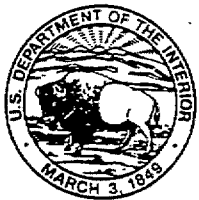


Aubrey Peak
Wilderness Management Plan
and
Environmental Assessment

AZ-025-96-052

FINAL

January 1997



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Kingman Field Office
2475 Beverly Avenue
Kingman, Arizona 86401

In Reply Refer to:

1610 (025)

February 4, 1997

Dear Reader:

The attached Finding of No Significant Impact/Decision Record implements the Aubrey Peak Wilderness Management Plan. The approved plan is what was proposed in the draft plan with the minor modifications as noted below. A Final will not be sent out, EXCEPT ON REQUEST, as the draft covers all plan elements.

The plan will enable the Bureau of Land Management (BLM) to improve its management of the planning area. The environmental assessment analyzed the impacts expected from implementing the plan. Based on this analysis, the Finding of No Significant Impact determined that an environmental impact statement was not needed. The Decision Record documents the BLM's final decision.

The draft Aubrey Peak Wilderness Management Plan was released for public review and comment on July 16, 1996. Comments on the draft plan resulted in the following changes (changes are in bold lettering).

1. The caption under Figure 1 on page 6 was changed to read: *Water storage tanks associated with Aubrey Peak **Pothole 1***
2. EXISTING DEVELOPMENTS, page 6, paragraph 2, now reads: *Aubrey Peak Catchment 1 and **Aubrey Peak Pothole 2** -- This consists of a circular steel 20,000-gallon storage tank (**Aubrey Peak Catchment 1**), a 2,150-gallon cylindrical fiberglass tank (**Aubrey Peak Pothole 2**) and two ground-level fiberglass troughs. All are painted with two or more colors which mimic the native rock. Water collected by a check dam is gravity-fed by pipe to the storage tanks. The **tanks are enclosed by a four-rail-pipe fence to exclude cattle and burros. The fenced area is about one-tenth of an acre. The facility is in good condition, but the storage tank will need a new liner and roof in the near future.***
3. Page 7. Table 1.
First Row: *Aubrey Peak Catchment 1 and **Aubrey Peak Pothole 2***
Second Row: *Aubrey Peak Pothole 1*
Third Row: *Aubrey Peak Rock Dam (No. 3 was removed) and the location was changed to section 14.*
4. Page 15 -- Add ***Eagle Point Catchment*** to the list in the upper left corner of the page, i.e. . . . Rawhide Mountains, Artillery Mountains, Mohave Mountains, . . .

5. Page 28. Impacts Resulting from Implementation of the No Action Alternative. Wildlife. Flights. The first sentence now reads: *This alternative would have negative impacts on wildlife as described in the Wildlife Operations and Maintenance Plan for flight operations.*

If you no longer have a draft Aubrey Peak Wilderness Management Plan/Environmental Assessment or would like a copy with the minor editorial changes already made please contact Don McClure, Planning and Environmental Specialist at (520) 757-3161 or 2475 Beverly, Kingman AZ. 86401.

The Decision Record is subject to appeal in accordance with procedures contained in 43 Code of Federal Regulations, Part 4. Implementation of this plan will begin 30 days after the date of this letter.

A special thanks to all who participate in this planning process; your contribution is greatly appreciated.

Sincerely,

A handwritten signature in cursive script that reads "John R. Christensen". The signature is written in black ink and is positioned above the printed name and title.

John R. Christensen
Field Manager

1 Enclosure

1 - Finding of No Significant Impact/ Decision Record

Finding of No Significant Impact/Decision Record Aubrey Peak Wilderness Management Plan Environmental Assessment AZ-025-96-052

Decision: It is my decision to approve the Aubrey Peak Wilderness Management Plan. The plan establishes management direction for the Aubrey Peak Wilderness for a 10-year period.

Finding of No Significant Impact: Based on the analysis of potential environmental impacts in the attached environmental assessment, I have determined that impacts are not expected to be significant; therefore, an environmental impact statement is not required.

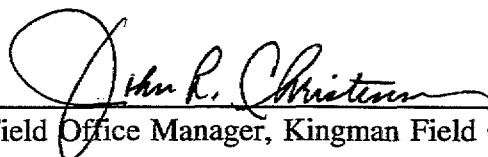
Rationale for Decision: The plan provides for continued maintenance of wilderness values and establishes rehabilitation of existing disturbances through natural succession. The plan also provides for the maintenance of existing water facilities for the benefit of the desert bighorn sheep population. Recreational opportunities are recognized and guidelines established to ensure that wilderness values are maintained. The plan will be evaluated annually, which could result in minor modifications of on-the-ground actions if the objectives of the plan are not being met.

During a 45-day public review period, three comments regarding the draft Aubrey Peak Wilderness Management Plan were received. These letters resulted in minor modifications to the text of the plan and environmental assessment to clarify several points.

Alternatives Considered: The proposed action and the no action alternative were considered.

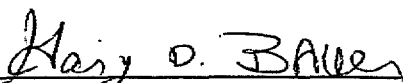
Mitigation/Stipulations: All mitigation measures are incorporated in the proposed action.

Recommended by:


Field Office Manager, Kingman Field Office

1-14-97
Date

Approved by:


State Director, Arizona

1-24-97
Date

Aubrey Peak
Wilderness Management Plan
and
Environmental Assessment
AZ-025-96-052

U.S. Department of the Interior

Bureau of Land Management

Phoenix District

Kingman Resource Area

Mohave County

Arizona

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Summary

The plan describes the following actions for the Aubrey Peak wilderness.

- Conduct routine maintenance and inspection of waters and fencelines using nonmotorized means.
- Post the wilderness boundary at approximately one-half-mile intervals.
- Construct physical barriers as needed where signing is ineffective.
- Conduct monthly patrols on the wilderness perimeter.
- Conduct census flights for wild burros every three years.
- Allow for capture flights for wild burros every three years.
- Allow for inventory flights for peregrine falcon habitat.
- Conduct flights to maintain water developments approximately two days per year.
- Conduct wildlife census five days per year.
- Conduct emergency water hauling two days per year.
- Conduct inventory and monitoring of peregrine falcon and desert bighorn sheep and monitor desert bighorn sheep monthly for five years following releases.
- Augment the existing desert bighorn sheep population in and around the wilderness so that there is a thriving population and conduct associated telemetry flights.
- Prepare a visitor use guide.
- Develop a kiosk.
- Collect baseline vegetation data and set up a monitoring location in T. 12 N., R. 15 W., sec. 34.

I -- Introduction

Purpose and Background

The purpose of this plan is to provide guidance to resolve specific issues in the Aubrey Peak Wilderness for the next 10 years. It will supplement other guidance including Bureau of Land Management (BLM) manuals, the Code of Federal Regulations (CFR) and other federal and state laws. This plan will supersede guidance found in the Wildlife Operation and Maintenance Plan and the Range Improvement and Maintenance Plan.

The Wilderness Act of 1964 laid the foundation for the National Wilderness Preservation System. On November 28, 1990, Public Law 101-628, the Arizona Desert Wilderness Act, designated Aubrey Peak and 38 areas in Arizona as wilderness and added them to the system.

Wilderness Overview

Location/Access/Boundaries

The Aubrey Peak Wilderness is in south-central Mohave County, about 24 air miles east of Lake Havasu City, Arizona in townships 12 and 13 North and ranges 14 and 15 West, Gila and Salt River Meridian (see Figure 1). The area gets its name from explorer Francois X. Aubrey, who led two expeditions into the region during the 1850s.

The approximately 15,000-acre wilderness is entirely in public landownership. Legal public access to the wilderness is primarily from Alamo Road, which originates from the north at Yucca, Arizona off Interstate 40. Alamo Road can also be reached by traveling east on one of several roads off State Highway 93, including Chicken Springs Road at Wikieup, Signal Road or 17-Mile Road, until they intersect Alamo Road. These roads, usually passable by two-wheel-drive vehicles, can become impassable after major storm events.

From Alamo Road, the entire perimeter of the wilderness can be driven using four-wheel-drive trails. Some of these trails also serve as service roads for transmission lines or gas pipelines that parallel the wilderness boundary. With the exception of one mile of the wilderness boundary in the northwest corner of the unit, all of these jeep trails are on public lands and provide legal public access.

The western boundary of the wilderness is defined as the edge of El Paso Natural Gas Pipeline Right-of-Way AZ-PHX-086056. In the northwest corner of the unit, the boundary follows a property line between public and private lands. The northern boundary follows an existing jeep road, with the boundary set back 30 feet south of the edge of the road. The southeastern boundary follows a combination of jeep roads and a powerline right-of-way, with the wilderness boundary either at the edge of the right-of-way or 30 feet off the edge of the road.

Wilderness Values and Unique Attributes

Due to its remoteness, this wilderness offers visitors a high degree of solitude. The natural quiet of the area is occasionally broken by passing military aircraft, as this is within a military training corridor.

The appearance of this unit is very natural; evidence of human impacts is unnoticeable, with few exceptions, including physical improvements used to facilitate management of wildlife and livestock. Five miles of congressionally closed motor vehicle routes in three separate segments also exist within the unit, some of which are in an advanced state of natural revegetation while others are not quite so far along.

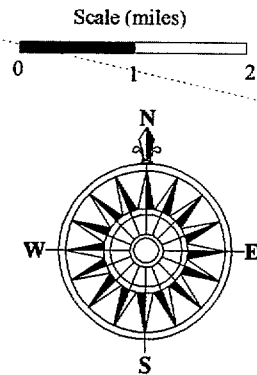
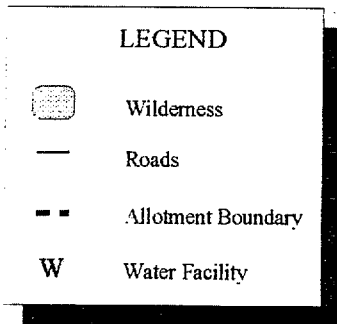
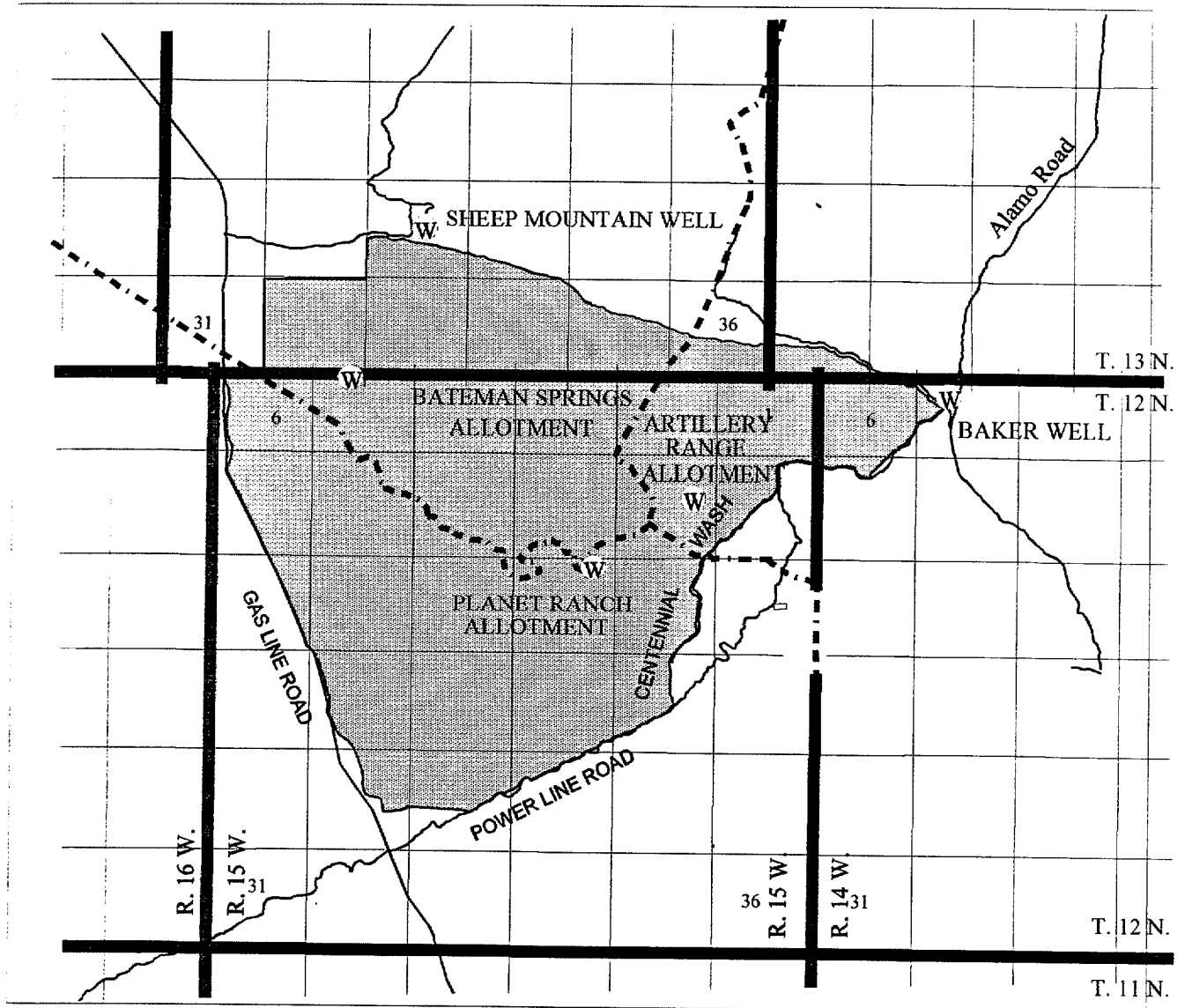
General Management Situation

The following describe components of the wilderness. The information provided reflects existing management direction and may be changed through implementation of this plan.

Vegetation

The area is classified as the Lower Sonoran Life Zone and exhibits characteristics of both the Sonoran and Mojave deserts (Lowe, 1964). Vegetation consists primarily of a mix of paloverde and saguaro with scattered Joshua trees. The area can be divided into uplands, hills and washes (see Appendix A). Upland areas are those that generally have slopes of less than 15 percent but are not a river or wash area. These types, comprised of mostly calcareous soils,

FIGURE 1. AUBREY PEAK WILDERNESS AREA.



LOCATION DIAGRAM

make up about 25 percent of the area. The primary tree/shrub species are paloverde, white brittlebush, white bursage and creosote. The primary grass species -- fluffgrass and big galleta -- are scarce. Cacti which bloom in the spring and early summer include saguaro and hedgehog.

The hills are either of granitic (48 percent) or volcanic origin (25 percent) and generally have slopes greater than 15 percent. The primary tree/shrub species are paloverde, white brittlebush and creosote. Grass is limited to sparse clumps of big galleta and needlegrass.

Centennial Wash goes through the eastern portion of the unit and is recognized by the presence of a desertscrub riparian community which includes desert willow and catclaw acacia. Other minor washes dissect the upland areas in numerous locations. Washes account for approximately one percent of the wilderness.

There are no vegetation monitoring sites in the wilderness. The closest site is about 100 yards north of the northern boundary in T. 13 N., R. 15 W., sec. 34. Set up for collecting utilization data, the site was read once in 1992 and the utilization on big galleta (key species) was 32 percent.

Wildlife

Desert bighorn sheep occupy more than 13,700 acres of crucial habitat in the wilderness. Much of this area is considered lambing grounds for bighorn sheep. Bighorn are not solely restricted to the Aubrey Peak area but utilize this wilderness as part of an archipelago of desert mountains that provide habitat to this bighorn population. These small mountain ranges, among which sheep move freely, occur in southern Mohave and northern La Paz counties. An important north-south wildlife movement corridor is Centennial Wash. An important east-west corridor is between the wilderness and the Casteneda Hills. In desert systems, wildlife will use any wash or saddle as a movement corridor, but bighorn typically choose ridges and steep terrain. Unhindered movement into and out of wilderness is essential to long-term (greater than 100 years) maintenance of bighorn sheep in this area.

Since the early 1980s, the Arizona Game and Fish Department and the BLM have worked to reestablish desert bighorn sheep into their historic range in this area. Several sheep releases and waterhole developments have occurred in the Aubrey Peak Wilderness and adjacent mountain ranges. The

Arizona Game and Fish Department currently tracks seven collared bighorn sheep via telemetry flights. Present populations of bighorn sheep are estimated to be much lower than the historical population.

Other species of special interest for this plan are peregrine falcon, mule deer, desert tortoise and javelina. There are no known nesting sites for peregrine in the wilderness.

Other wildlife species of general interest to the wilderness visitor include Gila monster, rosy boa and kit fox. These species have been found in the vicinity of the wilderness but are not considered to be issues for the purposes of this plan.

Species of Special Concern

The U.S. Fish and Wildlife Service has identified peregrine falcon, spotted bat, California leaf-nosed bat, greater western mastiff bat, Yavapai Arizona pocket mouse, Hualapai southern pocket gopher, lowland leopard frog, Arizona toad, chuckwalla and loggerhead shrike as special status species possibly occurring in the planning area. Although this wilderness is within their broad distribution range, existence of these species has not been determined.

Sonoran Desert tortoise have been documented within the wilderness. The habitat area is classified as Category 3, the lowest priority habitat for tortoise. Classification of this area was based on low tortoise population densities and limited habitat. Tortoise in this area are found in disjunct habitat areas, but can be locally common within these small areas. Such an area may only represent 50 acres of a hillside. Tortoise populations are widely scattered because suitable habitat is limited and patchy.

Livestock Management

Portions of the Artillery Range, Bateman Springs and Planet Ranch allotments are within the wilderness (see Figure 1). Currently, only the Artillery Range Allotment is operating under an allotment management plan, a document which helps guide livestock management.

Artillery Range is a perennial/ephemeral grazing allotment that supports a yearlong cow/calf operation. Approximately 2,592 acres of the allotment are within the Aubrey Peak Wilderness. The grazing is administered by the BLM Kingman office.

Bateman Springs is a perennial/ephemeral grazing allotment that supports a yearlong cow/calf operation. Approximately 5,927 acres of the allotment are within

the Aubrey Peak Wilderness. The grazing is administered by the BLM Kingman office.

Planet Ranch is an ephemeral allotment which has not had authorized grazing since 1983. A total of 6,787 acres of this allotment is within the wilderness. The grazing is administered by the BLM Havasu office.

Range developments in the wilderness consist of allotment boundary fences. There are no watering facilities for livestock within the wilderness.

Wild Burros

The entire wilderness is within the Alamo Herd Management Area administered by the BLM Havasu office. Current policy is to manage burros in a "thriving natural ecological balance" with other resource system components. The wilderness is in the northwest corner of the herd management area. This corner is identified as an area of low and seasonal use by burros.

There are no perennial water sources available to burros in the wilderness. Seasonal rainfall is held by natural rock potholes in the area. The closest sources of perennial water available for burros are Sheep Mountain and Baker wells, on the wilderness boundary -- Sheep Mountain Well on the north side and Baker Well on the east side. Visual inspection of the wilderness shows burro sign in the form of trails and droppings.

Recreation

Current recreation uses in the Aubrey Peak Wilderness include backpacking, hiking and hunting (upland game birds, desert bighorn sheep and mule deer).

The Recreation Management Information System gives an estimate of 364 visits to Aubrey Peak in 1995, mostly from hunters who camp on the edge of the wilderness. There is also day use from rockhounds and photographers. The main access point to the wilderness is on the east side from Alamo Road near Baker Well.

No known commercial hunting outfitters currently operate in the Aubrey Peak Wilderness. Aubrey Peak is in Arizona Game and Fish Department Unit 16A, which only had one desert bighorn sheep tag available for each of the 1994 and 1995 hunting seasons. Javelina are also hunted in Unit 16A.

No recreation (e.g., hiking) trails exist in this wilderness, so backcountry users must travel cross-country.

Boundary Management

The boundaries of this wilderness have not yet been formally surveyed by BLM Cadastral Survey crews. Wilderness boundaries are marked with fiberglass Carsonite signs; minimum spacing of these signs is one-half mile apart. Additional signs are at locations which have the potential or are prone to vehicular travel, i.e., sandy washes entering the wilderness. Despite the presence of the signs, vehicular intrusions continue. At two places on the southeast boundary where Centennial Wash crosses the boundary line, prolific disregard for the wilderness signs has forced the BLM to take stronger measures, constructing a cable barrier across the wash. These actions have completely resolved the vehicle problem at these locations. Plans are in place for constructing similar barriers at other points on the boundary (see Environmental Assessment AZ-025-93-071).

Existing Developments

Table 1 lists known fences and water facilities in the Aubrey Peak Wilderness; no other facilities or structures are known to be in the wilderness. The Aubrey Peak Rock Dam, in need of modification, is nonfunctional; all other facilities are in fair or good condition.

Aubrey Peak Catchment 1 -- This consists of a circular steel 20,000-gallon storage tank, a 2,150-gallon cylindrical fiberglass tank and two ground-level fiberglass troughs. All are painted with two or more colors which mimic the native rock. Water collected by a check dam is gravity-fed by pipe to the storage tanks. The facility is enclosed by a four-rail pipe fence to exclude cattle and burros. The fenced area is about one-tenth of an acre. The facility is in good condition, but the storage tank will need a new liner and roof in the near future.

Aubrey Peak Pothole 2 -- This facility consists of three camouflage-painted 2,150-gallon fiberglass storage tanks and a trough. Water collected by a check dam is gravity-fed by pipe to the storage tanks. The facility is enclosed by a four-rail pipe fence to exclude cattle and burros. Two of the tanks have concrete pedestals while the third is on a dirt base. The facility is in generally good condition except that one of the storage tanks is cracked and not holding water.

Aubrey Peak Rock Dam 3 -- This facility consists of an earthen dam with a pipe from the dam leading to a trough. The area behind the dam is filled with dirt.

Table 1. Fences and Water Facilities in the Aubrey Peak Wilderness		
<i>Project name</i>	<i>Type</i>	<i>Legal description</i>
Aubrey Peak Catchment (No. 1)	slickrock water development	T. 12 N., R. 15 W., sec. 5
Aubrey Peak Pothole (No. 2)	pothole water development	T. 12 N., R. 15 W., sec. 10
Aubrey Peak Rock Dam (No. 3)	rock dam	T. 12 N., R. 15 W., sec. 11
Cornell Eaton Boundary	gap fence (1.5 miles)	T. 12 N., R. 15 W., secs. 5, 6, 8
Blanchard South Boundary	gap fence (0.25 miles)	T. 12 N., R. 15 W., sec. 9
Bland Blanchard Boundary	fence (1.0 miles)	T. 13 N., R. 15 W., secs. 35, 36; T. 12 N., R. 15 W., sec. 2
Aubrey Peak Fence	fence (.5 miles)	T. 12 N., R. 15 W., sec. 11
Unnamed	gap fence (.25 miles)	T. 12 N., R. 15 W., sec. 10

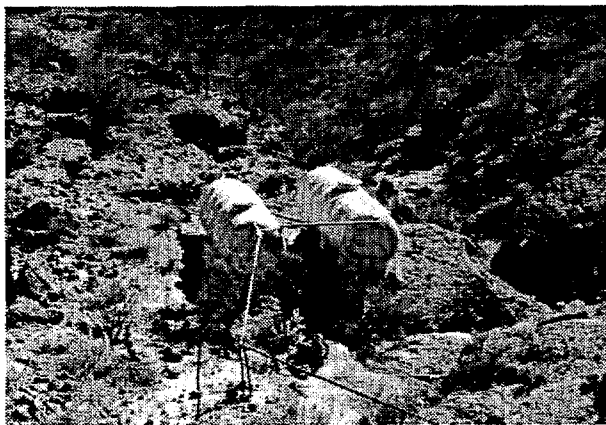


Figure 2. Water storage tanks associated with the Aubrey Peak Catchment

Cultural Resources

A total of 90 acres has been intensively surveyed for cultural resources. BLM surveys were done in the 1970s and 1980s for clearances for mining operations and as part of a Class II sample survey. Site types found include rock shelters, prehistoric camps, lithic scatters and petroglyphs. The known sites are currently managed for their scientific information potential. Excavation of these sites is neither taking place nor planned for the future (see 36 CFR 800).

Fire

Fire has historically been a rare occurrence in this wilderness; no fires have been documented since 1980. The Sonoran Desert shrubs which provide most of the fuels are widely spaced. Fires which have occurred were neither large nor intense.

The fire ecology is changing somewhat in the area due to the introduction and rapid increase of non-native annual grasses and forbs which increase the chance of fire starting as well as allowing for rapid spread and increased intensity.

Currently, a fire in this wilderness would be suppressed as soon as possible. Appendix B provides the steps to full fire suppression in this wilderness.

Minerals

The wilderness was withdrawn from mineral entry and closed to mineral leasing and mineral material sales by the Arizona Desert Wilderness Act of 1990. A records search revealed that there are no mining claims within the wilderness. Current management allows for recreational or hobby rock collecting (rockhounding) of minerals, with collection limited to hand methods.

Law Enforcement/Search and Rescue

Law enforcement activities are conducted by BLM Rangers and Mohave County Sheriff's deputies. BLM officers are responsible for investigating

resource protection violations. The Sheriff's office has jurisdiction regarding crimes against persons and property as well as having the lead on search-and-rescue activities. The Arizona Game and Fish Department is responsible for hunt patrols, off-road vehicles and enforcement of all Arizona state laws.

Approved Motorized and Mechanized Use

The Aubrey Peak Wildlife Operations and Maintenance Plan (Environmental Assessment AZ-025-96-045) is in effect until this wilderness management plan is completed. Approximately 19 days of helicopter and fixed-wing aircraft flight operations per year are currently approved to conduct wildlife monitoring operations. Project inspection and maintenance are conducted using nonmotorized means. Wheeled-vehicle entry is not anticipated to occur in the wilderness with the exception of emergencies.

Under most circumstances, flights are conducted during weekdays. Due to weather, aircraft availability and manpower, weekends may also be flown.

No routine landing of aircraft occurs within the wilderness, although occasional landings may be needed during these survey flights to inspect a dead animal. Aerial activities are conducted in accordance with the 1987 BLM-Arizona Game and Fish Department Master Memorandum of Understanding.

Any other mechanized entry, e.g., major project maintenance (tank failure, catchment failure, etc.), or emergency project inspection is addressed under the procedures for emergency authorization. Approval is at the discretion of the BLM District Manager. An aerial population survey (census) is conducted by low-level helicopter or fixed-wing aircraft for desert bighorn sheep, mule deer and javelina. Bighorn surveys are typically flown between September and October. Mule deer and javelina surveys are typically flown in December. Dates are approximate, as flexibility is required due to weather conditions and aircraft availability. The surveys may total one to

three days. Actual flight time per day is typically less than five hours over the wilderness. Flights would normally be at 100 to 200 feet above ground level. Flight may be lowered to 25 feet to classify an animal. The surveys are flown following the landscape contour.

Inspection of wildlife water sources may be combined with annual big game census flights to determine if there is water at the development.

Aerial telemetry flights via fixed-wing aircraft are utilized to monitor transplanted desert bighorn sheep within and outside of the wilderness. Telemetry flights would occur once per month until July 1997. The initial overflight occurs at 2,000 feet above ground level. Under favorable weather conditions, once a transmitter is heard, visual location of the animal would be attempted.

Aerial inventory of peregrine falcon nesting habitat by low-level helicopter may occur. If a nest is located, ground surveys would be utilized for more intensive inventory and monitoring. Nesting areas are usually monitored annually from ground surveys. Actual flight time in the wilderness may be two hours per flight. Aerial survey days may total one day every five to 10 years.

Requests for the use of motorized/mechanized means to maintain the Aubrey Peak catchment and pothole are evaluated on a case-by-case basis, but typically would require five working days' advance notice to the BLM to evaluate the request.

The roof and liner for the 20,000-gallon tank at the Aubrey Peak Catchment will be replaced. The roof will be painted at least two colors to help it blend into the natural surroundings. A walk-in drinker will be brought in to replace the trough. A helicopter will bring tools and materials to the site.

The use of a helicopter with a water bucket is authorized to supplement specific existing water developments in the wilderness in times of drought depletion when inspection reveals a need. Prior approval of the BLM District Manager is not needed, but a follow-up report within one week of the incident is requested.

II -- National Wilderness Management Goals

The Aubrey Peak Wilderness will be managed to achieve the following BLM wilderness goals.

1. To provide for the long-term protection and preservation of the area's wilderness character under a principle of nondegradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation and any ecological, geological or other features of scientific, educational, scenic or historical value present will be managed so that they will remain unimpaired.
2. To manage the wilderness for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between wilderness preservation and visitor use.
3. To manage the wilderness using the minimum tool, equipment or structure necessary to

successfully, safely and economically accomplish the objective. The chosen tool, equipment or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.

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

These goals were developed from the primary concerns for wilderness preservation, minimum tool management and management of land uses specifically provided for in the Wilderness Act. The objectives and actions proposed in the subsequent chapters of this plan are the methods through which these goals are achieved.

III -- Issues

Issue identification was done with reference to the designation and subsequent management of this area as wilderness. The issues were identified through public scoping and categorized into issues that will be resolved by this plan, issues resolved by policy and issues beyond the scope of the plan. The paramount concern was how people, wildlife, grazing, mining, recreation, etc., would be affected by managing this area as wilderness. It was apparent throughout scoping that while naturalness is valued, it needs to be considered along with management of other resources.

Naturalness is an issue and is also the common theme which binds all other issues. How resources are managed in wilderness will affect naturalness, and the degree to which naturalness is needed will affect management of other resources. Also recognized is the need to manage the current types and amounts of plants in the wilderness as well as the need to assess how the community is affected by human activities and natural events. Such issues follow.

Management Plan Issues

Long-term Protection of Naturalness

Maintain naturalness while managing other uses including existing and proposed operations and facilities. These include:

- flights for surveys, inspections, captures, transplants, inventories, etc.,
- removal or maintenance of existing facilities, e.g., waters, fences, etc.,
- development of new facilities,
- facility modification,
- monitoring, inventory and census of wildlife populations,
- augmentation of existing desert bighorn sheep populations,
- monitoring and censusing of wild burro populations,
- emergency delivery of water to a catchment,
- elimination of unauthorized vehicle use,
- fire effects on the vegetation community, fire suppression activities and tools and rehabilitation

- following a natural fire (Appendix B) and
- studying effects on the vegetation community (effects which potentially come from grazing by cattle, burros or wildlife).

Public Availability

This addresses concerns regarding the following.

- Is visitor use affecting wilderness values? How intensively should visitor use be monitored? What restrictions (if any) need to be placed on visitor use?
- What would be the optimum way to gather visitor use information, e.g., access, camping, hiking routes, general information?
- Possible development of campgrounds outside of wilderness.

Issues Resolved Through Existing Laws, Regulations and Policies

Wilderness Designation and Regulations

Wildernesses were designated through the Arizona Desert Wilderness Act of 1990. The boundaries of the wilderness were set through the passing of the Act and are not open to review through the wilderness management planning process. Roads closed through designation of an area as wilderness are also not open to review through the wilderness management planning process.

Uniform guidelines and regulations for managing wilderness are found in BLM Manual 8560 and 8561 and 43 CFR 8560.

Wild Horse and Burro Management

The Wild Horse and Burro Management Act of 1971 directs the BLM to manage these animals for a thriving ecological balance. This wilderness is only a small portion of the Alamo Herd Management Area; therefore, this plan will not address overall burro management.

Water Rights

Water rights are adjudicated for each watershed by the Arizona Department of Water Resources. The wilderness is within the Bill Williams River watershed, which to date has not been adjudicated. With passage of the Arizona Desert Wilderness Act of 1990, Congress reserved a quantity of water sufficient to fulfill the purpose of the Act, with a priority date established as the date of the Act's passage (November 28, 1990). The BLM will inventory and quantify the water sources within this wilderness and submit notification to the Arizona Department of Water Resources of its federal reserved rights.

A partial water inventory has been completed in the Kingman Resource Area. Inventory includes verification of location, beneficial uses, quality and quantity measurements and a detailed description of the source and its development.

Cultural Resources

Known cultural resources are managed for their scientific values. Proposals for study will be authorized on a case-by-case basis guided by existing policy in BLM Manual 8560.32 and subject to compliance with Section 106 of the National Historic Preservation Act of 1966. As other sites are discovered in wilderness, they will be evaluated and allocated to the appropriate use category. Inventory to identify cultural resources will be done to comply with Section 110 of the National Historic Preservation Act.

Livestock Grazing and Allotment Management Plans

Wilderness designation affects neither grazing permitted use nor development of allotment management plans; they are administered according to the regulations in 43 CFR 4100. No construction of range developments (fences, water facilities, corrals, etc.) is proposed during the life of the plan. Any proposals will be considered on a case-by-case basis.

Law Enforcement/Search and Rescue

BLM policy and regulations (BLM Manual 8560.39 and 43 CFR 8560.3) provide for emergency law enforcement access in the event of fugitive pursuit or to address health and safety concerns during emergency situations. Search-and-rescue

operations are the responsibility of the County Sheriff. The Arizona Game and Fish Department is responsible for hunt patrols, off-road vehicles and enforcement of all Arizona state law. The BLM will coordinate with the involved agencies to assist in any way possible.

Minerals Management

The area was withdrawn from mineral entry and closed to mineral leasing and mineral material sales by the Arizona Desert Wilderness Act of 1990. There are no mining claims, mineral leases or mineral materials contracts within this wilderness. Recreational collection (rockhounding) of minerals is allowed in the wilderness and limited to hand methods.

Hunting Regulations

Hunting regulations in Arizona are written and enforced by the Arizona Game and Fish Department. The same regulations apply to wilderness.

Wildlife Movement Corridors and Utility Corridors

This issue deals with movement of wildlife into and out of the wilderness and potential constraints caused by expanding utility corridors on the south and west sides of the wilderness. The utility corridors of concern have been designated in the approved Kingman Resource Management Plan (March 1995) as potentially expanding to one mile wide. As each proposal for expansion is received, its effects on wildlife movement and populations will be analyzed through the National Environmental Policy Act (NEPA) process. The analysis should include effects on naturalness of the Aubrey Peak Wilderness if there is seen to be an effect on wildlife movement or populations.

Issues Beyond the Scope of this Plan

- Is the burro population within the parameters of a thriving natural ecological balance?

This question is best answered in the herd management area plan; the wilderness makes up a small portion of the Alamo Herd Management Area.

IV -- Wilderness Management

Introduction

The following objectives are designed to resolve the issues stated in Part III of this plan. Following the objectives are management actions designed to achieve the objective.

Management Objective 1 -- Naturalness

Maintain or enhance natural conditions throughout the wilderness including ecosystem functioning, visual appearances and opportunities for solitude and natural quiet by:

1. ensuring long-term (>100 years) viability of all native plants and animals,
2. redesigning existing developments to improve operations and minimize visual contrast,
3. eliminating vehicle intrusions by the year 2000,
4. alleviating visitor use impacts that exceed standards established in Table 2 and
5. reducing the degree of visual contrast of 4.5 miles of closed vehicle trails and all other human impacts to insignificant or none by the end of the year 2000.

Rationale: This objective was established to resolve the naturalness issue. The objective has been reviewed with respect to the wilderness goals and is consistent with the direction found in goals 1, 2, 3 and 4.

Management Actions

- 1a. Protect wildlife movement corridors by maintaining their natural condition and prohibiting development within the corridors.

Rationale: Movement of wildlife along the traditional routes will ensure maintenance of wilderness values associated with the presence of native wildlife.

- 1b. Conduct routine maintenance and inspection of the three water facilities described on pages 6 and 7 by foot or horseback approximately four times per year. Inspection by aircraft may be conducted during annual census flights as described in 1e below.
- 1c. Replace nonfunctional water tanks using a helicopter. Power tools, e.g., generators and rock drills, may be used to replace fence posts set in bedrock.
- 1d. Haul water using a helicopter with a bucket; this may be needed to supplement existing water developments during drought. Motorized equipment such as a pump and generator may also be needed.

The type of actions described in 1c and 1d are estimated to be needed once every five to 10 years.

Rationale: These water developments support populations of animals in and around the wilderness. Water is critical to the health of all animal populations. During the summer, the supply of water must be available at all times. Access to water is particularly important to lactating ewes.

Continuation of water developments in the Aubrey Peak Wilderness is needed to support bighorn sheep. Bighorn historically ranged throughout the desert mountains of this area. Populations began declining with the onset of non-Native American settlement, unrestricted hunting and mining activities along the Big Sandy River at Signal in the late 1800s. A continual increase of human use, e.g., roads, houses, utility corridors and livestock and wild burro use of this area, resulted in restriction of movement to water, dewatering of the Big Sandy, Santa Maria and Bill Williams rivers and riparian habitat deterioration. State Route 95 along the Colorado River prevents sheep from accessing the river during the critical hot months. The combination of these factors furthered the demise of sheep in this area; by the mid-1980s, they were very rare. Access to water in this area continues to be restricted and riparian habitat in many areas remains degraded, which affects surface water availability throughout the river system.

Table 2. Standards for Monitoring Visitor Use and Associated Impacts		
<i>Factor</i>	<i>Indicator</i>	<i>Standard</i>
Interparty contacts	Number of complaints on visitor register per year regarding social conditions	No more than five per year
Evidence of human use	Presence of fire rings, campsites	No more than one per square mile
Evidence of human use	Presence of non-historic litter, human waste	None observable

1e. Conduct population survey (census) and inventory of wildlife populations (bighorn sheep, peregrine falcon, mule deer and javelina).

Bighorn sheep: Conduct population survey (census) by low-level helicopter or fixed-wing aircraft in late September and October. Dates are approximate, as flexibility is required due to weather conditions and aircraft availability. The surveys may total one to three days, but actual flight time per day is typically less than five hours. The flights will normally be at 100 to 200 feet above ground level, following the landscape contour. The flight may lower to 25 feet to classify an animal.

Wildlife population surveys for bighorn sheep would include an occasional helicopter landing so sick or dead bighorn sheep could be inspected.

Peregrine falcon: Conduct low-level aerial inventory of peregrine falcon nesting habitat by helicopter. Utilize ground surveys for more intensive inventory and monitoring of located nests. Nesting areas are usually monitored annually from ground surveys. Actual flight time in the wilderness may be two hours per flight.

Aerial survey days may total one day every five to 10 years. All aerial surveys would avoid known breeding peregrine falcon nesting areas from February 1 to August 5. The nesting area is considered to be a one-half-mile radius from the nest. There are no known nesting areas in the Aubrey Peak Wilderness.

Mule deer and javelina: Conduct low-level aerial inventory by helicopter (one to two days per year). The flight is typically in December and would be at 100 to 200 feet above ground level.

1f. Augment the existing bighorn sheep population in and around the wilderness so that there is a thriving population and conduct associated telemetry flights.

Aerial telemetry flights via fixed-wing aircraft or helicopter are utilized to monitor transplanted bighorn sheep within and outside of the wilderness. Generally, following the release, telemetry flights would occur four times for the first two weeks, then once a month for five years. The initial overflight occurs at 2,000 feet above ground level. Under favorable weather conditions, once a transmitter is heard, visual location of the animal will be attempted. The aircraft may descend as low as 75 feet above ground level for short periods.

Release sites within and adjacent to the wilderness are listed for analysis, i.e., bighorns will impact the wilderness, no matter where they are released, but release in wilderness will have direct impacts associated with helicopter flights.

Release sites in wilderness: Bighorn augmentation is infrequent and not expected to occur more than three times every 10 years. However, releases sometimes occur two years in succession. Bighorn augmentation requires that the animals (approximately 20 per release) be transported in trailers to the east wilderness boundary. From this point, animals are airlifted in boxes by helicopter to one of the two wildlife waters in this wilderness. In the summer, animals are released at the water development to ensure that they locate the water. This flight operation takes one day with approximately two hours of flight time.

Release sites outside of wilderness: Augmentation of sheep populations in habitat

adjacent to wilderness may occur as often as once every two years. These areas include the Rawhide Mountains, Artillery Mountains, Mohave Mountains (Ram Mountain on Crossman Peak), the Poachie Range, Aquarius Mountains and Lake Mine.

Rationale: Desert bighorn sheep historically ranged throughout the desert mountains of this region. Current populations are low and not expected to increase without augmentation. Populations were densest along the river corridors wherever escape terrain was available. Early explorers and residents observed sheep along the cliffs of the Big Sandy, Bill Williams and Santa Maria rivers and in the cliffs of the Aquarius Mountains (Davis, 1982).

- 1g. Allow for census flights for wild burros every three years and lasting about three days. The flights would occur during April or May and result in brief periods when the helicopter would be over wilderness.
- 1h. Allow for flights for capturing wild burros every three years. They would occur during the summer and last about two days.

Rationale: The BLM is required to keep an up-to-date census for wild horse and burro populations and capture as necessary to maintain a thriving natural ecological balance.

- 1i. Fire suppression will be conducted according to the process listed in Appendix B.

Rationale: Fire suppression is necessary to protect current native vegetation until such time as non-native annuals can be controlled.

- 1j. Establish a desired plant community for the uplands, hills and wash sites.

Rationale: A desired plant community is necessary as a benchmark from which changes can be measured.

- 1k. Adopt a 50-percent utilization level (based on and representing no change from the Kingman Resource Management Plan and the Hualapai-Aquarius Final Grazing Environmental Impact Statement).

Rationale: This utilization level ensures the continued viability of the plants while providing forage for grazing animals.

- 1l. Consider other flights on a case-by-case basis. An administrative determination will be issued by the BLM authorized officer to document the decision of using the helicopter as the minimum tool.

Rationale: Planned flights cover the continued support of bighorn sheep, a wilderness resource, as well as flights to collect population information on other wildlife and burros. However, as it is impossible to plan for all needs, it is important to remain open to the possibility of conducting more flights.

- 2a. Redevelop Aubrey Peak Rock Dam to remove the old pipe from the dam and install a new pipe and two storage tanks with a walk-in drinker. A pipe-rail fence would be built to exclude burros and cattle.
- 2b. Repair the liner and roof of the 20,000-gallon storage tank at Aubrey Peak Catchment. A new roof design to capture additional rainwater and the addition of a walk-in drinker are planned.
- 2c. Add a walk-in drinker at Aubrey Peak Pothole and replace a leaking tank.

To accomplish the actions listed in 2a, 2b and 2c, power tools such as generators, rock drills and cement mixers will be needed. A helicopter will be needed to fly materials to and from the job sites.

Rationale: Water is important to the health of wildlife populations, especially big game such as bighorn sheep and mule deer. During the dry, summer months, these animals concentrate around water sources. Access to water is particularly important to lactating bighorn ewes. The wilderness contains high-value bighorn lambing grounds. The walk-in type drinker eliminates the need for a float valve, which minimizes maintenance needs and visits to the sites.

- 3a. Post the wilderness boundary at approximately one-half-mile intervals. Increase the number of

signs in areas where the potential for intrusions exists.

- 3b. Construct physical vehicle barriers at points where signing is ineffective.
- 3c. Provide information to visitors at the planned portal sign (see Management Objective 2: Management Actions) explaining the layout of the wilderness boundary.
- 3d. Conduct monthly patrols along the wilderness perimeter and increase patrols during high-use periods (e.g., hunting season).

Rationale: Efforts to deter motor vehicle use will result in elimination of vehicle tracks in the wilderness, enhancing the experience for each visitor. Elimination of vehicles will also enable the natural restoration of vehicle ways.

- 4a. Conduct a baseline inventory of existing recreation impacts in the Aubrey Peak Wilderness by 1998. Conduct inspections by foot or horseback once per year to determine locations of additional impacts (e.g., campsites, fire rings, litter).

Rationale: Areas of repeated high use will be detected quickly and impacts mitigated.

- 4b. Install a visitor register at the planned location of the portal sign (refer to 3c).

Rationale: The visitor register form will give visitors an opportunity to comment on wilderness conditions.

- 4c. If the interparty contact standard is exceeded, the following actions, in priority order, could be taken to redistribute visitor use.

Encourage visitor use during slower periods of the year by making visitors aware of the possibility of less interparty contact during these times.

Promote use of other areas either outside of wilderness or in less-used wilderness locations with similar settings.

Identify and develop alternative access points for this wilderness.

Implement a permit system to allocate amounts of visitor use.

If the evidence of human use standard is exceeded, the following actions, in priority order, could be taken to lessen the amount of evidence.

Obliterate evidence of fire rings, human waste and campsite impacts which are causing the standard to be exceeded; pick up litter as it is found.

Promote "leave no trace" principles and ethics.

Implement campfire use restrictions.

Rationale: Education of the public about the problems is preferable to restricting access.

- 5a. Allow natural rehabilitation of former vehicle routes to continue.

Rationale: Natural revegetation is a no-cost method of obtaining vegetation cover.

Monitoring

1. Collect baseline data (species composition and utilization) and set up a monitoring location in T. 12 N., R. 15 W., sec. 34 and T. 12 N., R. 14 W., sec. 6.
2. Continue collection of data (species composition and utilization) on the existing monitoring plot just outside the wilderness boundary in T. 13 N., R. 15 W., sec. 34.
3. Monitor intermittently the use of approved mechanized uses to ensure compliance (which includes ensuring that flights conducted by the Arizona Game and Fish Department are conducted in accordance with the statewide memorandum of understanding).
4. In five years, monitor the extent of natural revegetation. Scarify and seed with native seed if the areas fail to show a percentage of cover similar to the surrounding terrain.

Management Objective 2 -- Public Availability

Allow unrestricted dispersed use with little managerial presence, e.g., no facilities, no trailheads and minimal patrols. Provide visitor use information to ensure public understanding of the location, opportunities and constraints within the wilderness.

Rationale: This objective was developed to resolve the issue of public availability in conformance with wilderness goals 1 and 2.

Management Actions

1a. Prepare a visitor use guide by 1998.

1b. Post the boundary.

1c. Erect a portal sign and visitor information board along Alamo Road near Baker Well by 1999.

Rationale: Information and education are preferable to extensive compliance checks. No trails, campgrounds or other intensive recreation facilities are proposed because these are available elsewhere for that type of experience.

Monitoring

1. Check the visitor register monthly.

V -- Plan Implementation and Evaluation

Plan Implementation		
<i>Work description</i>	<i>Responsible party</i>	<i>Priority</i>
Maintain or enhance natural conditions through the wilderness		
Conduct routine maintenance and inspection of waters	AGFD	High
Post the wilderness boundary at approximately ½-mile intervals	BLM	High
Construct physical barriers where signing is ineffective	BLM	Medium
Conduct monthly patrols on the wilderness perimeter	BLM	Low
Conduct survey flights for wildlife populations	AGFD	Medium
Redevelop Aubrey Peak Dam	AGFD	Low
Repair the storage tank at Aubrey Peak Catchment	AGFD	High
Place the walk-in drinker at Aubrey Peak Pothole	AGFD	High
Augment the existing desert bighorn sheep population	AGFD	Medium
Replace nonfunctional water tanks using a helicopter	AGFD	High
Haul water using a helicopter	AGFD	High
Conduct baseline inventory of existing recreation impacts	BLM	Medium
Install a visitor register	BLM	Medium
Establish a desired plant community	BLM	Medium
Inventory water sources and quantify federally reserved rights	BLM	High
Allow dispersed recreation and use without incurring substantial costs and personnel time		
Prepare a visitor use guide	BLM	Low
Develop a portal sign and visitor information board	BLM	Low

Wilderness management personnel, along with the help of other natural resource specialists and volunteers, will implement the wilderness management plan. These people will be responsible for completing the management actions and monitoring as described in this plan. The activities listed above are those needed to implement the plan and are grouped by objective.

Plan Evaluation

This plan, designed to serve as guidance for managing the Aubrey Peak Wilderness, will be

reviewed annually to determine the following.

1. Are the actions being implemented?
2. Are the actions achieving the intended objective?
3. Are other actions necessary to achieve a certain objective?
4. Are the current issues being resolved?
5. Have new issues arisen that necessitate a plan amendment?

The annual report will include a discussion of at least these five items as well as a recordation of the status of all proposed actions.

VI -- Public Involvement

Scoping

January 26, 1995 -- Approximately 500 letters were sent out per statewide and local wilderness mailing lists.

February 9, 1995 -- Notices of scoping meetings were posted in the town of Bagdad and an announcement was made at a People for the West meeting.

February 10, 1995 -- The BLM posted a notice of scoping in the U.S. Post Office in Wikieup.

February 14, 1995 -- Notices of scoping meetings were posted in Kingman at the Arizona Game and Fish Department, Negus Building (county offices), Mohave County Extension Service, Mohave Community College, Safeway, Albertsons, Smiths, Ranch Market (two locations), Citizens Utilities (main

office), the City Complex, Circle K (two locations) and the Superior Court Building.

February 22, 1995 -- A scoping meeting was held in Kingman with nine people in attendance. Issues included access, wildlife and burro surveys and continued public involvement in the process.

February 23, 1995 -- A scoping meeting was held in Bagdad with 16 people in attendance. Issues included access, grazing, surveys and continued public involvement.

March 20, 1995 -- BLM specialists, an Arizona Game and Fish Department representative, members of People for the West and other interested publics met to discuss the results of the scoping meetings. Items and concerns raised at the meetings were divided into concerns resolved by policy, issues within the scope of the plan and issues outside the scope of the plan.

VII -- List of Preparers

BLM employees who formed the core interdisciplinary team include:

Bruce Asbjorn, Outdoor Recreation Planner
Joyce Bailey, Realty Specialist
Bill Childress, Resource Advisor
Bob Hall, Wildlife Biologist

Ken Mahoney, Wilderness Specialist
Don McClure, Planning and Environmental Specialist
Wendell Peacock, Writer/Editor
Rebecca Peck, Wildlife Biologist
Don Simonis, Archaeologist
Art Smith, Geologist
Andy Whitefield, Range Management Specialist

VIII -- Environmental Assessment

Introduction

Purpose and Need

The purpose of the proposed action is to protect wilderness values while providing for efficient management of wildlife, wild burros, cattle and recreation use, including conducting census and inventories, maintaining facilities and providing information.

To effectively manage wildlife populations within designated wilderness, operations with the potential to conflict with wilderness values may have to be conducted with motorized/mechanized use. These motorized/mechanized activities may be needed to maintain existing improvements, allow for efficient wildlife and burro management and provide for recreational use. The need also exists to maintain the wilderness character by stopping unauthorized access by motorized vehicles into wilderness.

Conformance to Land Use Plans

The proposed actions and alternatives are in conformance with the Kingman Resource Management Plan (1995).

Relationship to Statutes, Regulations and Other Plans

The Arizona Desert Wilderness Act of 1990 mandated that wilderness in Arizona must be managed under the guidance of a wilderness plan. Regulations governing the management of wildernesses are found in 43 CFR 8560. Further guidance for wilderness management is found in BLM Manual 8560 -- Management of Designated Wilderness Areas.

The Wilderness Act of 1964, Public Law 88-577, defines wilderness as "an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural condition." Under the Act, the BLM must manage wilderness within its jurisdiction to protect wilderness values.

Wilderness preservation became one of the BLM's multiple use mandates with the signing of the Federal Land Policy and Management Act into law in 1976. Designation of this area as wilderness was

analyzed in the Upper Sonoran (1987) Wilderness Environmental Impact Statement.

Helicopter use for wild burro population monitoring partially in this wilderness was identified in Environmental Assessment AZ-025-92-040.

Description of Proposed Action and Alternatives

Proposed Action

Initiate all actions as described in Part IV of this plan. These actions are summarized as follows.

- Conduct routine maintenance and inspection of waters and fencelines using nonmotorized means.
- Post the wilderness boundary at approximately one-half-mile intervals.
- Construct physical barriers as needed where signing is ineffective.
- Conduct monthly patrols on the wilderness perimeter.
- Conduct census flights for wild burros every three years.
- Allow for capture flights for wild burros every three years.
- Allow for inventory flights for peregrine falcon habitat.
- Conduct flights to maintain water developments approximately two days per year.
- Conduct wildlife census five days per year.
- Conduct emergency water hauling two days per year.
- Conduct inventory and monitoring of peregrine falcon and desert bighorn sheep and monitor desert bighorn sheep following transplants monthly for five years following releases.
- Augment the existing desert bighorn sheep population in and around the wilderness so that there is a thriving population and conduct associated telemetry flights.
- Prepare a visitor use guide.
- Develop a kiosk.
- Collect baseline vegetation data and set up a monitoring location in T. 12 N., R. 15 W., sec. 34.
- Add a walk-in drinker at Aubrey Peak Pothole and replace a leaking tank.

Alternatives		
<i>Category</i>	<i>Proposed action</i>	<i>No action (current management) continued</i>
Minor maintenance and inspection of waters	Nonmechanized	Case-by-case basis
Physical barriers	Construct the 12 barriers identified in Environmental Assessment AZ-025-93-071, then as needed with no further NEPA analysis	Construct the 12 barriers identified in Environmental Assessment AZ-025-93-071, then on a case-by-case basis
Perimeter patrol	Monthly	Monthly
Visitor use	Construct kiosk and update information	Current pamphlet
Road rehabilitation	Natural (seeding possible)	Case-by-case basis
Burros (census)	Helicopter: Three-year intervals	Case-by-case basis
Burros (capture)	Helicopter: Three-year intervals	Case-by-case basis
Water facility reconstruction	Helicopter: Two days per year	Case-by-case basis
Water hauling	Helicopter: Two days per year	Case-by-case basis
Wildlife census	Helicopter: Five days per year	Case-by-case basis
Augment desert bighorn sheep populations	Up to a thriving ecological balance	Case-by-case basis
Monitoring of transplanted desert bighorn sheep	Monthly for five years following release	Case-by-case basis
Inventory and monitoring of peregrine falcon	One flight every five years	Case-by-case basis

No Action (Current Management) Alternative

Continue to manage the Aubrey Peak Wilderness according to the wildlife operation and maintenance plan, Environmental Assessment AZ-025-95-045 (see page 7, Approved Motorized and Mechanized Use). Conduct routine maintenance and inspection of waters and fencelines using nonmotorized means.

Post the wilderness boundary at approximately half-mile intervals.

Construct the 12 physical barriers identified in Environmental Assessment AZ-029-93-071, then on a case-by-case basis where signing is ineffective.

Conduct monthly patrols on the wilderness perimeter.

Evaluate census and capture flights for wild burros on a case-by-case basis.

Handle flight requests on a case-by-case basis.

Continue to use the current visitor use guide.

Augment the desert bighorn sheep population for the wilderness and surrounding area on a case-by-case basis.

General Setting and Affected Resources

The general description of the wilderness was provided in Part I of this document. The resources most likely to be affected by the proposed action or alternatives are wildlife, wilderness and special status species.

Environmental Impacts

Resources common to each alternative which have been analyzed and are either not present or would not be significantly affected by any of the activities proposed in the alternatives are:

- water quality,
- air quality,
- riparian or wetland zones,
- wild and scenic rivers,
- prime or unique farmlands,
- hazardous or solid waste,
- areas of critical environmental concern designation,
- cultural resources and
- floodplains.

Consultation is being conducted with tribes to determine if there are any Native American religious concerns.

Impacts Resulting from Implementation of the Proposed Action

Wildlife

Flights: Minor, short-term physiological effects on animals in the immediate area of aircraft flight or vehicle use result primarily from auditory stress and, with larger animals, stress from viewing an alien object. Animals should be affected proportionally to their proximity to the aircraft. Actual physical effects from the lowest of overflights would be stress created by running or flying from the aircraft, inhaling dust and stress from human contacts.

The monitoring and survey flights would provide benefits to bighorn sheep, mule deer, javelina and peregrine falcon by allowing the Arizona Game and Fish Department and the BLM to continue data

collection on wildlife populations and habitat. These data enable the two agencies to make informed decisions concerning management issues. The data is also used to observe population changes that may be caused by climatic shifts, disease or habitat alterations. With this action, data collection occurs at the same times as in the past, allowing for comparisons through time.

Wilderness

Flights: The wilderness values of naturalness and opportunities for solitude and primitive recreation would be temporarily impaired or diminished by the sights, sounds or other evidence of aircraft within wilderness. Impacts on wilderness values and users would only occur during the duration of the flight and would cease upon departure.

The sights and sounds of aircraft operation on wilderness values and individual wilderness visitors would be short-term impacts. These impacts would vary with the duration and purpose of the flight, size of the wilderness, time of year and sensitivity of the user. The audio and visual effects of a single flight operation could pervade over a large portion of the wilderness. Flight intrusions over the wilderness could occur up to 19 days each year, with several hours of flight time possible each day. This flight time would not all occur within wilderness but also in adjacent non-wilderness lands. Unless a signal is received from a radio-collared bighorn sheep in a wilderness, most of the flights would remain above 2,000 feet.

A visitor's perception of naturalness and opportunities for solitude could be impaired by sights and sounds from aircraft. Flights would interfere with visitor perception and expectation of a landscape free of human activity and the natural quiet expected in wilderness. Moreover, the attractiveness of the wilderness as a setting for unencumbered primitive recreation opportunities could decline for users subject to the presence of aircraft. Some wilderness users would find the mechanized activity more noticeable and objectionable than others.

The duration of mechanized impacts could continue at varying levels for up to 19 days. Census flights conducted in September and October and peregrine flights conducted in early spring have the potential to affect more visitors than summer flights. Peregrine flights are unlikely, although possible, to occur during the duration of this plan; therefore, impacts are anticipated to be low or nonexistent. Telemetry flights, although conducted throughout all

seasons, are expected to have little impact on visitors as the flights will rarely fly below 2,000 feet. Since 1990, three collared bighorn sheep have been detected in the Aubrey Peak Wilderness. Currently, seven collared bighorn sheep could potentially be found in this wilderness.

Barriers, patrols and signs: The combination of these actions would effectively eliminate all wilderness intrusions by motor vehicles. This would allow visitors the opportunity to enjoy wilderness solitude in a natural setting without being disturbed by the sight or sound of motor vehicles. Also, by eliminating traffic on historic vehicle ways, revegetation of these routes would eventually improve the overall natural character of the areas. A minor decrease in visual quality would occur along the boundary of the wilderness in the areas of the barriers. The decrease in quality would only be apparent from short distances from the barriers.

Visitor use: Visitor use is expected to increase under this alternative; therefore, there would be a decrease in the opportunity for solitude. Also, with the increase in visitors comes an increase in fire rings and other evidence of temporary human occupation of an area, which would decrease the current state of naturalness found in the area.

Special Status Species

Flights: To apply effective management, special status species habitat and populations must be accurately defined and monitored through time. Low-level reconnaissance will greatly enhance the ability to detect and subsequently inventory and monitor (by foot or horseback) peregrine falcon nesting habitat. This less time-consuming, more cost-effective, methodology will provide high-quality data in a shorter timeframe. It will help BLM and Arizona Game and Fish Department managers and biologists make more accurate and timely decisions and recommendations contributing to the recovery of these species.

Implementation of the proposed action is not likely to adversely affect the endangered peregrine falcon and will not adversely affect desert tortoise.

Because of the unknown distribution status and habitat parameters of other special status species (spotted bat, California leaf-nosed bat, greater western mastiff bat, Hualapai southern pocket gopher, Yavapai Arizona pocket mouse, chuckwalla, rosy boa and loggerhead shrike), a detailed assessment of impacts cannot be made. However, there are no anticipated negative impacts to these species.

Visitor use: As visitor use increases, contacts between humans and tortoises will increase.

Impacts Resulting from Implementation of the No Action Alternative

Wildlife

Flights: This alternative would have none of the negative impacts on wildlife which come from flight operations. However, the difficulty of obtaining the information and knowledge, now provided by survey and telemetry flights, through the utilization of non-aerial methods will lead to a serious loss of quality information. Those decisions made by the BLM and Arizona Game and Fish Department would be based on lower-quality wildlife monitoring data.

Restriction of aerial/mechanized intrusions for water development inspection and supplementation may result in delays in these activities to the detriment of the wildlife resources.

Wilderness

The no action alternative would have no impact on wilderness values of naturalness and opportunities for primitive recreation and solitude. Current conditions would remain the same.

Special Status Species

To apply effective habitat management, special status species habitat areas must be accurately defined and monitored through time. Restricting habitat inventories to ground survey techniques will significantly decrease the ability to identify and inventory potential habitat, and consequently reduce the BLM's and Arizona Game and Fish Department's management effectiveness for recovery of the peregrine falcon.

The restriction on conducting aerial habitat and population monitoring surveys in the Aubrey Peak Wilderness would potentially delay documentation of nesting efforts for the peregrine falcon. This is due to extremely limited and difficult access, rough and hazardous terrain, mapping difficulties and lack of visibility due to vertical rocky outcrops. Additional distribution information on this species could play a significant role in conservation efforts and recovery goals and techniques utilized for this species. The lower-quality information would be detrimental to habitat improvement efforts, management

decisionmaking and status reviews. BLM and Arizona Game and Fish Department contributions toward overall recovery of this endangered species would move at a slower pace and be of less significance. Management and conservation of endangered species and their habitat is mandated for all federal agencies under the Endangered Species Act.

The impacts to the special status species would be the same as those described under the proposed action.

Cumulative Impacts

Proposed Action

Wildlife

The cumulative effect of all proposed flights and vehicle uses will not significantly affect the wildlife populations. Non-wildernesses receive significantly more use by humans operating aircraft, four-wheel-drive vehicles, all-terrain vehicles and motorcycles. In comparison, wilderness provides wildlife with quiet, undisturbed, habitat areas.

Wilderness

Flights conducted for wild burro management when aggregated with wildlife management flights will increase the likelihood of negatively affecting visitors' wilderness experience because it increases the numbers of days per year that visitors could be affected by these intrusions.

Special Status Species

These species will not be affected by the flights or vehicle uses occurring in the wilderness. Non-wildernesses receive significantly more use by humans operating aircraft, four-wheel-drive vehicles, all-terrain vehicles and motorcycles. In comparison, wilderness provides wildlife with quiet, undisturbed, habitat areas.

No Action (Current Management) Alternative

Wildlife

Desert bighorn sheep augmentation would have to continue to be handled on a case-by-case basis, which requires more time and effort than the long-term planning of the proposed action.

Modification to wildlife facilities would be handled on a case-by-case basis, requiring more time and effort than the "one-time" planning and analysis of the proposed action.

Without establishing standards and monitoring the recreational use for this wilderness, impacts to wildlife caused by recreationists, e.g., trampling of vegetation and harassment of wildlife, would be difficult to control.

Special Status Species

Without establishing standards and monitoring the recreational use of this wilderness, impacts to special status species caused by recreationists, e.g., harassment, could be difficult to control. However, potential adverse impacts to peregrine falcons resulting from the no action alternative are unlikely.

Consultation and Coordination

See Part VI of this plan for details.

Mitigation Measures

Operating procedures that reduce impacts to all natural resources have been built into the proposed action so there is no need for mitigation.

Appendix A

Major Plant Species Found in the Aubrey Peak Wilderness			
<i>Plant species</i>	<i>Uplands</i>	<i>Hills</i>	<i>Washes</i>
Creosotebush (<i>Larrea tridentata</i>)	X	X	X
White bursage (<i>Ambrosia dumosa</i>)	X	X	X
White brittlebush (<i>Encelia farinosa</i>)	X	X	
Joshua tree (<i>Yucca brevifolia</i>)	X		
Nevada Mormon tea (<i>Ephedra nevadensis</i>)	X		
Mormon tea (<i>Ephedra trifurca</i>)	X	X	
White ratany (<i>Krameria grayii</i>)	X	X	
Rayless golden-head (<i>Acamptopappus spp.</i>)	X		
Whitestem paperflower (<i>Psilotrophe copperii</i>)	X		
Desert globemallow (<i>Sphaeralcea ambigua</i>)	X	X	X
Rat ear (<i>Coldania tequiliana</i>)	X		
Saguaro (<i>Carnegiea gigantea</i>)	X	X	
Barrel cactus (<i>Ferocactus sp.</i>)	X		
Pencil cholla (<i>Opuntia arbuscula</i>)	X		
Pincushion cactus (<i>Mammillaria spp.</i>)	X		
Anderson wolfberry (<i>Lycium andersonii</i>)	X		
Beavertail (<i>Echinocereus engelmannii</i>)	X		
Catclaw (<i>Acacia greggii</i>)			X
Indigo bush (<i>Dalea sp.</i>)	X		
Slender janusia (<i>Janusia gracilis</i>)		X	
Paloverde (<i>Cercidium floridum</i>)	X	X	

Appendix B

Steps to Full Fire Suppression: Aubrey Peak Wilderness

1. Inform the Area Manager or Acting Area Manager of a fire in the wilderness.
2. Designate an initial attack Incident Commander.
3. Using ground or aerial reconnaissance, determine:
 - fire location, size, rate of spread and behavior,
 - current and probable fuels, weather and topography including locations of natural barriers and
 - threats to life, property or sensitive wilderness resources.

Authority is given to the Incident Commander to fly at levels below 2000 feet in reconnaissance efforts when it is determined to be the minimum tool to assess the fire.
4. Inform the District Manager of the fire.
5. Designate and dispatch a Resource Advisor to the fire.
6. The Area Manager will consult with the Incident Commander and/or Resource Advisor to determine the appropriate level of initial attack and fire suppression strategy considering such variables as weather conditions, time of year, current and predicted fire behavior and other pertinent factors.
7. Take action to suppress the fire, utilizing the most effective tactics while considering the concept of minimum tool.
8. Use of temporary structures, chainsaws, portable pumps, initial attack aircraft (below 2000 feet), retardant aircraft, helicopters, aerial ignition systems, camps in wilderness, motorized vehicles, motorized earthmoving equipment and construction of new helispots may be undertaken with Area Manager approval when they are the minimum tool necessary to meet wilderness fire objectives.
9. Emergency authority is given to the Incident Commander in consultation with the Resource Advisor, if available, to use power tools and aircraft to build (helicopter or air tanker, fugitive retardant preferred) and hold firelines and to authorize helicopter landing during initial attack if:
 - imminent danger to structures or people exists,
 - significant wilderness resources are seriously threatened or
 - the Area Manager or Acting Area Manager cannot be reached within 15 minutes following initial fire reconnaissance.
10. Complete an escaped fire situation analysis if the fire escapes initial attack as determined by the Incident Commander. Analysis will be completed by the District Fire Management Officer, Area Manager, Incident Commander and Resource Advisor.
11. A memorandum will be completed by the Area Manager describing the use of motorized vehicles/mechanized equipment following the fire, with a copy submitted to the State Director.
12. The Resource Advisor will consult with the Incident Commander to complete the wilderness post-fire report.
13. All human impacts created during suppression efforts will be reclaimed following the fire.

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Glossary

calcareous: Made up of or having some amount of calcium carbonate (CaCO₃).

cadastral: To survey the extent and ownership of land.

thriving natural ecological balance: The condition of the public range that exists when management

objectives in approved land use and activity plans have been achieved that will sustain healthy populations of wild horses and burros, wildlife and livestock on public lands and protect the desired plant community from deterioration.