recreational seasons, Fish and Owl Creek Canyons have experienced tremendous increase in visitation. This is partly due to notoriety that Grand Gulch has received in national magazines, forcing past users of Grand Gulch to seek other areas for their recreational pursuits. The special management area contains 24,800 acres.

Recreational visitor use figures for the 1976 season recorded 150 people and 900 visitor days. In 1979 during a two month period, the rangers recorded over 4,000 visitor days in the canyon. It is estimated that 50 percent of the visitors are contacted before entering the canyon. Numerous large groups interested in hiking the Fish and Owl Creek area have also expressed interest in special management designations for the area.

Lower Fish Creek Canyon is part of the Ute Indian Reservation Grazing Allotment. The upper parts of Fish and Owl Creek are inaccessible to livestock. No mineral, oil or gas activities have taken place in the inner canyon.

Dry Wash, located just south of Mule Canyon and north of Fish Creek, is a large canyon with sheer-walled cliffs 400 to 700 feet high. The canyon is approximately 8 miles long with small tributaries entering at its northern end.

Recreational activity within the canyon has been limited because of its proximity to other better known and more publicized canyons.

Road access to Dry Wash is from Comb Wash just south of Mule Canyon or across Ballies Mesa to Picket Fork, which is a tributary to Dry Wash. Archaeological site density of Dry Wash has not been determined, but by comparing it to adjacent canyons, it is expected that high concentrations may occur.

Lime Creek is located in the southeastern side of Grand Gulch Plateau just south of Road Canyon. The main canyon of Lime Creek is 8 to 10 miles long and contains 4,720 acres. It eventually drains into the San Juan River, just upstream from Mexican Hat. There are about 14 minor tributaries that drain from Grand Gulch Plateau into Lime Creek. The canyon walls of Lime Creek range from 300 to 600 feet high.

Recreational uses of Lime Creek are, at this time, very light. There are probably no more than 10 backpacking groups entering the canyon each year.

Lime Creek is within the Perkins Brothers Allotment and is used for winter and spring grazing. A total of 600 head of cattle will be grazing in this allotment at any one time.

Road Canyon is a main drainage with a secondary canyon on the north and south. The main canyon extends east and west for approximately 8 miles. It runs off the east side of Grand Gulch Plateau toward Comb Ridge. The rims of these canyons abruptly drop off approximately 800 feet to the bottom. Approximately 7,400 acres are included in the Road Canyon special management area.

The area is characterized by rugged and primitive canyons which have eroded into the underlying sandstone, which wind randomly down to lower elevations leaving many ledges, cliffs and unusual formations.

The area includes a high percentage of slickrock with sparse areas of pinyon-juniper and associated shrubs and grass. Indian ruins are common, and many are in good condition.

A significant number of Basketmaker II sites (250-450 A.D.) are found in the Road Canyon Area, including possibly the largest Basketmaker II site on Grand Gulch Plateau. Pueblo III sites are also evident. Road Canyon area is accessible by upgraded dirt roads in a limited number of places, but is basically undisturbed by recent man's activities. The area is generally used by those seeking a wilderness experience, and hiking, horseback, or four-wheel drive are the only means of access to the remote areas of Road Canyon.

The scenic, rugged-primitive and archaeological values which are abundant in this area provide good reason for consideration for special management.

OWL & FISH CREEK CANYONS SPECIAL MANAGEMENT AREA

MANAGEMENT ACTION: OWL & FISH (OF) #1

OWL & FISH CREEK BOUNDARIES

Relates to Objectives A, B & C

The boundaries of Owl and Fish Creek Canyons are as follows:

T. 37 S., R. 19 E., Sections 28, 29, 33 and 34	2,560 acres
T. 37 S., R. 19 E., Section 21: S $\frac{1}{2}$	320 acres
T. 37 S., R. 19 E., Section 27: NW $\frac{1}{4}$, S $\frac{1}{2}$	480 acres
T. 37 S., R. 19 E., Section 35: W $\frac{1}{2}$	320 acres
T. 38 S., R. 19 E., Sections 3, 10, 15, 14, 21 22, 23, 24, 25, 26 27, 28, 29, 33, 34 & 35	10,240 acres
T. 38 S., R. 19 E., Section 4: E $\frac{1}{2}$	320 acres
T. 38 S., R. 19 E., Section 9: E $\frac{1}{2}$	320 acres
T. 38 S., R. 19 E., Section 11: NW $\frac{1}{4}$, S $\frac{1}{2}$	480 acres
T. 38 S., R. 19 E., Section 12: SW $\frac{1}{4}$	160 acres
T. 38 S., R. 19 E., Section 13: NW $\frac{1}{4}$, S $\frac{1}{2}$	480 acres
T. 39 S., R. 19 E., Section 1	640 acres
T. 39 S., R. 19 E., Section 12: E $\frac{1}{2}$	320 acres
T. 38 S., R. 20 E., Section 30, 31	1,280 acres
T. 38 S., R. 20 E., Section 29: W $\frac{1}{2}$	320 acres
T. 39 S., R. 20 E., Section 4, 5, 6, 7, 8, 9, 15 & 17	5,120 acres
T. 39 S., R. 20 E., Section 10: SW $\frac{1}{4}$	160 acres
T. 39 S., R. 20 E., Section 22: N $\frac{1}{2}$	320 acres
T. 39 S., R. 20 E., Section 23: N $\frac{1}{2}$	320 acres
T. 39 S., R. 20 E., Section 24: N $\frac{1}{2}$	320 acres
T. 39 S., R. 20 E., Section 14: S $\frac{1}{2}$	320 acres

A total of 24,800 acres should be included in the Owl and Fish Creek Management Unit.

There are six State sections (3,840 acres) located within the boundaries of this management unit. To insure that the unique archaeological and scenic resources within this unit remain unchanged, the BLM should pursue a land exchange with the State of Utah at the earliest opportunity.

Rationale

Owl and Fish Creek Canyons are receiving heavy recreational use. At the present time, visitors entering Owl and Fish Creek are not required to obtain a permit for back country hiking. In 1979, the rangers recorded 4,194 visitor days. These were recorded by actual contacts at the Kane Gulch Ranger Station. It is estimated that only 50 percent of the visitors entering Owl and Fish Creek are contacted. Actual visitation to Owl and Fish Creek is somewhere in the neighborhood of 8,000 - 14,000 visitor days per year.

To manage the primitive outdoor experience and the abundant archaeological sites within the canyon, a boundary must be established. The boundaries identified in this management action are sufficient to protect the above resources.

Boundaries are laid out by Township, Range and Section lines for easy marking by survey crews and easy identification by oil and gas lessors and cattle companies.

Implementation

Implement the boundaries suggested in this action in PAY.

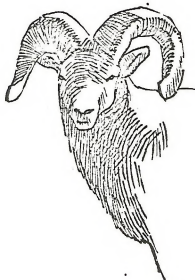
In PAY, do not renew any oil and gas leases within the boundaries identified within this management action.

In PAY plus one, readjust the oil and gas categories on this unit. Some of the sections now in the "No Lease" category could be placed in the more liberal category of "No Surface Occupancy".

In PAY plus two, include the above area in the "No Lease" or "No Surface Occupancy" categories in the Bureau's leasing program.

Alternatives

1. Do not identify boundaries for Owl and Fish Creek.
2. Implement a set of boundaries different from those suggested in this action.



desert bighorn ram

MANAGEMENT ACTION: OF #2

TRAIL DEVELOPMENT

Relates to Objectives B & C

Develop trails for visitor access at the following locations:

1. North Fork of Fish Creek Canyon T. 37 S., R. 19 E., Sec. 20
2. Summer's Canyon T. 38 S., R. 19 E., Sec. 8 & 9
3. Owl Creek T. 38 S., R. 19 E., Sec. 22
4. McCloyds Canyon T. 38 S., R. 19 E., Sec. 33
5. Mouth of Fish Creek T. 39 S., R. 20 E., Sec. 24

Rationale

Trails have been established in the North Fork of Fish Creek Canyon, Summer's Canyon, Owl Creek and at the mouth of Fish Creek. A trail has been established in McCloyds Canyon, but the trail enters in the middle portion of the canyon.

These trails are not well marked and many visitors to these canyons do not follow the same paths. This contributes to multiple trampling and the destruction of the cryptogamic soils on the mesa top.

Implementation

The trails listed above will be marked by rock cairns on the mesa top, and no marking will be done in the canyon bottoms. During PAY plus one, a trail marker will be placed at the start of each trail pointing toward the marked trail.

Alternatives

1. Do not mark any trails.
2. Mark only a few of the trails identified.

MANAGEMENT ACTION: OF #3

TRAILHEAD ASSIGNMENTS

Relates to Objective B

To disperse visitors in Owl and Fish Creek, a group trailhead assignment system will be utilized. One group per day will be allowed to enter Owl and Fish Creek Canyons at each of the five trailheads.

Rationale

See Grand Gulch Special Management Area Action #3.

Implementation

Beginning with PAY plus one, implement the group trailhead assignment system.

Alternatives

1. Do not implement a trailhead assignment system.

OTHER MANAGEMENT ACTIONS

The following management actions were previously outlined in Grand Gulch Special Management Area of this plan. These will also apply to Fish and Owl Creek Canyons.

Management Action # 4	Maximum Party Size, page 50
Management Action # 5	Restriction of Campfires, page 52
Management Action # 6	Day Use, page 53
Management Action # 7	Reservation System, Private, page 54
Management Action # 8	Use Limitations, Non-Commercial, page 56
Management Action #10	Commercial Reservation System, page 58
Management Action #11	Permit System, page 59
Management Action #12	Stock Trip Size Limits, page 60
Management Action #13	Interpretive Educational Program, page 62
Management Action #17	Control of Pet Use, page 66

ROAD CANYON SPECIAL MANAGEMENT AREA

MANAGEMENT ACTION: ROAD CANYON (RC) #1

ROAD CANYON BOUNDARIES

Relates to Objectives A, B, C & E

The boundary for Road Canyon is as follows:

- T. 39 S., R. 18 E., Sec. 13 600 acres (The Snow Flat Road cuts through the southwest corner of this section cutting off approximately 40 acres.)
- T. 39 S., R. 19 E., Sec. 4: $S\frac{1}{2}$ 320 acres
- T. 39 S., R. 19 E., Sec. 9, 10, 14, 15, 17, 18, 23, 24, 25, 26 6,400 acres
- T. 39 S., R. 19 E., Sec. 3 300 acres (The Snow Flat Road cuts through the northwest portion of the section and travels directly through the southeast corner of the section.)
- T. 39 S., R. 19 E., Sec. 11 450 acres (The Snow Flat Road cuts through the northwest corner and travels south through the southeast corner.)
- T. 39 S., R. 19 E., Sec. 21: $S\frac{1}{2}$ 320 acres
- T. 39 S., R. 19 E., Sec. 22: $S\frac{1}{2}$ 320 acres
- T. 39 S., R. 19 E., Sec. 35: $E\frac{1}{2}$ 320 acres
- T. 39 S., R. 19 E., Sec. 13 500 acres (The Snow Flat Road intersects the northwest corner and travels south through the northeast portion of the section.)
- T. 39 S., R. 20 E., Sec. 29, 30, 31 and 33 3,200 acres
- T. 39 S., R. 20 E., Sec. 18 300 acres (The Snow Flat Road cuts through this section in the northwest portion and travels south through the southwest portion of the section.)
- T. 39 S., R. 20 E., Sec. 19 600 acres (The Snow Flat Road cuts through this section in the northeast corner.)
- T. 39 S., R. 20 E., Sec. 20 160 acres (The Snow Flat Road cuts through the southern portion of this section. The "Twist" is located in this section on the Hole-in-the-Rock Trail.)
- T. 39 S., R. 20 E., Sec. 28 400 acres (The Snow Flat Road cuts through the northwest corner and travels through the southeast corner.)
- T. 39 S., R. 20 E., Sec. 34 480 acres (The Snow Flat Road travels through the northwest corner and travels south through the southwest portion of the section.)
- T. 40 S., R. 20 E., Sec. 3, 4 & 5 1,920 acres

A total of 16,590 acres should be included in the Road Canyon Management Unit. There are three State sections located within the boundaries of this unit. To insure that the unique archaeological and scenic resources within this unit remain unchanged, the BLM should pursue a land exchange with the State of Utah at the earliest opportunity.

Rationale

At present, Road Canyon is not receiving heavy visitation. It has not received as much publicity as the other canyons in this management unit.

National Outdoor Leadership School uses this canyon for Desert Orientation courses. The size of their groups has been 20 individuals, and they spend four to six days in the canyon.

Road Canyon offers a variety of recreational experiences including rock climbing, photography, geology, viewing archaeology and hiking.

To manage the primitive outdoor experiences and the supplemental values, a boundary must be established. The boundaries identified in this plan are adequate to protect and manage these unique values.

Implementation

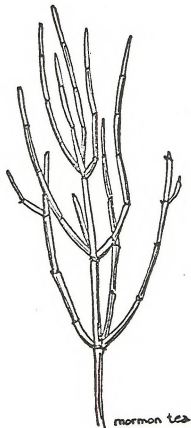
Implement the boundaries identified in this action in PAY.

In PAY plus one, do not renew any oil and gas leases within the boundaries.

In PAY plus two, readjust the oil and gas categories on this unit.

Alternatives

1. Do not establish boundaries for Road Canyon.
2. Change the proposed boundaries.



MANAGEMENT ACTION: RC #2

INTERPRETATION

Relates to Objectives A, B & C

Develop an informational pamphlet and a brochure for Road Canyon.
Develop a trailhead interpretive sign.

Rationale

Road Canyon has great potential for future use. Little is known about its interior, and exact locations of water sources are not known. It should be managed for pristine and primitive conditions. Trails are hard to find at the head of the canyon and at its confluence with Comb Wash.

A pamphlet or brochure would aid the recreationist in hiking this canyon. It would also aid the rangers and clerical staff in answering correspondence and giving information about this area.

A trailhead interpretive sign will aid the visitor in estimating the canyon hiking distances and water sources. The sign will also help visitors identify certain unique geological formations.

Implementation

Develop and design a brochure during PAY plus one.

Install interpretive sign at trailheads during PAY plus two.

Alternatives

1. Do not write a brochure or pamphlet for Road Canyon.
2. Do not place interpretive signs at trailheads.
3. Implement only one of the above actions.



picography

LIME CREEK SPECIAL MANAGEMENT AREA

MANAGEMENT ACTION: LIME CREEK (LC) #1

LIME CREEK BOUNDARIES

Relates to Objectives A, B & C

To protect scenic, recreational and geological values from heavy development, boundaries must be established. The boundaries are as follows:

- T. 39 S., R. 18 E., Section 23: SE $\frac{1}{4}$ 160 acres (The boundary follows a dirt road around the head of the canyon.)
- T. 39 S., R. 18 E., Section 24: S $\frac{1}{2}$ 320 acres
- T. 39 S., R. 18 E., Section 25: N $\frac{1}{2}$ 320 acres
- T. 39 S., R. 19 E., Section 19: S $\frac{1}{2}$ 320 acres
- T. 39 S., R. 19 E., Section 30: N $\frac{1}{2}$, SE $\frac{1}{4}$ 480 acres
- T. 39 S., R. 19 E., Section 29: NW $\frac{1}{4}$, S $\frac{1}{2}$ 480 acres
- T. 39 S., R. 19 E., Section 28: SE $\frac{1}{4}$ 160 acres
- T. 39 S., R. 19 E., Section 33 640 acres
- T. 40 S., R. 19 E., Section 4: N $\frac{1}{2}$ NW $\frac{1}{4}$ 80 acres
- T. 40 S., R. 19 E., Section 4: N $\frac{1}{2}$ NE $\frac{1}{4}$ 80 acres
- T. 40 S., R. 19 E., Section 3: N $\frac{1}{2}$, SE $\frac{1}{4}$ 480 acres
- T. 39 S., R. 19 E., Section 34: NW $\frac{1}{4}$, S $\frac{1}{2}$ 480 acres
- T. 40 S., R. 19 E., Section 11 640 acres
- T. 40 S., R. 19 E., Section 2: E $\frac{1}{2}$ NE $\frac{1}{4}$ 80 acres

This area contains approximately 4,720 acres and there are two State sections which contain 1,200 acres.

Rationale

Lime Creek Canyon drains into the Valley of the Gods before entering the San Juan River. The canyon is approximately 8 miles in length. Recreational interest is being shown by commercial groups and private users. At the time of this writing, visitation in this canyon is low. Most of the recreational use in Lime Creek occurs in the early spring and late fall months.

Visitors can park their vehicles at the head of Lime and Road Canyons and make a round trip down Road Canyon and up Lime Creek Canyon, back to their vehicles.

Potential recreational use for this canyon is great and will be increasing as time goes on.

The boundaries identified in this action are sufficient to protect its resources.

MANAGEMENT ACTION: RC #4

TRAIL DEVELOPMENT

Relates to Objectives B & C

Develop a trail at the head of Road Canyon (T. 39 S., R. 18 E., Sec. 23) and at its confluence with Comb Wash (T. 39 S., R. 20 E., Sec. 35).

Rationale

Trails into and out of Road Canyon are not marked and are confusing. This confusion leads to multiple trails over very fragile cryptogamic soils.

The trails will be marked only by cairns on the mesa top. No further marking will be done at the entrance to the canyon proper.

Implementation

During PAY plus two, develop trails into Road Canyon.

Alternatives

1. Do not develop trails.
2. Develop the trail at different points.

OTHER MANAGEMENT ACTIONS

The following management action identified in the Owl and Fish Creek Special Management Area also applies to Road Canyon.

Management Action OF #4 Motorized Use, page 95

MANAGEMENT ACTION: RC #3

MONITOR USE

Relates to Objectives A, B, C & D

Place visitor registers at trailheads to monitor use. Evaluate visitation when it reaches 1,500 individuals per year for possible intensive use management. Re-evaluate the following actions to determine whether they are necessary:

1. Group Size
2. Reservation System
3. Trailhead Assignment
4. Campfire Policy
5. Camping Limitations
6. Permit System
7. Campground Development
8. Pet Control

Rationale

Road Canyon is presently receiving light visitor use. If visitation increases to 1,500 visitors annually, resource damage may occur. At that time, the above actions will be evaluated to determine whether they are necessary.

Implementation

When 1,500 individuals enter Road Canyon for recreational purposes in one year, the above actions will be evaluated.

Alternatives

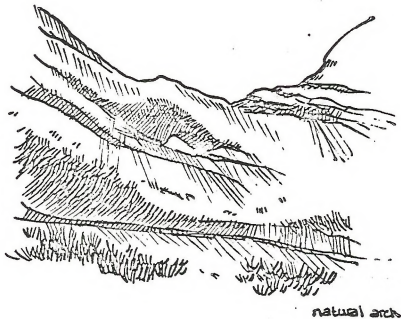
1. Implement the above actions.
2. Implement a portion of the above actions.
3. Do not implement any action when visitation reaches 1,500 individuals per year.

Implementation

In PAY, implement the boundaries described in this action.

Alternatives

1. Increase the size of the boundaries of Lime Creek.
2. Decrease the size of the boundaries of Lime Creek.
3. No action.



MANAGEMENT ACTION: LC #2

TRAIL DEVELOPMENT

Relates to Objectives A, B & C

Design and maintain a single hiking trail from upper Lime Creek Canyon to lower Lime Creek.

Rationale

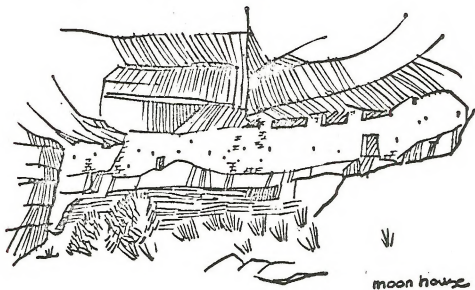
Lime Creek is a short canyon approximately 8 miles in length. Trails are unmarked on the mesa above Lime Creek, which leads to confusion.

Implementation

Design and construct a trail in PAY plus two. The trail will be marked only by cairns. A single trail will connect Road Canyon to where visitors park their vehicles.

Alternatives

1. Do not mark Lime Creek Canyon Trail.



MANAGEMENT ACTION: LC #3

MONITOR USE

Relates to Objectives A, B, C & D

Place registers at the trailheads of Lime Creek to monitor visitor use.

See Management Action #5, John's Canyon Special Management Area for Rationale, Implementation and Alternatives.

OTHER MANAGEMENT ACTIONS

The following management action identified in the Owl and Fish Creek Special Management Area also applies to Lime Creek.

Management Action OF #4 Motorized Use, page 95



CEDAR MESA MANAGEMENT AREA

MANAGEMENT ACTION: CEDAR MESA (CM) #1

INFORMATIONAL SIGNING Relates to Objective C

Informational signing will be placed along highways where trailhead roads leave the highway. Directional signs will be placed at intersections. A sign will be placed at the end of the road and where the trail begins.

Rationale

See Management Action #3 Polly's Mesa, Grand Gulch Canyon Unit.

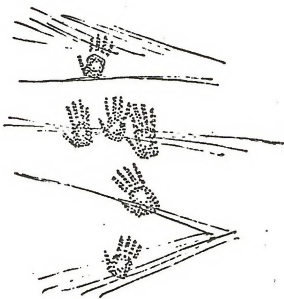
Implementation

In PAY, request the necessary signs that will be placed on main roads and trailheads.

Install signs on roads and trailheads in PAY plus one.

Alternatives

1. Do not place information signs on highways or roads



handprint pictographs

MANAGEMENT ACTION: CM #2

CAMPGROUND DEVELOPMENT

Relates to Objectives B & C

Develop a primitive campground that will support the use of the Hole-in-the-Rock Trail visitors and users of Owl and Fish Creek Canyons, Road Canyon and Comb Wash (T. 39 S., R. 19 E., Section 12: SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$).

Rationale

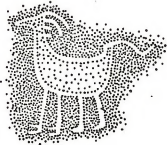
A campground will be needed in the future on the east side of Grand Gulch Plateau. This campground should accommodate users of the Hole-in-the-Rock Trail and back country canyon visitors (see Hole-in-the-Rock Trail Management Plan). The campground will also serve the needs of deer hunters in the fall.

Implementation

- Phase 1 - Survey and design will be started.
- Phase 2 - Prepare Environmental Analysis (EA) and cultural clearance.
- Phase 3 - Withdrawal from mineral and oil and gas leasing.
- Phase 4 - Fence area and install cattleguards.
- Phase 5 - Construct loop road and develop water sources.
- Phase 6 - Construct toilets and fire pits, and install picnic tables.

Alternatives

1. Develop a campground in a location different from the Snow Springs Area.
2. Do not develop a campground.



petroglyph

MANAGEMENT ACTION: CM #3

ROAD MAINTENANCE

Relates to Objectives C & D

The following roads will be maintained for visitor access to trailheads:

1. Snow Flat Road (19 miles)
2. Owl Creek Drill Hole (5.5 miles)
3. Road and Lime Creek Road (4.5 miles)
4. Fish Creek North Fork Road (1 mile)
5. Fish Creek Mouth Road (1.5 mile)

Rationale

Roads that have been identified for maintenance are County and BLM-maintained roads which lead to trailheads, or are used frequently by recreationists. If they are County maintained, we will coordinate with the County to see that the roads are maintained for two wheel drive vehicles.

Implementation

Continue working with the county on maintenance of trailhead access roads. Develop a maintenance schedule in PAY plus one.

Alternatives

1. Do not maintain access roads.
2. Maintain only a portion of the roads identified.



MANAGEMENT ACTION: CM #4

TRAILHEAD PARKING

Relates to Objectives B & C

Parking areas for ten vehicles will be established at trailheads.

Rationale

Dirt or gravel parking areas are needed to curtail indiscriminate parking and vehicles driving off the road to find a parking area.

Implementation

During the PAY plus one, conduct cultural clearances and write the environmental assessment.

Construct parking areas in PAY plus two.

Alternatives

1. Do not construct parking areas.
2. Construct parking areas in different locations.



natural arch

MANAGEMENT ACTION: CM #5

PICNIC AREA DEVELOPMENT

Relates to Objective C

Develop a picnic area at Comb Wash and Highway U-95.

Rationale

Comb Wash is a popular area for picnics. In the past ten years, thousands of recreationists used this area as a rest stop. During Memorial Day and the Fourth of July weekends, this area is a popular spot for family outings and picnics.

During the 1979 Memorial Day weekend, a ranger patrol reported 156 vehicles in Upper Comb Wash.

The picnic area should include 15 individual picnic sites and three group sites. The area should have picnic tables, drinking water, grills, bathroom facilities and interpretive information about the area.

Implementation

Phase 1 - Start survey and design.

Phase 2 - Prepare EA and cultural clearance.

Phase 3 - Withdraw from mineral and oil and gas leasing.

Phase 4 - Fence area and install camping area.

Phase 5 - Construct road and pullouts.

Phase 6 - Construct toilet facilities, drinking water, picnic tables, grills and interpretive structures.

Alternatives

1. Do not develop a picnic area at this location.
2. Do not develop picnic facilities.

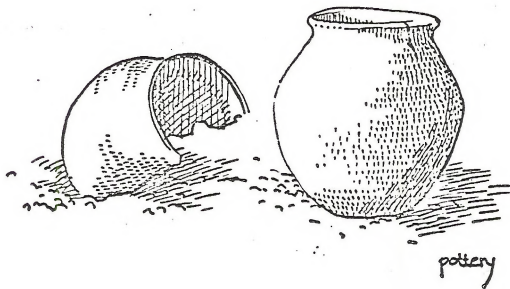
OTHER MANAGEMENT ACTIONS

The following management action previously outlined on Polly's Mesa also applies to Cedar Mesa:

Management Action #1 Development Activities, page 80

ARCH AND MULE CANYON UNIT

The Arch and Mule Canyon Unit is located north of Highway U-95, south of Manti-LaSal National Forest and west of Upper Comb Wash. This unit has a triangular configuration, so there is actually no eastern boundary. Within this unit are Arch and Mule Canyon Special Management Areas, Texas Flat and Little Baullies Mesa.



The BLM administered portion of Arch Canyon provides public access to one of the most spectacular canyons in southeastern Utah. At the Forest Service and Bureau of Land Management boundaries are several impressive natural arches. The four known arches within this canyon are of the Arches National Park quality or superior.

BLM's portion of Arch Canyon is approximately eight miles in length and contains 7,000 acres.

The USFS Monticello District of the Manti-LaSal National Forest controls the major portion of Arch Canyon and its tributaries. In the proposed land use plan, they have recommended it be studied for designation as a scenic area and to withdraw the remainder of the area from mineral entry. It also states that parts of Arch and Texas Canyons have been determined as eligible for nomination as a National Historic Register District because of the archaeological values there.

Mule Canyon is located approximately 24 miles west of Blanding. The upper portion of Mule Canyon above U-95 is in a primitive condition, relatively undisturbed by recent man's activities. It borders the Manti-LaSal National Forest on the northwest and approaches Comb Ridge to the southeast. The area covered is approximately 3,200 acres which extends five miles in length from southeast to northwest on BLM administered lands.

The archaeological values that exist in the upper Mule Canyon area are quite evident but have not been inventoried.

Texas Flat is located between Mule and Arch Canyons.

A well maintained dirt road splits Texas Flat right down the middle. The road travels in a north-south direction from old Highway 95 to the National Forest boundary on south Long Point. There are at least two vehicle trails that head west of the Texas Flat Road to the edge of Arch Canyon. Spectacular views of Arch Canyon can be seen from both of these trails.

Texas Flat is part of a grazing allotment with spring grazing only.

Little Baullies Mesa is located between Comb Wash and Arch Canyon. This area is basically slickrock with a few scattered pinyon-juniper dotting the area. Recreational value on Little Baullies Mesa is limited. This area has been used in the past by deer hunters and archaeological sight-seers.

The area has one road which is used by cattle operators for moving stock from Forest Service lands to BLM administered lands.

Little Baullies is part of one cattle allotment and is used only in the spring and fall by 300 head of cattle for a period of less than 10 days each grazing season.

ARCH CANYON SPECIAL MANAGEMENT AREA

MANAGEMENT ACTION: ARCH CANYON (AC) #1

ARCH CANYON BOUNDARIES

Relates to Objectives A, B & C

To protect the scenic, archaeological and primitive outdoor experience, management boundaries must be established. The boundaries are as follows:

- T. 37 S., R. 19 E., Section 2 200 acres (The Texas Flat road crosses the upper third of this section and follows the 7,200' contour line. The road is the boundary.)
- T. 37 S., R. 19 E., Section 1: N $\frac{1}{2}$ 320 acres
- T. 37 S., R. 20 E., Section 5, 6, 8, 22 acres
- T. 37 S., R. 20 E., Section 7: NE $\frac{1}{4}$, NE $\frac{1}{2}$ SE $\frac{1}{4}$ 200 acres
- T. 37 S., R. 20 E., Section 17 450 acres (The Texas Flat road crosses through this section from the northwest corner to the southwest corner.)
- T. 37 S., R. 20 E., Section 20 40 acres (The Texas Flat road cuts across the northeast corner of this section.)
- T. 37 S., R. 20 E., Section 21: N $\frac{1}{2}$ 320 acres
- T. 37 S., R. 20 E., Section 9: SW $\frac{1}{4}$ 160 acres
- T. 37 S., R. 20 E., Section 15: NW $\frac{1}{4}$, S $\frac{1}{2}$ 480 acres
- T. 37 S., R. 20 E., Section 23: NW $\frac{1}{4}$, S $\frac{1}{2}$ 480 acres
- T. 37 S., R. 20 E., Section 24: SW $\frac{1}{4}$ 160 acres
- T. 37 S., R. 20 E., Section 25: NW $\frac{1}{4}$ 160 acres
- T. 37 S., R. 20 E.; Section 26 280 acres (Old U-95 cuts through the upper half of this section.)
- T. 37 S., R. 20 E., Section 27: N $\frac{1}{2}$ NE $\frac{1}{4}$ 80 acres

Rationale

Arch Canyon is a steep-walled canyon with a broad canyon floor (as compared to other canyons in the area). Arch Canyon contains numerous archaeological sites which offer the public a variety of structures to see. The high quality scenery includes arches, buttes, pinnacles and alcoves.

This area is excellent for sightseeing from a vehicle or on foot or horseback. Boundaries are needed for protection from unnecessary impacts.

Implementation

Do not renew oil and gas leases within the boundaries identified. In PAY plus one, readjust the multiple use categories on the Master Title Plats.

Alternatives

1. Do not establish boundaries for Arch Canyon.
2. Add to or decrease areas identified in the boundaries.

MANAGEMENT ACTION: AC #2

LIMITATION OF VEHICLE USE

Relates to Objectives A, B, C & D

Vehicle use in Arch Canyon will be limited to the existing road (5.6 miles). Vehicle use will not be permitted beyond that point.

Rationale

Arch Canyon offers some of the most spectacular scenery in the Grand Gulch Plateau area. At the present time, visitation is extremely light in comparison to other major canyons in the Grand Gulch Plateau Management Area, with heaviest use occurring on Easter and Memorial Day weekends.

Arch Canyon, appropriately named, has a beautiful arch near the National Forest Service and Bureau of Land Management boundary. It also contains excellent examples of past Indian culture.

A road continues up Arch Canyon for approximately 5.6 miles. This road has been in existence approximately ten years, with steady use by four-wheel drive enthusiasts.

This is the only canyon in the Grand Gulch Plateau Management Area where a person with a vehicle can see the same sights which backpackers and horse users see in Grand Gulch, Owl and Fish Creek and Slickhorn. This canyon offers an excellent trip for individuals who are unable to hike or ride horses.

Limiting vehicle use in this canyon to 5.6 miles would protect the primitive, recreational experience of those using the upper section of Texas and Arch Canyon. Vehicle use in this canyon will be monitored closely to insure that no off-road use occurs.

Implementation

Install a register and an informational sign at the mouth of Arch Canyon in PAY.

Monitor use of vehicles in Arch Canyon with Ranger Patrols and photo trend plots.

In PAY, post signs 5.6 miles up Arch Canyon stating "No vehicle use beyond this point".

Alternatives

1. Allow off-road operation of vehicles within Arch Canyon.
2. Close Arch Canyon to all vehicle use.

MANAGEMENT ACTION: AC #3

STABILIZATION OF ARCH CANYON RUIN
Relates to Objectives A & C

Initiate and complete fence repair, stabilization and hardening at Arch Canyon Ruin.

Rationale

Visitation over the past 15 years and a boulder fall on the fence have caused deterioration to the site. This highly visited site is near the popular base camp for Arch Canyon and needs priority attention. To sustain the educational and recreational opportunity it has provided in the past, stabilization must be undertaken soon.

Implementation

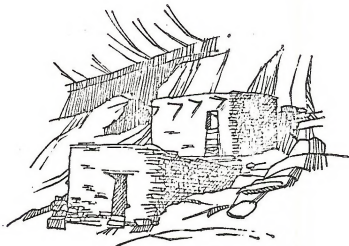
Work will follow the guidelines for Plateau-wide management actions. Most work will be done by contract.

<u>Work Needed</u>	<u>Cost</u>
Remove boulder and repair fence	\$1,700
Stabilization maintenance	4,000

Date of Estimate: May, 1980

Alternatives

1. No action.



split-level ruin

MULE CANYON SPECIAL MANAGEMENT AREA

MANAGEMENT ACTION: MULE CANYON (MC) #1

MULE CANYON BOUNDARIES

Relates to Objectives A, B & C

To protect the scenic, recreational and archaeological values of Mule Canyon, the boundaries are defined as follows:

- T. 37 S., R. 19 E., Section 11, 14 1,280 acres
- T. 37 S., R. 19 E., Section 12: SW $\frac{1}{4}$ 160 acres
- T. 37 S., R. 19 E., Section 15 560 acres (State Highway U-95 cuts through the southern portion of this section.)
- T. 37 S., R. 19 E., Section 13 All of section except the NE $\frac{1}{4}$ NE $\frac{1}{4}$ 600 acres
- T. 37 S., R. 20 E., Section 18: SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{2}$ 200 acres
- T. 37 S., R. 20 E., Section 19 640 acres
- T. 37 S., R. 20 E., Section 20: S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ 360 acres
- T. 37 S., R. 19 E., Section 24 460 acres (Highway U-95 cuts through this section from the NW corner to the SE corner.)
- T. 37 S., R. 19 E., Section 23 220 acres (Highway U-95 cuts through the NW corner and travels in a southerly direction through the east side of the section.)
- T. 37 S., R. 19 E., Section 22: NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ 10 acres
- T. 37 S., R. 19 E., Section 25: NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ 10 acres
- T. 37 S., R. 20 E., Section 30 200 acres (U-95 cuts through the NW corner and travels in a southerly direction to the east side of the section.)
- T. 37 S., R. 20 E., Section 29 450 acres (The southern boundary of this section is U-95, old U-95 cuts into and out of the eastern boundary of this section.)

This special management area contains 5,150 acres.

Rationale

Mule Canyon is an excellent area for day hikes and overnight trips. The scenic and recreational values have not been disturbed by modern man. There are numerous archaeological sites, and the upper portion of the canyon has numerous springs. The bottom of the canyon is forested with Douglas fir and ponderosa pine, which is unusual for a canyon environment. The boundaries identified in this action are sufficient to protect these resources.

Implementation

Implement the boundaries identified in this action in PAY. Do not renew oil and gas leases within the Mule Canyon boundaries. In PAY plus two, readjust the multiple use categories on Master Title Plats.

Alternatives

1. Do not establish boundaries for Mule Canyon.
2. Add to or decrease areas identified in the boundaries.

MANAGEMENT ACITON: MC #2

SITE AND DESIGN PLAN FOR MULE CANYON
Relates to Objective C

Develop a site and design plan for Mule Canyon Ruins.

Rationale

Mule Canyon Ruins is an archaeological site that was stabilized by the National Park Service (1973), funded by the Utah Highway Department. It is one of the most visited archaeological sites administered by BLM in the State of Utah.

The developed portion of the area consists of a paved loop road, vault-type rest rooms, a ramada over an excavated Kiva, and a paved sidewalk. An interpretive sign, nature trail (self-guiding), and picnic tables should be included in this site plan.

Implementation

- Phase 1 - Lay out design and site plan.
- Phase 2 - Prepare EA and cultural clearance.
- Phase 3 - Develop the nature trail and interpretive sign.
- Phase 4 - Install picnic tables.

Alternatives

1. Continue to maintain Mule Canyon Ruins in its present condition.
2. Add more developments to Mule Canyon Ruins other than the ones suggested in this plan.

OTHER MANAGEMENT ACTIONS

The following management action previously outlined in John's Canyon Special Management Area also applies to Mule Canyon:

Management Action #5 Monitor Use, page 79

TEXAS FLAT MANAGEMENT AREA

The following management action previously outlined in Polly's Mesa also applies to Texas Flat and Little Baullies Mesa:

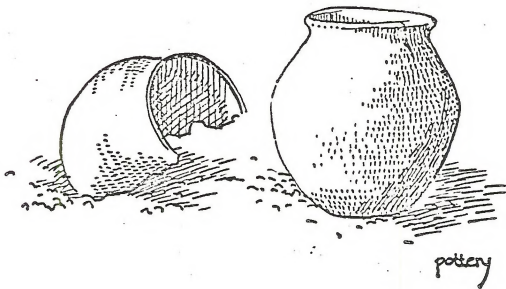
Management Action #1 Development Activities, page 80



prickly-pear flowers

VALLEY OF THE GODS UNIT

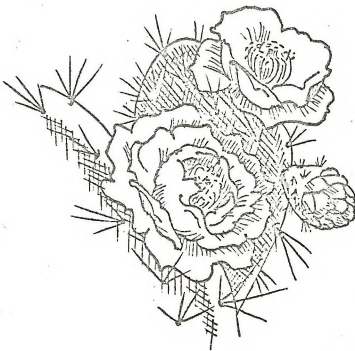
The Valley of the Gods Unit is located south of the Grand Gulch Plateau proper, north of Highway 163, west of lower Comb Wash and generally east of Highway 261.



Description of Valley of the Gods Unit

Valley of the Gods is a spectacular area of scenic buttes and mesas. A County road passing through this unit offers some excellent views of the buttes. Valley of the Gods is considered a miniature Monument Valley. There are 20 to 25 buttes, pinnacles and spires that range in height from 100 to 600 feet. Each geological formation has been named by early inhabitants and visitors after a figure that the pioneers thought these formations looked like. Some of the unique names are: Castle Butte, Lady In A Bathtub, Rooster Butte, Setting Hen Butte, Balanced Rock, Bell Butte, Flag Butte, Pyramid Peak, and Scotchman Butte.

The Valley of the Gods road leads to an access point to Lime Creek Canyon. Within this unit is the Perkins Brothers Cattle Allotment. Grazing use occurs only during the winter months. There has been some oil and gas activity, but no discoveries have been made to date.



prickly-pear flowers

VALLEY OF THE GODS UNIT

MANAGEMENT ACTION: VALLEY OF THE GODS (VG) #1

IMPROVE AND MAINTAIN VEHICULAR TRAILS

Relates to Objective C

Improve and maintain a vehicular trail through the Valley of the Gods for two-wheel drive vehicles. The trail will start on Utah Highway 261 one mile south of the Moki Dugway (T. 40 S., R. 18 E., Section 33), proceed through the Valley of the Gods and terminate on Utah Highway 163 (T. 41 S., R. 19 E., Section 10). A second road will be maintained which forks off the above road just north of Rooster Butte (T. 40 S., R. 19 E., Section 27). This road will head northeast to Lime Creek Trailhead, then southeast to Utah State Highway 163 (T. 40 S., R. 20 E., Section 32).

Rationale

These trails should be well marked by interpretive signs. At the beginning of the trail there should be a trail shelter where visitors can obtain a map and a brochure about the area. Each butte should be named on a map which would correspond to a number along the road for easy identification. The miles should be listed on each map, along with the locations of water sources. The brochure should contain information on geological history and archaeology of the area (see Interpretation).

If there is a need in the future, and if the public would like more interpretative trails, they should be built when funds are available.

The Valley of the Gods Trails are accessible almost year-round.

Implementation

In PAY plus one, work with the County to see that the roads are maintained for two-wheel drive vehicles.

Alternatives

1. Develop more roads than those suggested in this action.
2. Develop fewer roads than those suggested in this action.

MANAGEMENT ACTION: VG #2

SPRING DEVELOPMENT

Relates to Objectives C & D

Develop at least two springs in Valley of the Gods for recreationists, wildlife, and livestock uses.

Rationale

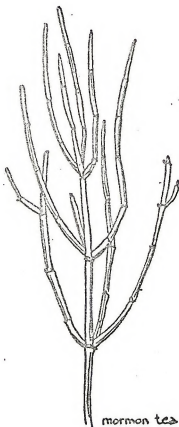
Valley of the Gods is a dry area where visitors and cattle would benefit from spring development.

Implementation

Develop a spring during the PAY plus two.

Alternatives

1. Do not develop the spring.



MANAGEMENT ACTION: VG #3

INTERPRETIVE SHELTERS
Relates to Objective C

Develop three interpretive shelters, located at the three entrances into the Valley of the Gods.

Rationale

The trailhead shelters are needed to provide interpretive information about the Valley of the Gods area. This information would further enjoyment of the area as well as outline needed safety precautions.

Implementation

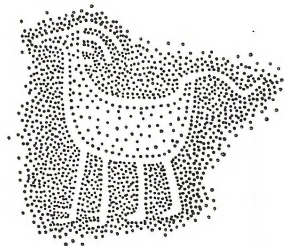
Phase 1 - Draw up a site and design plan.

Phase 2 - Prepare EA and cultural clearance.

Phase 3 - Construct the trail shelters.

Alternatives

1. Do not develop trailhead shelters.
2. Develop shelters at locations different from those suggested by this action.



petroglyph

MANAGEMENT ACTION: VG #4

DEVELOP A FOOT TRAIL

Relates to Objective A, B & C

Develop two hiking trails from the Valley of the Gods (T. 40 S., R. 19 E., Section 14) to the head of Lime Creek, and from the Valley of the Gods to West Lime Creek.

Rationale

At the present time, hikers have difficulty finding the trails into these two canyons, which offer the recreationist an outstanding hiking experience. West Lime Creek is an excellent day hiking area, and Lime Creek offers an overnight trip. Developing a single trail into these canyons would cut down on the multiple trailing.

Implementaiton

Mark and sign the start of the trail in the Valley of the Gods. Marking will be done with cairns only.

Alternative

1. No action.

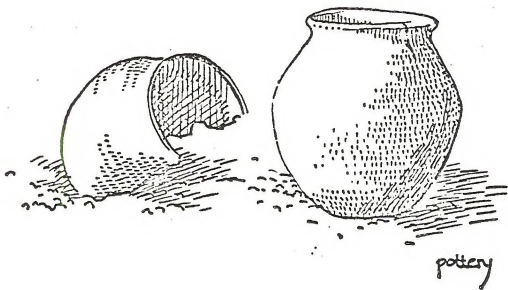
OTHER MANAGEMENT ACTIONS

The following management action previously outlined in Polly's Mesa also applies to Valley of the Gods Unit:

Management Action #1 Development Activities, page 80

COMB RIDGE - BUTLER WASH UNIT

Comb Ridge - Butler Wash is located on the eastern side of the Grand Gulch Plateau Management Area. The unit's boundaries are Comb Wash on the west, Butler Wash on the east, Highway 163 on the south and Manti-LaSal National Forest on the north.



Description of Butler Wash - Comb Ridge Unit

The most dominant land form in southeast Utah is the monolith named Comb Ridge. Comb Ridge stretches approximately 100 miles from Manti-LaSal National Forest in the north to Kayenta, Arizona in the south.

Comb Ridge is the eastern boundary of a monocline called the Monument Upwarp which is approximately 35 miles wide and 90 miles long. The height of this monocline ranges from 300 to 700 feet and is primarily of the Navajo formation.

At present, there are three man-made cuts through the ridge, including Highways U-95 and U-163 and old Highway 95 in upper Comb Wash.

Butler Wash lies on the east side of Comb Ridge and is a minor drainage of the southern portion of Manti-LaSal National Forest. The wash meanders along Comb Ridge until it meets the San Juan River. It is known for its abundant archaeology located on both sides of the wash. There have been requests from universities to conduct archaeological field trips. Butler Wash is an advanced stage of alluvial erosion. During the last 100 years, the wash has eroded away 50 feet of the alluvial soils.

Comb Wash follows Comb Ridge from the National Forest boundary to the San Juan River and is also known for abundant archaeology. The Comb Wash area has a higher incidence of archaeological vandalism than any other area located within the Grand Gulch Plateau. This is partly due to easy accessibility to the area by vehicle, its proximity to Blanding, Utah, and its freedom from snow during much of the winter.

In its lower section, the wash is joined by the Hole-In-The-Rock Trail. The trail follows the wash to the San Juan River and continues over San Juan Hill toward the town of Bluff, Utah.

Comb Wash probably receives more ORV use than any other area of the Grand Gulch Plateau. During the 1979 Memorial Day Weekend, a BLM patrol reported seeing over 200 vehicles in Comb Wash.

Repeated use has established two camping areas along Comb Wash. These areas are located at the mouth of Arch Canyon where U-95 crosses Comb Wash. During the spring recreation season, it is not uncommon to see 10 to 20 groups of campers at each site.

The one semi-developed area located in this unit is the Butler Wash Overlook. In 1974, the Highway Department built a paved loop road for a scenic overlook and view area. One-quarter mile from the Overlook is a large stabilized archaeological site with a natural bridge at the head of the canyon.

COMB RIDGE - BUTLER WASH UNIT

MANAGEMENT ACTION: COMB RIDGE-BUTLER WASH CR-BW #1

INTERPRETIVE TRAIL AND EXHIBIT

Relates to Objectives A, B & C

Design and develop an interpretive trail, Posey's Trail, exhibit and sanitary facilities at Butler Overlook.

Rationale

Butler Overlook was built by the Utah State Highway Department in 1975. The development consists of a paved road, one-half mile long.

One-quarter mile from the road are several large Anasazi ruins which were stabilized by BLM in 1974. East of the ruin at the head of the canyon is a natural bridge.

These two outstanding features go unnoticed by the passing traveler. A trail built to the edge of the canyon would encourage visitors to view both of these wonders.

Within 200 yards of this overlook is an old trail which is called Posey's Trail, named after the famous Ute Indian who was shot in this general area. This area offers excellent interpretation possibilities for historic, prehistoric and natural phenomena.

An exhibit should be designed for the Overlook Area, explaining the details of this shooting and the location of the trail. Another exhibit should be provided for interpretation of the natural arch and the Anasazi ruins.

Implementation

Phase 1 - Design the interpretive trails, Posey's Trail, exhibits and sanitary facilities.

Phase 2 - Prepare EA and cultural clearances.

Phase 3 - Construct the trails, exhibit and sanitary facilities.

Phase 4 - Posey's Trail will be interpreted at the overlook and will be marked by cairns.

Alternatives

1. No action.

MANAGEMENT ACTION: CR-BW #2

CAMPGROUND DEVELOPMENT

Relates to Objective C

Develop a campground at Highway U-95 and Comb Wash.

Rationale

The Comb Wash-Highway U-95 base camp is a popular overnight camping area. During the spring and summer months, it is used continuously by overnigheters. At any given time, one can find seven to ten campers present, and the area vegetation is almost gone due to trampling and vehicle use. Erosion has begun, exposing some of the large cottonwood trees' roots.

An all weather one-way road needs to be constructed into the area designated for camping.

Picnic tables, grills, bathrooms, and drinking water facilities should be placed in this area for visitor convenience. (See Administrative Facilities.)

Implementation

Phase 1 - Develop a site plan and survey and design.

Phase 2 - Prepare EA and cultural clearance.

Phase 3 - Develop the road system, graveling the campground roads, and fencing approximately three acres from cattle.

Phase 4 - Develop sanitary facilities and drinking water facilities.

Phase 5 - Install picnic tables and campfire rings.

Alternatives

1. Do not develop a campground.
2. Develop a primitive campground with sanitary and water facilities only.
3. Construct a campground in a different location.

MANAGEMENT ACTION: CR-BW #3

TRAIL DEVELOPMENT
Relates to Objective C

Investigate the feasibility of constructing a foot trail along the crest of Comb Ridge.

Rationale

Comb Ridge is an outstanding geologic feature. Because of its elevated position, it offers excellent vistas which would be of considerable value to the visitor. Construction could be expensive because of the rough terrain.

Implementation

Conduct feasibility studies in PAY plus one.

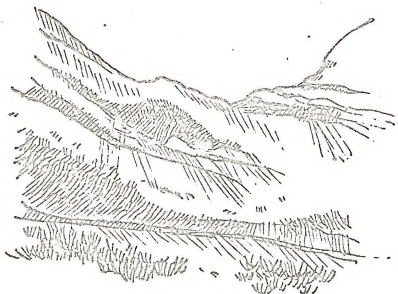
Alternatives

1. No action.

OTHER MANAGEMENT ACTIONS

The following management action previously outlined in the Polly's Mesa area will also apply to Comb Ridge - Butler Wash Unit:

Management Action #1 Development Activities, page 80



natural arch



coordination

COORDINATION

GOVERNMENT AGENCIES

National Park Service

Finalize the Cooperative Agreement with Natural Bridges National Monument on the BLM residence located at the Monument. Develop a Cooperative Agreement with National Park Service on Law Enforcement and Search and Rescue Assistance.

Continue cooperating with Glen Canyon National Recreation Area on managing lands adjacent to Grand Gulch Plateau Management Area. Develop Search and Rescue and Law Enforcement policies on boundaries.

Continue cooperation with Natural Bridges National Monument on the management of lands adjacent to Grand Gulch Plateau Management Area.

U. S. Forest Service

Develop a joint agency visitor monitoring system for Arch Canyon. Continue the exchange of information on boundary lands on at least an annual basis.

State of Utah

Develop an agreement with the Department of Wildlife Resources on sharing of hunter visitation figures, and improving big game habitats on the Plateau.

For heavy use weekends, coordinate with the Department of Parks and Recreation ORV ranger at the Edge of the Cedars Museum at Blanding.

Develop a Cooperative Agreement with the State Land Board and State Division of History to enhance visitor access and recreational and educational use of the Mule Canyon Towers and adjacent ruins on public land.

Finalize a Cooperative Agreement with the State Division of Parks and Recreation for use of the Edge of the Cedars Museum as a location for public education lectures and slide shows.

Review and update as necessary the existing Cooperative Agreement with the State Division of Parks and Recreation.

Develop land exchange agreements with the State Land Board on the exchange of State sections located within the management area.

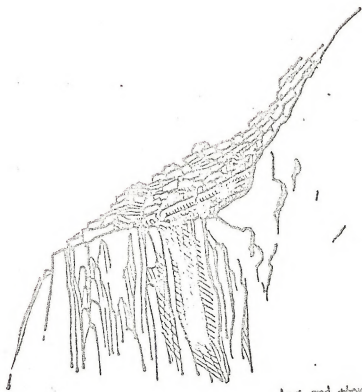
San Juan County

Continue working with San Juan County in the development of the Class D road system and land use planning. Coordinate the maintenance of trailhead roads with the County Commissioners.

Develop a cooperative agreement for search and rescue as outlined under that portion of this Plan.

Cities of Monticello and Blanding

Work with the cities in setting up programs for local schools and interested youth and civic groups.



log and stone
fortification



implementation plan

Implementation Schedule

Steps for implementation of various management actions are described with each action. In order to aid reference use and schedule adjustments with changing priorities, all target dates for implementation are listed below:

Cultural Resource Management

Actions

Implementation Date

Surveillance of Cultural Sites

Immediately

Inventory and Synthesis of Cultural Resource Information:

Grand Gulch	*Plan Approval Year Plus One
Slickhorn and John's Canyons	Plan Approval Year Plus Two
Fish, Owl and McLloyd's Canyons	Plan Approval Year Plus Three

These priorities are based on present management needs and may be adjusted. The cultural and staff specialists will provide recommendations on methods, priorities, and other matters which may affect scheduling.

Evaluation of Cultural Significance and Condition

Immediately

Cultural Advisement Committee

Fiscal Year 1981

Archaeological Research Permits

As Needed

Cultural Mitigation Inventory

Immediately

Curation and Disposition of Cultural Data

Immediately

Historic Register Nomination

PAY

Section 106 Compliance

Immediately

Vandalism Cleanup and Repair

Immediately

Physical Protection

As Needed

Visitor Protection

Law Enforcement

Immediately

Visitor Safety

Immediately

Search and Rescue

Immediately

*Plan Approval Year will be abbreviated PAY. Plus one, two or three means years after the plan has been approved.

InterpretationPlan Approval Year (PAY)

Interpretive Plan	PAY Plus One
Grand Gulch Mandatory Interpretive Program	PAY Plus One
John's Canyon Design and Install Interpretive Signs	PAY Plus Two
Develop Interpretive Slide Module	PAY Plus Three
Polly's Mesa Informational Signing (design and install)	PAY Plus One
Road Canyon Develop and Design Interpretive Brochure	PAY Plus One
Install Interpretive Signing at Trailheads	PAY Plus Two
Cedar Mesa Informational Signing	PAY Plus One
Arch and Mule Canyons Develop and Design Interpretive Exhibit	PAY Plus One
Develop and Design Interpretive Trail	PAY Plus Two
Valley of the Gods Interpretive Trail Shelters (Design and Construct)	PAY Plus Two
Butler Wash-Comb Ridge Design and Develop Interpretive Exhibits	PAY Plus One
Design and Develop Interpretive Trail and Overlook	PAY Plus Two

Resource Protection

All actions identified in the Management Plan dealing with mitigation of impacts will be implemented on PAY Plus One.

Maintenance

Develop a plateau operational and maintenance plan on PAY Plus One



desert bighorn ram



plan modification

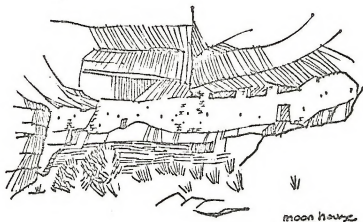
PLAN MODIFICATION

To remain effective, this plan must be modified periodically as new information becomes available or factors affecting the Grand Gulch Plateau and its use change.

In the event that this plan is to be modified, the procedure for modification will be as follows:

1. Gather and evaluate monitoring data.
2. Determine the kind and amount of change needed to correct the situation.
3. Make changes based on public input and review and on the basis of the best information available.
4. Finalize the modifications by notice to public through the media and direct contact with users.

At the end of a five-year period, beginning at the date of the adoption of the plan, review this plan's contents and determine whether any modifications are needed to meet current trends.





Appendix

SUPPORT NEEDS

Personnel and Equipment

Adequate protection of the unique archaeological and natural values present in the Grand Gulch Plateau depends on an active visitor management program with a ranger staff quartered on Grand Gulch Plateau. Such a program will decrease the unintentional deterioration and willful exploitation of the cultural remnants left by the Anasazi (250 B.C. 1300 A.D.). The fragile canyon and mesa environs will be patrolled so that when impacts occur which threaten unique or non-replacable values, action can be taken to negate or lessen such impacts.

The ranger staff is responsible for the protection of cultural and natural values and for interpretation of the area to the visitor through personal contact, audio-visual programs, brochures, and correspondence.

The effective protection of archaeological resources is directly related to the amount of field time. It has been found that at least 80% of duty time must be spent in the field to provide adequate protection.

The ranger function differs widely throughout the Bureau. Standardization of basic training components is needed. These components may include and are not limited to visitor management, orientation to program and Bureau objectives and policy, first aid, search and rescue, resource training in various disciplines, fire suppression, and law enforcement techniques and procedures.

A basic training program is imperative for a well-trained ranger force able to handle the complex situations which occur on the public lands.

In the course of resource protection and management, proper legal recourse may be the only prescribed action to follow. Pothunting is the indiscriminate and systematic destruction of archaeological sites.

Whether to follow prosecution by Federal or State law should be left up to the discretion of the land managing agency. Because of the federal court case load, it is advisable to take only those cases of flagrant and wanton violations of antiquity laws to the federal court. Other antiquity cases are to be taken to the local Justice of the Peace for prosecution under the State Antiquities Act. The local County Sheriff or his deputy should be notified of antiquity violations, and their decision relied upon for arrest procedures. The special agent in residence (State Office) shall make arrests, prepare case files, and prepare for the court appearance only if the Sheriff is unable to assist in these matters, or if it is in the best interest of the Bureau to utilize the special agent.

The increased visitation in the remote canyon environs provides for increased probability of need for search and rescue operations. Ranger familiarization with access points and area terrain is vital, should such a need arise.

In order to properly support the program needs, the following personnel are needed:

	<u>WM's</u>
* 1 Permanent Natural Resource Specialist (GS-9/11)	10
* 1 Permanent Natural Resource Specialist (GS-7/9)	10
** 1 Permanent Natural Resource Interpreter (GS-5/7)	10
* 1 WAE (11½ month appointments) Range Techn. (GS-4/5/6)	9.5
* 1 WAE (11½ month appointments) Park Techn. (GS-4/5)	9.5
* 2 Temporary Park Technicians (GS-3/4/5)	12
* 1 Clerk/Typist (GS-4)	4
* Resource Area Support	6
1 Permanent Archaeologist (GS-7/9/11)	10
2 Temporary Park Technicians (GS-4/5)	12
1 Permanent Recreation Technician (GS-4/5/6)	10
1 Permanent Clerk-Steno (GS-4/5)	10
* 1 Permanent Maintenance Worker (WG-6/7)	10
1 Temporary Maintenance Worker (WG-3/4)	<u>6</u>
Total	127

* Funded under current program

** Authorized under current program

When an increase of 10,000 visitors occurs, an additional ranger position will be needed. Also, when oil and gas developments increase 100% above present level, one additional position will be needed to supervise and monitor this development.

Equipment and Procurement

In order to support the personnel in the field and the management area, the following monies are needed for replacement of equipment and supplies. This provides flexibility to respond to the day-to-day patrol and cleanup needs, as well as the capacity to respond to emergency situations.

Approximate amounts include:

Supplies	\$1,000 per year
Major Equipment	\$4,000 per year
Equipment Replacement	\$2,000 per year
Aircraft Time	\$20,000 per year
Unmarked Vehicle	\$2,600 per year rent

Special equipment will be needed for surveillance and detection of vandalism. Funding will be of a one-time nature, Cost: \$20,000.

Motorcycle Trailbikes (3)	One-time Funding \$3,000
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Administrative Facilities

Construct facilities for administration of the cultural and natural resources within the Grand Gulch Plateau Management Area. Those facilities will be constructed in T. 38 S., R. 18 E., Section 2 and consist of the following:

- a. Visitor Contact Station
- b. Residences for Ranger Personnel
- c. Support Facilities (maintenance area, horse corral, heliport)
- d. Trailhead Development
- e. Road Construction

Grand Gulch Plateau Administrative Site

Phase 1 - Survey and Design	\$ 62,000
Phase 2 - Cultural Clearance & Environmental Assessment	2,300
Phase 3 - Utilities (Sewer, Water and Electric)	273,000
Phase 4 - Visitor Contact Station	55,000
Phase 5 - Ranger Quarters	182,000
Phase 6 - Entrance and Circulation Road	195,000
Phase 7 - Maintenance and Storage Buildings	49,000
Phase 8 - Heliport	15,000
Phase 9 - Fence and Cattleguard	<u>6,000</u>
	\$839,300

All cost figures are shown in 1980 dollar amounts.

The administrative site has been carefully located in the center of the plateau to provide accessibility and also because a majority of the visitor use occurs in this area.

Ranger patrols both on Grand Gulch Plateau and in the various canyons environs need a dispatch point for safety, visitor contact, and as a control for the economic placement of ranger manpower.

Visitor Use Facilities

Centralized camping areas efficiently satisfy the needs of the recreating public.

Three primitive campgrounds are planned around Grand Gulch Canyon. The campgrounds will consist of a fenced enclosure with cattleguards (five acres), fire rings, garbage cans, pit or vault-type toilets, and picnic

tables. These campgrounds, located at Bullet Trailhead, Collins Trailhead, and Government Trailhead, will be dry because of the high cost of drilling wells.

Two developed campgrounds are planned for visitor use. Campgrounds will consist of drinking water facilities, sanitary facilities, picnic tables, fire rings and fenced area (five acres) with cattleguards and group camping area. The developed campgrounds will be located at Snow Flat Springs on the Hole-in-the-Rock Trail and at the mouth of Arch Canyon.

One picnic area will be developed along U-95 at Comb Wash. The facilities will consist of drinking water, sanitary facilities, picnic tables, a five acre enclosure with cattleguards and barbecue grills. Three trail shelters will be located within the Valley of the Gods unit. These will have interpretive signs.

The visitor use facilities are listed in priority order. Exact cost estimates cannot be established until survey and design are complete. The cost figures listed below are estimates based on current prices.

Comb Wash/U-95 Camping and Picnic Area (Developed)

Phase 1 - Survey and Design	\$ 4,600
Phase 2 - Environmental Assessment, Cultural Clearance	2,300
Phase 3 - Loop Road 1/4 Mile (Gravel)	15,000
Phase 4 - Sanitary Facilities and Water Development	27,000
Phase 5 - Picnic Tables & Fire Rings (15)	15,000
Phase 6 - Fence and Cattleguard	<u>6,000</u>

Total cost includes one work month @ \$2,300 per month \$72,200

Kane Gulch Campground (Developed)

Phase 1 - Survey and Design	\$ 4,600
Phase 2 - Environmental Assessment, Cultural Clearance	2,300
Phase 3 - Loop Road 1/4 Mile (Gravel)	15,000
Phase 4 - Sanitary Facilities and Water Development	21,000
Phase 5 - Picnic Tables and Grills (20)	<u>20,000</u>

Total cost includes one work month @ \$2,300 per month \$65,200

Kane Gulch Amphitheater

Phase 1 - Survey and Design	\$ 2,300
Phase 2 - Environmental Assessment, Cultural Clearance	1,150
Phase 3 - Construction (30 people seating capacity)	<u>20,000</u>

Total cost includes .5 work month @ \$2,300 per month \$24,600

Mule Canyon Ruins

Phase 1 - Survey and Design	\$ 2,300
Phase 2 - Environmental Assessment, Cultural Clearance	1,150
Phase 3 - Develop Self-Guided Interpretive Trail	7,000
Phase 4 - Parking Area (10 Cars)-Paths to Picnic Tables	7,000
Phase 5 - Install Picnic Tables and Grills (10)	<u>2,500</u>

Total cost includes one work month @ \$2,300 per month \$22,250

Valley of the Gods

Phase 1 - Survey and Design	\$ 1,150
Phase 2 - Environmental Assessment, Cultural Clearance	1,150
Phase 3 - Construct Interpretive Shelters (3)	10,000
Phase 4 - Install Interpretive Markers	<u>3,000</u>

Total cost includes .5 work month at \$2,300 per month \$16,450

Informational Ramada

Phase 1 - Cooperative Agreements	
Phase 2 - Survey and Design	\$ 4,600
Phase 3 - Environmental Assessment, Cultural Clearance	1,500
Phase 4 - Construction	<u>35,000</u>

Total cost includes 1 work month @ \$2,300 per month \$43,400

Butler Wash Ruin Overlook

Phase 1 - Survey and Design	\$ 2,300
Phase 2 - Environmental Assessment, Cultural Clearance	1,150
Phase 3 - Construct Trail and Fence	5,000
Phase 4 - Construct Restrooms	<u>17,000</u>

Total cost includes one work month @ \$2,300 per month \$27,750

Bullet Canyon Campground (Primitive)

Phase 1 - Survey and Design	\$ 2,300
Phase 2 - Environmental Assessment, Cultural Clearance	1,150
Phase 3 - Loop Road 1/4 Mile (Dirt)	10,000
Phase 4 - Sanitary Facilities	17,000
Phase 5 - Picnic Tables and Fire Rings (10)	10,000
Phase 6 - Fence and Cattleguard	<u>6,000</u>

Total cost includes one work month @ \$2,300 per month \$48,750

Collins Spring Campground (Primitive)

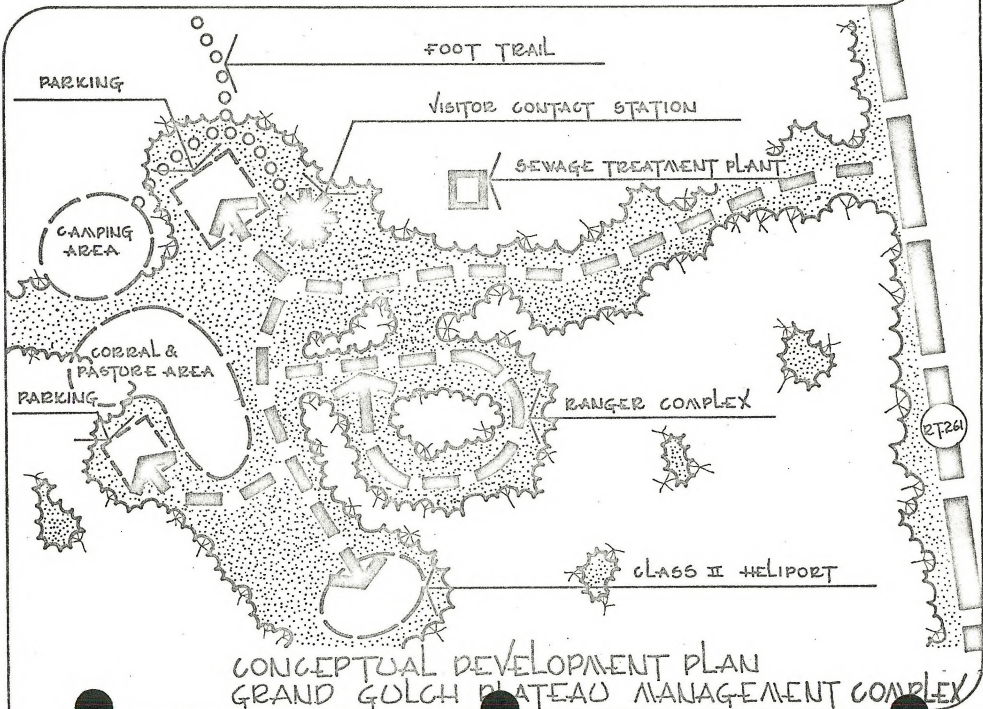
Phase 1 - Survey and Design	\$ 2,300
Phase 2 - Environmental Assessment, Cultural Clearance	1,150
Phase 3 - Construct Loop Road 1/4 Mile (Dirt)	10,000
Phase 4 - Sanitary Facilities (2 @ \$2000/Chemical Toilet)	4,000
Phase 5 - Fire Rings (5)	750
Phase 6 - Fence and Cattleguard	<u>6,000</u>
Total cost includes one work month @ \$2,300 per month	\$26,500

Government Trail Campground (Primitive)

Phase 1 - Survey and Design	\$ 2,300
Phase 2 - Environmental Assessment, Cultural Clearance	1,150
Phase 3 - Construct Loop Road 1/4 Mile (Dirt)	10,000
Phase 4 - Sanitary Facilities (2 @ \$2000/Chemical Toilet)	4,000
Phase 5 - Picnic Tables & Fire Rings (10)	10,000
Phase 6 - Fence and Cattleguard	<u>6,000</u>
Total cost includes one work month @ \$2,300 per month	\$35,750

Snow Flat Spring Campground (Developed)

Phase 1 - Survey and Design	\$ 2,300
Phase 2 - Environmental Assessment, Cultural Clearance	1,150
Phase 3 - Construct Loop Road 3/4 Mile (Gravel)	10,000
Phase 4 - Sanitary Facilities and Water Development	22,000
Phase 5 - Picnic Tables and Fire Rings (10)	10,000
Phase 6 - Fence and Cattleguard	<u>6,000</u>
Total cost includes one work month @ \$2,300 per month	\$53,750



Operations and Maintenance

Existing Facilities

Maintenance of the facilities located at Kane Gulch and Mule Canyon Ruins are the responsibility of the Operations Division in Moab District.

The San Juan Resource Area has two individuals attached to the Operations Division, and they perform or see to maintenance requirements of the above two areas.

Major maintenance of these facilities is performed under contract. Maintenance requirements for these two areas are:

1. Water hauling - Operations
2. Sewage removal - Contract
3. Diesel and propane - Purchased locally
4. Garbage removal - Rangers

Kane Gulch facilities require water, sewage removal and diesel fuel (for generators) and propane for heating and cooling approximately once every two weeks.

Garbage is hauled to Natural Bridges National Monument for disposal at least once a week.

The total expenditures by the Operations Division for maintenance, repair and replacement of facilities at Kane Gulch are as follows:

	<u>Fiscal Year 1980</u>
1. Water hauling	\$ 4,000 annually
2. Sewage removal	3,000 annually
3. Repair and replacement of equipment	6,000 annually
4. Diesel fuel and propane	5,000 annually
5. Six work months at \$2,000 per month	12,000 annually

Proposed Facilities

When construction is approved for the proposed facilities identified in this plan, a comprehensive maintenance and operational plan will be prepared. The plan will include the following:

1. Work months needed to accomplish the maintenance.
2. Garbage and litter removal (Frequency)
3. Restroom cleanup (Frequency)
4. Repair and replacement costs
5. Road maintenance (Frequency)
6. Sewage removal

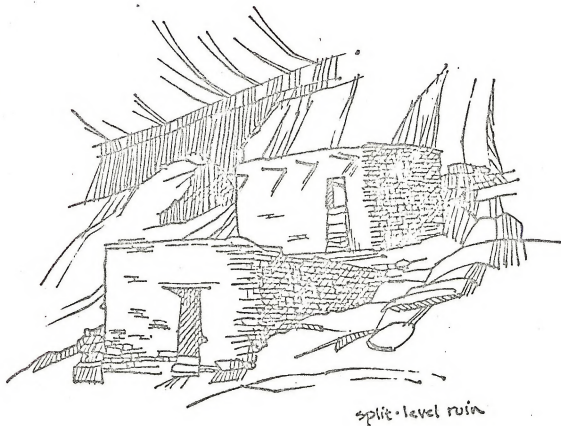
Ranger Maintenance Responsibilities

Patrol and rescue equipment must be ready for use at all times. Vehicles will be kept maintained and clean. Each ranger will be assigned maintenance responsibility for one vehicle.

All equipment assigned to the ranger program will be clean and accounted for at all times. The equipment assigned to the program will be inventoried once each year (by January 1st).

The ranger station and residences will be kept clean, neat and orderly. All defective equipment will be reported to the supervisor at once for repair or replacement. Defective radio equipment will be reported to the Radio Technician in Moab.

Visitor sanitary facilities will be kept clean and stocked with the necessary supplies.



PATROLS

Visitor Contacts

Visitor contacts while on patrol are to be informative and helpful. The ranger is responsible for protection of the visitor and the resource.

Present patrol methods consist of foot and horseback patrol only in Grand Gulch, with vehicle and helicopter patrol of the perimeter and surrounding plateau area. Aircraft patrols will be utilized over all areas except those under special management designation where it is not allowed. This is the most efficient use of manpower to determine where activity is taking place.

Direct contact of visitors by the helicopter will be held to a minimum. Should an air patrol discover a need for direct contact, a ranger on the ground would then be directed to the visitor. Time until contact would vary, depending on manpower and the distance to be traveled.

Fixed-wing aircraft are helpful in traveling large patrol patterns, although they are not as efficient as a helicopter for patrol purposes. The visual benefits that a helicopter gives are invaluable. Visitors may be backpackers, ORV drivers, arrowhead hunters, or pothunters. The ranger has time to size up the situation and request help if needed. A ground ranger may place himself in an awkward situation trying to make a visitor contact without prior knowledge of what the visitor is doing, how many, and exact location. When illegal activity is observed, the helicopter can be used to bring law enforcement directly to the scene, with a minimum amount of time lost in apprehending the violators. The helicopter is also invaluable in evacuating injured persons.

Use of helicopter patrols over the Grand Gulch Plateau Area in 1974 through 1979 has shown a 70-80% decrease in the amount of antiquities violations. This is reflected by the reduced number of antiquities violations (illegal digging) that the rangers have observed in the area which is patrolled by air. Guidelines on use of the helicopter are attached in Appendix A.

All vehicle patrols would be conducted on existing roads or vehicle trails. No vehicle use would be permitted in areas closed to ORV's.

Horseback patrol of Grand Gulch increases the mobility of the ranger. He may react more quickly to emergency situations involving accidents or reported vandalism, covering more ground in the same time and arriving at his destination fresh and rested. Some rapport with backpackers is lost, as they do not appreciate horse parties. Horseback patrols will be kept to the minimum number of animals necessary. Campsites will be evaluated to minimize impacts by stock. If impacts are accumulating, campsites will be rotated. Rangers will attempt to schedule horseback patrols to avoid being in the Gulch when other horseback parties are using the area.

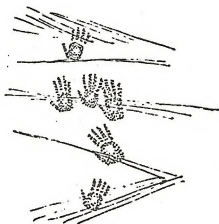
To maximize contacts, foot and horseback patrols will be scheduled so that they travel in a flow opposite to the primary direction of travel of user groups. For safety, a patrol should consist of at least two people, with one being a ranger. The frequency of a horse patrol will be dictated by visitor use. Radio communications are important, and portable units will be utilized.

Horseback patrols on the mesa environs enable quick coverage of rough terrain to make visitor contacts. This patrol would be accomplished in conjunction with a pickup and stockrack, enabling the ranger to make a contact without intruding into the special management area with his vehicle. The use of dogs in patrol was considered and rejected; public response has been entirely negative.

The location of innumerable archaeological sites in varying degrees of rough terrain (steep canyon, pinyon-juniper, and many drainages) demands that travel by foot be implemented as the only method of patrol. Other modes of transportation may be used to get close to a predetermined destination, with the final distance being covered by foot. Foot patrol is the least efficient use of manpower.

An advantage of foot patrols is that a large majority of visitors are backpackers, and a rapport may be reached through a common means of travel. Foot patrols should be encouraged when manpower requirements permit. All rangers should be physically able to undertake a five-day backpack patrol in a wilderness setting. Foot travel may be the only means of travel for personal aid or other help, should mechanical transportation aids fail.

Rangers will be assigned areas of responsibility for patrol purposes and cultural resource protection, and will be accountable for the activities that occur within their areas. Rangers can perform more effectively in an area with which they are familiar.



handprint pictographs

Health and Safety

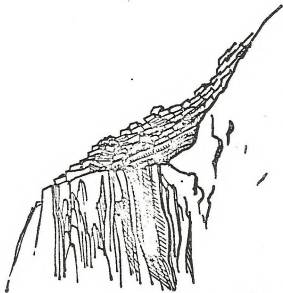
The responsibility for health and safety is shared by management, the supervisor, and the employee. If any of the following are missing, injuries are likely to occur: (1) Management responsibility, (2) Supervisor responsibility, and (3) Employee responsibility. Accidents on the job may result in employee's death or injury, property damage, production loss, increased compensation and other costs.

Every employee will be responsible for complying with the District Safety Plan. This plan outlines procedures to be followed while in a variety of working conditions. The plan contains information and guidance in the following areas: responsibilities, safety training, vehicle operation and use, facility and vehicle inspections, accident investigation, employee accountability for property damage, and accident forms. Supplemental safety plans for procedures for handling stock animals and helicopters (Appendices A & B) are available and will be followed.

Grand Gulch field personnel will be equipped with radio, first aid kit, and survival gear on all back country trips.

The rangers should have EMT training for emergency first aid care to fellow employees and visitors. Employees will not give first aid treatment beyond their training.

The key to an effective safety program is common sense. Do not attempt any job above ability. Jobs will not be started if there is risk to human life or possible injury.



log and stone
fortification

Search and Rescue

Authorities: Section 312 of the Federal Land Policy and Management Act of 1976 states:

"Where in his judgment sufficient search, rescue, and protection forces are not otherwise available, the Secretary is authorized in cases of emergency to incur such expenses as may be necessary (a) in searching for and rescuing, or in cooperating in the search for and rescue of, persons lost on the public lands, (b) in protecting or rescuing, or in cooperating in the protection and rescue of, persons or animals endangered by an act of God, and (c) in transporting deceased persons or persons seriously ill or injured to the nearest place where interested parties or local authorities are located."

Search and rescue operations are normally the responsibility of the local authorities. However, because BLM personnel are familiar with the area and BLM equipment may be the most effective and available, full cooperation and support will be given to the local authorities.

All BLM vehicles will be equipped with Bureau radio equipment for emergency communication purposes. The Sheriff monitors the BLM station and direct contact can be made with the San Juan County Sheriff's Office. In past years, the Sheriff has worked closely with the BLM in anti-quitities violations.

No search and rescue mission will be performed with fewer than two persons. The field supervisor should be notified before any search and rescue mission is undertaken. The supervisor will contact the local Sheriff before assigning rangers to conduct the search or rescue. The Sheriff will advise the field supervisor whether to conduct a search and rescue effort. Expenses of search and rescue activities resulting from visitor negligence will be billed to the rescued individuals.

Cooperative agreements will be pursued with the Board of County Commissioners of San Juan County. Such agreements should be updated annually so that all parties are aware of the capabilities and limitations of the other party. BLM personnel will become familiar with the Moab District Search and Rescue Plan.

BLM employees will be supplied with current lists of doctors and medical facilities. Rangers conducting search and rescue missions will have a valid EMT certificate, and be trained in search and rescue work.

An incident report will be filed for every injury.

HELICOPTER POLICY AND GUIDELINES

1. Helicopter patrols over Grand Gulch, Owl and Fish Creek Canyons will not be conducted.
2. The helicopter can be used in any area, including Grand Gulch, Owl and Fish Creeks, for emergencies and other management purposes such as collecting water samples, sling loading equipment and material for stabilization work, and work needed for correcting safety hazards. These needs are infrequent; therefore, very few flights are made.
3. In flying over the Grand Gulch, Owl and Fish Creek areas, elevation above ground level will be maintained at 1,000 feet plus.
4. In other areas of a primitive nature such as Road, Slickhorn, Mule and Lime Creek Canyons, etc., flights will be held to a minimum and made only for problems that require immediate attention.
5. Contacting people from the helicopter will not be a practice except in those instances where there is evidence of emergencies, vandalism, or other possible violations. (Good judgment by rangers is essential!)

Use of Helicopters for Patrol

During the first year in testing effectiveness of helicopter patrols, use was limited to 3 or 4 weeks of 8 to 12 hours per week divided between spring season and fall season.

In 1975, helicopter use was expanded to include most of the high use seasons - 3 months in the spring (March, April and May) and 3 months in the fall (September, October and November). Patrols varied from 4 to 10 hours per week depending upon the amount of activity on Grand Gulch Plateau.

At first, helicopter patrols were made over Grand Gulch. Almost all parties who had not previously registered at the ranger station were then contacted by a ranger in a helicopter patrol.

As the program progressed and feedback came in from visitors and others contacted, helicopter use was modified.

At the present time, patrols are no longer conducted over Grand Gulch and in crossing over, an altitude of 1,000 feet or greater, is maintained. Very limited patrols are made of canyons and other areas of a primitive nature outside the designated primitive area. Patrols are conducted one time per week and an average two hours each. The helicopter is also used for emergencies such as search and rescue, delivering emergency messages, and on occasion for management purposes such as collecting water samples from isolated areas. (These samples have to be in the lab for testing within 24 hours of collecting.)

Helicopters have aided in 12 rescue missions and on two occasions made the difference between life and death. On one occasion the helicopter played a major role in the apprehension and conviction of two men vandalizing an antiquities site.

During the periods that regular helicopter patrols were being conducted, the rangers noticed a marked decrease in the amount of illegal digging for artifacts. The area of patrol has been from the Montezuma Canyon drainage on the east to Glen Canyon National Recreation Area on the west. The emphasis has been on the area from Butler Wash to the Red House Cliffs with only infrequent patrols outside that area. Current manpower does not permit regular patrols outside the Grand Gulch Plateau Management area.

Helicopter Operational Plan

1. Flights over Grand Gulch, Owl and Fish Creek will maintain at least 1,000 feet altitude. Such flights will be done only as necessary and routes above Kane Gulch or below Collins Canyon will be encouraged. All patrol flights will be documented on an incident report form (route of flight, persons observed, justification for flight).
2. All helicopter occupants must vacate and clear immediate area during refueling. Rotors must come to a complete stop. No smoking or standing in the area (FAA regulation).
3. The flight may be terminated, or routes altered if weather conditions arise which cause downdrafts, updrafts, and winds over 30 mph. Dust devils should be avoided.
4. Agreement shall be reached with the pilot prior to flight on cigarette smoking. No pipe or cigar smoking is allowed (FAA regulation).
5. Each pilot must hold a certified approval card from the Bureau of Land Management and Office of Aircraft Services. New pilots will be asked to show his card prior to flight. Capabilities of helicopter will be checked on its card.
6. Flight operations utilizing sling loads will have prior approval of Area Manager.
7. If mechanical difficulty develops, the pilot shall make a concerted effort to inform the passengers of the problem and explain what needs to be done. If the ranger feels unsafe at any time during the flight, he has the option to request the pilot to land and discontinue the flight. This may mean landing immediately or returning to either Kane Gulch Ranger Station or the airport. A radio call must be made to the Area Office or the ranger station to inform of ETA and situation. Report all near misses and near accidents. Feel free to warn the pilot of safety hazards rather

than risk an accident (i.e., tail rotor about to hit a bush while landing, or an airplane approaching path of helicopter). Any malfunction of an aircraft requires an immediate report to Area Office, to District Office, and to OAS. An incident report shall be prepared.

8. Pilot must be aware that all operations are to "be in the green" with a large margin of safety; no tricky or dangerous maneuvers. If a ranger requests a pilot to do something that is unsafe, the pilot should tell the ranger immediately. When safety is not a concern, the ranger shall have direction of the flight.
9. All flights over Comb Ridge shall maintain at least 1,000 feet over the ridge. Flights in Comb Wash shall not be less than 500 feet in elevation, and at least 50 mph shall be maintained. When in Comb Wash, always be prepared to land in a safe place, should an emergency arise. (Comb Wash is used as a flight corridor for low flying F-111's on training missions).
10. A flight plan must be made prior to each flight. This flight plan is to be filed in the Area Office or Kane Gulch Ranger Station if the Area Office is unmanned. A radio check-in shall be made every one-half hour during the flight. A search will be initiated one-half hour after a missed check-in.
11. The ranger shall utilize the headset and self-canceling mike during the flight.
12. The ranger shall be aware of the Emergency Locator Beacon and check to see that it is armed prior to flight.
13. The ranger in charge of the patrol is responsible for preparing the load calculation sheet and getting the flight time from the pilot. The flight bag will be included on all flights. A running account of all flight times will be kept in a book at the Kane Gulch Ranger Station.
14. All BLM personnel shall wear nomex or approved flame-retardant suits while on a patrol flight. Cotton clothing is recommended under the flight suits.
15. Patrol flights shall direct ground patrols to make visitor contacts. Direct contact of visitors by helicopter shall be minimized, with the rangers' best judgment the deciding factor when extenuating circumstances exist. Recent evidence of illegal digging, emergency messages, or distress signals are examples of extenuating circumstances. Should a landing be made, it will be in a safe manner-away from people, vehicles or hazards.

Visitor Contact Guidelines

1. Pilot will remain with the aircraft unless ranger requests his presence for visitor contact.
2. If the pilot accompanies the ranger to contact a visitor, the pilot should remember that the ranger is to make the contact. Pilot should keep a low profile. The ranger is aware of what needs to be said or stressed about the Grand Gulch program and the helicopter patrols.
3. Do not circle unnecessarily over visitors or established camps.



desert bighorn ram

PROCEDURES FOR HANDLING STOCK ANIMALS

1. When working around stock, make certain that the animal knows where you are at all times. Do not make sudden movements or noises that could startle the animal. Watch all animals closely at all times; anticipate their movements.
2. Use extreme caution when entering the corral area, especially when carrying feed. Stock may crowd around you in an attempt to reach the feed. You could be caught in the middle if the animals begin fighting over the feed.
3. When passing from one side of a tied animal to the other, as in saddling or packing, always pass well behind the animal at a safe distance should he decide to kick. Never duck under the rope directly in front of the animal.
4. Always wear a cowboy-type boot (smooth-soled, slip-on with a heel) when riding. Lace-up boots and lug soles may cause the foot to hang up in the stirrup and will not slip off the foot if the rider should be dragged. If forced to ride with lace-up boots, always untie the laces and wear the boot loosely on the foot while riding.
5. After saddling and riding for a short distance, always recheck your cinch and tighten if necessary.
6. Use considerable caution and consider walking on the trail when crossing dangerous areas such as:
 - a. Steep slopes
 - b. Areas of loose rock or potential slide areas
 - c. Slippery trails caused by wet slickrock or down leaves
 - d. Potential quicksand areas
 - e. Areas covered with debris from flashflooding; the footing here may not be solid underneath.
7. If in doubt about the safety of an area, examine it on foot. It may be best to lead your animal across, but do not stay directly in front of an animal as it is being led across a dangerous area (GUIDE FOR USING HORSES IN MOUNTAIN COUNTRY, By Rober W. Miller, page 10). As you are leading, watch the animal carefully to avoid being stepped on. Remember, in a tricky spot, the animal will probably step where you have just stepped, so stay well ahead of the animal.

8. When leading an animal, do not coil the lead rope around your hand, or grasp a coil of rope, as it could tighten around your hand if the animal pulls. Always hold the rope so that it can slip freely through your fingers if pulled with force.
9. Remove your foot from the uphill stirrup when the trail is on a steep sidehill. This prevents your hanging up in a stirrup should the animal slip down on its side (Ibid, page 10).
10. Do not allow stock to cut across switchbacks. This causes soil erosion (Ibid, page 10).
11. Wherever there are well-defined trails, they should be used to avoid forming new trails (Ibid, page 10).
12. Leading rather than loose-herding pack stock helps with #10 and #11 above. Do not tie or loop the lead rope of a pack animal around your saddle horn (Ibid, page 10). Hold it so that it can slip free of your saddle if pulled with force.
13. When stringing pack stock, make certain that lead ropes will pull free of the animal ahead in case that animal should fall.
14. In camp, keep tack hung in trees or on logs to prevent damage by rodents or porcupines (Ibid, page 10). Do not lay a saddle down on its skirts, but turn it on one side to prevent flattening.
15. Do not tie, corral, or picket horses within 200 feet of any trail, water source, or ruin area. Tie stock near camp only while packing and unpacking. Manure and trampling near camp should be avoided (Ibid, page 5).
16. Do not leave stock unattended for more than a few hours, except in the middle of the night. They may get caught in some way and injure themselves or do considerable ecological damage. Check all horses just before dark and early in the morning (Ibid, page 12).
17. Do not leave halters on shod horses when they are picketed or grazing. If they should try to scratch their head with a hind foot, the shoe can get caught in the halter and the animal will be in real trouble (Ibid, page 12).
18. Never tie an animal up with the reins. These can be easily broken off. Use the halter rope.
19. Never leave loose reins dangling when a horse is tied for a short time. Secure them around the saddle horn, leaving the horse freedom of movement. If the horse is going to be tied up for a longer period of time, remove the bridle.

20. When tying a horse to anything, always use a knot that can be easily untied, such as a slip knot, slip bowline, or clove hitch. When tying to trees, be certain the rope cannot slip down the tree (Ibid, page 12).
21. If horses are tied at night, they may want to lie down. The length of rope from the halter to the hitching point should be the same length as the height of the point from the ground (Ibid, page 12).
22. When tying a rope around a horse's neck or foot, use a knot that will not slip; the bowline is best (Ibid, page 12).
23. Do not tie animals to dead trees or snags which might be pulled over (Ibid, page 12).
24. Any time stock is restrained, particularly if they are away from home and their special partners, they can cause considerable damage to trees, plants, and soil by pawing and tramping. If proper precautions are taken, much of this damage can be prevented:
 - a. Animals should not be tied to small, green trees; the slightest damage to the bark or roots may severely damage or kill the tree.
 - b. At least a 5/8" diameter halter rope should be used for tying. Smaller ropes do more bark damage.
 - c. If an animal is inclined to pull back or fight being tied, it will help prevent damage to thin-barked trees if some type of padding, such as a gunny sack or saddle pad, is placed between the rope and the tree.
 - d. If an animal is inclined to paw while tied, it can do considerable damage to the soil and plants. This type should be hobbled while tied.
 - e. If some horses are kept tied, while others are turned loose to graze at night or in the daytime, it is almost always best to keep two horses tied rather than only one. Two will usually stand more quietly (Ibid, page 5).
25. If stock are turned loose to graze, (Grand Gulch Canyon stock will be tied at all times) hobbles may be used to restrain movement. To avoid injury to the tendons of the leg, place the hobble below the fetlock (Ibid, page 6).
26. Certain horses may travel fairly long distances while hobbled. A side line (a short rope run from a half hobble on a front foot to a half hobble on a hind foot) will slow down this type of horse (Ibid, page 6).

27. It is usually best to hobble all animals turned loose rather than only part of the bunch. Unhobbled ones travel more, and the hobbled ones will try to keep up with them. This may result in hobble burns from the extra movement (Ibid, page 6).
28. If animals are turned loose, it is very helpful to bell one or more of them as an aid to detecting night movements toward home and in locating them. Buckle bells reasonably snug around the throat latch of the animal (Ibid, page 6).
29. If camp is to be made in an area unsatisfactory for grazing and the animals are to be fed on pellets, they should be accustomed to eating a full ration of pellets before the trip begins. This can be done by increasing the amount of pellets gradually over a period of two to three weeks until the hay or grass is completely replaced (Ibid, page 15).
30. If the animals going on a trip have not been running together, they should be together for a day or two before the trip. This helps reduce the chance of a horse being injured by fighting. It will also help keep them together in camp (Ibid, page 3).
31. When transporting animals in a horse trailer or stock truck, do not travel at speeds over 45 m.p.h.
32. If a nosebag is being used to feed an animal, it is best to tie or restrain that animal. If it is allowed to wander freely, it may reach water and attempt to drink. If water is trapped in the bag, the animal could drown. It could also become tangled or injure itself in attempts to shake off the nosebag.
33. When riding behind another horse or mule, keep a distance of at least ten feet. When riding too closely, your horse could step on the heels of the one in front and cause it to kick at your horse, possibly striking you on the leg.



Squash bush

GEOLOGY

The geology of Grand Gulch is really quite simple from the standpoint of the number of geologic rock formations which are exposed along its length. Almost the total length of Grand Gulch has been cut into the Cedar Mesa Sandstone Member of the Cutler Formation of Permian age; only the lowest 1.5 miles of the Gulch have cut into older rocks of the Halgaito Shale Tongue of the Cutler Formation and the Rico Formation of Pennsylvanian-Permian age, near the confluence of the San Juan River. (See Chart for the divisions of geologic time and the rock formations exposed in western San Juan County.)

The Cedar Mesa Sandstone was named about 50 years ago for exposures in the cliffs around Cedar Mesa. The thick sandstone forms the broad surface of Cedar Mesa, covering about 350,000 acres north of the San Juan River. Cedar Mesa represents the crest of a broad, uplifted area known as the Monument Upwarp, which has a north-south orientation and extends from Comb Ridge to Clay Hills. The Monument Upwarp was probably formed in Late Cretaceous-early Tertiary time (Laramide Orogeny).

The Cedar Mesa Sandstone is grayish-white to very pale orange, well-sorted cross-bedded sandstone which is weakly cemented by calcium carbonate. The sandstone contains long, sweeping cross beds, usually attributed to aeolian deposition, but each bed is separated from adjacent beds by horizontal parting planes that truncate the cross beds in the bed below. Thin beds of dense gray limestone about six inches thick were noticed in upper Grand Gulch in the Todie Canyon area just above a parting plane. Also contained within the limestone beds are red chert or jasper nodules up to four inches in diameter. Red chert and limestone from these beds are resistant and may be seen along the stream for the entire length of the Gulch.

The Cedar Mesa Sandstone is about 800 feet thick in this area and was deposited approximately 250 million years ago in a marginal marine or shore environment. An evaporite marine basin lay to the east, as the Cedar Mesa Sandstone grades into a rock type containing more gypsum in the Comb Ridge area. In the Grand Gulch area, the horizontal bedding planes associated with the thin red-brown siltstone and gray limestone suggest that marine waters from an arm of the restricted sea occasionally rose into the sandy beach area. Most of the sandstone contains great sweeping crossbeds and probably reflects beach and sand dunes which accumulated back from the marine basin of evaporation.

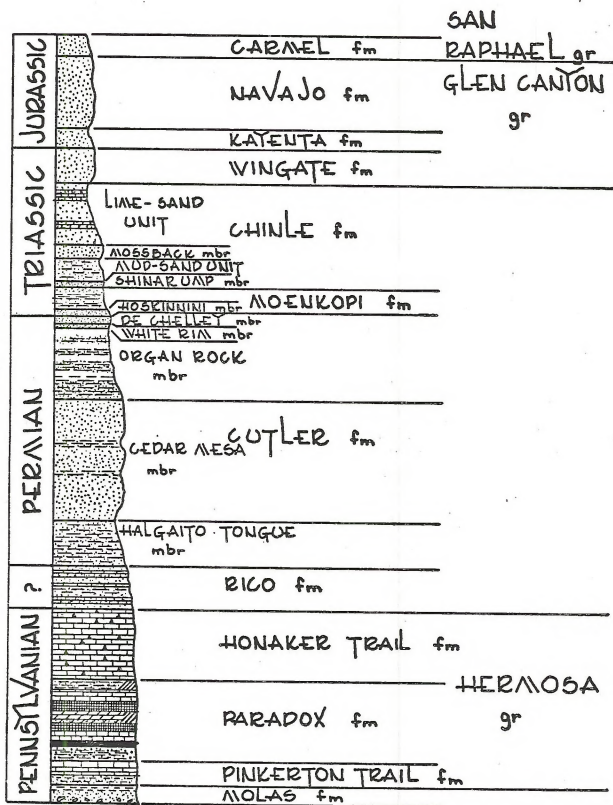
Grand Gulch is fairly young, geologically, and has probably been cutting into the Cedar Mesa Sandstone since only late Tertiary time (about 20 million years ago). This is the time the entire Colorado Plateau began a period of general uplift to its present form. Initial downcutting of the Gulch must have been fairly rapid because much of the original meandering character of the stream is still present. This meandering character is usually formed where streams traverse a broad flat floodplain (i.e., Mississippi and Missouri Rivers). The cutting or erosive

forces of the stream are now mostly lateral instead of vertical, as in the early stages of uplift, and several of the old meanders have been cut off (i.e., a new, shorter channel has been formed). The youngest known meander cut-off in Grand Gulch is the one at the rincon, just above Collins Canyon, which is probably less than one thousand years old. Other rincos and cut-offs in the Gulch may range up to five million years or older, depending upon their height above the present stream.

The Cedar Mesa Sandstone appears to lie essentially horizontally, but it does dip very gently to the south and west at 13 degrees. In most places throughout the Gulch, the stream has probably cut almost through the Cedar Mesa Sandstone. The present gradient of the stream is very close to the south and west dip of the sandstone. If this gradient were to increase or if a renewed period of uplifting and resultant downcutting occurred, the Cedar Mesa Sandstone would soon be breached and the soft, underlying Halgaito Shale would offer little resistance to the downcutting of the stream. Grand Gulch in the next several million years could then have a form somewhat like that of the Goosenecks of the San Juan River.

The dating of the terrace deposits above the stream in the Gulch will prove interesting from both archaeological and climatological viewpoints. From the assumption that cool, moist periods would provide the sediment to form the terraces and hot, dry periods would supply the conditions for rapid downcutting in the event of flash floods, etc.; the high level terraces above the stream are probably products of a higher stream flow regime during the last ice age (8-10,000 years ago). Lower terraces probably represent more recent wet periods between the normal warm, dry periods which induced the downcutting. The most recent period of downcutting began shortly after 1880 and continues today.

A curious occurrence of scattered iron (hematite) nodules is noted in the streambed in Cow Tank Canyon. The nodules are irregularly shaped and range up to four inches in diameter. They are very heavy (high specific gravity) and have probably not been transported very far from their source. Cow Tank Canyon heads a few miles to the northwest near the base of Red House Cliffs, composed of younger strata. No iron nodules are known to occur in these younger rocks, however, and their presence in Cow Tank Canyon alone seems puzzling. A possible explanation is that a very localized bed of these nodules occurs up Cow Tank Canyon in the Cedar Mesa Sandstone.



GENERALIZED STRATIGRAPHIC
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WILDLIFE AND FISHERIES

The wildlife species list includes the most commonly observed animals on the Grand Gulch Plateau. More detailed species lists are included in the Unit Resource Analysis for the South San Juan Planning Unit.

There are several interesting animals within the area that are rarely observed. Spotted skunk and ringtail cat are found in the more mesic canyons, but they are rarely seen due to their nocturnal habits and sparse densities. The bobcat and mountain lion inhabit remote canyons where they are seldom seen. At the present time, there is a high density of mountain lions in San Juan County. Remote areas left inaccessible to man seems to be the best strategy for maintaining present mountain lion habitat.

Although there have been no sightings of bighorn sheep in the recent past, a couple of old, weathered desert bighorn sheep skulls have been found. Petroglyphs of desert sheep have been found throughout canyons. Early explorers, like Father Escalante in 1776, documented bighorns along the Colorado River drainage. Pioneers saw bighorns east of the Hole-in-the-Rock crossing. Many uranium prospectors reported seeing bighorn sheep in the Red Canyon area during the 1940's and 1950's.

Some biologists believe there was a decline in desert bighorn populations during the 1950's or possibly even earlier. Lanny Wilson, a noted sheep biologist, believed that the reduction in numbers and habitat could have been caused by a number of factors including diseases, competition with livestock, and illegal hunting. Other researchers believe periodic population declines are a natural occurrence related to sheep biology, and bighorn populations are subject to wide fluctuations. Bighorns are reluctant to move into new areas, and it is difficult to re-establish bighorns in new areas or in areas where populations were decimated.

The White Canyon Desert Bighorn Habitat Management Plan encompasses some areas along the San Juan River, Slickhorn Canyon, John's Canyon, Comb Wash and Grand Gulch. Most of the area within the Grand Gulch Plateau is not typical of the habitat utilized by bighorns elsewhere in the San Juan Resource Area. There may still be a remnant population of desert bighorns along the Goosenecks of the San Juan River to Grand Gulch, but most sheep are in the Red Canyon, White Canyon, Dark Canyon, Gypsum Canyon, and the Colorado River drainages. The habitat management plan identified water sources to be developed for desert bighorns, but none of the water sources is in the Grand Gulch Plateau area. The major goal of the San Juan Resource Area is to preserve existing bighorn habitat in its present condition. There are no areas within the San Juan Resource Area that have been identified for future desert bighorn sheep transplants.

Harmony Flat has been identified as crucial mule deer winter range. The Texas Flat and Baullie Point areas are also important winter ranges for mule deer. There are some small resident herds of mule deer along these canyons. No habitat management plans have been written for mule deer in these areas and none have been identified for the future. The main thrust of the management of mule deer habitat on the Grand Gulch Plateau is for maintenance and enhancement of browse species utilized by wintering deer. Parker transects indicate that sagebrush densities have increased since the transects were established in 1959. Most sagebrush areas appear to be in fair to good condition.

In some areas, sagebrush communities appear to be in a stagnated condition. There is little grass or forb understory and very few sagebrush seedlings in these areas dominated by old sagebrush.

Revegetation projects designed primarily for increased livestock forage production could benefit wildlife. Railing decadent stands of sagebrush could improve wildlife habitat if properly designed. Most wildlife species in the area would benefit from the habitat provided by the lower plant succession stages.

Selective chaining in the dense pinyon-juniper woodlands would create an edge effect and would improve the vegetative diversity from a wildlife habitat standpoint. Mule deer would especially benefit from the increased forage provided by opening the dense woodland stands.

The only threatened or endangered species identified in the area is the bald eagle. Bald eagles have been observed off Muley Point and along Lime Creek. The bald eagles are transient, and no roosting sites have been located. Golden eagles are occasionally sighted during the winter.

There have been no confirmed peregrine falcon sightings on the Grand Gulch Plateau. Prairie falcons are occasionally seen, but no aeries have been identified.

There is very little beaver habitat within the area. Beaver from the San Juan River come into the mouths of Comb Wash and Butler Wash. There is essentially no potential for increasing beaver habitat due to the lack of year-long water sources.

Riparian habitat is very limited on the Grand Gulch Plateau. The riparian vegetation in canyons, ponds and springs provides habitat for a great diversity of wildlife, especially nesting bird species. In many places, water availability is a limiting factor for wildlife populations.

In the future, selected banks and springs could be fenced to protect and improve the composition of redtop (and other grass species), spikerush, willows, and young cottonwoods. Increased vegetative cover would help stabilize banks, improve water quality, and enhance wildlife habitat. Protection of willows and various age classes of cottonwoods would benefit several bird species. Certain areas in Arch Canyon, Mule Canyon, Fish Creek, Comb Wash, Road Canyon, Lime Creek and Butler Wash could be protected by fencing.

Most of the canyons have intermittent water flows, and the potential for extensive habitat improvement is limited. Spring flooding also limits some developments. There are no game fish in the Plateau area. The southwest plains killifish is the most common fish species found in the canyon pools.

Due to the distances from population centers, there is little hunting pressure. Deer hunters usually camp in Harmony Flat and occasionally in the Texas Flat, Dog Tank Spring and Baullie Point vicinities.

No quantitative information has been collected on hunter pressure for the Grand Gulch Plateau. It is estimated that there are 10 to 20 deer hunters camping out (mostly in trailers) in the Grand Gulch Plateau area during the opening weekend. A few hunters undoubtedly travel to the Grand Gulch Plateau from Blanding and the Navajo Indian Reservation to hunt for a day. During an average season, it is estimated that 30 to 150 hunter days are spent and 3 to 10 deer are taken in the area.

During an average year, estimated hunting pressure for small game is less than five hunter days for mourning dove, five hunter days for cottontail rabbits, and five hunter days for chukar. There is essentially no waterfowl hunting in the area. Hunting pressure is not anticipated to change drastically due to the rising costs of travel and to the distributions of wildlife during the hunting seasons.

Most deer hunters now camp adjacent to the area they hunt. Hunters might utilize designated campgrounds if developed. Some hunters would probably prefer to continue camping at their usual traditional campsites rather than using developed campgrounds.

During the fall and winter, trappers utilize many dirt roads within the Grand Gulch Plateau Resource Management Plan (RMP) area. The trappers take coyote, fox and bobcats. The Division of Wildlife Resources Conservation Officer in Blanding estimates that there are 10 trappers in the area and that each one is running 25-75 traps. No information is available on how many pelts are taken or how many days are spent trapping. The cost of gasoline and the fur prices will determine how much trapping activity there is in the future.

Most Common Animals on the Grand Gulch Plateau
(Refer to the South San Juan URA for a more complete list of animals in the area.)

Mammals

Bats

Western Pipistrel - commonly observed flying at dusk near ponds;
other bats probably Myotis genus fly later at night.

Rabbits and Hares

Desert Cottontail - sagebrush, pinyon-juniper
Blacktail Jackrabbit - sagebrush, desert shrub

Rodents

Rock Squirrel - canyons in pinyon-juniper
Whitetail Antelope Squirrel - sagebrush
Least Chipmunk - sagebrush, pinyon-juniper
Valley Pocket Gopher - mounds seen in desert shrub-grasslands
Ord Kangaroo Rat - sandy, sagebrush areas
Deer Mouse - area wide, nocturnal
Pinyon Mouse - pinyon-juniper, nocturnal
Whitethroat Woodrat - canyons, nocturnal
Porcupine - canyons in pinyon-juniper woodland

Carnivores

Coyote - area wide
Gray Fox - canyons, pinyon-juniper
Ring-tail Cat - canyons, nocturnal
Bobcat - canyons, nocturnal

Ungulates

Mule Deer - sagebrush parks, some resident herds

Birds

Waterfowl Shorebirds

Great Blue Heron - transient
Mallard - transient
Green-winged Teal - transient
Blue-winged Teal - transient
Cinnamon Teal - transient
Killdeer - ponds, canyon streams
Common Snipe - ponds, canyon streams
Spotted Sandpiper - ponds, river
Wilson Phalarope - ponds, transient

Raptors

Cooper's Hawk - pinyon-juniper canyons
Red-tailed Hawk - areawide
Golden Eagle - sagebrush, pinyon-juniper, winter
Bald Eagle - winter, transient
American Kestrel - sagebrush, grasslands

Dove

Mourning Dove - area wide

Owls

Great Horned Owl - pinyon-juniper canyon rims

Swifts and Hummingbirds

White-throated Swifts - cliffs, canyons
Black-chinned Hummingbird - canyons
Broad-tailed Hummingbird - area wide

Woodpeckers

Flicker - canyons

Hairy Woodpecker - pinyon-juniper canyons

Flycatchers

Ash-throated Flycatcher - pinyon-juniper canyons

Say's Phoebe - canyons, desert shrub-grasslands

Larks

Horned Lark - grasslands

Swallows

Violet-green Swallow - canyons, cliffs

Jays

Common Raven - area wide

Pinyon Jay - pinyon-juniper woodland

Chickadees

Mountain Chickadee - pinyon-juniper woodland

Plain Titmouse - pinyon-juniper woodland

Bushtit - pinyon-juniper woodland

Wrens

Canyon Wren - canyon rims

Rock Wren - canyon rims

Bluebirds

Mountain Bluebird - sagebrush parks, desert shrub-grasslands

Gnatcatchers

Bluegray Gnatcatcher - canyons

Shrikes

Loggerhead Shrike - desert shrub grasslands

Warblers

Yellow-rumped Warbler - canyons, transient

Black-throated Gray Warbler - pinyon-juniper woodland

Finches and Sparrows

House Finch - pinyonjuniper, canyons

Rufus-sided Towhee - canyons

Vesper Sparrow - sagebrush parks

Lark Sparrow - shrub-grasslands

Black-throated Sparrow - desert shrub-grasslands

Dark-eyed Junco - area wide, winter

Chipping Sparrow - pinyon-juniper

White-crowned Sparrow - sagebrush

Amphibians and Reptiles

Amphibians

- Western Spadefoot Toad - ponds, canyons
- Woodhouse's Toad - ponds
- Red-spotted Toad - ponds, canyons

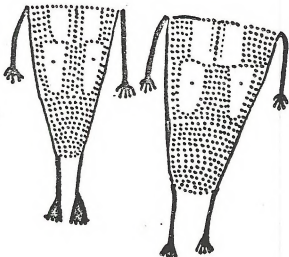
Reptiles

- Collared Lizard - canyons, sagebrush
- Orange-headed Spiny Lizard - rocky washes, desert mesas
- Northern Sagebrush Lizard - area wide
- Northern Side-blotched Lizard - area wide
- Northern Whiptail - pinyon-juniper canyons, desert shrub
- Great Basin Gopher Snake - area wide
- Midget Faded Rattlesnake - area wide

Fish

- Speckled Dace
- Fathead Minnow
- Flannelmouth Sucker
- Bluehead Sucker
- Red Shiner
- Southwest Plains Killifish

The above fish have been identified in Fish Creek, Arch Canyon and other tributaries into Comb Wash.



pictographs
of

RANGE MANAGEMENT

There are seven livestock grazing allotments affected by the Grand Gulch Plateau Recreation Management Plan. The Grand Flat, Whirlwind Draw, and Red House areas west of Grand Gulch are part of the Lake Canyon Allotment and are grazed during April and May by 450-600 cattle. East of Grand Gulch in the Polly's Mesa, Coyote Flat and Mormon Flat vicinities is the Slickhorn Allotment which is grazed by 230 cattle from November until the middle of June. Adjacent to the Slickhorn Allotment is the Texas-Muley Allotment which covers parts of Cedar Mesa, Muley Point, Cigarette Point, and Baulies Point and is utilized by 275 cattle from November through May. The Comb Wash Allotment includes parts of Comb Wash, Mule Canyon, Dry Wash and Road Canyon. From the middle of October through May approximately 350 cattle are in the Comb Wash Allotment. Valley of the Gods and lower Comb Wash are part of the Perkins Brothers Allotment which is grazed by 450-800 cattle from November through May. A few horses are also run on most of these allotments.

Butler Wash is within the boundaries of the White Mesa and the Tank Bench-Brushy Basin Allotments. Pastures in Butler Wash are grazed by cattle periodically during the fall, winter, and spring months. The season of use and number of cattle varies each grazing season.

This area was first grazed by domestic livestock during the 1880's. The grazing allotments on the Grand Gulch Plateau have always been grazed by cattle. Parts of Butler Wash and Comb Wash were grazed by sheep during the 1930's. There has been no sheep grazing in Butler Wash since the 1960's. At the present time, the allotments in this area are basically cow-calf operations grazing on lands administered by the BLM during the fall, winter, spring, and on Forest Service lands during the summer. Grand Gulch was used as summer range by 50 cattle until 1971. There is no summer grazing within the management plan area now.

Blackbrush, shadscale, ephedra, galleta, and Indian ricegrass dominate the vegetative aspect of the desert shrub communities of Whirlwind Draw, Red House Cliffs, Valley of the Gods, and lower Butler and Comb Washes. These communities are best suited for winter grazing. The lack of dependable livestock watering sources and periodic drought can create livestock distribution problems during the spring months. It is possible that there were more grasses in some of the desert shrub communities during the 1800's; however, desert shrub is the climax community for most of these areas. Due to the lack of precipitation and soil development, there is little potential for range revegetation projects in the desert shrub communities.

The Grand Gulch Plateau is basically a climax pinyon-juniper woodland community with very little understory. Birdbeak or cedarweed (Cordylanthus wrightii) is the most common forb in the woodland, and sagebrush is scattered throughout much of the woodland. Areas that have been chained or railed and seeded to crested wheatgrass (such as Mormon Flat and Coyote Flat) provide the best forage for cattle. To maintain forage

production for livestock, the existing revegetation projects will require maintenance in the future. Fire, chemicals, raiiling and chaining are all possible methods for controlling brush and trees in the existing project areas. Many wooded areas in Harmony Flat, Cedar Mesa, and Snow Flat have deep soils and provide an excellent opportunity for chaining to improve livestock forage production. At this time, no environmental assessments or survey work has been completed for revegetation projects within the management plan area. Any projects proposed would be surveyed and designed to create an opening in the woodland that would be acceptable to watershed, wildlife, cultural, and recreational resources.

There is very little riparian habitat on the Grand Gulch Plateau. Livestock depend upon many riparian areas (reservoirs, springs, canyons) for water sources and in some cases for forage. Conflicts between cattle use and protection of riparian areas is usually greatest during the spring and summer months. Whenever a water source is fenced for protection, livestock water should be piped to troughs outside the fence. Future water developments and pasture fencing can help alleviate cattle distribution problems. Most water development and fencing can be done with a minimum of surface disturbance if properly designed.

Allotment Management Plans (AMP's) were written for the Lake Canyon and Comb Wash. Grazing plans were developed and future projects were identified. Many of the projects identified for the Lake Canyon Allotment have not been developed, and the AMP is not functional. The Comb Wash AMP is being utilized and monitored. Although there are no AMP's for the Slickhorn and Texas-Muley Allotments, pastures are being rotated or deferred to allow at least one pasture in each allotment to receive spring rest. Strict rest-rotation grazing systems have not been successful in these dry areas.

If present suitability criteria are used during the range surveys in the 1980's, there could be reductions in many allotments in the San Juan Resource Area, especially in the desert areas. However, there is quite a potential for increased forage production by chaining the pinyon-juniper woodland. Future chainings could eliminate the need for reductions in many cases. If community development continues to expand into existing agricultural lands and the need for grazing drier rangelands increases, there will be a continual demand for improving rangelands managed by the BLM.

Additional information on vegetation and range management can be found in the South San Juan URA. Information on threatened or endangered plant species and a plant species list are also in the URA.

HOLE-IN-THE-ROCK TRAIL

The length of the trail in the San Juan Resource Area is approximately 120 miles and contains approximately 1200 acres. An area 50 feet wide on either side of the trail center has been withdrawn from all types of entry, location and selection.

The trail has had disturbance in some areas due to minor types of development. However, for the most part, the trail retains the original historic, scenic, and archaeological values which are managed and protected by a Hole-in-the-Rock Trail Plan established for this purpose. Hole-in-the-Rock Trail has also been submitted to the National Register of Historic Places. The Trail receives good use in some areas by visitors traveling the Hole-in-the-Rock route. The BLM planning documents recommend means of properly utilizing and managing the recreational potentials of the trail in conjunction with adjacent resources and proper protection and management of the historic values.

Salvation Knoll

Salvation Knoll is located approximately 10 miles west of Comb Ridge just to the south of Highway U-95. A portion of the area was disturbed upon construction of U-95. Salvation is of historical value in association with the Hole-in-the-Rock Trail. Early pioneer scouts in the area were lost and climbed to the top of the knoll. This gave them a view of the Abajo Mountains and re-oriented their course of travel.

Hole-in-the-Rock Historical and Recreational Trail

The Hole-in-the-Rock Trail is the most significant historical feature in the San Juan Resource Area. This route was established by the Mormon pioneers traveling from Escalante to Bluff, Utah during their efforts to settle southern Utah in 1879. It represents numerous historic incidents, some of which are contained in the BLM District files and library. The trail enters the San Juan Resource Area from the southwest corner as it crosses a portion of Glen Canyon Recreation Area and extends northeasterly across the scenic and rugged Lake Canyon and Nokai Dome area, where unstable sands and slickrock are predominant. It continues east across the Clay Hills and then northeast as it skirts the Red House Cliffs and out onto the Harmony Flat-Grand Flat area. Turning south and across Mormon flat, it travels onto Grand Gulch Plateau and then southeast across the Snow Flat-Road Canyon area toward Comb Ridge. Several miles of the trail extend south just west of Comb Ridge and then over the historic San Juan Hill where wagon tracks are still visible in the rock. The trail then travels northeast into Bluff.

The Hole-in-the-Rock Trail traverses a wide variety of terrain, of which much is highly scenic and primitive, ranging from brush flats to rugged and steep slickrock.

The area is convenient for the public, and interest would likely increase upon installation of interpretive signs. BLM planning documents make this recommendation, and it is currently being implemented. A Hole-in-the-Rock Trail Management Plan has been written, and the BLM is in the process of implementing it.

VISITOR USE STIPULATIONS

Grand Gulch, Owl and Fish Creeks

Camping limitations will be instituted for the protection of wildlife, vegetation, and the cultural resources located within Grand Gulch, Owl and Fish Creeks. All permittees using the area must abide by these stipulations.

Grand Gulch and Owl and Fish Creeks have been experiencing heavy visitation in the last few years. If trends continue, the depredation of resource values will increase. To lessen the impact on the resources and the user, certain low impact camping policies must be established. It is felt that these limitations will improve the visitor experiences and at the same time decrease resource impacts. As in all endeavors, common sense must be used by the visitors in the Grand Gulch Plateau. One should respect the rights of others and be aware of the later groups who will use the same campsites.

1. Obtain a permit in advance from Kane Gulch Ranger Station or the San Juan Resource Area Office in Monticello, Utah before entering the Gulch. One group of twelve, or twelve individuals will be allowed to enter the canyon each day at each of the four authorized trailheads (Kane Gulch, Bullet Canyon, Collins Spring and Government Trail). Maximum party size is 12 people.
2. Grand Gulch, Owl and Fish Creeks are closed to all types of vehicular travel.
3. No pets will be allowed.
4. If you pack it in, pack it out; please don't litter. Don't bury trash for animals to dig up or for the wind to uncover.
5. Federal law prohibits disturbing or defacing Indian ruins or rock art panels.
6. Fires will be permitted, but are not recommended.
 - A. Fires may be built only in wash bottoms.
 - B. No fires are permitted within 200 feet of any archaeological site.
 - C. Only driftwood gathered from the wash bottoms can be used as fuel. No live vegetation may be cut or burned.
 - D. During extreme fire danger, campers must carry portable stoves.
7. Soaps, detergents, or other nondegradable foreign substances will not be used in washing of clothes or cooking utensils or for bathing in streams or rivers.

8. No camping will be allowed within 200 feet of any archaeological site or water source.
9. No party may spend more than two consecutive nights at any heavily used campsite.
10. Drinking water is not available at the Kane Gulch Ranger Station.
11. Personal sanitation and disposal of human waste is not permitted within 200 feet of water sources or campsites. Latrines will be dug a minimum of one foot deep and covered with a minimum of six inches of soil. Toilet paper will be burned.

STIPULATIONS

Slickhorn Canyon

Slickhorn Canyon is an area which is set aside to protect the unique archaeological resources within the inner canyon. If trends continue, the depredation of the cultural resource values will increase. To lessen the impact on the cultural resources, low impact camping policies must be established. It is felt that these limitations will greatly help in the preservation of the unique cultural resources.

1. No campfires will be built in Slickhorn Canyon.
2. Maximum party size is limited to six people.
3. Only two groups will be allowed in the canyon at one time.

Stipulations Numbers 3, 4, 5, 7, 8, 9, 10 and 11 for Grand Gulch also apply to Slickhorn Canyon.



petroglyph

ADDITIONAL STIPULATIONS
HORSE OR PACK STOCK USE
in
Grand Gulch and Owl and Fish Creeks

It is felt that use of stock in Grand Gulch can be continued if efforts are made to minimize the impacts associated with horses.

1. Maximum size limits for stock trips is 12 animals.
2. Only one stock trip will be allowed in Grand Gulch, Owl and Fish Creeks at one time.
3. Stock use will be confined to Grand Gulch, Kane Gulch, Collins Canyon, Bullet Canyon up to Perfect Kiva, Owl and Fish Creeks.
4. During drought years, stock can travel up side canyons to the sources of water. Animals will not be allowed to drink directly from the water sources. Stock users must carry a water holding device (collapsible water bucket) to water their stock. Watering of stock should take place at a minimum of 100 feet from the lower end of the water source.

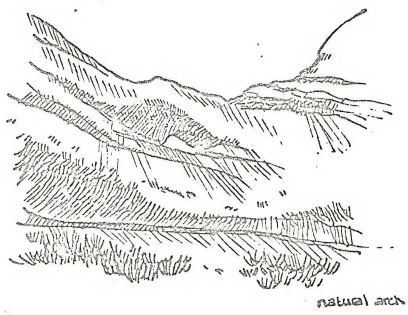
The use supervisors will inform the stock users of water conditions.

5. Stock users are required to take all feed necessary to sustain their animals while on the trip. No grazing will be allowed.
6. All animals will be tethered at all times while not in use.
7. Horses and stock must be tethered at least 100 feet away from any ruin or site. No stock will be ridden within 100 feet of any ruin.
8. Stock will not be permitted to travel in streams except when crossing.
9. Campsites should be selected in non-fragile environments, i.e., sandbars, tamarisk groves and stands of cottonwood and sand oaks.
10. Stock groups will not be allowed to camp at Split Level Ruin or at the mouth of Bullet Canyon where it enters Grand Gulch.

STIPULATIONS
OTHER SPECIAL MANAGEMENT AREAS

Backcountry users of John's Canyon, Road Canyon, Lime Creek, Mule Canyon and Arch Canyon must register at the ranger station or sign in at the trailhead registers before entering the area. This will aid the Sheriff's Department and the BLM in search and rescue missions and other emergencies.

1997
2000
1990



HIGHWAY VISUAL CORRIDOR

A highway corridor will be established on highways U-95, U-261 and U-263 as per the 1974 U-95 Visual Corridor Study. A visual zone will be established on either side of the Clay Hills Crossing road, Butler Wash road, and Highway 163. Within the visual zones, development activities must conform to the Visual Resource Management (VRM) Systems class designations. U-95 was designated a Bicentennial Highway in 1976 because of its scenic attributes and unspoiled scenery.

Highways U-95, U-261, U-263, U-163, Clay Hills Crossing road, and Butler Wash road are used by thousands of visitors commuting to Lake Powell, Natural Bridges National Monument, Monument Valley, Valley of the Gods, Hovenweep National Monument, Grand Gulch Plateau Recreation Area, Dark Canyon Primitive Area and access for white water rafting on the San Juan River.

The Visual Resource Management System recognizes the visual elements and provides for a basis for analysis of each specific proposed use and/or development against its intrusion into the visual corridor. The approach envisions a continuing process of analysis of each proposal for minimizing the impacts through design. Inherent within this concept is a requirement that the BLM has a vested interest in the management or development of the land, and to accept the premise that there are natural landscape values worth protecting which require a unified commitment to their preservation. This will require that VRM be used for review of proposals as standard criteria for assessment against the visual resource values.

Preservation of the visual corridor is a vital issue in consideration of any use, management, or development scheme for the area. Picturesque views of a natural canyonlands landscape are continuous along the highways. Visual elements within the corridor and the vistas beyond are threatened if uncontrolled or ill-planned development encroaches.

Because of the ever-changing variety of landscape, broken patterns of vegetation and geologic formations, the depth of view changes constantly as one travels the highways. No attempt has been made to define a rigid corridor of any given width; rather, a "fluid" boundary has been identified within which proposed uses or developments can be weighed against the natural landscape values as perceived from the highway. This "fluid" corridor includes the following elements:

- a. The visual corridor (i.e., the area which is readily perceived by the traveler);
- b. The obstructed views (i.e., areas where depth of perception from the highway is restricted by some physical element such as a geologic structure or high vegetation); and

- c. The unobstructed view areas (i.e., relatively distant areas where line of sight or depth of perception is limited only by the individual's physical sight capabilities or temporarily restricting climatic conditions, storms, haze, etc.).

This approach does not provide for rigid zoning to prohibit or authorize specific uses within specific zones.

The following conclusions were made by the Interagency Highway Corridor Study Team, organized in 1974, to study for designation as a scenic highway under the Highway Beautification Act of 1965 (Public Law 89-265).

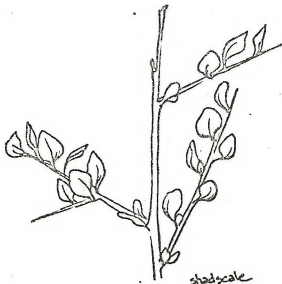
U-95 and associated highways present a unique network of scenic roads within a vast recreational and wilderness complex.

Recognition of the visual resource values in the management, use and development of the lands and resources, along the road network corridors and within the area, is critical to the preservation of the integrity of the area and its inherent scenic beauty and recreational potential.

There are multiple organizations, federal, state, county, and private as well as individuals who, through their various vested interests, have potential to effect some degree of positive or negative impact on the inherent values.

Preservation of the visual corridor and the integrity of the natural landscape will require some mechanism to unify the varied and sometimes conflicting interests toward common management goals. (See U-95 Corridor Study for further details.)

Using the VRM system, a visual corridor study of the roads not included in the U-95 corridor study should be completed.



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