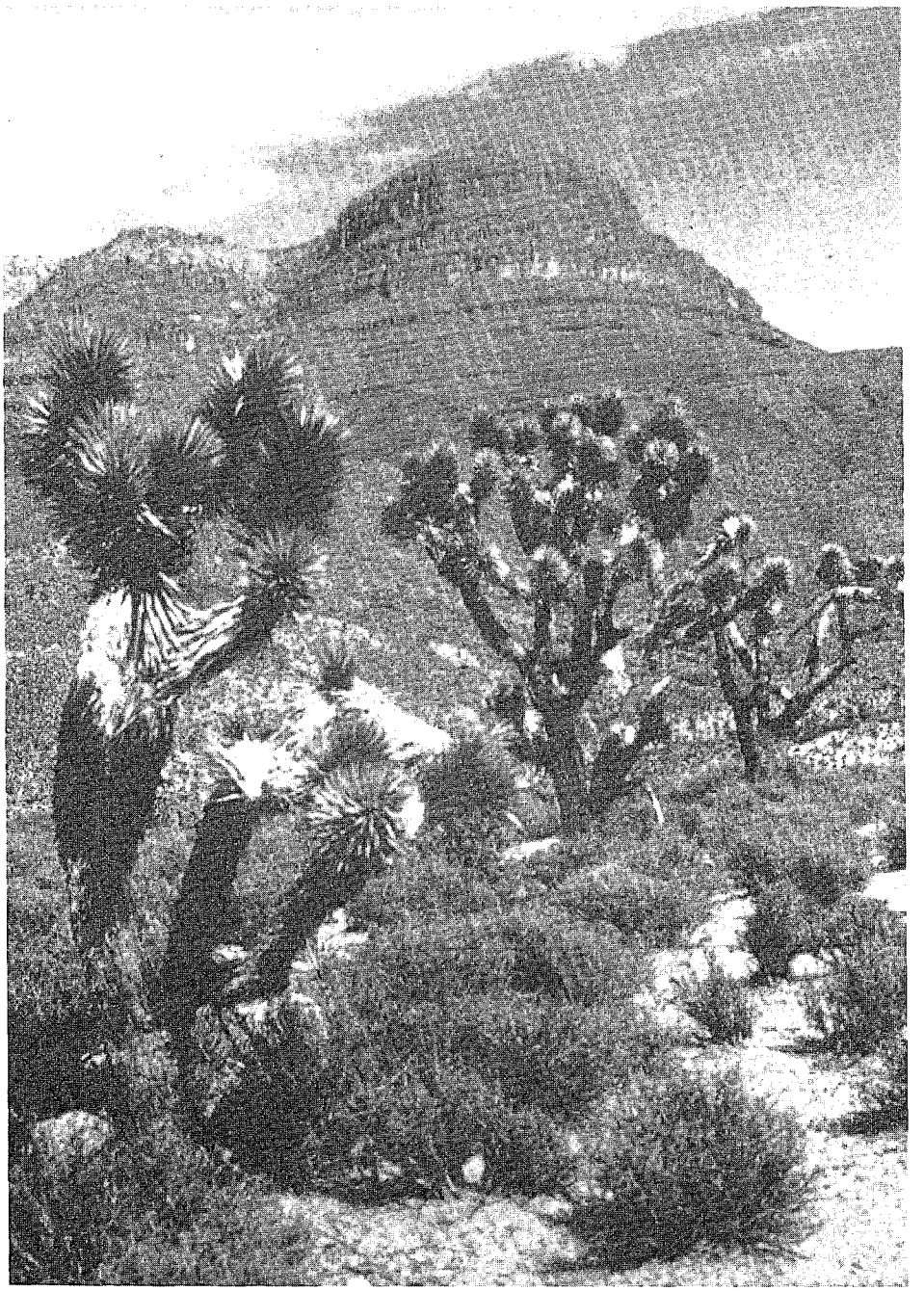
U.S. Department of the Interior
Bureau of Land Management

Kingman Resource Area | September 1993

Kingman Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of the nationally owned public lands and natural resources. This includes fostering the wisest use of the land and water resources, protecting fish and wildlife and preserving the environmental and cultural values of the national parks and historical places, providing for the enjoyment of life through outdoor recreation. The Department assesses energy and mineral resources and works to assure that their development is in the best interests of all. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

BLM/AZ/PL-93/009-4410

KINGMAN RESOURCE AREA

PROPOSED RESOURCE MANAGEMENT PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT

September 1993

U.S. Department of the Interior
Bureau of Land Management
Kingman Resource Area

Dear Reader:

The document accompanying this letter is the Kingman Resource Area proposed Resource Management Plan and final Environmental Impact Statement. This final Environmental Impact Statement analyzes the impacts expected from implementing the proposed Resource Management Plan. The Plan, if approved, will guide the BLM in its management of the Kingman Resource Area covering parts of Mohave, Yavapai and Coconino counties.

The proposed Plan is a modified version of the preferred alternative in the Draft Kingman Resource Area Resource Management Plan/ Environmental Impact Statement published in November 1990. **All changes from the draft, or new information added to this document, have been highlighted for the convenience of the reader by printing in bold type.**

The Bureau's planning process includes an opportunity for administrative review via a plan protest to the BLM Director, should a reader believe that approval of the proposed Resource Management Plan would be in error (see 43 CFR 1610.5-2.). Careful adherence to these guidelines will assist in preparing a protest assuring the greatest consideration to each point of view.

Only those persons or organizations who participated in the planning process leading to this proposed Resource Management Plan may protest. If Kingman Resource Area records do not indicate any involvement in any stage in the preparation of this Plan, the protest will be dismissed without further review.

A protesting party may raise only those issues which he or she submitted for the record during the planning process. New issues raised in the protest period should be directed to the Phoenix District Manager or the Kingman Resource Area Manager for consideration in plan implementation, as potential plan amendments or as otherwise appropriate.

The period for filing a plan protest begins when the Environmental Protection Agency publishes in the *Federal Register* its Notice of Availability of the final Environmental Impact Statement containing the proposed Resource Management Plan. The protest period extends for 30 days. There is no provision for any extension of time. To be considered "timely," a protest must be postmarked no later than the last day of the protest period. Also, although not a requirement, it is suggested that protests be sent by certified mail, return receipt requested.

Protests must be filed in writing to:

Bureau of Land Management
Division of Planning and Environmental Coordination
1849 C Street NW
(406 L Street)
Washington, DC 20240

In order to be considered complete, each protest must contain, at a minimum, the following information:

1. The name, mailing address, telephone number and interest of the person filing the protest.

2. A statement of the issue or issues being protested.

3. A statement of the part or parts of this proposed Resource Management Plan being protested. To the extent possible, this should be done by reference to specific pages, paragraphs, sections, tables, maps, etc., included in this document.

4. A copy of all documents addressing the issue or issues submitted during the planning process or a reference to the date the issue or issues were discussed for the record.

5. A concise statement explaining why the BLM State Director's decision is believed to be incorrect. *This is a critical part of the protest.* Take care to document all relevant facts. As much as possible, reference or cite the planning documents, environmental analysis documents, available planning records, i.e., meeting minutes or summaries, correspondence, etc. A protest which merely expresses disagreement with the Arizona State Director's proposed decision without any data will not provide the benefit of this information and insight. In this case, the Director's review will be based on the existing analysis and supporting data.

Sincerely,

G. L. Cheniae
District Manager

KINGMAN RESOURCE AREA

PROPOSED RESOURCE MANAGEMENT PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT

Draft ( ) Final (X)

The United States Department of the Interior, Bureau of Land Management

1. Type of Action: Administrative (X) Legislative ( )

2. Abstract: This Proposed Resource Management Plan and Final Environmental Impact Statement describes and analyzes alternatives, including a No Action Alternative, for managing the public lands and resources in the Kingman Resource Area, Arizona.

3. Comments were requested from the individuals, groups and agencies listed in Chapter V.

4. For further information contact:

Ken R. Drew, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, Arizona 86401
(602) 757-3161
FTS 700-261-0200

5. Draft filed with the Environmental Protection Agency: November 27, 1990.

6. Protests must be filed with the Director (760) no later than 30 days after the date this document was filed with the Environmental Protection Agency.

Recommended:	Concur:	Approved:
Ken R. Drew	G. L. Cheniae	Lester K. Rosenkrance
Area Manager	District Manager	State Director
Kingman Resource Area Office	Phoenix District Office	Arizona State Office

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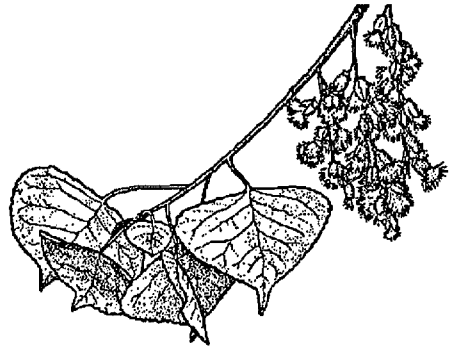


SUMMARY

INTRODUCTION

This proposed Resource Management Plan and final Environmental Impact Statement identifies and analyzes alternatives for managing public lands and resources administered by the Bureau of Land Management (BLM) in the Kingman Resource Area. The Resource Management Plan will guide the management of public lands, associated resources and diverse multiple uses on the resource area over the next 20 years. **Acreages shown in this Resource Management Plan are approximate.**

The BLM's land use planning is accomplished under the authority of and in accordance with the Federal Land Policy and Management Act of 1976. This draft was prepared by an interdisciplinary team and the resource area staff. The plan is the result of a concentrated step-by-step planning effort over the past five years and substantial public involvement and consultation. The BLM Phoenix District Office and the Arizona State Office provided technical assistance and review.

CHANGES TO THE DRAFT

All changes to the draft, or new information added to this document, have been highlighted for the convenience of the reader by printing in bold type.

THE PLANNING AREA

The planning area includes the bulk of the public lands within the resource area. The eastern boundary of the planning area coincides with 113 degrees west longitude. However, the resource area extends farther east to the Coconino/Navajo county line. The area encompasses 2.4 million acres of public land surface and 2.0 million acres of federal minerals in northwestern Arizona south of Lake Mead and the Hualapai Indian Reservation. Much of the public lands is characterized by large areas of checkerboard or intermingled ownership.

The planning area is a vast and interesting area rich in natural and cultural resources. Important forage, wildlife, mineral, archaeological, scenic, recreation, watershed, woodland and other values are present on these public lands.

A wide variety of multiple uses occurs in the planning area and public use has increased steadily in recent years, due to the increased population in and around Kingman and Bullhead City. The resources available and associated uses are important to the general public as well as local communities.

THE PLANNING PROCESS

This document was prepared in accordance with BLM planning regulations. Decisions made for implementing the Resource Management Plan will update or, in some cases, replace land use planning decisions in the Cerbat Mountains (1974), Black Mountains (1975) and Hualapai-Aquarius (1982) management framework plans. These management framework plans have guided public land management on the resource area since their completion. Substantial changes have occurred in the planning area since completion of the management framework plans. These changes necessitate updating the land use planning for the area.

The planning criteria established the legal parameters and management goals that directed the development of the Resource Management Plan. The basic criteria used came from the Federal Land Policy and Management Act and BLM Supplemental Program Guidance.

Objectives are an integral part of the planning process. They guide proposed management in development and evaluation of the alternatives. The planning area-wide objectives are found in Chapter II.

MANAGEMENT GUIDELINES

Recognizing that some public lands are more sensitive to multiple uses than others because of special qualities, concerns or conflicts, three areas have been identified to guide management. They are referred to as General Management Areas, Areas Requiring Special Management **and the portion of the resource area east of the planning area boundary.**

General Management Areas

Most of the resource area consists of lands containing a wide variety of resources and values that require continued multiple use management. These lands generally do not contain unusual characteristics, or are not subject to unusual demands requiring special management attention.

Management guidelines for these areas would remain similar to current management practices which are considered adequate. Existing laws, regulations, policies and procedures would be followed. The following management guidelines would apply.

- Designate off-highway vehicle use as open or limited to existing roads, trails and washes.
- Issue sale and free-use permits as appropriate for vegetative products and mineral materials.
- Provide for semiprimitive motorized and non-motorized recreation.
- Lands determined to be necessary for community expansion could be transferred out of federal ownership; the preferred method would be through exchange.

Areas Requiring Special Management

The remaining lands have characteristics that include important scenic values and exceptional natural features that offer quality recreational opportunities in remote backcountry settings. With few exceptions, these lands are generally not developed. They have been identified by the public and the BLM as having unique resource

values, such as threatened and endangered species, and would require special management.

Management guidelines for these public lands would be focused on the enhancement of various resource values, while allowing for multiple use. The BLM would manage authorized uses and prepare management prescriptions to protect unique resource values. The following management guidelines would apply.

- close and rehabilitate roads where no public or administrative need exists to keep them open
- designate off-highway vehicle use as limited or closed
- implement special coordinated resource management plans to protect the fragile character and unique resource values of specific areas
- provide for semiprimitive motorized and non-motorized recreation.

Area East of the Planning Area

Management of all resources on these lands will be administered in accordance with the appropriate provisions contained in the selected Resource Management Plan.

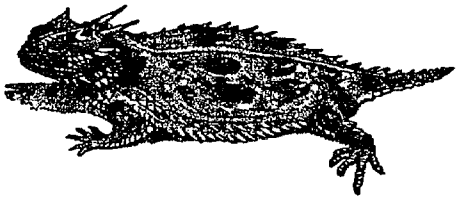
This area includes 7,717 acres of public surface estate and approximately 80,000 acres of subsurface mineral estate in Yavapai and Coconino counties.

PLANNING ISSUES

This document is issue driven. The planning effort focuses on resolving major issues associated with management of public lands in the planning area.

There is high public interest and concern about how public lands and associated resources are and will be managed in the future. Scoping meetings held to obtain public input and follow-up staff work by the planning team identified six major planning issues for resolution in this document. These issues are the focus of this planning effort and they are addressed and tracked throughout this document. The six issues are listed below and explained in more detail in the Planning Issues section of Chapter I.

Issue 1: (a) Recreation Planning
(b) Off-Highway Vehicles
Issue 2: Special Area Designations
Issue 3: Wildlife Habitat/Threatened and Endangered Species
Issue 4: Riparian/Wetland Area Management
Issue 5: Land Tenure
Issue 6: Salable, Locatable and Leasable Minerals



MANAGEMENT COMMON TO ALL ALTERNATIVES

Management decisions and guidance common to all alternatives are also provided in this Resource Management Plan/Environmental Impact Statement. They are from existing management framework plans, activity plans and the laws, regulations and policies by which the BLM is directed. Common management direction involves portions of the following resource programs: lands, minerals, rangeland/vegetation, woodland, wild horses and burros, special status species, wildlife habitat, riparian habitat, cultural resources, soil, water and air, fire management, hazardous materials, recreation, wilderness, transportation/access maintenance, law enforcement and environmental management.

PROPOSED ACTIONS

Actions proposed in this document will apply only to public lands administered by the Bureau of Land Management

ACCESS TO PRIVATE LANDS

The public is encouraged to respect private property. Access, other than via a public road as defined under Federal or Arizona Statute, across private lands is at the discretion of the private landowner and can be assured only by asking for and receiving permission from the landowner.

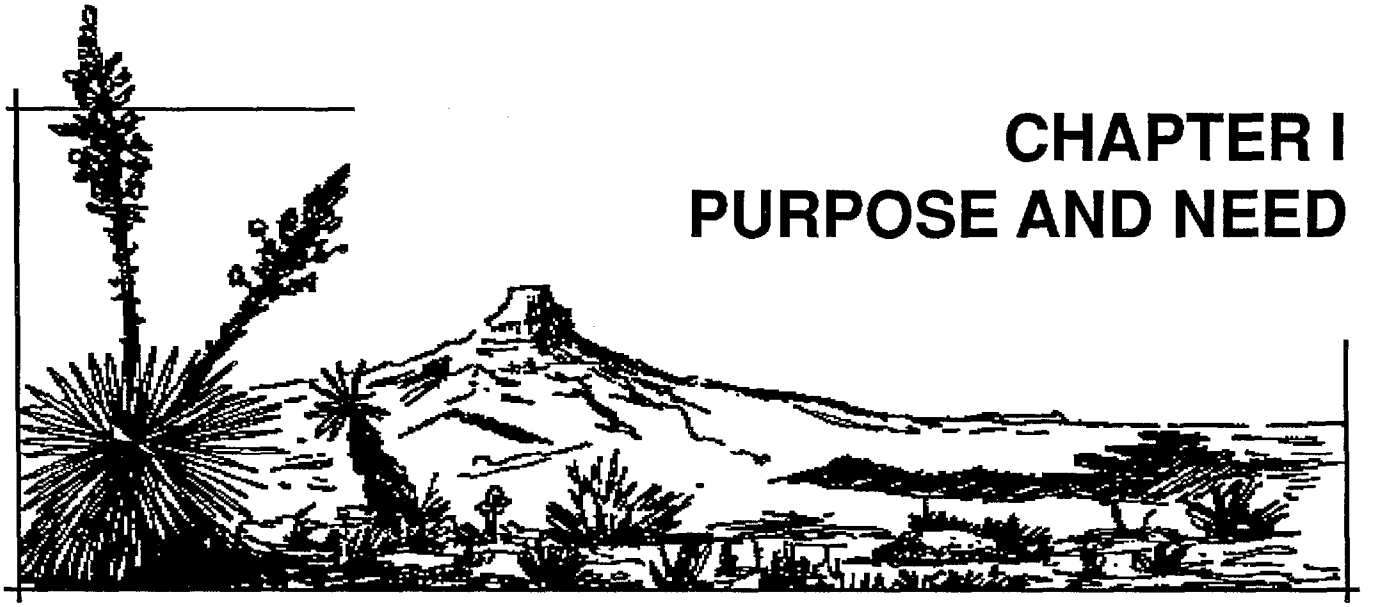
ALTERNATIVES CONSIDERED

Alternative 1 (Current Management) represents the continuation of present management as prescribed in existing management framework plans and as summarized in the Management Situation Analysis. *Alternative 1* is the *No Action Alternative* for the Resource Management Plan/Environmental Impact Statement. *Alternative 2, the Preferred Alternative,* contains decisions the interdisciplinary team believes represent the best combination of actions allowing resource uses while protecting the environment. *Alternative 3* **increases the area closed to mineral material disposals,** places smaller areas under special management, adds one disposal area, increases recreation facilities, closes areas to livestock grazing to protect unique resources and **excludes wild horses from the Marble Canyon use area within the Cerbat Herd Management Area.**

ENVIRONMENTAL CONSEQUENCES

Environmental impacts of the three alternatives have been analyzed and are described in Chapter IV and summarized at the end of Chapter II in **Table 18.** The impacts depict the projected changes that would occur to the environment if the alternative was implemented.

The cumulative impact section addresses the degree and extent of the cumulative impacts on the environment. Cumulative impacts include the impact on the environment which results from the incremental changes from various actions when added to other past, present and reasonably foreseeable changes. Cumulative impacts can also result from individually minor, but collectively significant, actions taking place.



CHAPTER I
PURPOSE AND NEED

INTRODUCTION

The Kingman Resource Management Plan/Environmental Impact Statement will guide the Kingman Resource Area in managing **2.4 million** acres of public land surface and **2.0 million** acres of federal minerals for the next 20 years. This Resource Management Plan/ Environmental Impact Statement was prepared under the authority of Sections 201 and 202 of the Federal Land Policy and Management Act of 1976, as amended, which requires the Secretary of the Interior to develop land use plans for all public lands. The Resource Management Plan/Environmental Impact Statement conforms to the Bureau planning regulations (43 CFR 1600).

The National Environmental Policy Act requires all federal agencies to prepare an environmental impact statement on any major federal action. The environmental impact statement analyzes the environmental impacts of implementing the preferred Resource Management Plan and alternatives and was prepared under the Council on Environmental Quality regulations for implementing the National Environmental Policy Act. This **final** Environmental Impact Statement is not a decision-making document. Decisions are made in the Record of Decision.

PURPOSE AND NEED

This Resource Management Plan/Environmental Impact Statement focuses on resolving planning issues associated with the future management of public lands in the Kingman Resource Area. The public lands **in the planning area** are rich in wildlife, archaeological, scenic, recreational, mineral and forage values. The Bureau of Land Management's (BLM) overall goal is to provide quality multiple use and sustained yield management of the public lands.

The planning issues were identified by the resource area's specialists, the **district** management team and the public during the scoping process. The scoping process is designed to determine the issues to be resolved by the Resource Management Plan. This process began with the publishing of the Notice of Intent to prepare the Resource Management Plan/Environmental Impact Statement in the *Federal Register* on September 27, 1988. Following the publishing of the notice of intent, the BLM sent letters to people who had stated an interest **in participating in the planning process,** stating where and when the public scoping meetings would be held and the preliminary issues to be discussed at the meetings. See Chapter V "Consultation and Coordination" for **a documentation of the meetings held during** the scoping process.

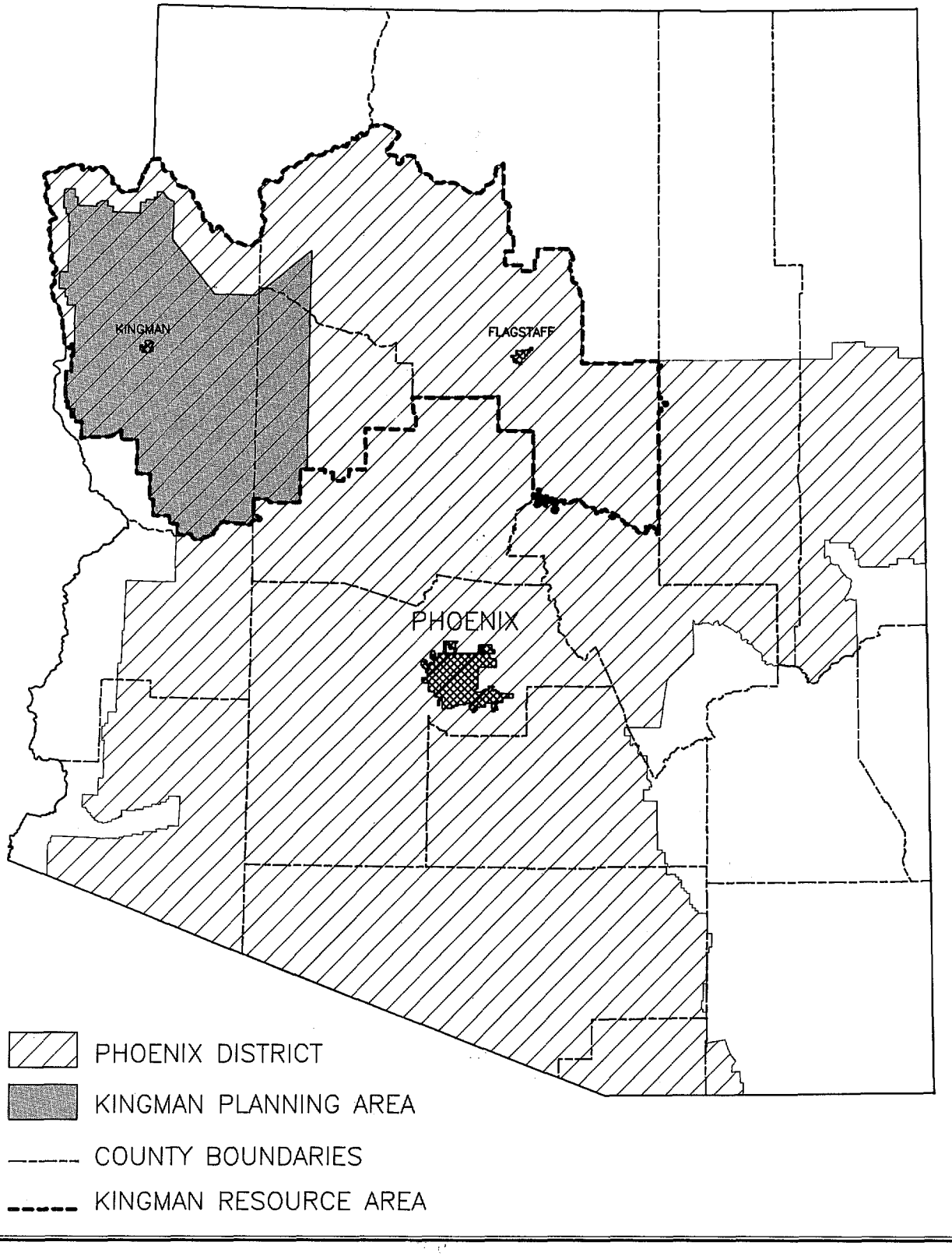
The Kingman Resource Management Plan/Environmental Impact Statement does not address two issues identified during the scoping process: wilderness and livestock grazing. These two issues were discussed and analyzed in separate environmental impact statements. The decisions made on the Cerbat/Black Mountains (BLM, 1978) and Hualapai-Aquarius (BLM, 1981) grazing environmental impact statements, and the recommendations in the Upper Sonoran (BLM, 1987), Phoenix (BLM, 1987) and Arizona Mohave (BLM, 1989) wilderness environmental impact statements will be adopted as the management direction for these two programs in the Resource Management Plan/Environmental Impact Statement. All of the documents **listed above can** be reviewed at the Kingman Resource Area office. A very limited scope of livestock grazing is addressed only as it relates to other issues, to ephemeral grazing management and to allocation of forage on acquired lands. **The Arizona Desert Wilderness Act of 1990 created nine wilderness areas in the resource area.**

This Resource Management Plan will replace land use decisions in the three existing framework management plans -- Cerbat Mountains, Black Mountains and Hualapai-Aquarius -- which have guided the BLM's management of public lands in the Kingman Resource Area for the past 11 to 14 years. **Those** management framework plan decisions still valid are being carried forward and incorporated in this Resource Management Plan, either **in total or as modified.** Decisions considered to be no longer valid are dropped.

Description of the Planning Area

The planning area in northwestern Arizona, south of the Lake Mead National Recreation Area, contains **2,420,688** acres of public land surface and **1,965,625** acres of federal minerals. **The federal government does not own the minerals under 455,063 acres of public land.** These lands are in Mohave and Yavapai counties, Arizona (see **Map 1).** Public lands in Mohave and Yavapai counties

PLANNING AREA LOCATION



Map 1

are, for the most part, well blocked with several large checkerboarded areas. **A total of 7,717 acres of public land occurs in Coconino County as isolated and scattered tracts. The BLM also administers approximately 80,000 acres of federal mineral estate outside the planning area in Coconino and Yavapai counties.**

Planning Process

The BLM resource management planning process consists of nine steps, described below and shown in **Figure 1.**

Step 1: Identification of Issues, Concerns and Opportunities

Step 1 identifies major problems, concerns and opportunities associated with the management of public lands in the Resource Management Plan area. Issues are identified by the public, the BLM and other governmental entities. The planning process focuses on resolving the identified planning issues.

Step 2: Development of Planning Criteria

Planning criteria are the policies, laws, regulations and guidelines that should be used for resolving issues, developing alternatives and choosing a proposed plan.

Step 3: Inventory Data and Information Collection

This step involves the collection and assembly of biological, physical, social or economic information needed to resolve the planning issues. The inventory information is used in determining how the public land resources will respond to each of the alternatives.

Step 4: Analysis of the Management Situation

The Management Situation Analysis describes the ways the BLM currently manages the planning area's public lands and discusses opportunities to better manage these lands.

Step 5: Formulation of Alternatives

At this point, the BLM formulates a range of alternatives for managing the resources in the Resource Management Plan area. The range of alternatives is developed to resolve the planning issues and to address management concerns in the Resource Management Plan area.

Step 6: Estimation of Effects of Alternatives

This step involves estimating and analyzing the environmental effects of implementing each of the alternatives. These effects are compared before a preferred alternative is selected.

Step 7: Selection of the Preferred Alternative

From information generated during steps 1 through 6, the BLM selects a preferred alternative, prepares a draft Kingman Resource Management Plan/Environmental Impact Statement and distributes the draft for public review.

Step 8: Selection of the Resource Management Plan

From the results of public review and comment, the BLM selects a proposed Resource Management Plan and publishes it with a final Environmental Impact Statement. A final decision is made after a 30-day protest period following filing of the proposed Resource Management Plan/final Environmental Impact Statement with the Environmental Protection Agency.

Step 9: Monitoring and Evaluation

This step involves the collection and analysis of long-term resource condition and trend data to determine the plan's effectiveness in resolving issues and to assure that the plan is achieving the desired results. Monitoring continues from the time the Resource Management Plan is adopted until changing conditions require a revision of the entire plan or any portion of it.

Planning Issues, Criteria and Management Concerns

The BLM planning regulations, 43 Code of Federal Regulations (CFR) 1600, equate land use planning with problem solving and issue resolution. An issue is defined as an opportunity, conflict or problem regarding the use or management of public lands and resources.

Planning criteria are the standards, rules and measures used to guide data collection and alternative formulation. These criteria guide final plan selection. Planning criteria are taken from laws and regulations, BLM manuals and directives and concerns expressed in meetings and in consultations with the public and other agencies.

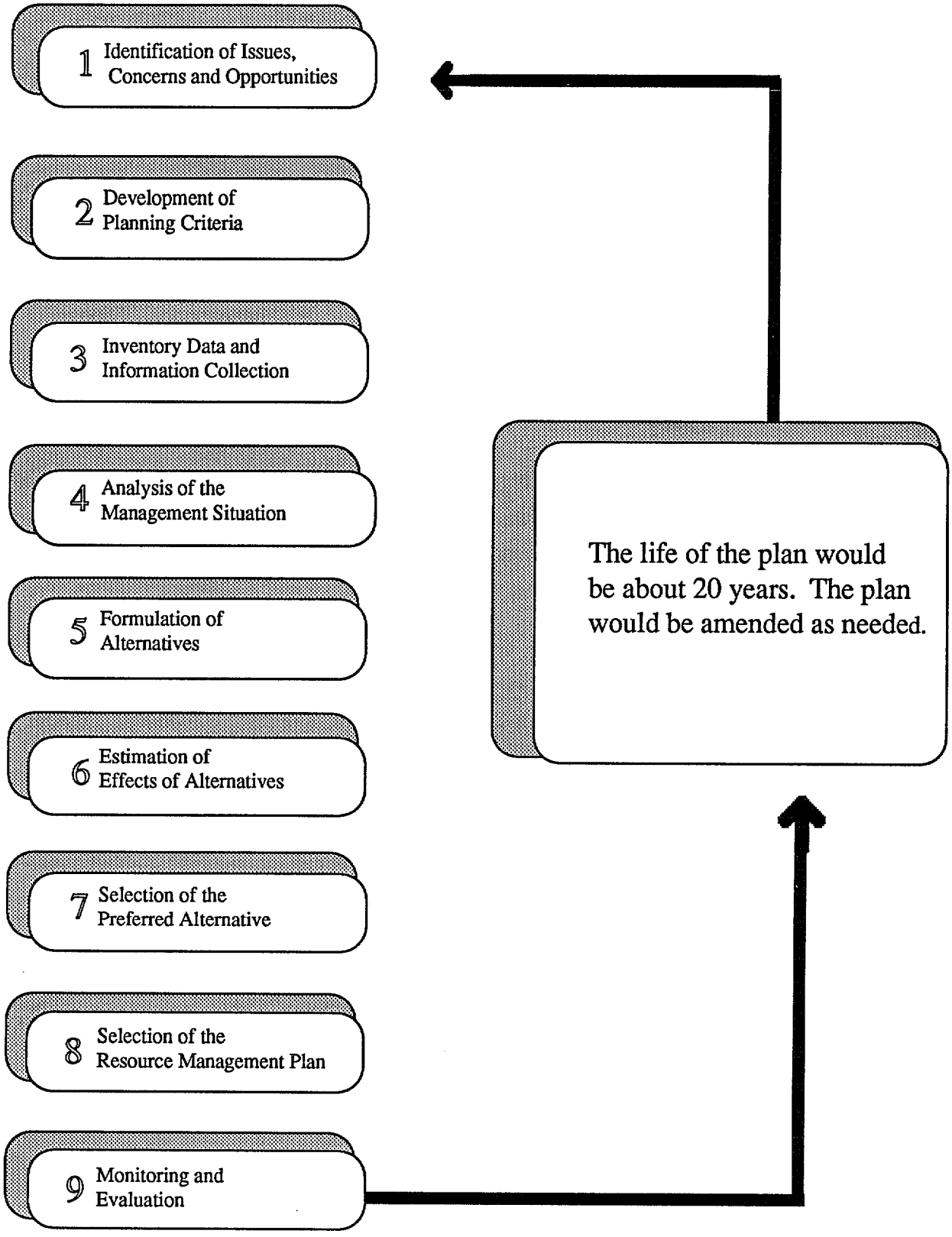
Management concerns are nonissue-related procedures or land use allocations that have proven during the preparation of this Resource Management Plan/Environmental Impact Statement to need changing. Management concerns focus on use conflicts, requirements or conditions that cannot be resolved administratively and did not, during initial public scoping, appear to meet the criteria to qualify as planning issues.

The following planning issues, management concerns and associated planning criteria were selected for resolution in the Kingman Resource Management Plan.

ISSUE 1a: RECREATION PLANNING FOR SPECIAL AREA MANAGEMENT, PROJECT PLANNING, FACILITIES, VISITOR SERVICES AND RECREATION 2000 IMPLEMENTATION

Increasing population, leisure time, mobility and disposable income are rapidly expanding public demand for recreation opportunities, recreation facilities, visitor services and resource protection measures in the Kingman Resource Area. Most notably, demographics in the resource area are rapidly changing. Kingman, Dolan Springs, Meadview, Sacramento Valley and Bullhead City/Laughlin are growing communities, particularly for retired persons. The median age of the nation's population is increasing, and the BLM should address the needs of older citizens in the future. There is an intense interest in recreation on the surrounding public lands.

STEPS IN THE RESOURCE MANAGEMENT PLANNING PROCESS
Figure 1



Commercial and public recreational developments are expected to increase throughout Mohave County on Indian reservations and along the Colorado River. Laughlin, Nevada is becoming a gambling center rivaling Reno, Nevada in number of visitors and economic significance. Bullhead City, Arizona, Laughlin's sister city across the river, and the surrounding area are also growing and rapidly becoming a major winter recreation center. The BLM must develop strategies to enhance the delivery of commercial and public recreation services and satisfy visitor recreation needs in the Colorado River Valley. The potentials to manage and enhance recreation and tourism and develop partnerships with commercial recreation interests are many and varied in the Bullhead City area. In addition, the city of Kingman and Mohave County are highly interested in the recreation potential of the public lands. Tourism may well become the number one industry in Mohave County.

To serve visitor recreation needs, the BLM must plan for the management and long-term protection of recreation opportunities. Successful implementation of the BLM's Recreation 2000 policies can be achieved through recreation planning and management prescriptions developed in the Kingman Resource Management Plan. The BLM has received many public comments about recreational use and impacts to public lands. Potential management decisions for all resources will affect the availability and quality of public recreation opportunities.

The Kingman Resource Management Plan will establish an occupancy and camping stay limit on public lands to protect natural resources and to ensure recreation opportunities are open to all visitors. Long-term occupancy during the winter and summer recreation use seasons have created ongoing problems with constant and unauthorized wood collection, off-highway vehicle use and the illegal dumping of trash and sewage-holding tanks on public land.

The Resource Management Plan will evaluate the need for and possible location of long-term visitor use areas. Such areas must meet resource protection needs and provide visitor services, but they should not compete with private, local or other public recreation facilities.

Needed Decisions

Which public lands in the resource area should be designated special recreation management areas and be managed to maintain and enhance their characteristic outdoor recreation opportunities and the natural settings on which these opportunities are based?

What recreational settings should be maintained for the identified recreational opportunities occurring within extensive recreation management areas? The extensive recreation management area includes all public lands, exclusive of special recreation management areas, and those settings where recreation is unstructured and dispersed and requires minimal BLM investment or regulation.

What funding and implementing priorities should be established for areas and facilities for which activity planning has been completed?

On the basis of Resource Management Plan decisions to establish more developed sites or other recreation program initiatives, what recreation activity planning priorities should the BLM establish?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Changing demographics, including increasing population (working and retired) and expanding population centers and retirement communities.
* Potential strategies to improve the delivery of commercial and public recreation services to visitors, including partnerships with commercial, local and county recreation and tourism agencies.
* Existing recreation uses, use areas and facilities.
* Public demand for more recreation activities, settings and experiences.
* Capability of the public lands to provide outdoor recreation.
* Compatibility with resources and uses on adjacent lands.
* Effects of recreational uses on, or compatibility with, other resources and uses at the site.
* Public welfare and safety.
* Methods for providing handicapped access in developed recreation sites.
* Existing, planned and projected commercial and public recreational developments on private, county, other federal and Indian lands.
* Public interest and attitudes.

ISSUE 1b: OFF-HIGHWAY VEHICLES

Public lands will continue to provide opportunities for the use of off-highway vehicles. Largely due to the popularity of the vehicles, proximity of users to the public lands and the extensive network of roads and navigable washes throughout the resource area, off-highway vehicle use will continue to be the fastest growing segment of outdoor recreation. As a result, more intensive management will be needed, and all public lands in the planning area will need to be designated for off-highway vehicle use or nonuse.

BLM policy, 43 CFR 8340 and Executive Orders 11644 and 11989 require all public lands to be designated open, limited or closed to off-highway vehicle use. In some locations, off-highway vehicle use is causing soil erosion, damaging cultural artifacts, creating visual scars on the landscape and disturbing wildlife habitat. In addition, many public comments addressed concern about motorized vehicle use on public land.

To continue providing space and opportunity for off-highway vehicle activities, the BLM must manage their use to avoid unacceptable environmental impacts.

Needed Decisions

Which public lands should be designated as open to off-highway vehicular use?

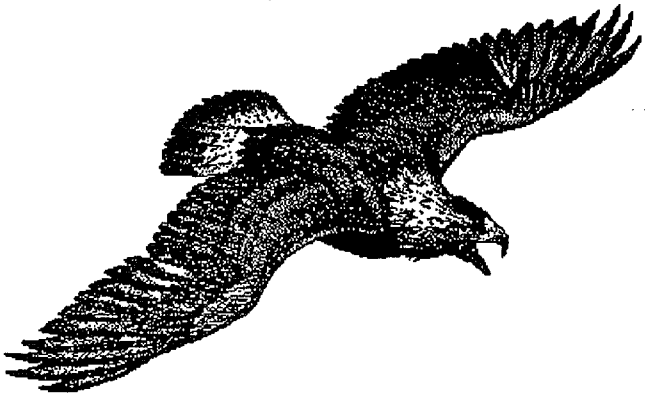
Which public lands should be designated as closed to off-highway vehicular use?

Which public lands should be limited to existing or designated roads, trails and washes for off-highway vehicular use? Where should these limited designations be further defined as to season of use, type or number of vehicles?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Level of existing use and location of areas being used by off-highway vehicles.
* Demand for more off-highway vehicle opportunities.
* Types of off-highway vehicles being used.
* Resources sensitive or susceptible to damage by existing or projected off-highway vehicle use and their locations.
* Effects of off-highway vehicle use on other resources and uses.
* Effects of off-highway vehicle restrictions or closures on other uses, i.e., mineral exploration, hunting, sightseeing.
* Reliance of off-highway vehicles on facilities mainly built for other uses such as range management or mining.
* BLM administrative needs.
* Coordination with local, state and federal agencies and Indian tribes involved in managing off-highway vehicles.
* Public interest and attitudes.
* Manageability of an area to accomplish the objectives of a designation.
* Public welfare and safety.



ISSUE 2: SPECIAL AREA DESIGNATIONS

Public lands have a variety of important historic, cultural, scenic, wildlife, botanical, soil, water and recreation values. Designations for special management, such as areas of critical environmental concern, including outstanding natural areas, research natural areas and natural hazard areas, may be used to protect these values. Such designations may also be used to identify and manage areas that are hazardous to human life and property.

Needed Decisions

Which public lands contain natural resources or hazards requiring special management attention?

What management objectives, strategies and development or use constraints need to be established?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* The importance and relevance of the areas identified by the resource specialists and nominated by members of the public or other agencies.
* The degree to which important resources are vulnerable or threatened by natural causes or by existing, planned or expected land and resource uses.
* Manageability of an area to preserve its existing or potential resources.
* Current and potential land uses.
* Effects of designation on other resources and uses.
* Effects of nondesignation on resources.
* Social and economic influences.
* Public interest and attitudes.
* Consistency with congressional designations such as wilderness and BLM designations such as extensive recreation management areas, special recreation management areas, visual resource management classifications and air quality classifications.
* Consistency of designations with resource plans of other federal, state and local governments and Indian tribes.
* Consultation with federal, state and local agencies, the scientific community and individuals.

ISSUE 3: WILDLIFE HABITAT/THREATENED AND ENDANGERED SPECIES

Public lands provide one of the rarest and most diverse mosaics of wildlife habitat in the Southwest. The diversity of habitat ranges

from the lower Sonoran Desert environs at 1,000 feet elevation near Alamo Lake to the ponderosa pine and mixed conifer habitats in the Hualapai Mountains at 8,400 feet. Such diversity in habitat types provides for a similar diversity of federally or state-listed threatened and endangered wildlife and plant species as well as other unusual and common species.

Other uses of the public lands can damage wildlife habitat if not properly managed. Special attention is needed to restore, maintain or enhance priority species and habitats. Integration of habitat management with other resource programs requires careful planning to avoid harming these species and habitats while still allowing other compatible uses of the public lands.

Needed Decisions

What wild species and habitat should receive management priority? Are maintenance, improvement and expansion objectives within existing management plans sufficient for special status species?

What actions should the BLM take to achieve objectives for priority species **including wild equids** and **their** habitat? Such actions would include specific habitat improvement or maintenance projects as well as management actions for the coordination of competing uses on the public lands.

Are habitat capability goals to support target populations of priority species **including wild equids** adequately addressed in existing habitat management **and herd management area** plans? Should any of these goals be updated or revised?

Do any habitat management **or herd management area** plans need revision? If so, which plans and in what priority?

What thresholds should be established for management changes based on monitoring objectives?

What management objectives should the BLM establish for federally and state-listed threatened and endangered species? What actions should the BLM take to improve habitat conditions and resolve resource conflicts for listed, proposed and candidate threatened and endangered species?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Applicability of state and federal laws, such as the Endangered Species Act of 1973, as amended.
* The presence and relative abundance of federally and state-listed and proposed or candidate threatened and endangered species.
* Existing habitat management plans and threatened and endangered species recovery plans.
* Potential strategies for the recovery of federally and state-listed threatened and endangered species.
* Goals and objectives of the BLM's general wildlife policy as stated in Fish and Wildlife 2000 and related strategic plans (desert tortoise, desert bighorn sheep, waterfowl and raptors).
* Input from state and federal agencies, Indian tribes and the scientific community.
* Species and habitat with high public or scientific interest.
* Amount and quality of species and habitat, including current range, key areas and potential habitat.
* Species population goals.
* Habitat management goals.
* Species habitat requirements.
* Vegetative communities and habitat condition.
* Effects of other resource uses.
* The significance of nonconsumptive and consumptive uses of wildlife.

ISSUE 4: RIPARIAN-WETLAND AREA MANAGEMENT

Riparian-wetland areas are valuable because of their importance for watershed protection, water quality and quantity, aquatic and terrestrial wildlife, threatened and endangered species, recreation opportunities, livestock management and cultural resources. Special management attention is needed to ensure that these fragile areas are protected and improved while providing for their use.

Needed Decisions

How will the BLM achieve the goal of maintaining or improving the condition of riparian areas as outlined in Riparian-Wetland Initiative for the 90s and the Arizona Riparian-Wetland Area Management Strategy?

What management decisions are necessary to assure that current and potential uses of riparian-wetland areas are compatible with the goal of maintained or improved conditions?

What actions should the BLM take to achieve these goals?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Location and extent of riparian-wetland vegetation through Riparian Area Condition Evaluation inventory **and interdisciplinary team studies.**
* Condition and trend of riparian-wetland communities through Riparian Area Condition Evaluation inventory.

* Type of riparian-wetland community.
* Hydrologic and geomorphic characteristics of streams.
* Vulnerability or susceptibility of a riparian-wetland community to degradation.
* Responsiveness or ability of a riparian-wetland community to improve through management.
* Resources and uses of each riparian-wetland community.
* Effects of other uses on riparian-wetland communities.
* Allotment management plans identified through range program summaries developed after grazing environmental impact statements.
* Opportunities for cooperative management with private landowners and other land and resource management agencies.
* Executive Orders 11990, Protection of Wetland Habitat, and 11988, Management of Floodplains.

ISSUE 5: LAND TENURE

Since 1984, the BLM has carried out an active land exchange program in Mohave County to consolidate public lands into more manageable blocks, acquire valuable natural and cultural resources, improve service to the public and provide land for community expansion. Roughly 163,000 acres of private land and 107,000 acres of state land have come into public ownership in exchange for 88,000 acres of public lands. At the same time, 178,000 acres of state and 193,000 acres of private subsurface mineral estate have come into public ownership. Other opportunities still exist for landownership adjustments that would benefit local communities and management of state and public lands.

Needed Decisions

Which nonfederal lands should be selected for acquisition and managed for a variety of renewable and nonrenewable resource uses?

Which public lands or interests should be selected for disposal to facilitate management of public lands or meet the needs of local communities?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Land and resource management efficiency.
* Benefits to the public.
* Effects on other resources and uses.
* Surrounding landownership patterns, i.e., well-blocked public lands.
* Adjacent land uses.
* High value of public resources.
* Need for public and administrative access.
* Selecting tracts that meet required sale criteria and:
  - are difficult and uneconomical to manage,
  - are no longer needed for their original purpose or
  - will serve important public purposes if disposed of.
* Need for flexibility in boundaries to make minor adjustments.

Priority for acquisitions will be those areas needed to:

* bring under federal administration lands with important cultural, recreational, scenic, wildlife, watershed/riparian-wetland, soil and botanical values best managed for the public benefit and protected as public land;
* ensure the survival or recovery of special status animal or plant species;
* eliminate surface and subsurface inholdings within designated wilderness;
* provide for access to large blocks of federal land and
* consolidate surface and subsurface ownership in areas identified for retention.

When selecting lands for disposal, priority will be given to:

* public lands needed to meet the needs of local, county and state governments or individuals;
* public lands whose size, location or other physical characteristics make them difficult or uneconomical for the BLM to manage and
* public lands whose disposal will resolve unintentional unauthorized occupancy.

ISSUE 6: POTENTIAL FOR OCCURRENCE AND DEVELOPMENT OF SALABLE, LOCATABLE AND LEASABLE MINERALS

The minerals industry has had a long and profitable relationship with communities and citizens of those portions of Mohave, Yavapai and Coconino counties within the resource area boundaries. Mountain ranges and intervening valleys throughout the area contain a wealth of minerals, including common variety salable minerals such as sand and gravel, building stone, common variety clays, quarry rock, cinder and decorative rock. Minerals locatable under the General Mining Law of 1872 and also found in minable amounts are the precious metals gold, silver and (geologic conditions indicate the potential for) platinum. Other minerals listed in approximate relative order of occurrence are copper, lead, zinc, molybdenum, tungsten,

manganese, uranium, mercury, rare earths, vanadium and beryllium. Some of the more important industrial minerals are brucite, magnesite, magnesium-rich smectite clay, clinoptilolite and mordenite zeolites, fluorspar, vermiculite, perlite and feldspar. Semiprecious gems such as fire agate, beryls, spessartite and grossularite garnets and gem quality jaspers are also found in the resource area. The only known leasable mineral is sodium.

The Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976 and the National Materials and Minerals Policy, Research and Development Act of 1980 all direct the BLM to actively encourage and facilitate the development of public land mineral resources by private industry to satisfy local and national needs and provide for economically and environmentally sound exploration, extraction and reclamation. This policy promotes multiple use of the public lands and recognizes that mineral exploration and development can occur while ensuring protection of other resource uses.

Needed Decisions

What actions should the BLM take to ensure the development of mineral resources?

Which lands should remain available for salable, locatable and leasable mineral development?

Which mechanisms other than withdrawal of lands from mineral entry or production should be used to limit impacts of mining to other resources?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Relative mineral potential boundaries prepared from published and unpublished geological and mining data, personal contacts and professional experience.
* The approximate boundaries, types and amounts of potentially valuable salable, locatable and leasable minerals.
* The relative importance of mineral commodities to local, state and national interests.
* The rarity of individual mineral commodities and their relative value to consumers.
* The value of salable mineral commodities to local communities.
* Mineral occurrence and uses, as related to new and historic products.
* Sensitive resources and needs that conflict with mineral potential areas and the basis for their sensitivity.
* Probable type of mining method in each mineral potential area to allow impacts to sensitive resources to be evaluated.
* Strategic stockpile minerals.
* Industrial standards for mineral operations on a commodity-specific basis and standard stipulations for a given type of operation.
* Existing BLM policy and guidance.

MANAGEMENT CONCERN 1: AIR QUALITY

Under the Clean Air Act of 1977 and 1990 amendments, public lands were given Class II air quality status. This classification allows for moderate deterioration of air quality associated with moderate, well-controlled industrial and population growth. Some activities on public lands may degrade air quality, but activities must comply with Clean Air Act standards.

Needed Decisions

What management goals should the BLM establish for land uses to help maintain or improve air quality in the area? Are special actions needed to prevent air quality degradation?

What actions should the BLM take to achieve these goals?

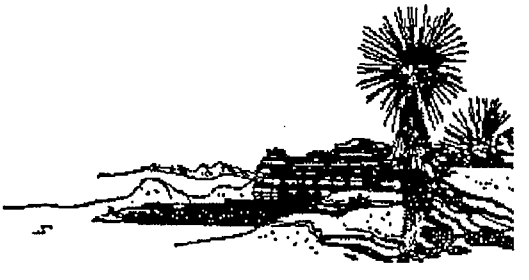
Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Current levels of attainment of air quality standards of the Clean Air Act.
* Environmental Protection Agency air quality standards for Arizona.
* Current and future land uses that may affect air quality.
* Effects of prescribed burning on air quality.

MANAGEMENT CONCERN 2: ACCESS

Much of the resource area remains in a checkerboard pattern of intermingled public, private and state lands, and the public may often gain access to public lands only by crossing state or private lands. In many cases, the public has no legal right to use roads on private and state land, and the landowner can cut off access. Lack of legal access can cause problems with the administration of the public lands.



Needed Decision

What actions should the BLM take to provide or acquire access to public lands?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Existing access.
* Public needs for access.
* Administrative needs for access.
* Effects of access on existing resources and uses.
* Compatibility with adjoining land uses.
* Use and management of the public lands.

MANAGEMENT CONCERN 3: SEGREGATIONS, CLASSIFICATIONS AND WITHDRAWALS

The BLM and other federal agencies have used segregations, classifications and withdrawals to set aside lands for special uses and to protect existing high-value resources from uses which may cause undue damage. Existing actions need to be analyzed to determine if they are still valid and are accomplishing their goals.

Needed Decisions

Which land segregations, classifications and withdrawals should be terminated and the lands opened to multiple use?

What areas should be protected through segregation, classification or withdrawal?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* The rationale for establishing the original classifications.
* Changing classifications that no longer enhance resource management.
* Dropping classifications that would no longer accomplish their stated purposes.
* Revoking withdrawals that are no longer needed for their intended purposes.
* Reducing the size of withdrawals determined to encumber more land than is needed to accomplish their intended purposes.
* Developing segregations for lands with sensitive resources needing protection.

MANAGEMENT CONCERN 4: UTILITY CORRIDORS AND COMMUNICATION SITES

The private sector uses public lands for a variety of purposes, including powerlines, oil, gas and coal pipelines and telecommunication sites. Authorization of these uses takes careful planning to ensure that other resources are not significantly harmed. **Section 503 of the Federal Land Policy and Management Act requires that in order to minimize adverse environmental impacts and a proliferation of separate rights-of-way, corridors will be used to the extent practical. Designation of corridors is done in response to the Western Utility Study identifying present and future lines and is an attempt to keep these utilities in a limited area, eliminating unnecessary and undue degradation to lands.**

Needed Decisions

Which public lands should be designated right-of-way corridors, communication sites, avoidance areas and exclusion areas?

Which existing public land transportation and utility corridors should not be designated right-of-way corridors upon plan approval?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Evaluating existing right-of-way routes and communication sites for locating future facilities.
* Endeavoring to authorize rights-of-way and communication sites in locations that cause the least impacts to important resources (e.g., erosive soils, threatened and endangered species, critical wildlife habitat and scenic areas).
* Evaluating suitability of a communication site from a technical engineering standpoint.
* Establishing a standard width of two miles for corridors, unless the protection of critical resources requires a narrower width.
* Social and economic influences and impacts.

MANAGEMENT CONCERN 5: VISUAL RESOURCES

The BLM has a stewardship responsibility to identify and protect visual values on public lands. Visual Resource Management objectives (classes) are developed through the Resource Management Plan process for all public lands. The Visual Resource Management system provides a way to qualify, describe, rate, measure and mitigate the potential visual impacts to an acceptable level. Conscientiously applied, the Visual Resource Management system helps managers make faster, better and less controversial resource allocation decisions.

Since 1982, when Visual Resource Management classes were assigned to the Kingman Resource Area's public lands, much land within the more scenic areas has been acquired through exchange. Public awareness and appreciation have greatly increased in respect to the scenic values of **wilderness areas**, riparian-wetland areas and other expanses of topographically imposing terrain. The BLM needs to update and refine the visual resource evaluation data and management schemes within the resource area.

Needed Decisions

Which public lands should be designated as Visual Resource Management Class II, Class III or Class IV?

Planning Criteria

To arrive at the Visual Resource Management class designations called for in the question listed above, the BLM will.

* Consider the Visual Resource Management inventories of management framework plans and determine if these Visual Resource Management class designations relate to present and predicted future management goals.

* Inventory and delineate "scenery units" for all public lands, ensuring that these units coincide with regional physiographic provinces and the visually recognizable subdivisions of these provinces.

* Consider the increase in public awareness of BLM programs and recreational opportunities during the years since the present Visual Resource Management system was adopted.

MANAGEMENT CONCERN 6: CULTURAL AND PALEONTOLOGICAL RESOURCES

Cultural and paleontological resources form an important link with the past. Understanding this link will help the BLM plan for the future. The BLM manages cultural and paleontological resources to gain scientific and historic information, to protect sociocultural, educational, recreational and other public values and to maintain the resources in their present condition or mitigate damage. The Resource Management Plan presents an opportunity to set direction for managing of these resources on public lands.

Needed Decisions

What goals should the BLM establish for cultural and paleontological resources management?

What actions should the BLM take to achieve these goals?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* The National Historic Preservation Act of 1966, American Indian Religious Freedom Act, Archaeological Resources Protection Act of 1979 and other laws, regulations, policies and guidelines;

* Relative importance and sensitivity of known and projected cultural and paleontological resources.

* Geographic distribution and density of cultural and paleontological resources.

* Feasibility of attaining cultural and paleontological resource management objectives.

* Need or desirability of management objectives.

* Threats to cultural and paleontological resources.

* Concerns of local Native American tribes.

* Public interest and attitudes.

* Effects of cultural and paleontological resource management on other resources and uses.

MANAGEMENT CONCERN 7: WATERSHED PROTECTION AND ENHANCEMENT

Soil and watershed protection is one of the BLM's major responsibilities. Soils are important to vegetation maintenance for all dependent resources such as wildlife, livestock, recreation and threatened and endangered species. Reducing soil erosion, stabilizing watersheds and maintaining and improving productivity are important for protecting downstream facilities through flood control. Maintaining water quality is critical to the well-being of the environment, the public and many BLM programs.

Needed Decisions

What areas should receive special management prescriptions to protect high watershed values?

What type of activities should be allowed on fragile or critical watersheds?

What management techniques should be employed to protect and enhance watershed values?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Watershed condition and trend.

* Resources, uses and any possible conflicts between them.

* Monitoring plans to assess impacts of resource uses on watershed condition.
* Need to focus on watersheds with particular concerns for erosion control or enhancement of riparian-wetland values.
* Effects of public land watershed management on urban development.
* Need for maintaining existing erosion control structures or building new ones.
* Effectiveness of structures and land treatments.
* Coordination with state and local governments, other agencies and downstream water users.
* Need for maintaining and enhancing existing watershed rehabilitation projects.
* Identification of saline soils.
* Need to focus on watersheds that have potential for increasing the salinity of the Colorado River.
* Correlation between intensive grazing management and watershed condition.
* Existing activity plans and the continued future development and environmental impact statement implementation of these plans as a primary means of improving watershed condition and trend.

MANAGEMENT CONCERN 8: VEGETATION MANAGEMENT AREAS

Vegetation is an integral part of an ecosystem, and its management will affect the health of the total environment. Careful consideration must be given to potential treatment practices used, threatened and endangered species, visual resources and all existing uses when setting goals for managing vegetation status.

Needed Decisions

What management practices should the BLM use to improve vegetative cover and composition?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Present vegetation and general soils data in assessing ecological status relative to stated goals for land uses.
* Potential of the site to produce at the level stated in desired goals.
* Existing and potential resources and uses.
* The desired plant communities for major ecological sites and sites in special emphasis areas.
* Suitability of treatments.
* Need to maintain or enhance existing project treatment areas.
* Long-term manageability of project areas.
* Allotment management plans and habitat management plans.
* Laws, policy and manual guidance.
* Compatibility with adjacent land uses.
* Input from state and federal agencies and the scientific community.

MANAGEMENT CONCERN 9: FORAGE ALLOCATION - ACQUIRED LANDS

The proper allocation of forage is critical to maintaining vegetation and watershed values in a healthy condition. The needs of all uses and important resources such as threatened and endangered species, soil stability and water quality must be carefully considered.

Needed Decisions

What forage allocations should be made on acquired lands where previous allocations were not made?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Existing grazing regulations qualifying permittees.
* The need for survey information measuring available forage for areas acquired from outside current management boundaries.
* Rangeland monitoring as the recognized procedure for adjusting all animal numbers to assure a proper level of use in providing for the needs of all species.
* Historic and present livestock use.
* Goals for managing wild and free-roaming horses and burros.
* Goals for populations of important wildlife species, such as desert bighorn sheep, desert tortoise, Hualapai Mexican vole and bald eagle.
* Existing allotment management plans, habitat management plans and herd management area plans.
* Other resources susceptible to damage, such as riparian-wetland areas.

MANAGEMENT CONCERN 10: EPHEMERAL LICENSING IN THREATENED AND ENDANGERED HABITATS

Special status species sharing their limited habitats with livestock, wildlife, wild horses or burros may compete for food, water, cover and space. Palatable special status plants may suffer loss of vigor or direct mortality if grazed at the wrong times. The BLM must consider the critical needs of rare plants or animals on the public lands to comply with existing regulations and policies concerning special status species.

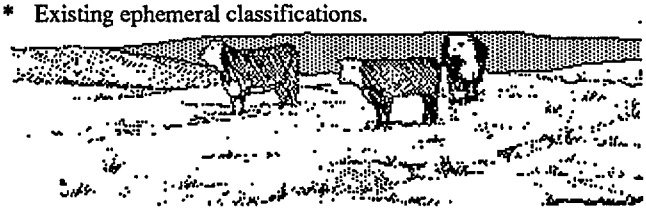
Needed Decisions

Which methods should the BLM use in ephemeral and supplemental licensing of livestock to ensure continued availability of adequate forage and habitat for special status species and to ensure that special status plants are not overutilized?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Existing habitat management plans.
* Input from state and federal agencies and the scientific community.
* Amount and quality of species and habitats, including current distribution, key areas and potential habitat.
* Species population goals and habitat requirements.
* The significance of consumptive and nonconsumptive uses of wildlife.
* Providing forage for livestock.
* Effects of other resource uses.
* Similar management programs in existence elsewhere in the BLM.
* Existing regulations, policies and guidance (Desert Tortoise Rangewide Plan, Arizona Desert Tortoise Implementation Strategy, Interagency Desert Tortoise Management Plan).
* General needs of the users.
* Proper range management principles as outlined in existing allotment management plans.
* Existing ephemeral classifications.



MANAGEMENT CONCERN 11: VEGETATIVE PRODUCTS

Firewood and live plants such as yuccas, Joshua trees and cacti are in great public demand and should be removed from public lands only under managed and controlled conditions. The BLM needs to inventory its fuelwood and yucca and plan for a sustained yield.

Needed Decisions

On which public lands should firewood cutting be allowed?

On which public lands should the harvest of *Yucca schidigera* be allowed?

What stipulations should be imposed on the harvest?

When should permits for protected plant species be issued?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Vegetation types suitable for firewood cutting.
* Present and future demand for firewood.
* Levels of harvest most compatible with sustained yield.
* Harvest areas and levels having the least impact on other resources, such as wildlife and threatened and endangered species.
* Need to maintain timber stands for non-forest product uses.
* Competition between an area's suitability for fuelwood cutting and its ability to provide forage for livestock and wildlife through vegetation management practices.
* Current and potential land uses.
* Demand for *Yucca schidigera.*
* Effects of harvest on *Yucca schidigera* populations and other land uses.
* Laws, regulations and policies regarding protected plant species.
* Coordination with other federal and state agencies.
* Need to salvage protected plant species before surface disturbance.
* Need for collection permits for scientific and educational purposes.

MANAGEMENT CONCERN 12: PUBLIC INTEREST IN WATER ON PUBLIC LANDS

Water is often the limiting factor to the use of public lands in the arid Southwest. Demand by water users, ranchers, recreationists, miners, hunters and municipalities is increasing, and conflicts may arise. Waters of the public lands must be legally and administratively protected and apportioned.

Needed Decisions

Where should the BLM focus efforts to secure instream flows for riparian-wetland, fisheries, wildlife, wilderness and recreation purposes?

Should the BLM continue to manage special designation areas, such as unique waters, to maintain or protect the public's interest in water? Should more water quality designations be made?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Locating and measuring water sources on public lands (with special emphasis on acquired lands).
* Beneficial uses and relative importance of individual water sources.
* Maintaining instream flows for water-dependent resources for selected streams.
* Coordinating with other federal and state agencies and downstream water users.
* State of Arizona and federal water quality standards.
* State of Arizona and BLM policies governing water rights appropriations.

MANAGEMENT CONCERN 13: HAZARDOUS MATERIALS (HAZMAT)

Hazardous materials pose an everyday threat to public lands and land users and create management and liability problems for the BLM. Hazardous material impacts come from a variety of authorized and unauthorized public land uses.

Needed Decisions

What sites contain potential hazardous materials?

What sites have characteristics making them likely to be used for disposal of hazardous materials in the future?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Public lands adjoining private lands that use hazardous materials to process ore.
* Active mills on public lands that use hazardous materials to process ore under the mining laws.
* Transportation routes -- public lands adjoining interstate transportation systems that are susceptible to accidental spilling and illegal dumping of hazardous materials.
* Sanitary landfills.
* Pipelines.
* Voltage transformers that use polychlorinated biphenyls (PCBs) as a coolant.
* Any public lands that could be used for illegal drug laboratories.
* Pesticides and fertilizers used on agricultural lands, on or near public lands. Such chemicals may be removed in floodwaters or accumulate in groundwater and contaminate drainages and waterways.
* Abandoned explosives on or near old mines.
* Natural leaching of mine workings, dumps and tailings.

MANAGEMENT CONCERN 14: NON-POINT SOURCE POLLUTION

The BLM has the responsibility to comply with federal and state laws and regulations concerning non-point source pollution. Being diffuse and difficult to measure, such pollution could affect large areas.

Needed Decisions

Which activities will be allowed next to or in streams?

What procedures should be used to measure non-point source pollution on public lands?

Which Best Management Practices will be implemented to control non-point source pollution in designated areas?

Planning Criteria

To answer the questions listed above, the BLM will consider the following.

* Potential impacts to on-site and downstream resources.
* Coordination with other agencies.
* Monitoring the effectiveness of Best Management Practices to control non-point source pollution on public lands.
* The Clean Water Act Amendment of 1989, Section 319, Non-point Source Management Programs.

Issues Considered but Not Analyzed

Some issues identified during the scoping process were dropped because of new information obtained later.

The establishment of long-term visitor areas was a subissue under recreation. It was dropped because the Bullhead City and Golden Shores areas have adequate commercial areas. These areas are expanded or new ones developed as the need increases.

The need for camping limits on public lands was another subissue under recreation. The need was fulfilled in November 1989 when the Phoenix District established a 14-day limit set by a notice in the Federal Register published on November 8, 1989.

The designation of special management areas is another issue. Several areas were identified by the public, other agencies, resource specialists and management and later dropped. The Mount Wilson area was dropped because the area's desert bighorn sheep habitat was not threatened and the Mount Wilson Wilderness Area provides adequate protection. The desert mountain meadows were dropped because several are in communication sites and the Hualapai Mountain County Park. The other is within the Wabayuma Peak Wilderness Area, which will provide adequate protection.

CHAPTER II
PLAN ALTERNATIVES

INTRODUCTION

Chapter II describes the Kingman Resource Management Plan/ Environmental Impact Statement alternatives, including the proposed plan. Each alternative represents a complete plan to guide future management of the public land and resources in the Kingman Resource Area.

Chapter II describes in detail each alternative chosen for study and also includes a section on management guidance common to all alternatives. This management guidance **followed by** the BLM is based on laws, regulations and policies. Regardless of the alternative chosen as the approved plan, the BLM will follow this management guidance.

Guidance for the wilderness and livestock management programs is provided by the wilderness recommendations in the Upper Sonoran, Phoenix and Arizona Mohave final wilderness environmental impact statements and records of decision on the Cerbat/Black Mountains and Hualapai-Aquarius final grazing environmental impact statements. These recommendations and guidelines have been analyzed and modified, where appropriate and are incorporated into this Resource Management Plan/Environmental Impact Statement. Guidance for the livestock management program in the Cerbat/Black Mountains and Hualapai-Aquarius grazing environmental impact statements was for a 20-year planning frame. The Resource Management Plan will **extend** this timeframe, making it consistent with this Plan.

Chapter II ends with a summary comparing the environmental impacts of the alternatives analyzed in this Resource Management Plan/Environmental Impact Statement to provide the public with a convenient tool for comparing impacts, defining issues and reaching conclusions (see **Table 18**).

Plan Objectives and Guidelines

Public lands **in the planning area** are rich in wildlife, archaeological, scenic, recreation, mineral and forage values. The overall goal of the Kingman Resource Area is to provide quality multiple use and sustained yield resource management of the public lands. The Resource Management Plan alternative selected for implementation will accomplish this goal.

General objectives have been established to ensure that the Resource Management Plan will provide quality management direction that responds to the issues and meets specific needs of the resources. In addition, guidelines have been defined to achieve these objectives.

Resource Area Goals

The following objectives have been established to provide comprehensive guidance for all public land uses and management activities.

- Manage public lands and resources under the concept of multiple use to attain the optimum combination of uses.
- Manage to balance the use and conservation of renewable resources to provide sustained productivity.
- Manage public lands in a manner that recognizes the nation's need for domestic sources of energy, minerals, livestock, wild-life, recreation opportunities and other products from the public lands and the importance of these resources to local and regional economies.
- **Involve the public in developing site-specific activity plans to implement Resource Management Plan recommendations.**
- Provide special management emphasis in areas with unique features or special management needs.
- Implement management prescriptions to restore and maintain riparian-wetland areas so 75 percent or more are in proper functioning condition and good or better ecological status by 1997.
- Manage cultural resources to maintain and enhance their scientific and public use values.
- Maintain and preserve representative examples of all archaeological site types.
- Maintain cooperative relationships and programs with public land users, interest groups and other government agencies.

- Manage for diverse recreation opportunities for the increasing number of visitors to public lands.
- Manage livestock grazing to maintain productive rangelands which meet forage, watershed and wildlife needs by implementing 56 Improve and Maintain category allotment management plans by 2001.
- Manage livestock grazing through best management practices and improvements to reduce non-point source pollution from rangelands.
- Encourage the orderly development of mineral resources while protecting, to the extent practicable, nonmineral resources.
- Maintain and enhance wildlife habitat to ensure viable populations and natural diversity.
- **Preserve and enhance threatened and endangered species and their habitats.**
- Protect and enhance public land resources by suppressing and managing wildfires.
- Use prescribed fire to stabilize soils and improve wildlife habitat, livestock forage and vegetative cover and composition.
- Enforce the laws and regulations governing protection of public lands and visitors.
- Determine ecological site conditions and potentials; manage vegetation for desired plant communities which will maximize multiple use benefits and maintain a thriving natural ecological balance.
- Manage acquired lands according to final Resource Management Plan decisions in specific areas.
- Maintain the open space, scenic character and remoteness of public lands where appropriate.
- Adjust land tenure as needed to improve federal land management effectiveness, improve resources and provide lands for public and private uses.
- Manage public land resources in consultation with adjacent federal or state management agencies to avoid unnecessary adverse impacts.
- Rehabilitate all surface disturbances to the extent practicable at the end of use to protect soil, vegetation, water and other environmental values and to blend the disturbed site into surrounding terrain and settings.
- Manage all mineral exploration and development to prevent unnecessary environmental degradation.
- Use special stipulations where applicable and prudent to minimize long-term impacts to the visual quality of sensitive landscape characteristics.
- Actively manage for healthy, viable populations of wild horses and burros in an ecological balance with other resource values within the three existing herd management areas.
- Maintain/enhance the existing visual quality.

MANAGEMENT GUIDELINES

In addition to resource area objectives, guidelines have been developed to provide consistent management of public lands. Formulated for areas with special resource concerns, sensitivities or characteristics, these guidelines call for different management intensity levels and emphasis. The following section summarizes the management guidelines **to be applied on three broad areas, i.e., general management areas, areas requiring special management and the portion of the resource area east of the planning area boundary.** These guidelines were used to develop a resource management alternative **and** help ensure consistent management in areas **having similar resources.**

General Management Areas

Most **public** lands **in the planning area** contain a wide variety of resources requiring continued multiple use management. Generally lacking **unique** characteristics, these lands are not subject to unusual demands requiring special management attention. Management guidelines for these areas would remain similar to current management practices which are considered adequate. Existing laws, regulations, policies and procedures would be followed. The following management guidelines would apply.

- Designate off-highway vehicle use as open or limited to existing roads, trails and washes.
- Issue sales and free-use permits as appropriate for vegetative products and mineral materials.
- Provide for semiprimitive motorized and nonmotorized recreation.
- Exchange or transfer out of federal ownership those lands determined to be suitable for community expansion.

Areas Requiring Special Management

The remaining lands have characteristics which include important scenic values and exceptional natural features that offer quality recreational opportunities in remote backcountry settings. With few exceptions, these lands are not developed. They have been found by the public and the BLM to have unique resources such as threatened and endangered species and would require special management.

Management guidelines for these public lands would focus on improving resources while allowing for multiple use. The BLM would manage authorized uses and prepare management prescriptions to protect unique resources. The following management guidelines would apply.

- Close and rehabilitate roads where there is no public or administrative need to keep them open.
- Designate off-highway vehicle use as limited or closed.
- Implement special coordinated resource management plans to protect the fragile character and unique resources of specific areas.
- Do not transfer land out of federal ownership unless specifically required by law.
- Provide for semiprimitive motorized and nonmotorized recreation.

Special stipulations would be developed during the National Environmental Policy Act process to ensure that objectives and guidelines are met.

Area East of the Planning Area

Management of all resources on these lands will be administered in accordance with the appropriate provisions contained in the selected alternative of the Kingman Resource Management Plan.

This area includes 7,717 acres of public surface estate and approximately 80,000 acres of subsurface mineral estate in Yavapai and Coconino counties.

DEVELOPMENT OF ALTERNATIVES

The alternatives were developed to provide different solutions to the planning issues and management concerns (see Chapter I). Each alternative provides a complete multiple use plan suitable for guiding management of public lands and resources. Each alternative plan could be implemented under existing laws, regulations and policies and within reasonable budgetary limits.

Each plan is reasonable and feasible, although each has a different focus. Each plan would be subject to all applicable laws, executive orders and regulations and to the continuation of valid rights for use of public lands or resources existing at the time the Resource Management Plan becomes final. The public, including state and federal agencies, was invited to provide comments and suggestions for consideration in developing the alternative plans. Public workshops were held in Kingman, Arizona from November 27 through December 1, 1989 to gather public suggestions and comments which were considered during the final development of the alternative plans.

Alternative 1 (Current Management) represents the continuation of present management as prescribed in existing management framework plans and is summarized in the Management Situation Analysis. *Alternative 1* is the *No Action Alternative* for the Resource Management Plan/Environmental Impact Statement. *Alternative 2 (Proposed Plan)* contains decisions the interdisciplinary team believes represent the best combination of actions to allow resource uses while protecting the environment. *Alternative 3* increases the area closed to mineral material disposals, places smaller areas under special management, adds one disposal area, increases recreation facilities, closes areas to livestock grazing to protect unique resources and excludes wild horses from the Marble Canyon use area within the Cerbat Herd Management Area. Table 16, which follows the description of the alternatives, shows the changes by alternative for each program or activity.

After developing goals for resolving the issues under the different alternatives, the interdisciplinary team looked at the resource management programs administered by the BLM to see what actions would be needed to work toward the goals. Each resource management program was analyzed in the Management Situation Analysis, which described current management under the management framework plans, the capability of existing natural resources to respond to demand and management opportunities present. The objectives for existing management were written for *Alternative 1*. Then objectives were developed for each of the other alternatives to fit with the overall management goals.

After preparing program and resource management objectives for each alternative, the interdisciplinary team determined how these objectives could be met. Separate management actions were written for each resource management program to answer the questions or solve problems identified in the Management Situation Analysis. Some actions will remain constant under any alternative selected; these are described for each specific program or resource and other actions that vary according to the alternative discussed (see Management Common To All Alternatives below). In developing program management actions, the planning team reviewed opportunities for designating areas of critical environmental concern. Before this Resource Management Plan/Environmental Impact Statement was prepared, BLM resource specialists, other government agencies and the public submitted area of critical environmental concern nominations, which the BLM considered along with the Management Situation Analysis preliminary identification of areas. Areas found to have potential for special designation were analyzed in at least one of the alternatives.

MANAGEMENT GUIDANCE COMMON TO ALL ALTERNATIVES

Although it is impractical to relate the full extent of existing and continuing management guidelines, those that apply to programs receiving substantial public interest are summarized in the following section. More management guidance is included in the Management Situation Analysis, prepared during the early stages of this planning effort. The Management Situation Analysis also contains inventory results and a capability analysis section. The Management Situation Analysis is incorporated here by reference and can be reviewed at the Kingman Resource Area Office.

All BLM-authorized land use actions affecting listed threatened or endangered species must undergo Section 7 consultation with the U.S. Fish and Wildlife Service on a case-by-case basis under the Endangered Species Act of 1973, as amended. Such actions would include the following activities: mining plans of operation, recreational developments (campgrounds, hiking and biking trails, byways, turnouts), grazing plans, road construction, rights-of-way, communication sites, range improvements and special recreation permits.

ENVIRONMENTAL MANAGEMENT

In compliance with National Environmental Policy Act and Council on Environmental Quality regulations, the BLM will prepare site-specific environmental reviews before actions proposed in this Resource Management Plan/Environmental Impact Statement are implemented, **which includes "means to mitigate adverse environmental impacts" of the proposed action per 40 CFR 1502.16(h).** The environmental reviews provide site-specific assessments of the impacts of implementing these actions. As appropriate, these reviews are documented in **administrative determinations,** categorical exclusion reviews, environmental assessments and decision records or environmental impact statements and records of decision. In addition, the BLM will assure that clearances for threatened and endangered species and cultural resources are conducted as a part of the environmental review process. The review determines mitigation needed to reduce or eliminate the adverse impacts of implementing a proposed action. All environmental documents are open to public review **at the Kingman Resource Area office.**

Existing plans and environmental documents will be reviewed and revised as needed to conform to existing laws and BLM guidance.

PROPOSED ACTIONS

Actions proposed in this document will apply only to public lands administered by the Bureau of Land Management.

ACCESS ACROSS PRIVATE LANDS

The public is encouraged to respect private property. Access, other than via a public road as defined by federal or Arizona statute, across private lands is at the discretion of the private landowner and can be assured only by receiving permission from the landowner.

MINERALS MANAGEMENT

The following, including all laws and regulations, constitutes Best Management Practices for Mineral Development. Mineral exploration and development is encouraged on public lands in keeping with the BLM's multiple resource use concept. Overall guidance on the management of mineral resources appears in the General Mining Law of 1872; Mining and Minerals Policy Act of 1970; Section. 102 (a)(12) of the Federal Land Policy and Management Act of 1976, as amended; National Materials and Minerals Policy, Research and Development Act of 1980; **sections 319, 401 and 404 of the Clean Water Act of 1989; the Clean Air Act of 1977 and 1990 amendments; Arizona Environment Quality Act of 1986, appropriate state of Arizona statutes and rules** and the BLM's Mineral Resources Policy of May 29, 1984. **Concerns for air, water and solid waste are covered under 43 CFR 3809.2-2, which states that all operators shall comply with applicable state pollution control standards.**

Large pockets of private mineral estate occur under federally controlled surface acreage throughout the resource area. Mineral withdrawals apply only to federal mineral estate. Private minerals under federal surface would need to be acquired prior to a mineral withdrawal.

Aquifer protection permits will be required for all mining activities which will impact ground water aquifers (Title 49-101, Article 1 of the Arizona Environmental Quality Act).

Previously acquired lands will be opened to mineral entry unless critical resource values (threatened and endangered species, riparian habitat, scenic values, etc.) or public health and safety require closure. Upon approval of proposed regulations at 43 CFR 2201.8-2(b), newly acquired lands would automatically be open to operation of the public lands and mineral laws within a specified timeframe after acceptance of title unless critical resource values such as those listed above require closure.

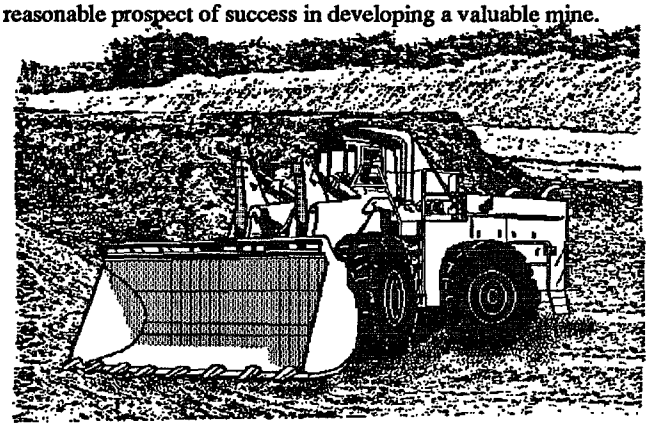
Locatable Minerals

The 43 CFR 3809 regulations provide for mineral exploration and development in conjunction with other resource development. The BLM will work with operators toward plan approval. Where an operator does not have the technical resources to develop reclamation measures and measures to prevent unnecessary or undue degradation, the BLM will provide technical assistance. **Reclamation plans will be required for each operator.** Mining will be administered on a case-by-case basis.

Arizona state law requires mining claimants to keep mining property in a nonhazardous condition. The State Mine Inspector's office is responsible for enforcing this law. The BLM will cooperate to ensure that identified mine hazards are brought into compliance with the law.

Surface-disturbing activities at a level greater than casual use in wilderness areas will initiate a validity examination and will be allowed only on claims with a valid discovery and location existing before designation.

Before the BLM can approve mining plans of operation submitted for work in a designated wilderness area, a BLM mineral examiner must verify that a valid claim exists. The mineral examination and mineral report must confirm that minerals have been found and the evidence is of such character that a person of ordinary prudence would be justified in the further expenditure of his labor and means with a reasonable prospect of success in developing a valuable mine.



Salable Minerals

The Material Sale Act of 1947 and 43 CFR 3600 provide for the disposal and regulation of mineral materials. Sales of mineral materials to the public will be administered on a case-by-case basis. Salable minerals are sold at appraised value. Free use permits will continue to be issued to state and federal agencies, local communities and nonprofit organizations as the need arises. **Free use of common variety minerals for non-commercial purposes will be allowed.**

Leasable Minerals

The Mineral Leasing Act of 1920, the Geothermal Steam Act of 1970 and 43 CFR 3100 to 3500 provide the regulatory framework for issuing mineral leases. These regulations apply where public interest exists for the development of oil, gas, sodium, potassium and geothermal energy. Where required, stipulations will be attached to leases to mitigate impacts to sensitive species, cultural areas and other resources susceptible to impacts from leasing-related activities.

Existing Plans, Decisions and Objectives

Existing management framework plans allow the entire resource area to remain open to mineral leasing, location and sale except where restricted by wilderness and wild and scenic river designation and withdrawals.

The BLM will provide the communities in or near the resource area with sand and gravel needed for development in a timely and orderly manner, consistent with environmental considerations.

LANDS

Land Tenure Adjustment

Exchanges are voluntary transactions between the BLM and the non-federal party and are discretionary actions on the part of the BLM. All exchanges would be in the public interest and of equal value and consistent with implementing regulations of the Federal Land Policy and Management Act of 1976 at 43 CFR 2200. Compliance with the National Environmental Policy Act would be documented prior to approval of any lands actions, including exchanges, sales or acquisitions.

The BLM's ability to dispose of land proposed for exchange in this Resource Management Plan/Environmental Impact Statement may be constrained by the existence of withdrawals. Not all withdrawals preclude the disposal of the withdrawn land, but in most cases, the BLM will not dispose of withdrawn land until the withdrawal designation has been lifted. Federal Land Policy and Management Act, Section 204 (l)(1) requires that all withdrawals affecting public lands be administratively reviewed by 1991. **Due to the National Wildlife Federation Lawsuit, this was not accomplished. Although no formal extension has been set by Congress, the BLM has established a deadline of September 30, 1998 for completing the withdrawal review process.** Lands unencumbered through the withdrawal review process will then come under the guidance of Resource Management Plan/Environmental Impact Statement decisions.

Disposal actions under sections 203 and 206 of the Federal Land Policy and Management Act and the Recreation and Public Purposes Act, as amended, may occur if **there are no mining claims or, if mining claims are present and** (1) the mining claims are found to be void due to the claimant's failure to comply with Section 314 of the Federal Land Policy and Management Act, 43 USC 1744 (1982) and 43 CFR 3833.2-1, (2) the mining claimant relinquishes the mining claims to the U.S., (3) the mining claim is contested and found to be invalid or (4) a change in current policy allows for the disposal of public lands encumbered with mining claims.

In addition, any lands proposed for disposal will be evaluated for significant cultural resources, **special status** species, floodplain/flood hazards and prime and unique farmland. Mitigation will be accomplished before the land is transferred.

To consolidate split estate and block ownership, the BLM may acquire non-federal minerals underlying public surface and dispose of federal minerals underlying state or private surface.

Communication Sites

Communication site applications will continue to be considered on lands proposed for disposal until the lands are disposed of. On land to be retained, **commercial** communication facility development will be limited to **designated** sites. Communication site plans will be developed for all **designated** sites.

Land Use Authorizations

Land use authorizations (rights-of-way, leases, permits) will continue to be issued on a case-by-case basis and in accordance with the approved Resource Management Plan. Rights-of-way will be issued within existing right-of-way routes, including joint use, whenever possible.

Trespass Abatement

The BLM will pursue the resolution of long-term trespasses and abatement of new trespasses.

Recreation and Public Purposes Act

Under the Recreation and Public Purposes Act, the BLM has the authority to lease or patent public lands to local governments or nonprofit entities for public parks and recreation sites, building sites, schools or other public purposes. Recreation and Public Purposes leases and patents will be issued in accordance with the approved Resource Management Plan. To ensure public purpose development of public lands identified for Recreation and Public Purposes transfer, the BLM may require the lands to be leased for a period of time before a patent is issued.

Utility Corridors

All major utility systems are required to route their systems through the designated corridors under the approved Resource Management Plan. This requirement will prevent the proliferation of major utility systems across public lands and will reduce adverse environmental impacts to sensitive resources.

Public Land Withdrawals and Classifications

In general, all actions proposed in this Resource Management Plan

that are not prohibited by specific terms of a withdrawal or classification will be carried out. Actions prohibited by the terms of a withdrawal or classification will not be implemented unless such withdrawals are revoked or classifications terminated.

Existing Plans and Decisions

The Cerbat Mountains, Hualapai-Aquarius and Black Mountains management framework plans currently regulate what lands actions can occur. The plans designated 102,547 acres of public lands as suitable for disposal. The remaining public lands were considered suitable for retention for natural resources. The Black Mountains, Cerbat and Hualapai-Aquarius management framework plans addressed designation of lands for recreation and public purposes disposal.

New applications to the BLM for communication sites are limited to the Oatman Peak and Willow Beach sites by the Black Mountains Management Framework Plan, disallowed in retention, wildlife management and wilderness areas by the Cerbat Mountain Management Framework Plan and to be responded to on a case-by-case basis in the Hualapai-Aquarius Management Framework Plan.

The management framework plans establish nine utility corridors with widths varying from one to two miles. These will be retained as designated corridors in this Resource Management Plan.

The Hualapai Mountain Communication Site Management Plan was approved in October 1985. The management plan established that Hualapai Peak would remain closed to future communication site development and Hayden Peak and Potato Patch I would be operated as low power sites not to exceed 120 watts and Effected Radiated Power not to exceed 1,200 watts. All users must comply with the technical standards established for the site and must also join the user group. To protect recently discovered habitat of the endangered Hualapai Mexican vole, the BLM must conduct field inspections prior to authorizing any new facilities or structural changes on existing facilities. Potato Patch II, acquired in 1988 through an exchange and located less than 1/2-mile northwest of Potato Patch I, will be managed in accordance with this management plan for all new rights-of-way and as existing leases expire.

WATERSHED (Soil, Water and Air) RESOURCES

The Federal Land Policy and Management Act requires that public lands be managed to protect scientific, environmental, air and atmospheric and water resources. It also requires land use plans to comply with pollution control laws, including state and federal air, water or other pollution standards.

Some laws with which the Federal Land Policy and Management Act requires compliance are the Soil Conservation and Domestic Allotment Act of 1935, the Watershed Protection and Flood Control Act of 1954, the Colorado River Basin Salinity Control Act of 1974, the Wild and Scenic Rivers Act of 1968, the National Environmental Policy Act of 1969, the Federal Pollution Control Act with amendments of 1972; the Clean Water Act of 1989 and the Safe Drinking Water Act of 1977. The Clean Air Act of 1970 and 1990 amendments governs air quality. BLM Manual 7000 and executive orders provide field guidance in managing soil, water and air.

The 1986 Arizona Environmental Quality Act established the Arizona Department of Environmental Quality for the environmental management and administration of laws regulating water quality, air quality, solid waste and hazardous waste in the state of Arizona. The Arizona Department of Environmental Quality is delegated as the responsible agency in Arizona for administering all purposes of the federal Clean Water Act and Clean Air Act in Arizona.

To comply with the 1989 amendments of Section 319 of the federal Clean Water Act, the Arizona Department of Environmental Quality prepared and received Environmental Protection Agency approval for the 1988 Arizona Non-point Source Assessment Report and the 1990 Arizona Non-point Source Water Quality Management Plan. The Non-point Source Water Quality Management Plan includes requirements to develop and implement a four-year management plan which includes Best Management Practices and other measures to reduce pollutant loadings from defined non-point source categories. The management plan also provides the authority for the state to delegate management responsibilities through development of an approved memorandum of understanding and requires that all federal programs and activities in Arizona be consistent with state water quality regulations as per sections 319(b)(2)(F), 319(k) and 313 of the Clean Water Act. Under provisions of Executive Order 12373, the state non-point source agency shall be responsible for conducting federal consistency reviews. The Kingman Resource Management Plan will comply with provisions of the memorandum of understanding between the BLM Arizona and the Arizona Department of Environmental Quality. All actions will occur only after full compliance with the National Environmental Policy Act has been achieved.

Floodplain Management

Executive Order 11988 directs federal agencies to "avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development whenever there is a practicable alternative" (Floodplain Management Guidelines, 44 CFR 60, 1978).

Floodplains: The BLM would continue to retain 100-year base floodplains as per Executive Order 11988 except under the following conditions.

- When federal, state, public and private institutions and parties have demonstrated the ability to maintain, restore and protect the floodplain on a continuous basis.
- Where transfer of lands, minerals or subsurface estates is mandated by legislation or Presidential Order.

BLM procedures may also require more mitigation, which would be discussed in an environmental assessment prepared for specific projects or actions.

Soil Resources

Watershed conditions and soil productivity, salinity and stabilization problems are addressed mainly through three separate systems.

- The management and development of public lands through **activity planning** and vegetation monitoring help to establish standards designed to stabilize runoff/erosion rates **and mitigate impacts to water quality.**

- The environmental assessment review process helps assure that all proposals for surface disturbance are evaluated and, if appropriate, mitigated to maintain or improve watershed conditions.

- Watershed activity plans are written for areas having moderate to critical erosion conditions or other watershed problems and more attention is needed than is provided through the allotment management planning process.

Water Resources

Objectives of the water resource program are to ensure the physical presence and legal availability of water on public lands, ensure that those waters meet or exceed established federal and state water quality standards for specific uses and mitigate activities to prevent water quality degradation.

The water resource program is divided into three sections: Water Inventory, Water Rights and Water Quality.

Water Inventory -- BLM policy is to inventory all water sources on public lands it administers and to document and store this data in its Water Data Management System. The BLM has nearly completed the inventory and is incorporating the data into the data base. The objective is to complete the data base and keep it up-to-date and accurate, giving priority to water sources identified in Wilderness Management Plans, basins under adjudication and exchanged lands.

Water Rights -- BLM policy is to file for water rights on all water sources on public and acquired lands in accordance with state of Arizona water laws. Special emphasis is placed on securing instream flow water rights for selected streams. The BLM will file for water rights for recreation use, fish and wildlife, livestock and administrative uses.

Water Quality -- Water quality is monitored to assess resource impacts from specific activities and to obtain baseline resource information. Areas receiving priority for monitoring include unique waters, riparian areas and recreational and wilderness water sources.

The BLM manages streams on public lands that are designated as unique waters by the Arizona Department of Environmental Quality. These streams are managed to protect their high quality and ecological significance and the BLM will continue to conduct compliance monitoring to assure that these streams are not degraded.

The BLM manages non-point sources of pollution as required by Section 319 of the Water Quality Act of 1987 (Public Law 100-4). The Arizona Department of Environmental Quality is the state agency designated by the Environmental Protection Agency to coordinate management of non-point source pollution control on public lands in Arizona. The Arizona Department of Environmental Quality reports water quality status to the Environmental Protection Agency annually. The Arizona Department of Environmental Quality prepared an assessment of non-point source pollution in Arizona and developed a statewide non-point source management program. Best Management Practices were prescribed to prevent or reduce impacts to water quality and would be incorporated into BLM management plans through mitigating measures identified in project planning and National Environmental Policy Act review.

The BLM will coordinate with the Arizona Department of Environmental Quality by formal cooperative agreement.

Air Resources

Objectives of the BLM's air/climate resource program are to maintain or improve air quality within National Ambient Air Quality Standards, to achieve state implementation plan goals for non-attainment areas, to reduce emission from point/non-point sources and to improve the BLM's ability to understand and predict the effects of changing climatic regimes and atmospheric conditions that may cause ecological changes in climate-stressed environments.

Open Areas, Dry Washes and Riverbeds: The control of airborne dust from open areas, dry washes and riverbeds is addressed in R9-3-404 A-C (Arizona Rules and Regulations for Air Pollution Control). The requirements of these regulations tie directly into the use of public lands. The BLM would not restrict or disallow use of open areas, including use by recreational vehicles.

Roadways and Streets: R9-3-405 A prohibits the use, repair, construction or reconstruction of roadways without taking reasonable dust abatement measures. The BLM would comply with this regulation through special stipulations as a requirement on new projects and through the use of dust control chemicals in problem areas.

Mineral Tailings: Prohibitions on permitting or allowing construction of mineral tailings piles is addressed in R9-3-408. The need for dust abatement would be addressed in mining plans of operations and environmental assessments or impact statements.

Fire Management: R9-3-402 and 403 direct federal agencies to follow permitting procedures before setting of any fire, including prescribed burns. **The Arizona Department of Environmental Quality is charged by Section 118 of the Clean Air Act (49.501 of the Arizona Laws Relating to Environmental Quality) to protect the health and welfare of Arizona residents from adverse impacts of air pollution. The Arizona Department of Environmental Quality** must be contacted before any prescribed burns. All prescribed burns which may affect the Class I air quality of Grand Canyon National Park are coordinated with the National Park Service.

VEGETATIVE PRODUCTS

The Kingman Resource Area is managed under the principles of multiple-use and sustained yield **to maintain or improve biological diversity i.e., the variety of life and its processes. Resource management consistent with the principles of biodiversity is consistent with the Federal Land Policy and Management Act.**

The amended Material Disposal Act of 1947 provides authority to dispose of timber and forest products. Surface-disturbing activities are subject to the National Environmental Policy Act process and clearance and compliance with the National Historic Preservation

Act and the Endangered Species Act. State-protected species such as cactus shall be salvaged.

Existing Plans, Decisions and Objectives

The management framework plans provide for harvest of vegetative products by sale to private and commercial operators at fair market value.

RANGELAND MANAGEMENT

The grazing program is managed under provisions of the Taylor Grazing Act of 1934, the Federal Land Policy and Management Act and the Public Rangelands Improvement Act of 1978. These, along with 43 CFR 4100 and associated BLM Manual policy, authorize the issuance of grazing permits/leases, unauthorized use detection and abatement, use supervision, livestock grazing management, range improvement facilities and treatments and other actions.

Public lands receiving generally less than eight inches of annual precipitation are subject to the guidelines established in the Special Ephemeral Rule published in the *Federal Register* on December 7, 1968.

Management of rangeland resources will be guided by the Cerbat/Black Mountains (1978) and Hualapai-Aquarius (1981) grazing environmental impact statements and range program summaries (see Appendix 1).

A synopsis of these documents is as follows:

The assignment of all grazing allotments into a selective management category was made following established BLM program guidance. The three categories are Maintain, Improve and Custodial, for which the respective objectives are to:

- **Maintain current resource conditions**
- **Improve current resource conditions**
- **Custodially manage existing resource values**

The five standard criteria used throughout the BLM in categorizing allotments are range condition, resource potential, resource use conflicts or controversy, opportunity for positive economic return on public investments and present management situation.

Allotment categorization is used to establish priorities for distributing available funds and personnel during plan implementation to achieve cost-effective improvement of rangeland resources. Allotments may be moved from one category to another as new information becomes available, resource conditions change or management activities are implemented. Changes must be consistent with the category criteria, be supported by a document analysis showing the basis for the change and make use of an interdisciplinary approach and public involvement.

There are currently 12 Maintain, 44 Improve and 27 Custodial category allotments in the Kingman Resource Area.

The Arizona Department of Environmental Quality has developed goal-oriented Best Management Practices for grazing activities through the cooperative efforts of the Technical Advisory Group on Grazing Activities. The following Best Management Practices will be implemented through cooperation with the permittee on all public grazing lands. All management programs should be practical and achievable through common sense. All actions will occur only after compliance with the National Environmental Policy Act.

1. **The goal of maintaining or improving the quality of water should be included in management plans for livestock operations. While the goal of the Clean Water Act is to improve water quality, some waters have acceptable quality which should be maintained.**

2. **The location, timing and intensity of livestock grazing should be controlled with objectives of achieving soil cover to prevent accelerated erosion and to protect water quality.**

3. **Structural range improvements, such as fences, water developments, trails and corrals, should be planned, constructed and utilized in a manner to enhance or maintain water quality.**

4. **Land treatments to manage vegetation or practices to reduce erosion should be planned, implemented and maintained to minimize adverse impacts on water quality.**

5. **Livestock management practices, such as parasite control, feeding and salting, should be done in a manner to protect water quality.**

Grazing management on the 7,717 acres of public lands in Coconino County will continue to be guided by the Eastern Arizona Grazing Environmental Impact Statement - Final (1986). This document states that stocking rates on the three grazing allotments in Coconino County would remain the same. The allotments were placed in the Custodial category for management. Grazing would continue to be authorized under Section 15 of the Taylor Grazing Act.

Public lands are often intermingled with private and state lands. Actions proposed in this document will apply only to public lands.

Vegetative treatment projects are implemented where plant cover or soil productivity is being lost, to achieve a desired plant community or to meet activity plan objectives. Such treatments include mechanical treatments (chaining), herbicide applications, prescribed fire, reseeding and construction of control structures. Seeding may include mixtures of native and naturalized species found growing in the geographic area. Compliance with the National Environmental Policy Act will precede any actions.

Existing Plans, Decisions and Objectives

The Final Cerbat/Black Mountain Grazing Environmental Impact Statement (1978) prescribed forage resource allocations on 1.4 million acres of public lands, including the Lake Mead National

Recreation Area in the north half of the resource area. Allocations were made for livestock, wild burros, desert bighorn sheep and mule deer. These allocations were consistent with the multiple use objectives outlined in the 1973 Black Mountains Management Framework Plan. The environmental impact statement also analyzes the impact of 14 wild horses while reserving the forage for them. The Rangeland Program Summary did not carry this through the implementation of the document. The management framework plan also did not address the issue of wild horses in the Cerbat Mountains. The wild horse section was written and was to be incorporated into the next update, which was not completed. Management objectives included reduction of livestock and wild burro numbers, development of improved grazing systems and construction of range improvements necessary to implement livestock grazing systems. Major goals were to increase forage production, improve rangeland conditions 20 to 40 percent and reduce sediment loss by 10 percent. Forage for all ungulates within the Black Mountains Herd Management Area was allocated at 11,928 animal unit months. This amount was derived from visual reconnaissance inventory data which existed at that time.

The forage allocations for livestock were implemented through decisions to affected permittees and grazing preferences were adjusted. The forage allocated to wild burros is being implemented through provisions of the Black Mountains Herd Management Area Plan. Forage allocated to wildlife is being implemented through the Cerbat-Music and Black Mountains habitat management plans.

The Final Hualapai-Aquarius Grazing Environmental Impact Statement (1981) prescribed forage allocations on public lands in the south half of the resource area. Allocations were made for livestock, wild burros, desert bighorn sheep, mule deer, pronghorn antelope, elk and javelina. Multiple use objectives were developed consistent with the Hualapai-Aquarius Management Framework Plan Step 2 recommendations.

- Designate herd unit 1A as the Sycamore Creek herd unit. To facilitate management, acquire private and state lands within the herd unit by October 1, 1990. Develop a herd management area plan in coordination with the allotment management plan and habitat management plans for the area. These plans will be designed to resolve site-specific problems. Manage the herd unit for 48 burros.

- Designate herd unit 1B as the Burro Creek herd unit. To facilitate management, acquire private and state lands within the herd management area plan in coordination with the allotment management plan and habitat management plans for the area. These plans will be designed to resolve site-specific problems. Manage the herd unit for 22 burros. Remove all burros from the riparian zone for seven to ten years to improve riparian habitat. Manage the remainder of the herd in areas away from the creek and its immediate habitat.

- Designate herd unit 2 as the Big Sandy herd unit. Remove burros from the Gibson, Groom Peak and portions of Greenwood Peak Community grazing allotments to protect burros from harassment and/or death. Manage the herd unit for 54 burros. Develop a herd management area plan in coordination with allotment management plans and the habitat management plan for the area. These plans will be designed to resolve site-specific problems.

The Step 3 decisions were completed in 1983. Management objectives included reduction of livestock and wild burro numbers, development of improved grazing systems and construction of range improvements necessary to implement livestock grazing systems. The major goals of the proposed action were to improve rangeland condition, increase forage production and reduce soil erosion and sedimentation.

The initial livestock stocking rates recommended in the grazing environmental impact statement were modified to conform to changes made in the BLM grazing regulations in 1982. These changes did not allow livestock preference to be established based on a one-time vegetation inventory. Decisions were issued in 1983 to affected permittees and grazing preferences were adjusted. Vegetation monitoring studies were established with future adjustments in livestock numbers to be based on analysis of monitoring data. The forage allocated to wild burros is being implemented through the provisions of the Big Sandy Herd Management Area Plan. The forage allocated to wildlife is being implemented through the Hualapai and Aquarius habitat management plans.

Forage allocations for ungulates will be determined according to the following conversion factors: One animal unit (see Glossary) is equal to one cow and calf, five bighorn sheep, four deer, four pronghorn antelope or two wild burros.

Where analysis of monitoring data indicates a need for a change in the amount of forage available for ungulates, those changes will be determined on a case-by-case basis so ungulate increases or reductions will reflect the reality of the stratified habitat. In areas of multiple species uses and where the habitat is a crucial element for continued survival of a particular species, the allocation (forage, water and/or space) will first provide for that population's needs. The remainder of the allocation will then be divided as prescribed under each alternative.

All decisions proposed for activity management plans will be developed through consultation, cooperation and coordination with affected interests and other agencies, and will conform to Bureau policy. The BLM will work closely with permittees, district advisory boards, other affected interests and, where state land is involved, state government to develop allotment management plans, plan projects, locate monitoring sites and develop plans for other resources. This cooperation is especially important in areas where public lands are intermingled with private and state lands.

Integrated pest management practices are prescribed to control insects such as grasshoppers and crickets and only after a site-specific environmental analysis.

All fences on public lands will be designed and built for compatibility with other resources, such as wildlife and other multiple use objectives. Livestock waters will be built or modified to provide safe access for wildlife.

Use of herbicides will comply with provisions of the Vegetation Treatment Environmental Impact Statement and Record of Decision dated June 5, 1991.

All grazing practices will be designed to help attain state water quality standards. Permittees will not be held responsible for the quality of water entering their allotments from neighboring allotments.

CULTURAL RESOURCE MANAGEMENT

An array of laws and regulations mandate the protection and management of cultural resources on public lands. Two of the most important laws are the National Historic Preservation Act of 1966, as amended, and the Archaeological Resources Protection Act of 1979, as amended. Under the National Historic Preservation Act, potential impacts to National Register and National Register-eligible properties are identified and measures to avoid or mitigate those impacts are developed in consultation with the Arizona State Historic Preservation Officer and the Advisory Council on Historic Preservation.

The Archaeological Resources Protection Act prohibits the attempt or actual excavation, removal, damage or trafficking of archaeological resources from public lands by unauthorized persons and provides for the authorized removal and excavation of cultural resources through a permitting process. It also requires the Secretary of the Interior to prepare plans to determine the nature and extent of archaeological resources and schedule land surveys in areas likely to contain the most scientifically valuable archaeological resources.

Since 1985, the BLM in Arizona has operated under terms of a general compliance programmatic memorandum of agreement with the **Arizona State Historic Preservation Officer** and the Advisory Council on Historic Preservation, which guides inventory and data recovery procedures for **cultural resources** on all public lands, and a specific memorandum of agreement addressing the protection of cultural resources in BLM-state land exchanges.

Cultural resource management programs include participation by both professional and amateur archaeologists. Volunteer agreements currently exist for the preparation of a final report on the Bighorn Cave test excavation with the Museum of Northern Arizona and Northern Arizona University. In 1988, the Arizona Site Stewardship Program was introduced to the resource area, and 12 sites are regularly monitored by private citizens. The Mohave Chapter of the Arizona Archaeological Society has performed cultural resource inventories and encourages awareness of cultural programs.

BLM policy is to have a cultural resource specialist review all surface-disturbing activities on public lands. Cultural reviews describe results of previous inventories and evaluate the probability of cultural resource occurrence in the project area. Generally, a cultural resource field inventory is then conducted. Should significant cultural resources be found during the inventory, impacts to them would be mitigated, usually through avoidance. Should it be determined that the cultural resources cannot be avoided by the proposed activity, the cultural resources would be evaluated for National Register eligibility. If the values are found to be eligible, a program of mitigation would be developed through consultation among the BLM, the Arizona State Historic Preservation Officer and the Advisory Council on Historic Preservation in accordance with the National Historic Preservation Act and 36 CFR 800. Responsibility for inventory, evaluation and mitigation of impacts to cultural resources rests with the BLM. Through this process, all cultural resources of National Register quality would be protected or impacts to them mitigated.

Existing Plans and Decisions

Interim protection plans (1991) have been completed for the Bighorn Cave and the Carrow-Stephens Ranches.

Objectives

Cultural resource management objectives are to protect the scientific information potential of **cultural resources**, enhance the public use values of cultural resources and manage them, when applicable, for conservation. As a continuation of the planning process, cultural resource management plans will be prepared, allocating cultural resources to specific use categories assuring management for their most appropriate uses. Certain sites will be selected for cultural resource project plans that will implement specific activities to achieve the objectives and uses of the Resource Management Plan and cultural resource management plans. The guidelines for management under each objective are listed in Appendix 2.

RECREATION MANAGEMENT

Recreation Management

Recreation programs are managed according to multiple use principles unless otherwise specified by law or BLM policy. The mission of the program is to ensure the continued availability of quality outdoor recreation opportunities and experiences that are not readily available from other sources. Recreation use is managed to protect the health and safety of visitors, to protect natural, cultural and other resources, to encourage public enjoyment of public lands and to resolve user conflicts.

A range of outdoor recreation opportunities, such as hiking, camping, rock collecting, sightseeing, hunting, recreational vehicle camping, climbing, picnicking and recreational four-wheeling, will continue to be provided. Recreation sites, interpretive sites, trails and roads will be maintained and developed where needed to enhance recreation opportunities and allow public use.

Existing Plans and Decisions

Recreation Project Plans:
- Burro Creek Recreation Site

Improvements:
- Wild Cow Springs Recreation Site
- Burro Creek Overlook Interpretive Site
- Hualapai Highlights Trail System

Sign Plans:
- Burro Creek Recreation Site
- Wild Cow Springs Recreation Site

Maintenance Plans:
- Burro Creek Recreation Site
- Wild Cow Springs Recreation Site
- Packsaddle Recreation Site
- Windy Point Recreation Site

National Back Country Byways:
- Historic Route 66
- Hualapai Mountains (proposed)

WILDERNESS MANAGEMENT

The Arizona Desert Wilderness Act (Public Law 101-628) was signed into law on November 28, 1990, creating nine wilderness areas covering 392,844 acres of public surface estate in the Kingman Resource Area, including 386,532 acres of federal mineral estate (see Map 2). Table 1 shows the acres of federal minerals withdrawn from mineral entry and mineral leasing and closed to mineral material disposals.

Table 1
Acres of Federal Mineral Estate in Wilderness Areas Withdrawn From Mineral Entry and Mineral Leasing and Closed to Mineral Material Disposals

Wilderness Area	Acres
Mount Wilson	24,233
Mount Nutt	27,115
Warm Springs	112,153
Mount Tipton	30,208
Wabayuma Peak	38,716
Aubrey Peak	15,306
Upper Burro Creek	24,401
Arrastra Mountains	98,697
Rawhide Mountains	15,703
Total Withdrawn	386,532

The wilderness areas will be managed according to the provisions of law, BLM wilderness management regulations found at 43 CFR 8560 and subsequent wilderness management plans. A wilderness management plan will be prepared for each wilderness area. Implementing these plans will begin immediately and will be ongoing throughout the life of this Resource Management Plan regardless of the alternative selected. Wilderness study areas not designated by the 1990 Act were released from further consideration for wilderness. Any future activity in these areas will be managed in accordance with specific provisions of the Resource Management Plan and record of decision signed by the BLM Arizona State Director.

WILDLIFE HABITAT MANAGEMENT

Wildlife

Legislation, including the Federal Land Policy and Management Act, the Endangered Species Act, the Public Rangelands Improvement Act and the Sikes Act, directs the BLM to manage habitat to meet wildlife needs, along with increasing demands for basic energy supplies, building materials, food products and recreational opportunities. The BLM's responsibility is to recognize opportunities to maintain, improve and expand wildlife habitat for both consumptive and nonconsumptive uses and identify critical wildlife resources deserving special attention. The BLM is also directed to assist state agencies in completing fish and wildlife resource plans.

Recently developed documents also provide program guidance to the BLM's wildlife habitat management program. These documents include Fish and Wildlife 2000, Desert Tortoise Management on the Public Lands: A Rangewide Plan, the Rangewide Plan for Managing Habitat of Desert Bighorn Sheep on Public Lands, Waterfowl Habitat Management on Public Lands: A Strategy for the Future and the Raptor Habitat Management Plan.

All land use actions occurring on public lands in the resource area are reviewed and given site-specific analysis during the environmental review process. Impacts to special status and sensitive wildlife species, riparian habitat and wildlife habitat improvement projects are assessed and measures are developed to lessen impacts. The environmental review process also assesses compatibility with cooperatively developed wildlife habitat management plans. All rangeland and watershed improvements will continue to be designed to achieve range, water quality and wildlife objectives.

Animal Damage Control

A new Animal Damage Control Program Environmental Impact Statement is currently being developed by the Animal Plant Health Inspection Service, U.S. Department of Agriculture. The BLM is a formal cooperator in this process. Following completion of the final environmental impact statement, the BLM will prepare a district-wide animal damage control plan commensurate with the Record of Decision and tiered to the final environmental impact statement.

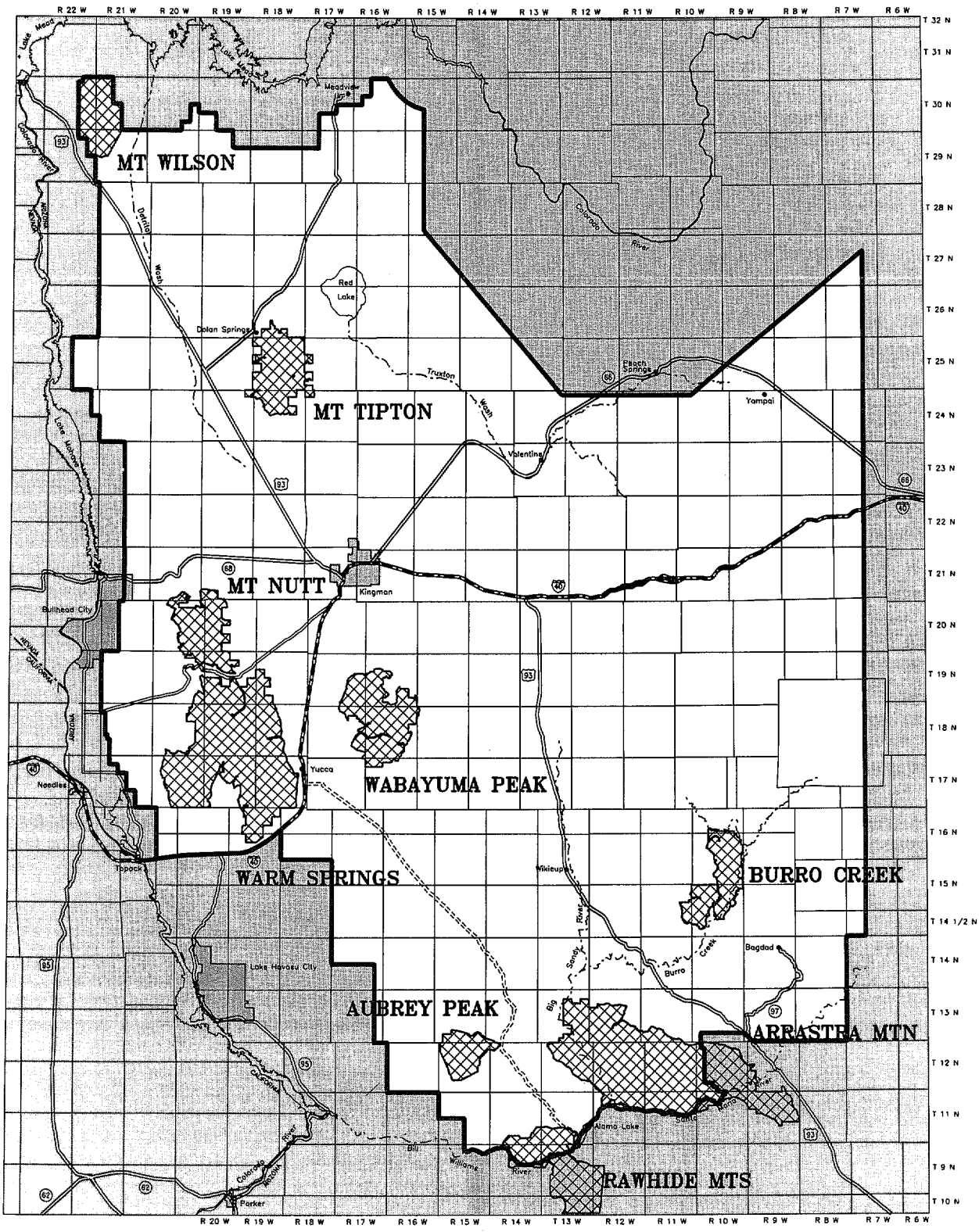
Habitat Management

Habitat management plans are developed in an effort to improve wildlife habitat. Existing habitat management plans (Hualapai, Aquarius, Cerbat-Music, Black Mountains, Bill Williams-Crossman Peak) will continue to be implemented as funding allows. Existing habitat management plans are on file and open to public review at the Kingman Resource Area office. Habitat management plans are periodically evaluated to determine if management direction and actions are adequate and if plan objectives are being met. Using and considering monitoring data, changed policies and direction and wildlife and other resource program needs, the BLM updates and revises habitat management plans jointly with the Arizona Game and Fish Department. The current habitat management plan process can incorporate new data, decisions and changes in management direction and policies.

The Aquarius Habitat Management Plan called for determining the potential for reestablishing bighorn sheep into the Upper Bill Williams drainage. This determination will be made. Management actions outlined in habitat management plans to improve habitat for mule deer, elk and javelina are considered adequate and up-to-date and would be implemented under all alternatives.

Desert bighorn sheep and their habitat are important resources on the public lands of Arizona. These resources will be managed in accordance with the management and protection measures identified in resource planning documents developed to implement BLM and district policies on desert bighorn sheep.

DESIGNATED WILDERNESS



DESIGNATED WILDERNESS

Map 2

Detailed estimates of big game forage allocations are presented in the Cerbat/Black Mountains and Hualapai-Aquarius grazing environmental impact statements on file in the Kingman Resource Area office. **These allocations will be carried forward except when modified in special management areas where habitat monitoring indicates the need for modification.** Monitoring of big game habitat, **i.e., utilization of key forage species, will continue to be conducted as part of an integrated resource monitoring program specifically designed by an interdisciplinary team.** Information obtained from monitoring studies will be analyzed and necessary changes in management prescriptions initiated to protect the habitat.

In some areas, habitat overlap and conflicts exist among wildlife, wild equids and livestock. Where analysis of monitoring data indicates a need for change in number of grazing animals in areas of multiple use, allocations will be determined for each species on a case-by-case basis. **In areas of multiple species uses, where the habitat is a crucial element for continued survival of a particular species, the allocation (forage, water and/or space) will first provide for that population's needs. The remainder of the allocation will then be divided as prescribed under each alternative.**

All decisions proposed for activity management plans will be developed through consultation, cooperation and coordination with affected interests and agencies and will conform to BLM policy.

Wildlife habitat management actions (spring developments, exclosures and game waters) will continue as funding allows. Prescribed burning will be designed to improve wildlife habitat.

Rangeland management practices and rangeland improvements will be designed or modified to maintain or improve wildlife habitat. Livestock grazing management will incorporate the needs of key plant species important to wildlife and safe to use by wildlife in accordance with BLM Standards found in Manual Supplement 6516 and BLM handbook H-1741-1.

All new fences on public lands will be built to allow for wildlife passage in accordance with BLM fence standards. Any existing fences obstructing wildlife movements will be brought into conformance with the adopted standards.

Wildlife escape devices will be installed on all new and existing water tanks or troughs built for livestock **on waters having public water rights and located on public lands.**

To the extent possible, new roads will not be built in crucial wildlife habitat. **However, existing roads may be improved to accommodate mineral development or other uses. Impacts will be carefully analyzed through the environmental analysis process. Existing** roads may be permanently or seasonally closed to vehicles where problems exist or are expected.

Existing Plans, Decisions and Objectives

Since completion of the management framework plans, several habitat management plans have been completed and are being implemented. These include Black Mountains, Hualapai, Aquarius, Cerbat-Music and Bill Williams-Crossman Peak (prepared jointly with the Havasu Resource Area).

Habitat management plans are periodically evaluated to determine if their objectives are being met and updated or revised to meet changing situations or needs. When this Resource Management Plan becomes final, habitat management plans will be revised or amended **according to need for** Black Mountains, Hualapai, Aquarius, Cerbat-Music and Bill Williams-Crossman Peak.

SPECIAL STATUS SPECIES MANAGEMENT

Management of special status species is guided by habitat management and recovery plans in cooperation with state and federal agencies and affected parties.

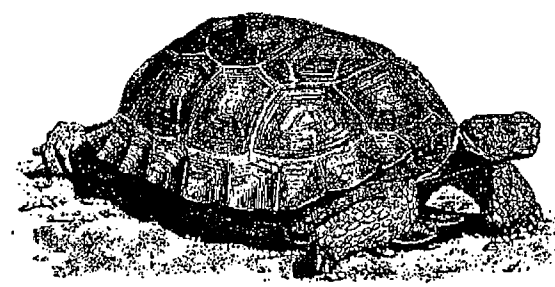
The Endangered Species Act of 1973, as amended, is the authority to conserve threatened and endangered species on public lands. Section 4(f) of the Endangered Species Act directs the Secretary of the Interior to develop and implement recovery plans for the conservation and survival of endangered species. Section 7(a)(1) requires each federal agency to carry out proactive measures to recover listed species and Section 7(a)(2) requires each federal agency to avoid jeopardizing the continued existence of listed species through their actions.

Any federally authorized, funded or implemented actions that may affect listed or proposed species are reviewed in cooperation with the U.S. Fish and Wildlife Service.

BLM policy for special status candidate species is contained in BLM Manual Section 6840. The BLM must carry out management consistent with multiple use for conservation of candidate species and their habitats and must ensure that actions authorized, funded or carried out do not contribute to the need to list any of these species as threatened or endangered. These actions are also conducted on split-estate lands if the surface management agency does not have adequate data. It is also policy to systematically **monitor category 1 and 2** candidate species to determine if a species should be listed.

Potential impacts to species are analyzed in an environmental review by the BLM for each project. Protection measures may be stipulated in the decision record in the environmental assessment or in the U.S. Fish and Wildlife Service's biological opinion.

Protection and management of endangered species will continue, as will inventory for federal- and state-candidate species. Monitoring programs will be implemented on known populations of listed and candidate species. Where monitoring finds threats to these populations, actions will be taken to protect the species and their habitats.



Plant Species

A draft recovery plan has been prepared for Arizona cliffrose (*Purshia subintegra*). When the recovery plan is finalized, the BLM will incorporate the provisions into a habitat management plan or an area of critical environmental concern plan, which will be implemented.

Animal Species

Habitat for state-listed species is managed in cooperation with the Arizona Game and Fish Department under provisions of the Sikes Act (1974), as amended. As additional wildlife information is gathered, existing habitat management plans would be updated or revised.

Actions proposed in the Resource Management Plan will adhere to objectives stated in the bald eagle, peregrine falcon and Hualapai Mexican vole recovery plans. When revising or developing resource activity plans, specific objectives and actions stated in these recovery plans will be incorporated.

To improve raptor habitat, new powerlines will be built to "electrocution proof" specifications and existing powerlines will be modified as problem lines are identified.

The desert tortoise and its habitat are important resources on the public lands of Arizona. These resources will be managed in accordance with the Arizona Implementation Strategy developed to incorporate BLM management philosophy from Desert Tortoise Habitat Management on The Public Lands: A Rangewide Plan, dated November 1988. This management effort will include continuing inventory of desert tortoise habitat, monitoring of desert tortoise habitat quality and quantity, categorization of habitat according to guidelines described in the Implementation Strategy and management of categories of habitat according to the management actions in the Implementation Strategy. Where enough data exist, the strategy will be implemented through this land use plan. If such data are lacking, the strategy will be implemented through activity plans or land use plan amendments, following acquisition of the needed data. Management objectives related to habitat quality and quantity for the desert tortoise will be included in those activity plans, land use plan amendments or other documents.

The categories of desert tortoise habitat designated by the BLM establish goals for the management of desert tortoise and their habitats, based on several criteria. Briefly summarized, management of Category I and Category II areas emphasizes maintenance of viable desert tortoise populations in areas where all Category I or most Category II conflicts are resolvable. Category III habitats are generally characterized by lower densities of desert tortoises in areas where habitat has been fragmented or otherwise degraded, or where landownership patterns are such that effective management is difficult (see Map 34).

RIPARIAN AREA MANAGEMENT

Legal authority for BLM management of riparian-wetland areas is based on numerous laws and executive orders, including the Taylor Grazing Act of 1934, the Endangered Species Act of 1973, the Federal Land Policy and Management Act of 1976, the Emergency Wetland Resources Act of 1986, the Water Quality Act of 1987, Executive Order 11988 (Floodplain Management) and Executive Order 11990 (Protection of Wetlands). On January 22, 1987, the BLM issued its riparian area management policy which defined the term riparian area, set management objectives and outlined specific policy direction. This policy is the basis for BLM Manual 1737 (Riparian-Wetland Area Management), the Bureau-wide Riparian-Wetland Initiative for the 1990s and the Arizona Riparian-Wetland Area Management Strategy. Riparian management plans will be consistent, to the extent practicable, with state of Arizona riparian habitat protection policy, "Protection of Riparian Areas" dated February 14, 1991 (Executive Order 91-6).

The overall objective is to achieve proper functioning condition for riparian areas.

In addition, the national and state strategy plans outline seven implementation strategies to meet the objective: (1) Inventory/Classification -- collect, compile and evaluate baseline information to determine current status, potential and condition. (2) Activity Plan Preparation/Revision -- Develop/revise plans that involve riparian-wetland areas prescribing actions to meet management objectives. (3) Project Development/Maintenance -- Complete projects such as fences, water developments, tree planting and habitat improvement structures to create, improve and/or maintain riparian-wetland conditions. Maintain projects to continue their beneficial use. (4) Monitoring -- Monitor to determine if management action is meeting specific objectives for riparian-wetland areas. (5) Protection/Mitigation - Avoid or mitigate the impact of surface-disturbing activities on riparian-wetland areas. (6) Acquisition/Expansion - acquire and expand riparian-wetland areas through exchange, donation or purchase. (7) Public Outreach -- The development and presentation of workshops to the citizens of Arizona, including school children, livestock interests and conservation groups. The intent of the workshops will be to educate the public and to gain their support for BLM riparian management efforts.

These strategies will be implemented by an interdisciplinary team. Since numerous highly valued resources depend on riparian-wetlands, it is important that specialists such as hydrologists, wildlife biologists, soil scientists, range conservationists and recreation planners work cooperatively to develop management strategies to allow areas to be used and yet meet the identified objective. All actions will occur only after compliance with the National Environmental Policy Act.

Existing Plans and Decisions

The decisions in the Burro Creek Riparian Management Plan, May 1983, and the Bill Williams Riparian Management Area Plan, August 1989, will be incorporated into the Resource Management Plan.

HAZARDOUS MATERIALS MANAGEMENT

The three laws most commonly associated with hazardous materials include the Resource Conservation and Recovery Act, or Public Law 94-580; the Comprehensive Environmental Response, Compensation and Liability Act, or Public Law 96-510, otherwise known as the Superfund Act; and the Superfund Amendment Reauthorization Act,

Title III (Executive Order 12580, 1986). BLM responsibilities under these acts include conformance with federal Resource Conservation and Recovery Act enforcement regulations pertaining to the storage, handling and disposal of hazardous materials and reporting unpermitted hazardous materials discharges under the provisions of the Compensation and Liability Act. Action by the BLM includes reporting, site security, coordination of procedural cleanup steps and following up the results of the cleanup.

All proposed actions occurring on public lands will be analyzed for their potential to release hazardous materials into the environment. Appropriate stipulations will be incorporated into permitting documents to ensure prevention of hazardous incidents.

Existing Plans and Decisions

The Phoenix District Hazardous Material Contingency Plan, covering public lands within the district, is subordinate to the Environmental Protection Agency's Region IX Contingency Plan and in turn the National Contingency Plan. The BLMs State Contingency Plan is the framework and part of the individual district's plans. The hazardous materials contingency plan was revised in 1989 with the Arizona Department of Environmental Quality as the first responder by agreement with the Environmental Protection Agency.

This plan provides the guidance for BLM employees to act in the event of a hazardous materials incident to ensure public and employee health and safety, protect the environment and comply with state and federal laws. If there is no identifiable responsible party or the party refuses to take action, the BLM will act to effect a cleanup. These actions are to include limiting access to the site to ensure safety of BLM employees and the public, contracting for the cleanup/removal of the materials and gathering evidence to assist solicitors in future litigation of the responsible party. At no time will BLM employees remove or transport hazardous materials.

Actions by BLM employees on hazardous material matters are limited to reporting, maintaining site security and coordinating procedural steps. The Arizona Department of Environmental Quality has the overall responsibility, under agreement with Environmental Protection Agency, to ensure that all hazardous materials incidents are properly abated on federal lands. The Environmental Protection Agency may defer cleanup actions to the BLM on certain incidents. In these situations, the Environmental Protection Agency will provide technical assistance and the BLM's role is to assure that either a responsible party or a contractor cleans up the site.

WILD AND FREE-ROAMING HORSE AND BURRO MANAGEMENT

Wild horses and burros and their habitat are important resources on the public lands of Arizona. These resources will be managed in accordance with the management and protection measures identified in resource planning documents developed to implement BLM policy on wild horses and burros.

The Wild and Free-Roaming Horse and Burro Act, Public Law 92-195, December 15, 1971 (USC 1331-1340, as amended) established policy regarding management of wild free-roaming horses and burros on the public lands. Congress found wild horses and burros to be "living symbols of the historic and pioneer spirit of the West." These animals were identified as "an integral part of the natural system" in those areas where populations existed at the passage of the Act.

Three wild horse and burro herd management areas were identified in the Kingman Resource Area based on population inventories following passage of the Act. These are the Big Sandy, the Cerbat and the Black Mountains herd management areas. Wild horses and burros are to be managed within these areas. Animals may not be relocated to areas where populations did not exist in 1971 (Public Law 92-195, Section 9). The herds are managed to assure their free-roaming character, health and self-sustaining ability in a thriving ecological balance.

Wild horse and burro management on public lands requires maintenance of a herd inventory, vegetative monitoring and the removal and placement of excess animals to the public for adoption.

The Public Rangelands Improvement Act of 1978, Public Law 95-514 (43 USC 1901), provided a management direction for the wild horse and burro program stating in part that animals will be managed in a manner to..." preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area." Excess wild horses and burros will be removed for adoption when their numbers exceed the ecosystem capability to sustain itself in a healthy condition with proper consideration given to other multiple uses.

Detailed estimates of wild horse and burro forage allocations are presented in the Cerbat/Black Mountains and Hualapai-Aquarius grazing environmental impact statements, both on file at the BLM office in Kingman. These allocations will be carried forward except where modified when habitat monitoring indicates the need for changes.

Monitoring of wild horse and burro habitat, i.e., utilization of key species and habitat trend, will continue to be conducted as part of an integrated resource monitoring program designed by an interdisciplinary team.

Information obtained from monitoring studies will be analyzed and necessary changes will be made through adjustments in forage allocation. Where analysis of monitoring data indicates a need for change in the number of grazing animals in areas of multiple species use, allocations will be determined for each species on a case-by-case basis.

In areas of multiple species use where the habitat is a crucial element for continued survival of a particular species, the allocation (forage, water and/or space) will first provide for that population's needs. The remainder of the allocation will then be divided as prescribed under each alternative.

The 43 CFR 4710.5(b) regulations mandate that all public lands within herd management areas shall be closed to grazing under permit or lease by domestic horses and burros. Wild horses or burros residing in areas outside of designated herd management areas will be removed as soon as possible after consulting with the landowner. Animals will be relocated to herd management areas or placed for adoption.

To the extent possible, new roads will not be built in crucial habitat. However, existing roads maybe improved to accommodate mineral development or other uses. Impacts will be carefully analyzed through the environmental analysis process. Existing roads may be permanently or seasonally closed to vehicles where problems exist or are expected.

Existing Plans, Decisions and Objectives

Since completion of the management framework plan, two herd management area plans have been completed and are being implemented. These are the Black Mountains Herd Management Area Plan (including the wild horse use area in the Cerbat Mountains) and the Big Sandy Herd Management Area Plan.

Herd management area plans are periodically evaluated to determine if objectives are being met, and then updated or revised to meet changing situations or needs. When this Resource Management Plan becomes final, these herd management area plans will be reevaluated and revised or amended.

FIRE MANAGEMENT

Approved in September 1989, the Phoenix District Fire Management Activity Plan describes the current district policy for fire management. The plan may be reviewed at the Phoenix District and Kingman Resource Area offices. **As new district policy is developed, it will preempt the 1989 plan.**

Fire Management Objectives

Suppression objectives for fires occurring during the summer (May to September) in the grassland vegetation fuel type (National Fire Danger Rating System Fuel Model A) are to hold 85 percent of the fires to 300 acres or less. During the non-summer months, protection objectives require holding 90 percent of the fires to 1,000 acres or less.

Suppression objectives for fires occurring during the summer in the chaparral and riparian fuel types (National Fire Danger Rating System Fuel Model F) are to hold 85 percent of all fires to 50 acres or less. During the non-summer months, protection objectives require holding 90 percent of the fires to 200 acres or less.

Suppression objectives for fires occurring during the summer in the Mohave/Sonoran desert type (National Fire Danger Rating System Fuel Model T) are to hold 80 percent of all fires to 50 acres or less. During the non-summer months, protection objectives require holding 90 percent of all fires to 200 acres or less.

Priority Suppression Areas

Priority areas where fire suppression is required to prevent unacceptable resource damage or loss of life and property are:

Areas of sensitive and critical resource values --

- Burro Creek (endangered Arizona cliffrose)
- Grapevine Mesa (Joshua Tree Forest, National Natural Landmark)
- Hualapai Mountains (endangered vole)
- Alamo Lake (endangered southern bald eagle)

Critical areas with potential for loss of life and property --

- Golden Horseshoe subdivision
- Dolan Springs
- Truxton
- Pinyon Pine subdivision
- Pine Lake subdivision
- Mohave County Park

Prescribed Fire

The use of prescribed fire to achieve management objectives would be subject to development of a prescribed fire plan and compliance with the National Environmental Policy Act prior to initiating the action. Suitable areas where this type of treatment may be considered include dense chaparral sites in the Hualapai, Music and Cerbat mountains, blackbrush sites at various locations and big sagebrush sites in the Music Mountains.

Fuel Management Areas

Removal of chaparral brush along ridge tops to create fuel breaks in the Hualapai Mountain range would benefit the fire suppression program. Lack of roads in the Hualapai Mountains limits the strategy of using roads for anchor points and firelines.

Constraints

The following conditions restrict and constrain fire suppression activities on public lands.

- **Wilderness areas** -- **All suppression activities in wilderness areas** will be conducted in compliance with the BLM's wilderness management policy concerning minimum tool use and limited use of motorized equipment.

- Threatened and endangered species habitat -- Sensitive habitat for threatened and endangered species must be protected. Suppression tactics will be utilized that limit the damage or disturbance to habitat.

- Archaeological sites -- All sites must be protected from disturbance. If heavy equipment use is anticipated to construct firelines, an archaeologist, if available, will work in conjunction with the equipment to protect the site.

Emergency Fire Rehabilitation

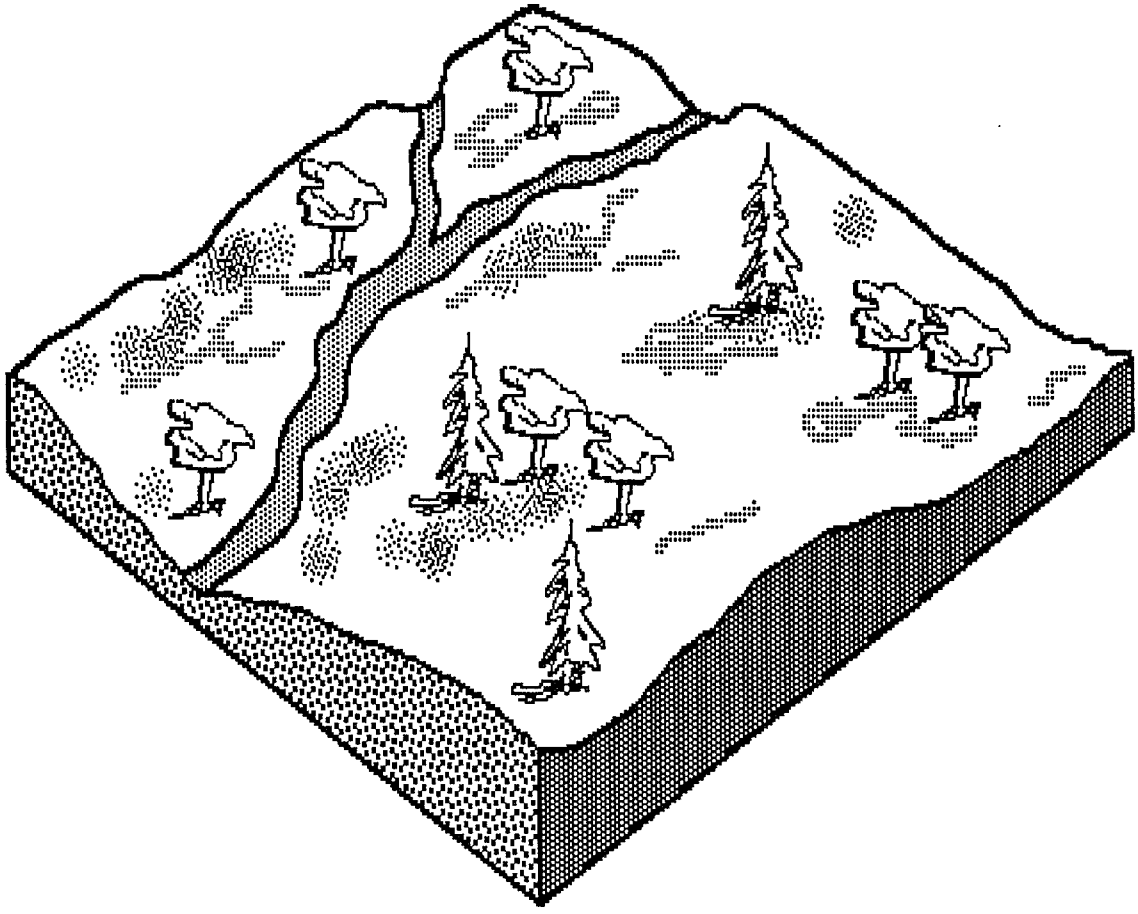
A site-specific emergency fire rehabilitation plan will be prepared by an interdisciplinary team, as needed to protect soil, water and vegetation resources or to prevent unacceptable on-site or off-site damages. **Compliance with the National Environmental Policy Act will precede any actions.**

When a wildfire occurs, procedures for rehabilitation outlined in BLM Manual Handbook H-1742-1 will be implemented. These procedures include formation of an interdisciplinary team to assess both on- and off-site resource damage and potential for future damage. The team would also prescribe measures necessary to minimize resource losses following wildfire. Available resource inventory data and land use planning objectives would be used in this

assessment. Consideration would be given to sensitive resources in preparation of the rehabilitation plan, including wilderness, special management areas, fragile soils, cultural resources and special status species. Rehabilitation measures may include, but would not be limited to, seeding **with approved native and naturalized seed mixtures**, waterbarring of firelines, scattering of litter, diversion structures or sediment catchments and control of grazing by livestock, wild horses, burros and wildlife. The need for emergency rehabilitation measures would be discretionary and dependent on the size of the area burned.

RESOURCE ACCESS TRAVEL MANAGEMENT

Improved and unimproved roads contribute a significant portion of turbidity and sedimentation components of non-point source pollution impacts. Activity plans will review and evaluate existing roads for improvement, closure or reclamation. The U.S. Forest Service Resource Access Travel Management system can be used as guidance for developing access goals for the resource area. The goal will be to maintain or reduce the number of miles of road per section of land to the minimum necessary to achieve resource management goals and to protect critical resources and comply with state water quality standards. All actions will occur only after compliance with the National Environmental Policy Act.



ALTERNATIVE 1 (CURRENT MANAGEMENT)

Alternative 1 consists of managing public lands using current policies, management framework plan guidance and existing resource allocations. The management framework plans were written in 1974, 1975 and 1982, and many actions have been implemented. Public use has grown substantially and public interest and concern about public land management have increased. Under *Alternative I*, changing circumstances would be handled on a case-by-case basis and require plan amendments.

MINERALS

Objective

The objective of the minerals program is to provide for orderly exploration and development of minerals.

Plan Actions

Oil and gas exploration and development would be encouraged on public lands within the resource area. Oil and gas leasing would continue to be allowed without restrictions except on 253,795 acres of federal minerals currently subject to no surface occupancy restrictions to protect bighorn sheep habitat (see Map 3). Locatable mineral development would continue to be allowed on public lands **not withdrawn. A total of 386,532 acres of federal minerals is withdrawn from mineral entry in wilderness areas.** A total of 19,403 acres is withdrawn from mineral entry at Alamo Lake (see Map 4). Mineral materials and free use permits would be issued on a case-by-case basis.

LANDS

Objective

The Kingman Resource Area has an active lands and realty program with an objective of adjusting landownership to improve manageability of the public lands and their resources while authorizing a variety of land use proposals.

Plan Actions

Land Tenure Adjustments

The Federal Land Policy and Management Act provides authority for landownership adjustments by sale, exchange and withdrawal. It also requires these adjustments to conform to existing land use plans.

The Black Mountains, Cerbat and Hualapai-Aquarius management framework plans have all selected disposal blocks where public lands would be disposed over the long term. A total of 102,547 acres of public lands has been identified as suitable for disposal (see Appendix 3 and Map 5). These plans have also identified retention blocks of larger, more manageable areas of public lands. These lands would remain in public ownership and be managed under the principles of multiple use. Non-public lands in these retention areas would generally be considered suitable for acquisition to consolidate public lands.

Public Land Exchanges

The resource area has had an active land exchange program and several areas have been blocked into solid public and private ownership. Retention areas where the BLM has substantially increased acreages of public lands include the Hualapai Mountains, central and southern Black Mountains, Goodwin Mesa in the Aquarius Mountains and lands bordering the Lake Mead National Recreation Area and the Hualapai Indian Reservation.

Disposal areas where the BLM has conveyed large amounts of public land into private ownership include Golden Valley, Hualapai Valley south of Red Lake, portions of Detrital Valley and lands east of Bullhead City.

The exchange program in Arizona was **reduced in scope in** April 1989 to allow regulations pursuant to the Federal Land Exchange Facilitation Act of 1988 to be established. The BLM has implemented a statewide priority ranking system which considers natural resources, special designations such as wilderness and areas of critical environmental concern, elimination of threats to resources, public access and the opportunity to acquire lands in all pending and future exchange proposals. Exchanges have been resumed with plans to complete two to four exchanges per year in this resource area depending on the size of the exchange and availability of personnel.

Land Withdrawals and Classifications

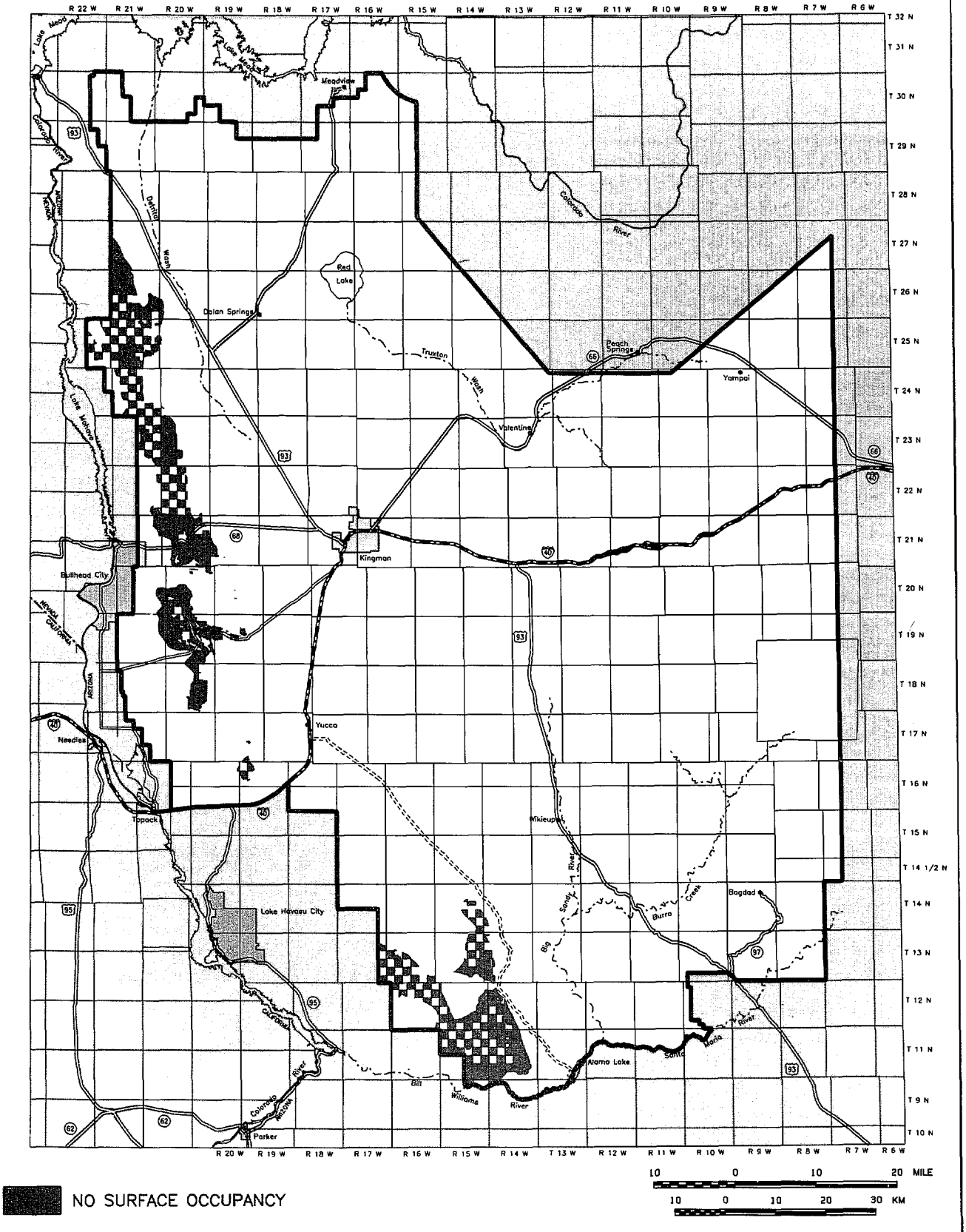
Although the BLM follows a policy of multiple use management on public lands, certain conditions such as public safety or protection of special uses or critical resources may require restricting or eliminating incompatible uses on some public lands through withdrawals.

Withdrawals generally close the land to entry under all or some of the public land and mineral laws. Withdrawals may transfer jurisdiction of the lands to another federal agency and designate public lands for a particular purpose, project or use. **New withdrawals to protect critical resources (see Appendix 10), will be pursued.** Existing withdrawals and classifications in the resource area have been entered into the Geographic Information System. They have been inventoried **and an evaluation will be made through the withdrawal review process. This process involves determining if the lands are being used for the purpose for which they were withdrawn. If not, the BLM will recommend termination of the withdrawal unless the agency involved can justify the need for the withdrawal to continue. Existing classifications will remain.**

Recreation and Public Purposes

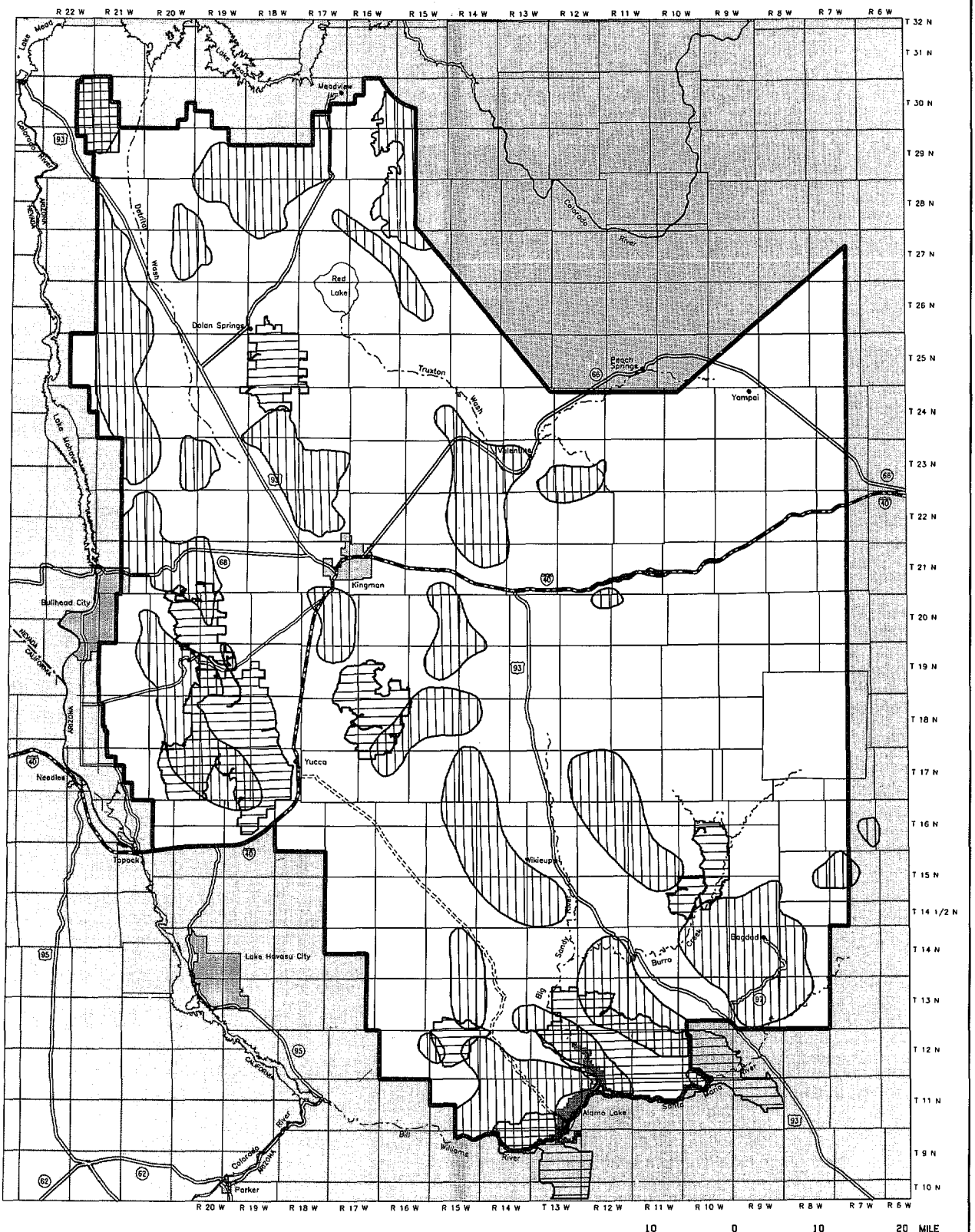
The BLM has the authority to lease or convey, at less than fair market value, public lands to governmental and nonprofit entities for public purposes such as recreation sites, building sites, schools and other facilities. Management framework plan decisions to provide lands for local government and nonprofit entities when a public need is demonstrated will continue under this alternative (see Appendix 4). Applications under the Recreation and Public Purposes Act are processed under the requirements of the National Environmental Policy Act and are subject to public review through publication of a

ALTERNATIVE 1 – NO SURFACE OCCUPANCY



Map 3

MINERAL WITHDRAWALS ALTERNATIVE 1



AREAS WITHDRAWN FROM MINERAL ENTRY

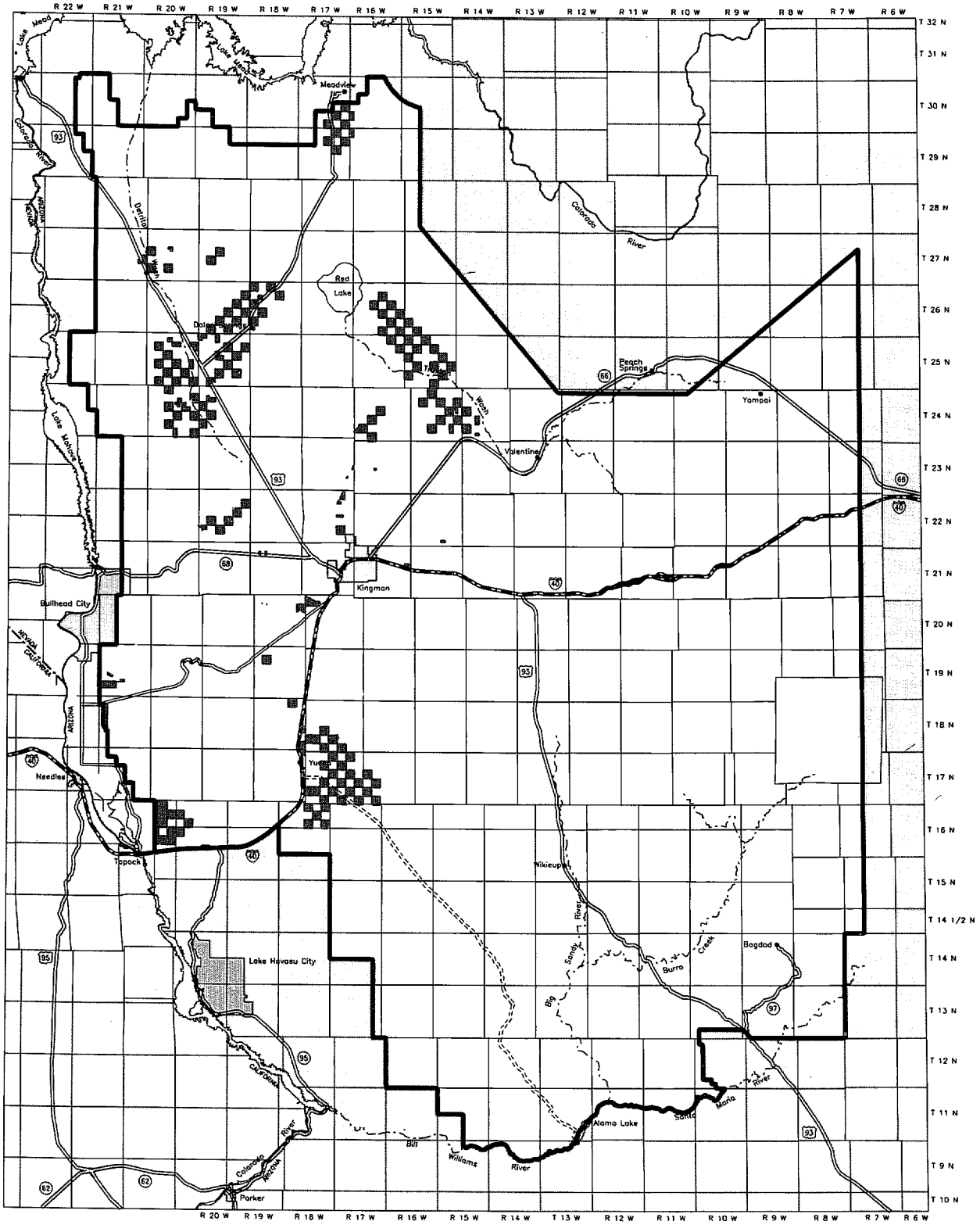
AREAS OF HIGH MINERAL POTENTIAL

DESIGNATED WILDERNESS – CLOSED

HIGH MINERAL POTENTIAL WITHIN WILDERNESS – CLOSED

Map 4

LAND DISPOSALS – ALTERNATIVE 1



LANDS PROPOSED FOR FUTURE DISPOSAL

10 0 10 20 MILE

10 0 10 20 30 KM

N

Map 5

notice of realty action. **An increased demand for Recreation and Public Purposes Act actions is expected as communities continue to expand and costs of private land continue to increase.**

Rights-of-Way, Leases and Permits

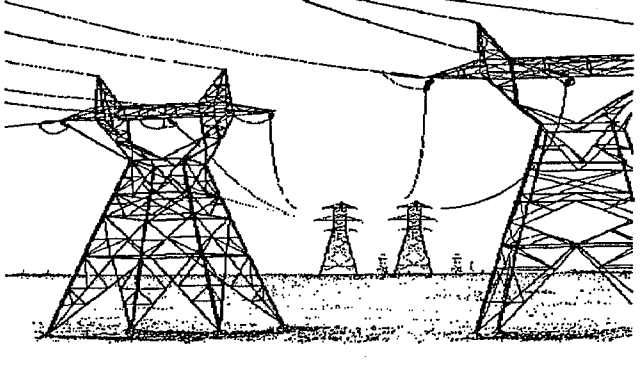
The BLM expects to continue to authorize rights-of-way, leases and permits throughout the 20-year projection of this Resource Management Plan. Authorizations will be granted to qualified individuals, businesses and governmental entities for the use of the public lands. These actions would occur on a continuing basis regardless of which alternative is selected. The resource area has issued an average of 20 rights-of-way and two Federal Land Policy and Management Act permits annually. The number of future actions is expected to remain similar or increase.

Rights-of-way, leases and permits will be authorized using the least environmentally sensitive or scenic routes wherever possible. Applications will be analyzed and mitigation measures developed to avoid or protect cultural or natural resources. When a right-of-way is needed across public lands to access private lands, every attempt will be made to use existing rights-of-way. Large utility transmission lines will be limited to the nine existing corridors designated in the management framework plans.

Communication Site Rights-of-Way

Ten existing mountaintop sites, as shown in Appendix 5, are or may be valuable for commercial development. Only Oatman and Willow Beach were designated in the Black Mountains Management Framework Plan. The Cerbat Management Framework Plan allowed no communication site development until a study and written communication site plan has been completed. The Hualapai/Aquarius Management Framework Plan made no mention of communication sites. This management would continue except on Oatman where, due to environmental concerns, only minor modifications to existing facilities will be allowed until limitations for development can be determined through an environmental analysis.

Because of the proximity and potential for interference of Potato Patch II to Hayden Peak and Potato Patch I, Potato Patch II will be managed under the Hualapai Mountain Communication Site Plan for new users, and existing users will be required to comply with the communication site plan when their existing leases expire. All other sites would require a communication site plan prior to substantial development, including installation of power, access construction, etc. Acreages are estimated until a site plan determines area for development.



WATERSHED (Soil, Water and Air) RESOURCES

Objectives

Watershed management objectives are to prevent or minimize environmental damage to the soil, water and air resources.

Plan Actions

Watershed

Soils

A completed soil survey exists for the southern **half of** the resource area (Mohave County, Southern Part--Survey Area No. 627, unpublished) and the eastern portion of the resource area (Yavapai County, Western Part--Survey Area No. 637). A soil survey for the northern half of the resource area (Mohave County, Central--Survey Area No. 697) is underway and scheduled for completion in 1993. These surveys would enable the BLM to locate areas requiring special management consideration (e.g., fragile or saline soils, wetland soils, prime and unique farmlands) and would provide information on an area's suitability for surface disturbance.

Vegetation

A vegetation inventory was completed for the southern half of the resource area (Hualapai-Aquarius) in 1979. An ecological site inventory is being conducted for the northern half of the resource area (Cerbat/Black Mountains) and is scheduled for completion in 1993. These surveys will provide the BLM with information on current and potential vegetative conditions throughout the resource area. The inventory provides the basis for determining desirable plant communities for optimum multiple use/sustained yields within the ecological sites on the rangelands in addition to healthy watershed conditions. Management of the vegetation resource would continue to be addressed through activity plans to obtain desired vegetative cover conducive to healthy watershed conditions.

Additionally, the soil survey along with the ecological site inventory provides the basis for determining desirable plant communities for optimum multiple use/sustained yields within the ecological sites on rangelands. Management of the soil resource would continue to be addressed through watershed and rangeland activity plans to assure resource protection.

Water

Floodplains: The BLM would continue to comply with Executive Order 11988.

Water Quantity: To secure an adequate water supply for a variety of needs on public lands, the BLM would maintain an inventory of all water sources on public lands within the resource area and would continue to pursue applications/claims for water rights through the state appropriations/adjudication process.

Water Quality: The BLM would continue to establish a good baseline water quality data base and ensure that all waters on public lands meet or exceed federal and state standards for quality. **Baseline water quality data for Burro and Francis creeks can be found in "Water Quality Study - Burro Creek Watershed," 1984 (Kingman Resource Area files). Baseline data for the Bill Williams**

River is found in "The Bill Williams Management Area, Findings and Interim Management Recommendations," December 1988 (Kingman Resource Area files). The BLM would manage non-point source pollution through watershed and rangeland activity plans and would coordinate with the Arizona Department of Environmental Quality to incorporate its non-point source pollution requirements. Adverse impacts to water quality would be prevented or reduced through environmental analysis and mitigative measures for any action proposed for public lands.

Air Resources

Impacts to air quality resulting from activities on public lands would be prevented or reduced through mitigation brought forward in the analysis of impacts from proposed projects during compliance with the National Environmental Policy Act. Typically, activities on public lands that might affect air quality are addressed by Article 4 (R9-3) of the Arizona Rules and Regulations. BLM actions or actions authorized by the BLM and addressed in the regulations include land treatments, prescribed burning, road building, construction of mineral tailings piles, surface-disturbing rights-of-way and dust emissions from vehicles traveling unsurfaced roads. The National Environmental Policy Act review process ensures compliance with these regulations. For identification and coordination purposes, the BLM refers to the state implementation plan goals for air quality nonattainment areas.

VEGETATIVE PRODUCTS MANAGEMENT

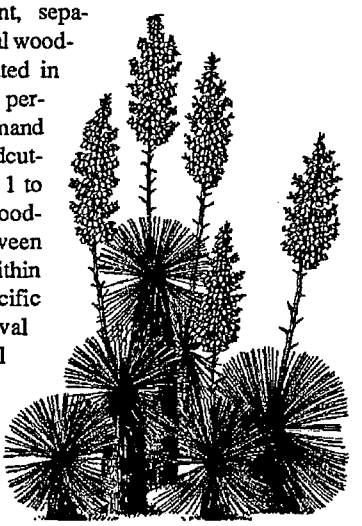
This section addresses public demand for vegetative resources other than vegetation used mainly as forage. Other discussions on vegetation can be found under Watershed Resources and Rangeland Management.

Objective

The objective under *Alternative 1* for the vegetative products program is to meet public demand for vegetative resources on public lands without impairing the sustained productivity of the resource.

Plan Actions

Under current management, separate private and commercial woodcutting areas are designated in pinyon/juniper stands and permits are issued on a demand basis. Commercial woodcutting is allowed from May 1 to September 30 and other woodcutting areas are open between October 1 and April 30. Within the woodcutting areas, specific units are selected for removal of wood. In the personal use woodcutting areas, typically larger trees have been selectively cut. In the commercial areas, permit holders are required to clear-cut all juniper and mature pinyon trees within designated units, after which they must rehabilitate the area by scattering slash and seeding with suitable **native and naturalized forbs, grasses and shrubs found growing in the geographic area.** Areas proposed for woodcutting **and seeding** are analyzed for potential impacts to other resources through the environmental assessment process. **Cutting would not be allowed within areas found eligible for study as a wild and scenic river.**



Commercial harvest of *Yucca schidigera* (Mohave yucca) was being authorized through annual permit. Mohave yucca is used to produce a water retention agent, fertilizer and plant mulch. In the past, permits were allowed for harvest of 200 tons per year, but most recently, only 50 tons have been authorized for harvest each year. As of April 30, 1990, the Mohave yucca harvest has been suspended, pending study on the long-term sustained availability of this plant.

Harvest of desert vegetation for personal use and commercial landscaping would continue to be limited to salvage operations where vegetation is destined to be destroyed by surface disturbance.

Permits would no longer be issued for removing ironwood, catclaw acacia and mesquite because of the extremely limited amount of these resources.

Negotiated sales of vegetative products such as seeds and fruits would be permitted, subject to compliance with the National Environmental Policy Act.

Removal of native plants for private residence or commercial landscaping must comply with state laws governing the harvest and transport of native plants. All protected native plants are to be tagged before being removed and transported (Arizona Native Plant law, Arizona Revised Statutes, title 3, Chapter 7; sections 3-901 to 3-910, as amended 1989).

RANGELAND MANAGEMENT

Objectives

The objectives for the rangeland management program are listed in the Cerbat/Black Mountains final Environmental Impact Statement (published September 1978) and Hualapai-Aquarius Final Grazing Environmental Impact Statement (August 1981).

Plan Actions

Current rangeland management would continue to be carried out according to the guidelines set in the above environmental impact statements, along with Rangeland Program Summary updates for both areas published in the years following the environmental impact statements (see Appendix 1). The volume of information in these documents prohibits a complete synopsis within this document, but all publications may be reviewed in the Kingman Resource Area office. Briefly, these documents provide for categorization of grazing allotments for management at different levels of intensity, a schedule for developing allotment management plans, associated range improvements on higher priority allotments and a program for monitoring vegetative conditions on public lands used for grazing.

Adjustments to carrying capacity, season of use and class or kind of livestock may be negotiated with range users on the basis of monitoring results.

Livestock grazing on public lands within the Lazy YU B allotment was cancelled in 1986. These public lands would continue to be closed to livestock grazing because of their unmanageability and the potential for conflict with homeowners. The lands affected are:

T. 18 N., R. 18 W., sec. 2, All
T. 18 N., R. 17 W., sec. 6, west of railroad right-of-way
T. 19 N., R. 17 W., secs. 6, 18 and 30, west of railroad right-of-way
T. 20 N., R. 17 W., secs. 8 and 30, west of railroad right-of-way

In 1986, Unit B was eliminated from the Black Mountains allotment to avoid potential conflict with homeowners. These public lands would continue to be closed to livestock grazing. The lands affected are:

T. 20 N., R. 17 W., secs. 5 and 6, portion south of Cook Canyon allotment boundary and sec. 12, all public lands.

The following unalloted parcels of public land would also remain closed to livestock use to avoid conflicts with homeowners.

T. 21 N., R. 17 W., sec. 18, All and secs. 20 and 30, northwest of Cook Canyon allotment boundary.

A total of 165,872 acres of public lands at the south end of the Black Mountains would remain closed to livestock grazing to reserve forage for wildlife (see **Map 6**). This area was established in 1974 **(Boundary Cone-McHeffy Butte unit)** and 1976 **(Warm Springs-Black Mountains unit)** under authority of grazing regulations in effect at that time (43 CFR 4111.3-1(b)).

Manipulation of vegetation would continue to be considered on areas found suitable for such treatment through site-specific analysis of important site factors such as slope, aspect, climate, soil type and depth, potential natural community and existing vegetative type. The type of vegetative manipulation treatment suitable for the site would be determined by analyzing the impacts of possible treatment procedures. Prescribed fire, plowing and seeding, chaining, brush-beating, land imprinting and herbicides are treatments which would be considered. An environmental analysis would be done on each area to determine impacts.

CULTURAL RESOURCES

Objectives

Cultural resource management objectives are to protect the scientific information potential, enhance the public use values of cultural resources and to manage them, when applicable, for conservation.

Plan Actions

Cultural resources would continue to be evaluated on a case-by-case basis in accordance with laws, regulations and BLM policy when inventories are required. A cultural resource management plan and cultural resource project plans would continue to be developed. National Register of Historic Places listing would continue for significant sites such as the Swale Tank Archaeological District. BLM archaeologists would continue to educate the public about the importance of cultural resources through the public school systems and local groups. Education would continue in the form of slide presentations to schools, museums and civic groups. Archaeological teaching materials would continue to be distributed to local teachers. Regular coverage in local newspapers concerning cultural resources and the laws protecting them would continue.

Bighorn Cave would receive more testing and evaluation. The Carrow-Stephens historic ranch would continue to be developed for the public as an interpretive and recreation site. The Site Stewardship Program would continue with the BLM contributing suggestions for more **cultural resources** to be monitored. Coordination with local Indian tribes would continue. Signs marking points of interest would continue to be placed and replaced, especially along Historic Route 66 and the Beale Wagon Road, and certain **cultural resources** would continue to be protected by signing, fencing, patrolling and surveillance.

RECREATION MANAGEMENT

Objective

The objective of the recreation program is to manage for quality outdoor recreation. Under *Alternative 1*, the BLM would manage public lands as described in the Management Guidance Common to All Alternatives section.

Plan Actions

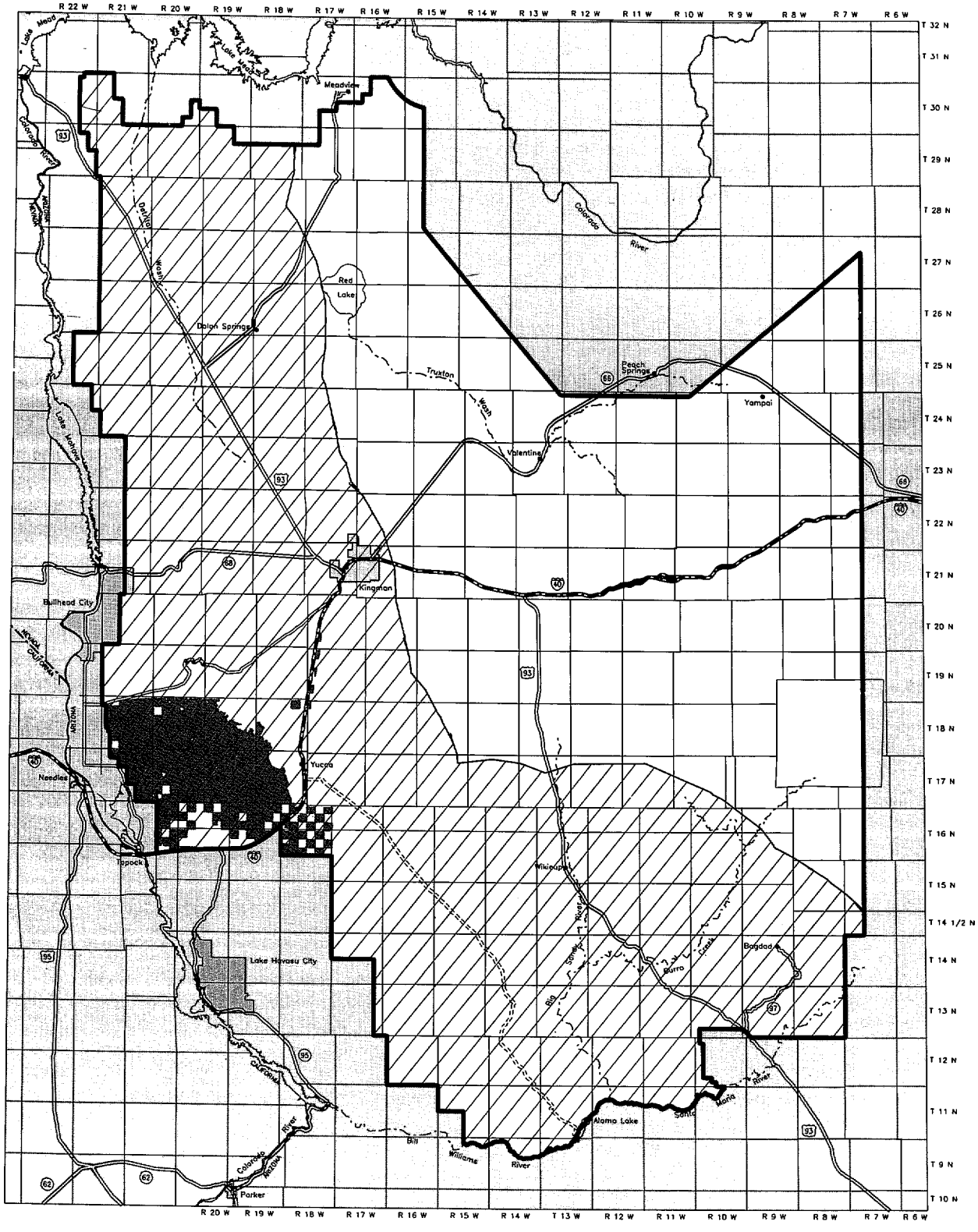
Recreation management is addressed under **two** broad program headings: general recreation and visual resources. The following describes the current status and management direction of these programs.

General Recreation

Recreation programs would continue to be managed according to multiple use and sustained yield principles. The mission of the program is to ensure continued quality outdoor recreation opportunities and experiences that cannot be readily obtained from other sources. Recreation use would be managed to protect the health and safety of visitors, to protect natural, cultural and other resources, to encourage public enjoyment of public lands and to resolve user conflicts. Responding to inquiries and providing timely information would continue to be a important part of the overall recreation management effort.

The BLM will continue administration and maintenance of four existing recreation sites: Burro Creek, Wild Cow Springs, Windy Point and Packsaddle campgrounds. Recreation project plans have been completed and will be implemented for the Burro Creek and Wild Cow Springs recreation sites. These plans outline proposed improvements for each facility. A recreation project plan would be completed for Windy Point and Packsaddle recreation sites. The Burro Creek Interpretive Overlook recreation project plan, completed several years ago, would be implemented. These recreation

GRAZING RESTRICTIONS ALTERNATIVE 1



CLOSED TO GRAZING

DOMESTIC SHEEP AND GOAT LICENSES PROHIBITED

Map 6

projects have a long history of sustained public use, pressing maintenance, and need for enlargement.

The Hualapai Highlights Trail System Plan has been completed for developing hiking trails at the northern end of the Hualapai Mountains. This activity plan would be implemented.

The BLM has two routes suitable for designation as national back country byways. The Hualapai Mountains National Back Country Byway has been proposed, but not implemented. It includes segments of county- and BLM-maintained roads within the Hualapai Mountains. The Historic Route 66 National Scenic Byway has been designated. It includes a scenic and historic segment of Old Route 66/Oatman Road through the Black Mountains west of Kingman.

All public lands would be part of the extensive recreation management area. Most extensive (dispersed) recreational opportunities would continue to be managed on an "on-demand" basis. On-site investment and public information efforts on public lands would continue to be provided in response to short-term demand. Special recreation permits would be required for commercial and competitive events. Management attention would be directed at the most visible examples of recreational resource degradation and at the most pressing instances of recreation user conflicts. Any new recreation facilities developed along river segments eligible for inclusion into the National Wild and Scenic Rivers System would be compatible with the protective management prescriptions and will not adversely affect the segments' outstandingly remarkable values. No long-term visitor use areas would be established.

Off-Highway Vehicles

Off-highway vehicle use would be limited to existing roads, trails and navigable washes on 2,035,561 acres. A total of 392,844 acres is closed to off-highway vehicle use on nine wilderness areas (see Map 7).

This plan designates off-highway vehicle use of roads, trails and navigable washes on public lands administered by the BLM. It does not authorize any such use on private, state, Indian or other federal lands. Travel on Lake Mead National Recreation Area or Grand Canyon National Park lands must comply with National Park Service-approved plans and regulations.

Visual Resources

The Visual Resource Management classes established under the management framework plans would remain the same. Application of the Visual Resource Management System would continue to rely on the use of the standard visual contrast rating worksheet and on the resource specialists involved in permitting or project planning to identify and mitigate impacts to the visual resource.

WILD AND SCENIC RIVERS

To fulfill the requirements of the Wild and Scenic Rivers Act of 1968, the BLM must identify and evaluate all river segments on public lands to determine if they are appropriate for additions to the National Wild and Scenic Rivers System. The determination is based on a three-step evaluation process that includes eligibility, classification and suitability.

Eligibility refers to whether or not a river segment has the basic qualifications to be a component of the National Wild and Scenic River System. To be eligible, a river segment must be free-flowing and contain one or more outstandingly remarkable value. Free-flowing is defined by Section 16(b) of the Wild and Scenic River Act as "existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping or other modification of the waterway." Thus, a river segment need not be perennial to be free-flowing. The volume of flow is sufficient if it can maintain the outstandingly remarkable values identified within the segment. The Wild and Scenic River Act further states that to be eligible the river segment must contain one or more of the following outstandingly remarkable values: scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values.

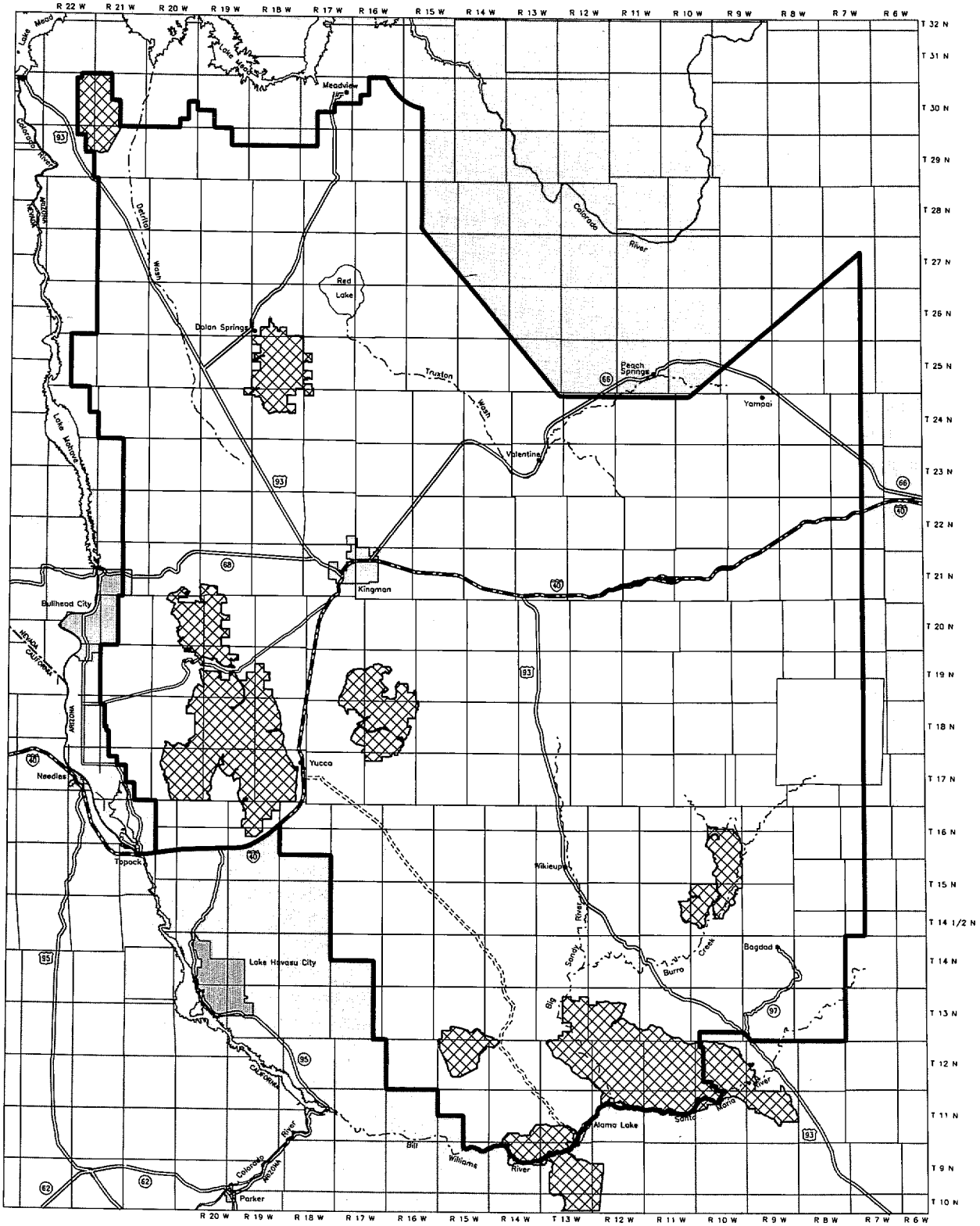
Once it is found that a river segment is free-flowing and contains at least one outstandingly remarkable value, the segment is determined to be eligible for inclusion into the National Wild and Scenic River System. The next step is to determine the river segment's potential classification. This refers to whether the river segment's potential classification is Wild, Scenic or Recreational as defined by the Wild and Scenic River Act.

The Wild and Scenic River Act requires the BLM to manage eligible river segments so as to not impair their suitability for inclusion in the National Wild and Scenic River System. The potential classification assists the BLM in determining management prescriptions to protect the segment's free-flowing values and its outstandingly remarkable values.

The final step is to determine a river segment's suitability. This step analyzes factors such as characteristics that do or do not make the area worthy of inclusion in the National Wild and Scenic River System, status of ownership, including minerals, reasonably foreseeable potential uses of the land and related waters, existing rights and any other concern that may relate to management of the river as a component of the National Wild and Scenic River System. The BLM reports its findings and recommendations to Congress through the Secretary of Interior, and only Congress can designate a river as a component of the National Wild and Scenic River System.

BLM guidance regarding wild and scenic rivers is to determine eligibility and potential classification within the context of the Resource Management Plan. Suitability may be deferred to allow for joint studies where a river segment crosses several different jurisdictions or where more inventory is needed to determine suitability. Thus, a river segment's eligibility, potential classification and protective management prescriptions remain the same throughout all alternatives within the Resource Management Plan. Suitability studies began in fiscal year 1993 and will be completed in fiscal year 1994.

OFF-HIGHWAY VEHICLE DESIGNATIONS – ALTERNATIVE 1



Map 7

Map 8 and Table 2 depict those rivers within the Kingman Resource Area that were analyzed for eligibility. Table 2 also shows an eligible river segment's potential classification. Management prescriptions designed to protect each eligible river segment's free-flowing nature and outstandingly remarkable values are also described below. Chapter 3 provides more detailed information regarding each eligible river segment's outstandingly remarkable values.

Burro Creek (Segment A)

Potential Classification and Rationale: The potential classification for this segment is "Wild." The segment is free-flowing with little or no shoreline development, is essentially not accessible by road and has excellent water quality.

Interim Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable scenic, recreational and fish and wildlife values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Burro Creek Riparian and Cultural Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor. In addition, the following prescriptions would apply to the river corridor.

1. No new roads would be constructed or authorized within 1/4-mile of the normal high water line.

2. New rights-of-way would be discouraged. Where no reasonable alternative exists, additional or new rights-of-way would be restricted to existing routes or areas. Where new rights-of-way are unavoidable, locations and construction techniques would be selected to minimize adverse impacts on the "Wild River" related values.

3. Major public use areas such as campgrounds would be outside of the "Wild River" corridor unless, through thorough analysis, it can be shown to be unobtrusive and not impair the segment's suitability for designation as a "Wild River."

Burro Creek (Segment B)

Potential Classification and Rationale: The potential classification for this segment of Burro Creek is "Wild." The rationale for this classification is that: it is free-flowing with no diversions, dams or other watercourse modifications, the segment is inaccessible by road except at the ends of the segment, the segment's shorelines are primitive with little or no development and water quality is excellent.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable scenic, recreational, fish and wildlife and cultural values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Burro Creek Riparian and Cultural Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor. Further protection would be provided by the provisions in the Wilderness Act of 1964 and the Arizona Desert Wilderness Act of 1990.

Burro Creek (Segment C)

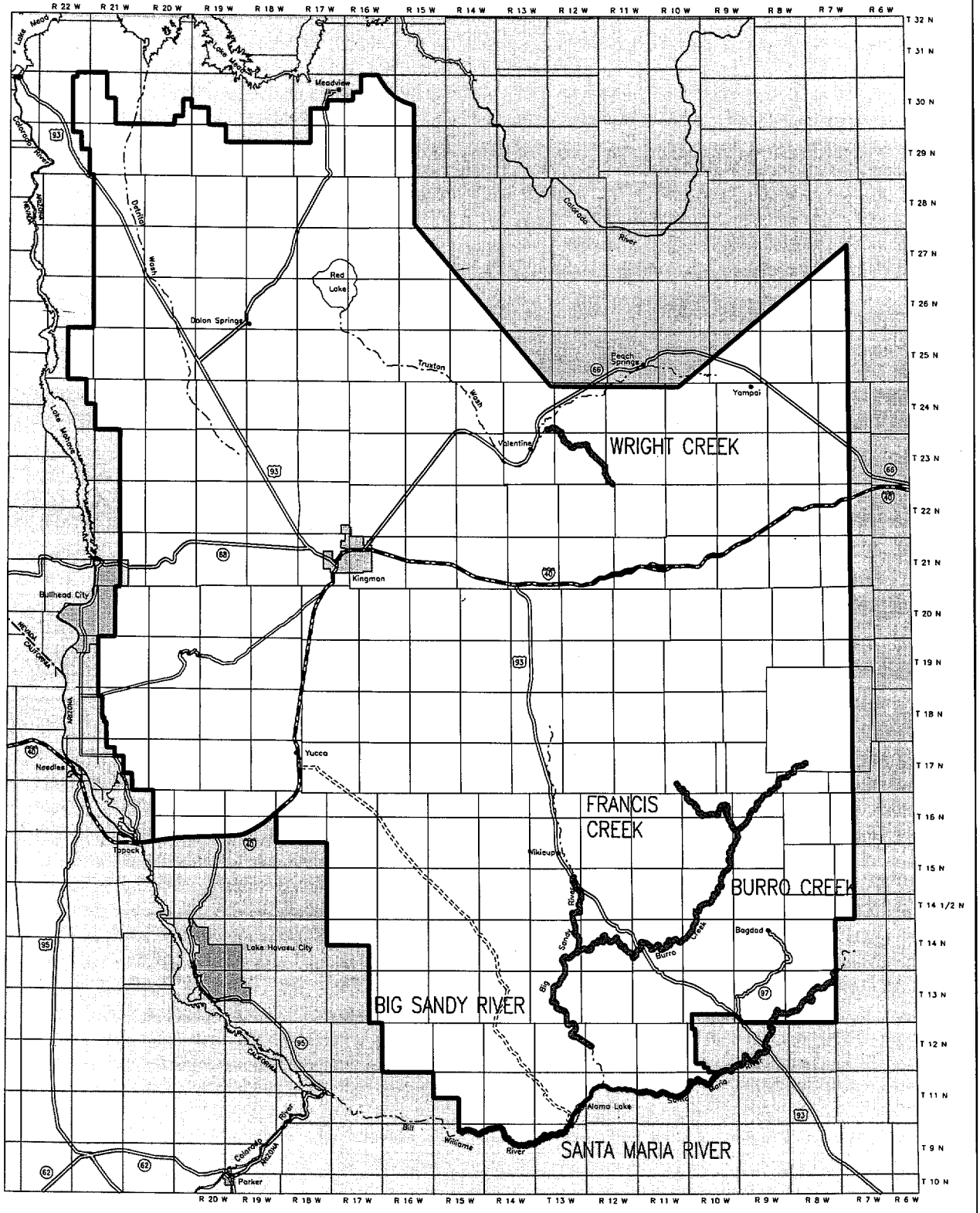
Potential Classification and Rationale: The potential classification for this segment is "Recreational." The rationale for this classification is that although it is free-flowing with little shoreline development, it is readily accessible by road and a relatively highly used recreation area (Six-Mile Crossing) is adjacent to the segment.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable scenic and fish and wildlife values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Burro Creek Riparian and Cultural Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor.

RIVERS ELIGIBLE FOR THE WILD AND SCENIC RIVERS SYSTEM



ELIGIBLE WILD & SCENIC RIVER AREAS

STREAMS STUDIED

Map 8

Table 2
Eligibility Assessment for River Segments Identified for Possible Inclusion as Components of the National Wild and Scenic River System

River Name	Segment Description	Segment Length (miles)	Percent of Corridor Under BLM Jurisdiction	Free-flowing Values Yes	Free-flowing Values No	Outstandingly * Remarkable Values a b c d e f g	Potential Classification Wild Scenic Rec.	Eligibility Determination Yes	Eligibility Determination No
Burro Creek (Segment A)	From wilderness boundary to Scratch Canyon	16	27	x		x x x	x	x	
Burro Creek (Segment B)	That portion within the Upper Burro Creek Wilderness	9	100	x		x x x x	x	x	
Burro Creek (Segment C)	From confluence with Boulder Creek to Six-Mile Crossing	6	35	x		x x	x	x	
Burro Creek (Segment D)	From Six-Mile Crossing to Highway 93	9	100	x		x x x	x	x	
Burro Creek (Segment E)	From Highway 93 to confluence with Big Sandy	12	52	x		x x	x	x	
Francis Creek	From Burro Creek to resource area boundary	14	34	x		x x	x	x	
Big Sandy River	From Highway 93 north to Trout Creek	20	5	x					x
Big Sandy River (Segment A)	From Highway 93 south to Signal Townsite	18	37	x		x x	x	x	

* a = Scenic; b = Recreational; c = Geological; d = Fish and Wildlife; e = Historical; f = Cultural; g = Other

(continued)

Table 2 (continued)
Eligibility Assessment for River Segments Identified for Possible Inclusion as Components of the National Wild and Scenic River System

River Creek	Segment Description	Segment Length (Miles)	Percent of Corridor Under BLM Jurisdiction	Free-flowing Values Yes	Free-flowing Values No	Outstandingly * Remarkable Values a	b	c	d	e	f	g	Potential Classification Wild Scenic	Potential Classification Rec.	Eligibility Determination Yes	Eligibility Determination No
Big Sandy River (Segment B)	From Signal Townsite to Alamo Lake	10	75	x		x			x				x		x	
Bill Williams River (Segment A)	From Alamo Dam to Rawhide Mountain Wilderness boundary	10	100	x		x	x		x				x		x	
Bill Williams River (Segment B)	From wilderness boundary to resource area boundary	6	28	x					x					x	x	
Santa Maria River (Segment A)	From Highway 93 to Alamo Lake	21	83	x		x			x				x		x	
Santa Maria River (Segment B)	From Highway 93 to resource area boundary	14	42	x					x					x	x	
Wright Creek	From mouth of East Fork Canyon to private land (sec. 35)	13	98	x					x		x			x	x	

* a = Scenic; b = Recreational; c = Geological; d = Fish and Wildlife; e = Historical; f = Cultural; g = Other

Burro Creek (Segment D)

Potential Classification and Rationale: The potential classification for this segment of Burro Creek is "Wild." The rationale for this classification is that it is free-flowing with no dams or diversions, is inaccessible by road, has shorelines largely undeveloped and water quality is excellent.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable scenic, recreational and fish and wildlife values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Burro Creek Riparian and Cultural Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor. In addition, the following prescriptions would apply to the river corridor:

1. No new roads would be constructed or authorized within 1/4-mile of the normal high water line.

2. New rights-of-way would be discouraged. Where no reasonable alternative exists, additional or new rights-of-way would be restricted to existing routes or areas. Where new rights-of-way are unavoidable, locations and construction techniques would be selected to minimize adverse impacts on the "Wild River" related values.

3. Major public use areas such as campgrounds would be located outside of the "Wild River" corridor unless, through thorough analysis, it can be shown to be unobtrusive and not impair the segment's suitability for designation as a "Wild River."

Burro Creek (Segment E)

Potential Classification and Rationale: The potential classification for this segment is "Scenic." The rationale for this classification is that it is free-flowing with no dams or diversions, water quality is excellent and it is accessible by road in only a few locations. However, the presence of the Highway 93 bridge and the Burro Creek Recreation Site combine to preclude a classification as "Wild."

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable scenic, recreational, fish and wildlife and cultural values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Burro Creek Riparian and Cultural Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor.

Francis Creek

Potential Classification and Rationale: The potential classification for Francis Creek is "Recreational." The rationale for this classification is that the stream is free-flowing with no dams or diversions, water quality is excellent and the shoreline is generally undeveloped. However, a maintained dirt road parallels the creek and crosses it in at least two locations. Further, a pumping station is within the corridor adjacent to the creek.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable scenic and fish and wildlife values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Burro Creek Riparian and Cultural Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor.

Big Sandy River (Segment A)

Potential Classification and Rationale: The potential classification for this segment of the Big Sandy River is "Scenic." The river is free-flowing and water quality is good. Although roads

cross the river in at least two places and some development has occurred along its shoreline, most of the area remains in an undeveloped state.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable scenic and fish and wildlife values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Three Rivers Riparian Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor.

Big Sandy River (Segment B)

Potential Classification and Rationale: The potential classification for this segment of the Big Sandy River is "Wild." The rationale for this classification is that: it is free-flowing with no dams or diversions, it is inaccessible by road, the shorelines are undeveloped and water quality is excellent.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable scenic, recreational and fish and wildlife values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Three Rivers Riparian Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor. In addition, the following prescriptions would apply to the river corridor.

1. No new roads would be constructed or authorized within 1/4-mile of the normal high water line.
2. New rights-of-way would be discouraged. Where no reasonable alternative exists, additional or new rights-of-way would be restricted to existing routes or areas. Where new rights-of-way are unavoidable, locations and construction techniques would be selected to minimize adverse impacts on the "Wild River" related values.
3. Major public use areas such as campgrounds would be located outside of the "Wild River" corridor unless, through thorough analysis, it can be shown to be unobtrusive and not impair the segment's suitability for designation as a "Wild River."

Santa Maria River (Segment A)

Potential Classification and Rationale: The potential classification for this segment is "Wild." The river is free-flowing and is not accessible by road. The shoreline is essentially undeveloped and water quality is excellent.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable scenic, recreational and fish and wildlife values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Three Rivers Riparian Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor. In addition, the following prescriptions would apply to the river corridor.

1. No new roads would be constructed or authorized within 1/4-mile of the normal high water line.
2. New rights-of-way would be discouraged. Where no reasonable alternative exists, additional or new rights-of-way would be restricted to existing routes or areas. Where new rights-of-way are unavoidable, locations and construction techniques would be selected to minimize adverse impacts on the "Wild River" related values.
3. Major public use areas such as campgrounds would be located outside of the "Wild River" corridor unless, through thorough analysis, it can be shown to be unobtrusive and not impair the segment's suitability for designation as a "Wild River."

Santa Maria River (Segment B)

Potential Classification and Rationale: The potential classification for this stretch of the Santa Maria River is "Scenic." The river is free-flowing, water quality is excellent and the shorelines are largely undeveloped. However, the segment is accessible in several locations by road and State Route 96 crosses it in one location.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable fish and wildlife values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Three Rivers Riparian Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor.

Bill Williams River (Segment A)

Potential Classification and Rationale: The potential classification for this segment is "Wild." The river is free-flowing and is not accessible by road. The shoreline is essentially undeveloped and water quality is excellent.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable scenic, recreational and fish and wildlife values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Three Rivers Riparian Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor. In addition, the following prescriptions would apply to the river corridor.

1. No new roads would be constructed or authorized within 1/4-mile of the normal high water line.

2. New rights-of-way would be discouraged. Where no reasonable alternative exists, additional or new Right-of-Ways would be restricted to existing routes or areas. Where new Right-of-Ways are unavoidable, locations and construction techniques would be selected to minimize adverse impacts on the "Wild River" related values.

3. Major public use areas such as campgrounds would be located outside of the "Wild River" corridor, unless through a thorough analysis, it can be shown to be unobtrusive and not impair the segment's suitability for designation as a "Wild River".

Bill Williams River (Segment B)

Potential classification and Rationale: The potential classification for this segment is "Scenic." The stream is free-flowing with no dams or diversions, water quality is excellent and the shoreline is essentially undeveloped. However, the segment is accessible by road in several places.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature and its outstandingly remarkable fish and wildlife values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstanding Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Three Rivers Riparian Area of Critical Environmental Concern, as shown in the Special Management Areas section of Alternative 2 in Chapter 2, would be implemented within the river corridor.

Wright Creek

Potential Classification and Rationale: The potential classification for Wright Creek is "Scenic." The stream is free-flowing with no dams or diversions. Water quality is generally good and recent land exchanges have increased public land shoreline so the capability of enhancing water quality has increased. The shoreline does contain a small number of isolated structures and roads cross the creek at several locations.

Protective Management Prescriptions: The following prescriptions are designed to protect this segment's free-flowing nature

and its outstandingly remarkable fish and wildlife and cultural values within a corridor 1/4-mile wide from the normal high water line on either side of the stream. Prescriptions apply only to BLM-administered public lands within the corridor.

Free-flowing Values: Subject to valid existing rights and to the extent the BLM is authorized under law, no stream impoundments, diversions, channelization or rip-rapping would be allowed.

Outstandingly Remarkable Values: To protect this segment's outstandingly remarkable values, management prescriptions proposed for the Wright and Cottonwood Creeks Riparian and Cultural Area of Critical Environmental Concern, as shown in the Special Management Areas section of *Alternative 2* in Chapter 2, would be implemented within the river corridor.

WILDLIFE HABITAT MANAGEMENT

Objectives

The objectives of the wildlife habitat management program are to ensure optimum habitat condition, ensure healthy and viable populations and maintain a natural abundance and diversity of wildlife. This would be accomplished by restoring, maintaining and enhancing habitat conditions. Habitat management plans would be developed and implemented through coordination with other programs, state and federal agencies and interest groups. Specific actions would include integrated monitoring and habitat improvement projects.

Plan Actions

Management of wildlife habitat would continue unchanged. The BLM would continue to develop general program priorities using existing planning documents and directives and guidance at BLM state and national levels.

General Wildlife Habitat

Land use actions would continue to be reviewed and stipulations and mitigating measures recommended for management to lessen impacts to wildlife and wildlife habitat. Non-game, small game and general wildlife habitats are extensive and will benefit from these mitigating measures.

Big Game

Desert bighorn sheep, mule deer and antelope habitat would continue to receive high priority for management, as outlined in existing habitat management plans.

Management of wildlife habitat to encourage big game expansion into historical use areas would be developed through activity plans (habitat management plans) with public involvement. This would include determining habitat use limits and the potential of habitat to support existing and target species populations.

Allotments wholly or partially within a 20-mile buffer of bighorn sheep habitat would not be permitted for domestic sheep or goat grazing to avoid the spread of disease to bighorn sheep populations (see Map 9). The BLM would immediately impound domestic sheep and goats found on these allotments.

Desert bighorn sheep and other ungulates in the Black Mountains and Mount Wilson would be managed at a level which would ensure the continued existence of all ungulate species. Forage allocations would be in conformance with the levels set in the 1978 Cerbat/Black Mountains Grazing Environmental Impact Statement for the Black Mountains planning unit and the portion of the Cerbat planning unit associated with Wilson Ridge. The 1978 allocation was based on vegetative inventory data collected by visual reconnaissance, which calculated a total of 11,928 animal unit months of forage being available for all grazing animals (see areas A and B on Map 9).

The forage allocation assures sufficient vegetation remains for protection of non-game animals and watersheds. Desert bighorn sheep and mule deer were allotted a portion of the total forage based on objectives defined in the Cerbat and Black Mountains management framework plans. The portion of forage allocated for wild burros was set to provide for the number of animals thought to be in the area at the time of the passage of the Wild and Free-Roaming Horse and Burro Act of 1971. Livestock were allotted the amount of available forage which remained. These animal unit months are reflected in the ratios shown for each class of ungulate in Table 3.

Table 3
* PERCENT FORAGE ALLOCATION RATIOS

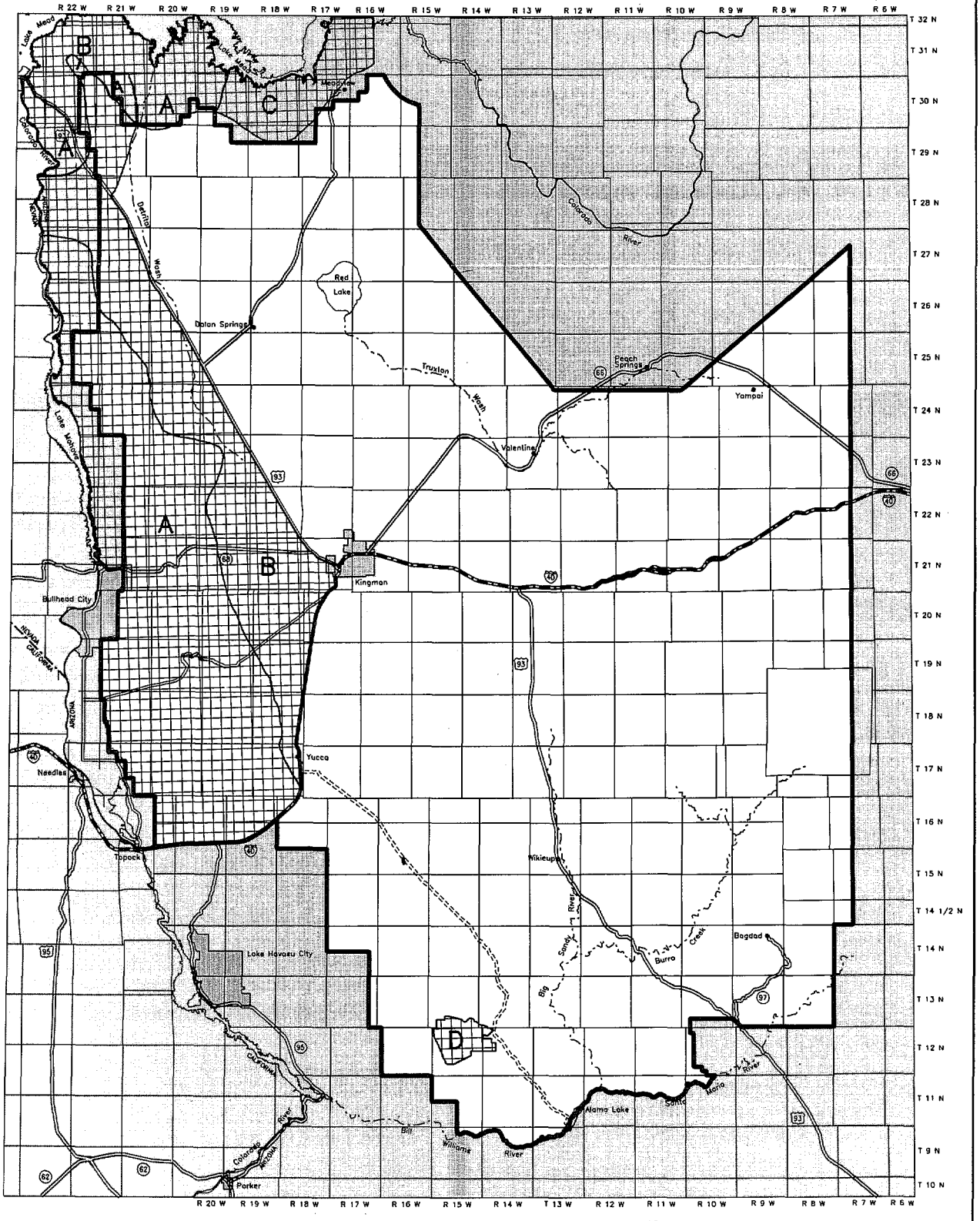
Desert Bighorn Sheep	Mule Deer	Wild Burros	Cattle
24 %	10 %	20 %	46 %
2,863 AUMs	1,193 AUMs	2,385 AUMs	5,487 AUMs

* Forage is allocated to animal unit months at the ratio of cattle 1:1, bighorn sheep 5:1, deer 4:1 and wild burros 2:1.

Table 4 shows the animal unit months allotted to bighorn sheep in the management framework plans by habitat management plan areas. In the Black Mountains planning unit, forage was allocated for desert bighorn sheep grazing on public lands, including habitat in the Lake Mead National Recreation Area administered by the National Park Service (area C on Map 9).

Forage was also allocated for bighorn sheep in the Cerbat planning unit in the Wilson Ridge complex (see the northern portion of area A on Map 9) and the Diamond Bar/Gold Basin (see area C on Map 9) grazing allotments. Forage was allocated for bighorn sheep in the southern portion of the resource area on Aubrey Peak (see area D on Map 9).

BIGHORN SHEEP–WILD BURRO JOINT USE AREAS



A Multiple Use: Bighorn Sheep, Wild Burros, Livestock, Deer

B Primary Use: Livestock

C Primary Use: Bighorn Sheep

D Primary Use: Bighorn Sheep

Map 9

Table 4
MANAGEMENT FRAMEWORK PLANS

Plans	Bighorn Sheep Animal Unit Months
Black Mountains	1,550
Cerbat	
Mount Wilson	240
Diamond Bar	740
Hualapai (Aubrey Peak)	46

Pronghorn antelope habitat on public lands would be managed according to existing habitat management plans to support **400 animal unit months** on Goodwin Mesa and **300 animal unit months** around Cherokee Point.

Special emphasis would target proposed projects involving cooperating agencies and matching funding from state and private sectors. The assistance and cooperation from these groups would determine the level of continued attention directed toward big game habitat management through **compliance with** the National Environmental Policy Act process.

The BLM would manage elk habitat in coordination with the Arizona Game and Fish Department to ensure compliance with federal responsibilities under the Endangered Species Act, in particular regarding Hualapai Mexican vole habitat.

SPECIAL STATUS SPECIES MANAGEMENT

Objectives

The objectives of the special status species program are to provide for recovery of listed species, **to manage other species habitats to avoid the need to federally list them and to improve habitat of special status species.**

Plan Actions

Plant Species

The Phoenix District has addressed the protection of special status species in several ways, including habitat management plans and monitoring plots.

Current management direction is to handle specific habitat problems or conflicts on a case-by-case basis. Federally listed threatened, endangered or candidate species or species listed under the Arizona Native Plant Law are given special management protection.

The Arizona Game and Fish Department Nongame Branch (Arizona Natural Heritage Program) has recommended a list of seven plant species for designation as BLM-Sensitive Plant Species (see Appendix 6). As the list is updated, these sensitive species and others would be afforded protective measures on a par with federal candidate species. Impacts to protected plant populations would be identified through environmental reviews prepared after on-site inspections of areas proposed for development.

Endangered Species

***Arizona cliffrose*: The majority of the known Arizona cliffrose population has been fenced to exclude livestock. The exclosure would be used to facilitate studies on the impact of grazing by livestock. The BLM would continue to monitor the population for utilization by wildlife and to assess population changes.**

The BLM would also continue to ensure protection for the species from mineral development by requiring mitigation measures in mining plans of operation and bonding to prevent unnecessary and undue degradation.

Federal Candidate Species

***Cerbat beard-tongue*: The BLM would continue to monitor habitat for this species and mitigate any federal action occurring within this species habitat in an effort to reduce impacts to this rare plant.**

***White-margined penstemon*: The BLM would continue to monitor habitat for this species and mitigate any federal action occurring within this species habitat in an effort to reduce impacts to this rare plant.**

Animal Species

Priority species would continue to receive management attention. More emphasis would be placed on desert tortoise as a result of the BLM's Rangewide Plan for Management of Desert Tortoise Habitat and the federal listing of this species as endangered in California, Nevada, Utah and portions of Arizona.

Other special status wildlife species not discussed here would be managed to avoid the need to list them. They would not receive intensive management attention other than that provided for in habitat management plans unless elevated to threatened or endangered species status (see Appendix 6).

Endangered Species

Bald eagle: The BLM would continue to promote improvement of habitat conditions for **the southern and northern bald eagles** by implementing actions from recovery plans. The BLM would also participate on the multi-agency Southwestern Bald Eagle Management Committee in cooperation with other federal and state agencies and private groups.

Peregrine falcon: The BLM would implement applicable actions from recovery plans and continue monitoring efforts in cooperation with federal and state agencies. Any future dramatic declines in the population of peregrine falcons could result in higher priority efforts targeted at protecting this species.

Hualapai Mexican vole: The BLM would implement applicable actions from recovery plans and continue to monitor vole habitats once or twice a year. Inventory and monitoring would be carried out in cooperation with the U.S. Fish and Wildlife Service and the Arizona Game and Fish Department.

Federal Candidate Species

Ferruginous hawk: Monitoring for this species would continue on a limited basis by volunteers and BLM resource specialists.

Mexican spotted owl: An inventory and monitoring program would be initiated in cooperation with state and federal wildlife agencies. From inventory results, special management actions to improve habitat conditions would be developed and implemented.

Yavapai leopard frog: An inventory and monitoring program would be initiated in cooperation with state and federal wildlife agencies. From inventory results, special management actions to improve habitat conditions would be developed and implemented.

Desert tortoise: Inventory, monitoring and other research projects would increase. Category I areas would receive highest priority for habitat management.

Unavoidable impacts or land use actions resulting in net loss to the quality or quantity of desert tortoise habitat in category I or II areas would require compensation in the form of other equally suitable tortoise habitat in the Kingman Resource Area. **Habitat compensation rates would be calculated using the formula found in the Strategy for Desert Tortoise Habitat Management on Public Lands in Arizona (October 1990). Other approved formulas may be used as policy is revised.**

In the Cerbat/Black Mountains and Hualapai-Aquarius grazing environmental impact statements, desert tortoise were considered non-game species and were not allocated perennial forage. However, the allocations took into consideration vegetation use by other non-game species and therefore provided a certain percent forage through proper use factors. On all allotments containing categories I and II desert tortoise habitat, grazing by ungulates would be managed to ensure adequate and suitable perennial and ephemeral forage and cover for desert tortoise throughout the year.

Allotments containing Category III tortoise habitat may be subjected to lower intensity management for tortoise. Management would continue to provide adequate forage for existing tortoise populations in these areas.

Utilization of forage and cover plants, important to desert tortoise habitat, would be maintained at a level which ensures long-term plant vigor and adequate standing vegetation for late spring and summer-fall tortoise use. **Monitoring data showing a downward population trend, an increase in mortality or a downward trend in key forage plants would trigger a review of grazing management actions in desert tortoise habitat.**

In categories I and II desert tortoise habitat, only range improvements for ungulates which will not conflict with tortoise populations or habitat would be allowed. Mitigation for such conflicts is permissible to make the net effect of the improvements positive or neutral to the tortoise. Conflicting improvements would be removed or modified to mitigate the conflict as opportunities arise.

State-listed Species

Common black-hawk: Monitoring of this species would continue and is expected to remain very light.

Northern goshawk: Monitoring activities targeting this species would remain minimal.

Roundtail chub: Once-a-year monitoring (the Arizona Game and Fish Department Fall Fish Count) on a volunteer basis would continue if enough people volunteer.

RIPARIAN AREA MANAGEMENT

Objective

The objective for management of riparian-wetland areas is to restore and maintain these areas so that 75 percent or more are in proper functioning (satisfactory) condition by 1997 (BLM, Riparian-Wetland Initiative for the 1990s, September 1990, as defined by the Phoenix District Riparian Area Condition Evaluation Handbook, 1987). The overall objective is to achieve an advanced ecological status, except where resource management would require an earlier ecological status for such purposes as vegetation diversity. **Riparian-wetland areas and associated uplands would be protected through proper land management and avoiding or mitigating negative impacts. The BLM would acquire and expand key areas to provide for their maximum public benefit, protection, enhancement and efficient management.**

The BLM would pursue an aggressive riparian-wetland information/outreach program, including providing training and research.

Partnerships would be improved and cooperative restoration and management processes begun to implement the riparian initiative.

This status would be achieved by implementing the seven-step process outlined in the Management Common to all Alternatives Section. Riparian areas are shown in Appendix 7.

Plan Actions

Riparian-wetland areas found to be in poorly functioning, poor ecological condition from the Riparian Area Condition Evaluation inventory would be improved through an interdisciplinary team and public planning process.

The process would identify causes of unsatisfactory conditions, determine desired condition, schedule management implementation and generate monitoring studies and evaluation schedules to measure management effectiveness.

The Riparian Area Condition Evaluation inventory would be completed on the remaining 40 percent of the riparian-wetland areas within the planning area by the end of fiscal year 1998.

Riparian areas falling within wilderness would be covered under a wilderness management plan.

All applications for other uses such as mining, rights-of-way, roads and water withdrawals affecting public lands would be reviewed and actions taken to reduce or eliminate impacts to riparian areas.

Riparian-wetland areas would be monitored to determine if management objectives are being met. Monitoring methods and schedules would be as outlined in activity plans.

Instream flow studies and monitoring in support of riparian-wetland and other values would be conducted to meet the Arizona State Division of Water Resources requirements for state-appropriated water rights for creeks found to support significant riparian-wetland resources. Found to contain significant riparian-wetland values are Burro Creek, the Bill Williams River, the Big Sandy River, Wright Creek, the Santa Maria River, Francis Creek, Boulder Creek, Sycamore Creek and Cottonwood Creek.

Implementation of management on riparian-wetland areas would be based on the order of priority as shown in Table 5. This list would be continually updated as new areas are inventoried and as riparian-wetland improvements are made. Management objectives and actions involving riparian-wetland areas would be included in all activity plans such as allotment management plans, habitat management plans, herd management area plans, riparian area management plans, watershed management plans or coordinated activity plans as appropriate.

SPECIAL MANAGEMENT AREAS

The Arizona Desert Wilderness Act became law on November 28, 1990, creating nine wilderness areas covering 392,844 acres of public surface estate in the Kingman Resource Area, including 386,532 acres of federal mineral estate (see Map 2).

The wilderness areas will be managed according to the provisions of law, BLM wilderness management regulations found at 43 CFR 8560 and subsequent wilderness management plans. A wilderness management plan will be prepared for each wilderness area. Implementing these plans will begin immediately and will be ongoing throughout the life of this Resource Management Plan, regardless of the alternative selected. Wilderness study areas not designated by the 1990 Act were released from further consideration for wilderness.

Alternative 1 would not designate further special management areas.

WILD AND FREE-ROAMING HORSE AND BURRO MANAGEMENT

Objectives

The objectives are to manage for a viable population of wild and free-roaming horses and burros to achieve, maintain a thriving, natural ecological balance in herd management areas and maintain and enhance the habitat in a desirable condition for continued multiple use.

Plan Actions

The Black Mountains, Cerbat Mountain and Big Sandy wild horse and burro herd management areas would continue to be managed in conformance with grazing allocations in the Cerbat/Black Mountains and Hualapai-Aquarius grazing environmental impact statements and management framework plan decisions under the Black Mountains and Big Sandy herd management area plans (see Map 9a). Forage would be initially allotted for wild burros in the Black Mountains Herd Management Area at 20 percent of the total available forage as shown in Table 3.

The Hualapai/Aquarius Management Framework Plan determined the Sycamore Creek, Burro Creek and Big Sandy wild burro use areas should be managed to provide forage for wild burros, based on 10 percent of the total available forage. The Big Sandy Herd Management Area Plan consolidated these three use areas into the Big Sandy Herd Management Area (See Map 9a). Monitoring data would continue to be collected and numbers of animals adjusted according to condition of key forage species. The two herd management area plans would be reviewed and revised as necessary to respond to changing conditions.

The Cerbat/Black Mountains Grazing Environmental Impact Statement analyzed the impact of 14 horses in the Cerbat Herd Management Area (see Map 9a). It has been determined that 14 animals do not constitute a genetically viable population. A minimum of 50 effective breeding animals is necessary to support a genetically viable population.

The Cerbat wild horse population is currently at or above this level. Through population monitoring, three separate wild horse use areas within the Cerbat Herd Management Area have been identified. These include the east slope of Cherum Peak, the west slope of Cherum Peak and Marble Canyon.

In 1989, eight wild horses were removed from Marble Canyon and blood samples were taken for testing of genetic characteristics. These wild horses were determined to be significant because of their genetic similarity to the early Spanish Barb horse. Under the existing management situation, genetic tests would be conducted on wild horses in the remaining use areas.

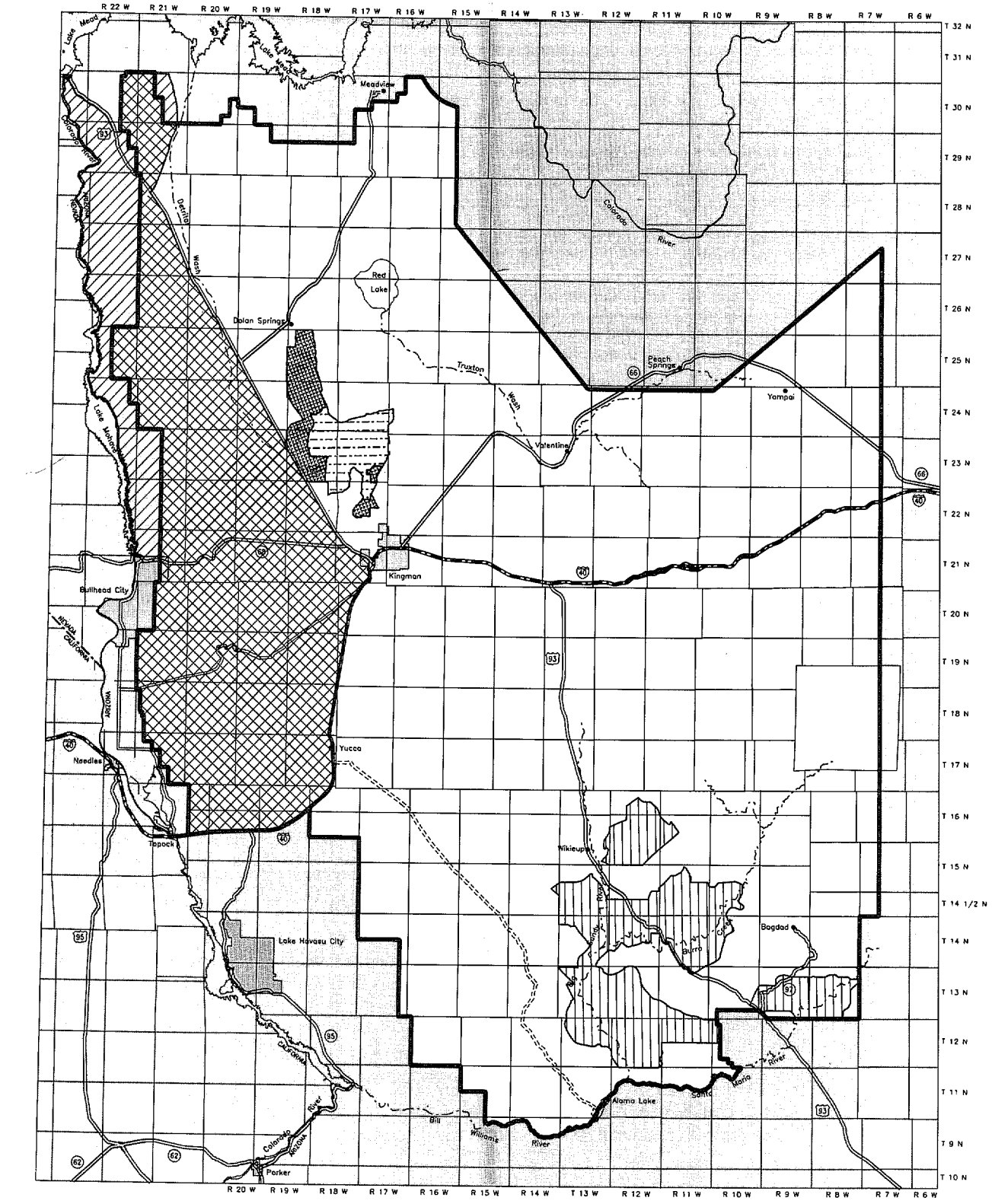
A specific Cerbat herd management area plan would be prepared in conjunction with public scoping and input. The plan would outline and prescribe measures to preserve this unique herd at a viable population level in a thriving, natural ecological balance with the habitat. This would be accomplished by developing proper forage allocations for all ungulate species.

SUPPORT SERVICES

Access

Legal vehicular access would be acquired across private and state lands on 76 roads (see Appendix 8).

WILD HORSE & BURRO HERD MANAGEMENT AREAS



BIG SANDY HERD MANAGEMENT AREA

BLACK MOUNTAIN HERD MANAGEMENT AREA (BLM PLANNING AREA)

BLACK MOUNTAIN HERD MANAGEMENT AREA (LAKE MEAD NATIONAL RECREATION AREA)

CERBAT HMA – ACQUISITION AREA

CERBAT HERD MANAGEMENT AREA

Map 9a

Table 5
Priority for Implementation of Management On Riparian-Wetland Areas

Stream Name	Resource Values	Management Problems	Action Needed	Priority
Francis Creek	Riparian vegetation; black-hawks; wintering bald eagles; scenery; recreation; Arizona Unique Water; native fish; state-listed *Gila robusta robusta*; headwaters	Inadequate rest from grazing; present seral stage is below potential; ground-water removal; invasion of exotic fish into native fishery	Develop and maintain allotment management plans and area of critical environmental concern plan; monitor fish, instream flow and water quality	1
Boulder Creek	Riparian vegetation; perennial water; recreation; scenery; native fish; state-listed *Gila robusta robusta*	Inadequate rest from grazing; present seral stage is well below potential; water quality and quantity need to be improved; invasion of exotic fish into native fishery	Develop allotment management plans; monitor fish, instream flow and water quality	2
Burro Creek	Riparian vegetation; nesting and wintering bald eagles; black-hawks; native fish; state-listed *Gila robusta robusta;* scenery; cultural; perennial water; wilderness; Arizona Unique Water	Inadequate rest from livestock and wild burro grazing; present seral stage is well below potential; water quality needs to be increased; ownership consolidation; invasion of exotic fish into native fishery; upstream groundwater removal	Develop allotment management plans; black-hawk inventory; bald eagle nest-watch; monitor native fish, instream flow and water quality; consolidate ownership; Wild and Scenic River study	3
Bill Williams River	Riparian vegetation; nesting bald eagles; Yuma clapper rail; native fish; recreation; scenery; perennial water; wilderness	Inadequate rest from livestock and wild burro grazing; present seral stage is well below potential; inadequate water release regime from Alamo Dam; multi-agency jurisdiction and land status	Develop allotment management plans; solve water release problem; monitor flow, fish, macroinvertebrates, birds and reptiles; ownership consolidation; Wild and Scenic River study	4
Big Sandy River	Riparian vegetation; perennial water; native fish; bald eagle habitat; scenery; wilderness; recreation	Inadequate rest from livestock and wild burro grazing; present seral stage is well below potential; water quality and quantity need to be improved; off-highway vehicle resource damage; land status; groundwater removal	Develop allotment management plans; instream flow study; macroinvertebrate study; close to off-highway vehicles; ownership consolidation; Wild and Scenic River study	5
Wright Creek	Riparian vegetation; native fish; perennial water; recreation; scenery; extensive cultural resources	Inadequate rest from grazing; present seral stage is well below potential; water quantity and quality need to be improved	Develop allotment management plan; instream flow study; macroinvertebrate study	6
Santa Maria River	Riparian vegetation; bald eagle; perennial water; recreation; scenery	Inadequate rest from livestock and wild burro grazing; present seral stage is well below potential; water quantity needs to be increased	Develop allotment management plans and area of critical environmental concern plan; instream flow study; Wild and Scenic River study	7
Sycamore Creek	Riparian vegetation; perennial water; recreation; scenery; cultural	In proper functioning condition; however, an allotment management plan is needed to assure continuation of proper management	Develop allotment management plan; instream flow study	8

(continued)

Table 5 (continued)
Priority for Implementation of Management On Riparian-Wetland Areas

Stream Name	Resource Values	Management Problems	Action Needed	Priority
Wheeler Wash, Left Fork	Riparian vegetation; Mexican vole habitat; scenery; recreation	Inadequate rest from grazing; present seral stage is well below potential	Develop allotment management plan; fence riparian zone	9
Wheeler Wash	Riparian vegetation; Mexican vole habitat	Inadequate rest from grazing; present seral stage is well below potential	Develop allotment management plan	10
Antelope Wash	Riparian vegetation; Mexican vole habitat; recreation; scenery	Inadequate rest from grazing; present seral stage is well below potential	Develop allotment management plan	11
Bull Canyon	Riparian vegetation; Mexican vole habitat; scenery; recreation	Threat of livestock grazing with possible reduction in quality of riparian habitat	Develop allotment management plan; fence riparian zone	12
Timber Wash	Riparian vegetation; Mexican vole habitat; scenery; recreation	Inadequate rest from grazing; present seral stage is well below potential	Develop allotment management plan	13
Moss Wash	Riparian vegetation; Mexican vole habitat; scenery; recreation	Inadequate rest from grazing; present seral stage is well below potential	Develop allotment management plan	14
Blue Tank Wash	Riparian vegetation; Mexican vole habitat; perennial water	Inadequate rest from grazing; present seral stage is well below potential	Develop allotment management plan	15
Soap Canyon	Riparian vegetation	Inadequate rest from grazing; present seral stage is well below potential	Develop allotment management plan	16
Stone Spring Canyon	Riparian vegetation	Inadequate rest from grazing; present seral stage is below potential	Develop allotment management plan	17
Crozier Wash	Riparian vegetation	Inadequate rest from grazing; present seral stage is well below potential	Develop allotment management plan	18
Cedar Wash	Riparian vegetation	Inadequate rest from grazing; present seral stage is well below potential	Develop allotment management plan	19
Kaiser Spring Wash	Riparian vegetation	Inadequate rest from grazing; present seral stage is below potential	Develop allotment management plan; fence spring site	20
Walnut Creek	Riparian vegetation, cultural	Inadequate rest from grazing; present seral stage is below potential	Develop allotment management plans	21
Truxton Wash	Riparian vegetation	Inadequate rest from grazing; present seral stage is well below potential	Develop allotment management plans	22
Conger Creek	Riparian vegetation, recreation; scenery	None, **proper functioning** condition	Continue allotment management plan	23
Cottonwood Creek	Riparian vegetation, cultural	None, **proper functioning** condition	Develop allotment management plan	24

Acquisition

Lands to be acquired for their wildlife, recreation, wilderness and other values are shown in **Table 6** and Appendix 9. Listed in habitat management plans and wilderness environmental impact statements, these lands may be acquired by exchange, donation or direct purchase through the Land and Water Conservation Fund.

Lands acquired through exchange, donation, fee simple purchase or other means, within special management areas, i.e., areas of critical environmental concern, designated wilderness areas, special recreation management areas, etc., will become part of the special management area at the time of acquisition. Management objectives for these acquired lands will be identical to those for the special management areas in which they occur.

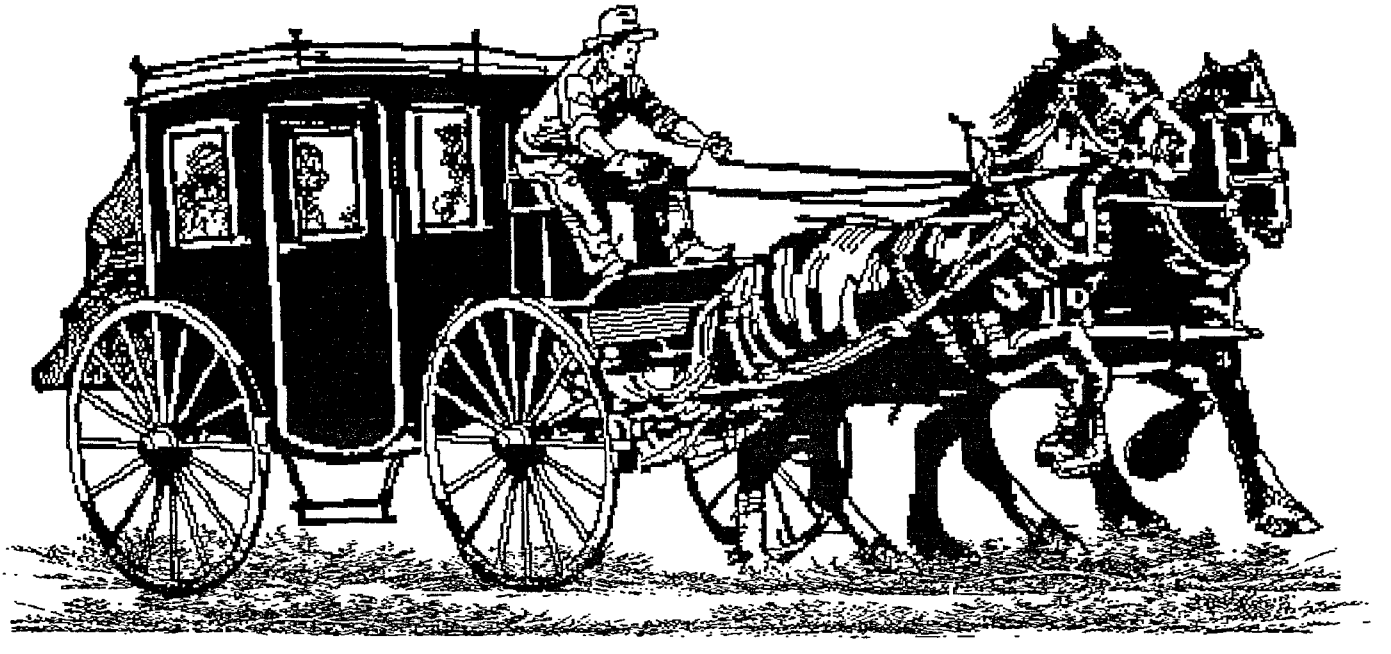
Table 6
Resource Acquisitions

Resource	Acres for Alternative 1	Acres for Alternative 2	Acres for Alternative 3
Wilderness	3,226	3,226	3,226
Recreation	7,805	11,589	11,589
Wildlife Habitat	101,022	122,339	121,339
Wildlife Corridors	0	42,840	42,840
Cultural	0	3,735	3,735
Special Status Species (Plants)	0	20,247	20,247
Riparian	0	45,817	45,817
ACECs			
Surface and Minerals	0	86,667	65,860
Non-federal Minerals	0	*65,429	*61,093
Total	112,053	336,460	314,653
Duplications	1,125	85,720	47,673
Net Acquisitions	110,928	250,740	266,980

* Not included in total

Source: Kingman Resource Area files

Acquired lands in *Alternative 2 and Alternative 3* to be withdrawn are listed in appendices 10, 11 and 27.



ALTERNATIVE 2 (PROPOSED PLAN)

Alternative 2 is the BLM's preferred resource management plan, designed to respond to the issues and management concerns to provide a balanced approach to multiple use management. *Alternative 2* is an attempt to allow important resources to be used while protecting the environment and sensitive resources that are easily damaged. Consumptive uses allowed by law would be managed in an orderly manner and impacts would be mitigated.

Decisions existing in current planning documents, e.g., management framework plans, grazing environmental impact statements and range program summaries, have been analyzed by management and the interdisciplinary team to determine whether they are still valid. Appendix 30 lists each existing decision and shows how each will be carried forward into the new Resource Management Plan. Existing decisions are either brought forward without changes, brought forward as modified or dropped completely. Decisions are listed by each resource activity for easy analysis by the reader.

MINERALS

Objective

The objective of the minerals program is to provide for orderly exploration and development of minerals by allowing high- and medium-potential areas to remain open to appropriation under the mineral laws, with few restrictions.

Plan Actions

Approximately 1,555,000 acres of federal minerals would be open to locatable mineral exploration and development. Most plans of operation would be reviewed within 30 days unless resource conflicts require additional review and mitigation is needed (see appendices 10 and 11). Approximately 24,300 acres would be withdrawn from mineral entry in areas of critical environmental concern (see Map 10 and Table 12) and 386,532 acres are withdrawn in wilderness areas (see Table 1 and Map 11).

Over the life of the plan, roughly 1,700 acres are expected to be disturbed by mining operations. **This acreage does not include disturbance caused by roads and other attendant facilities.**

Approximately 1,555,000 acres of federal minerals would be open to mineral leasing with standard lease terms (see appendices 10 and 11). Approximately 23,100 acres would be open to mineral leasing with no surface occupancy (see Map 12), 1,114 acres would be withdrawn from mineral leasing in areas of critical environmental concern (see Table 12) and 386,532 acres are withdrawn from mineral leasing in wilderness areas (see Table 1).

It is expected that no more than ten exploratory wells would be drilled for oil and gas within the area during the life of the Resource Management Plan. Production, if it occurs, is not expected to lead to field development. Production development would be limited to tank batteries with oil and gas picked up and hauled by tanker truck. Site-specific environmental analyses would be conducted when applications for permit to drill are submitted.

Approximately 1,555,000 acres of federal minerals would be open to mineral material disposals (see appendices 10 and 11). Approximately 24,300 acres would be open to mineral material disposals in an area of critical environmental concern (see Table 12 and Map 13) and 386,532 acres are closed in wilderness areas (see Table 1).

The BLM would consult with the Arizona Department of Environmental Quality to design a water quality monitoring program. Parameters to be tested include total dissolved solids, turbidity, heavy metals and pH.

LANDS

Objectives

The objectives for the lands program under *Alternative 2* are to provide lands for community expansion through land exchanges and Recreation and Public Purposes Act leases and patents, acquire lands with high natural resource values, block up federal ownership through exchange and provide for uses of public lands in accordance with regulations and compatibility with other resources.

Plan Actions

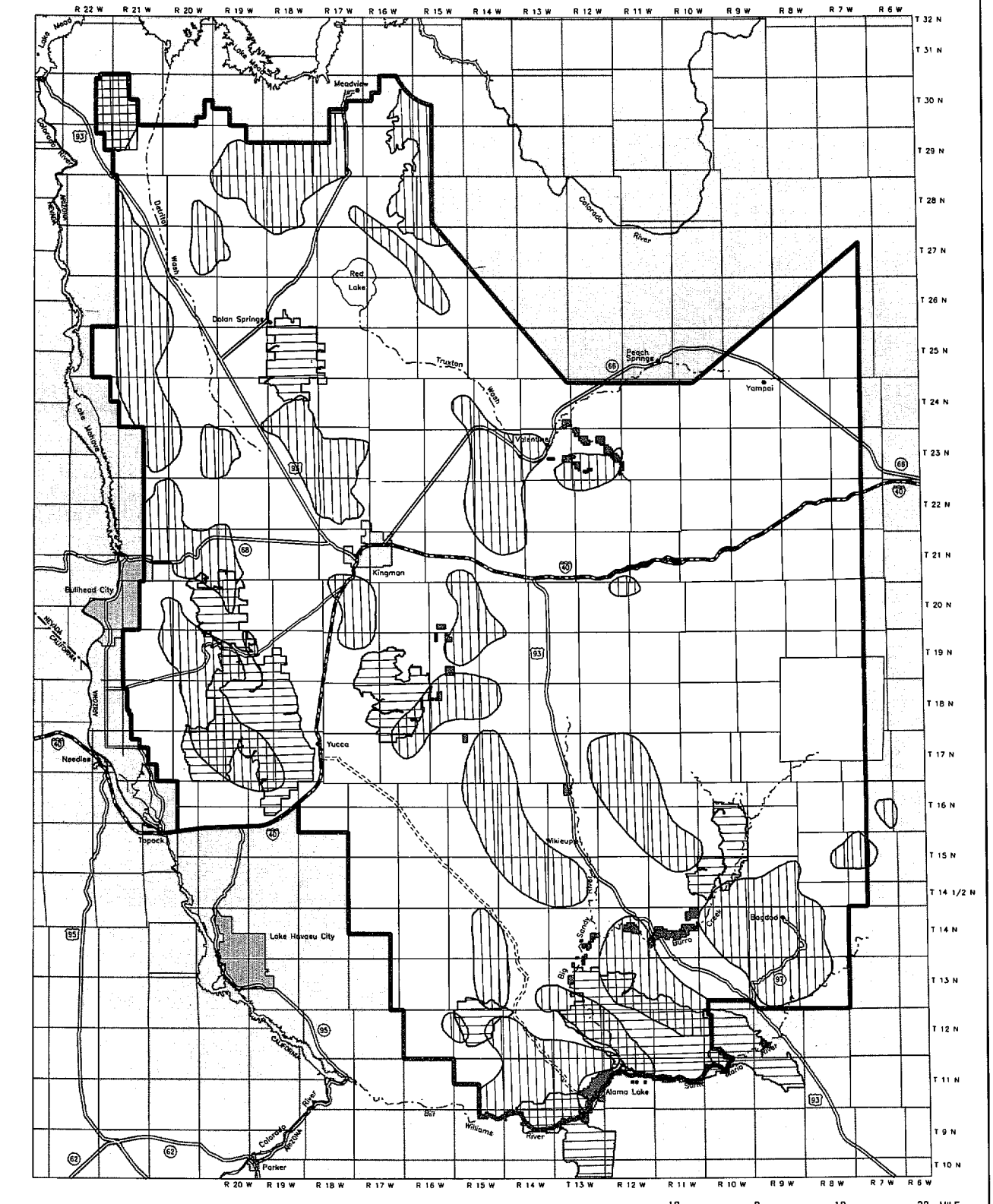
Land Tenure Adjustments -- Public Land Exchanges

The Kingman Resource Area land exchange program is designed to achieve several important objectives. First, land near growing communities is set aside to provide areas for growth. These lands are generally in small isolated parcels or in checkerboard areas where management is difficult for BLM and state land managers and private landowners. Often, natural resource values are lower or have already been degraded as a result of urban pressures. Second, these lands also have a high value for urban development and can be used as trading stock for exchanges. Third, the BLM obtains important private and state-owned natural resources in remote areas where private and state lands are intermixed with public lands. Large blocks of public lands facilitate the BLM's Federal Land Policy and Management Act mandate to manage the nation's natural resources.

Exchanges are voluntary transactions between the BLM and the non-federal party and are discretionary actions on the part of the BLM. All exchanges would be in the public interest and of equal value and consistent with implementing regulations of the Federal Land Policy and Management Act of 1976 at 43 CFR 2200. Compliance with the National Environmental Policy Act would be documented prior to approval of any lands actions, including exchanges, sales or acquisitions.

Approximately 179,600 acres of public lands has been included in disposal areas (see Map 13 and Appendix 12) and approxi-

MINERAL WITHDRAWALS ALTERNATIVE 2



AREAS WITHDRAWN FROM MINERAL ENTRY

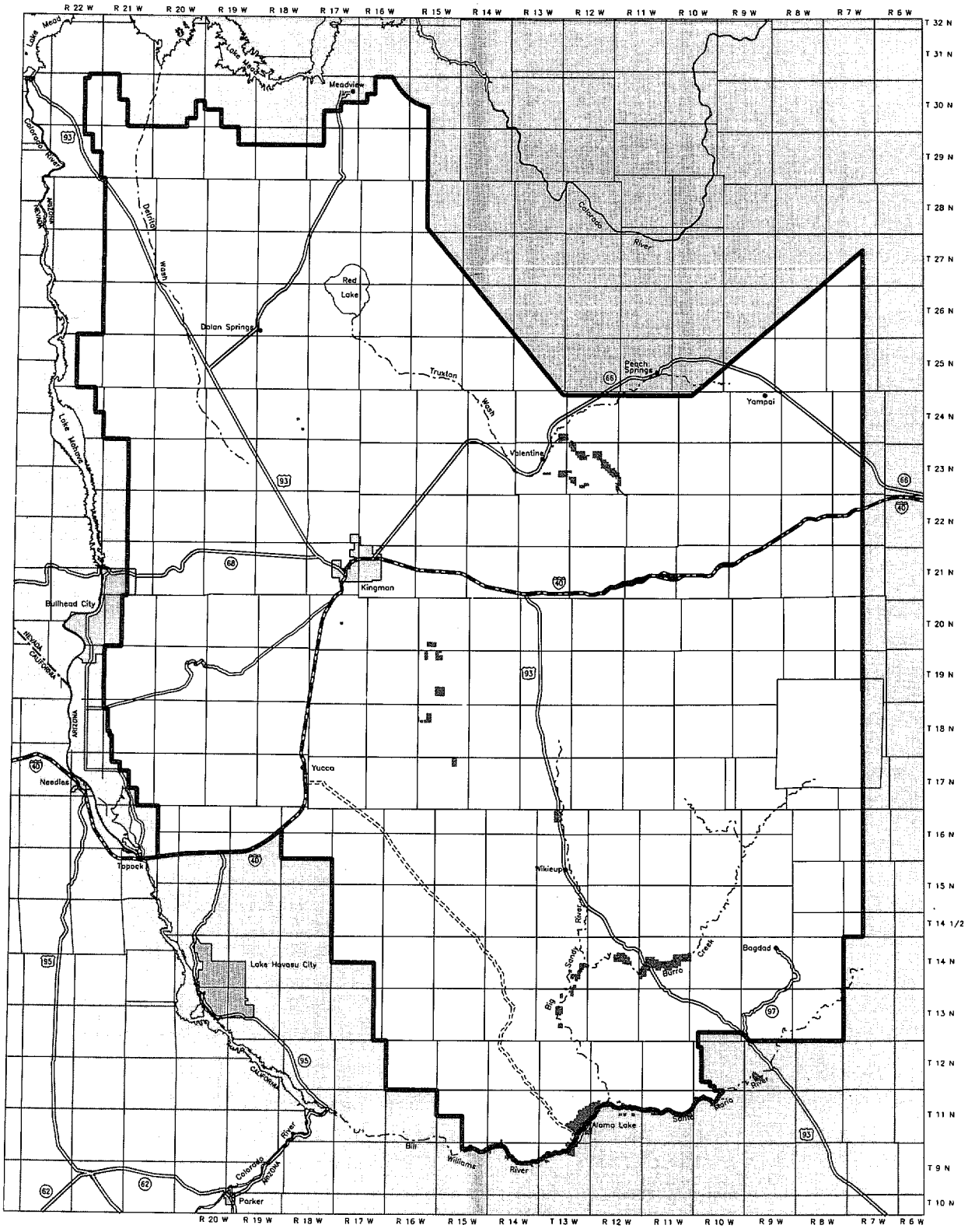
AREAS OF HIGH MINERAL POTENTIAL

DESIGNATED WILDERNESS – CLOSED

HIGH MINERAL POTENTIAL WITHIN WILDERNESS - CLOSED

Map 10

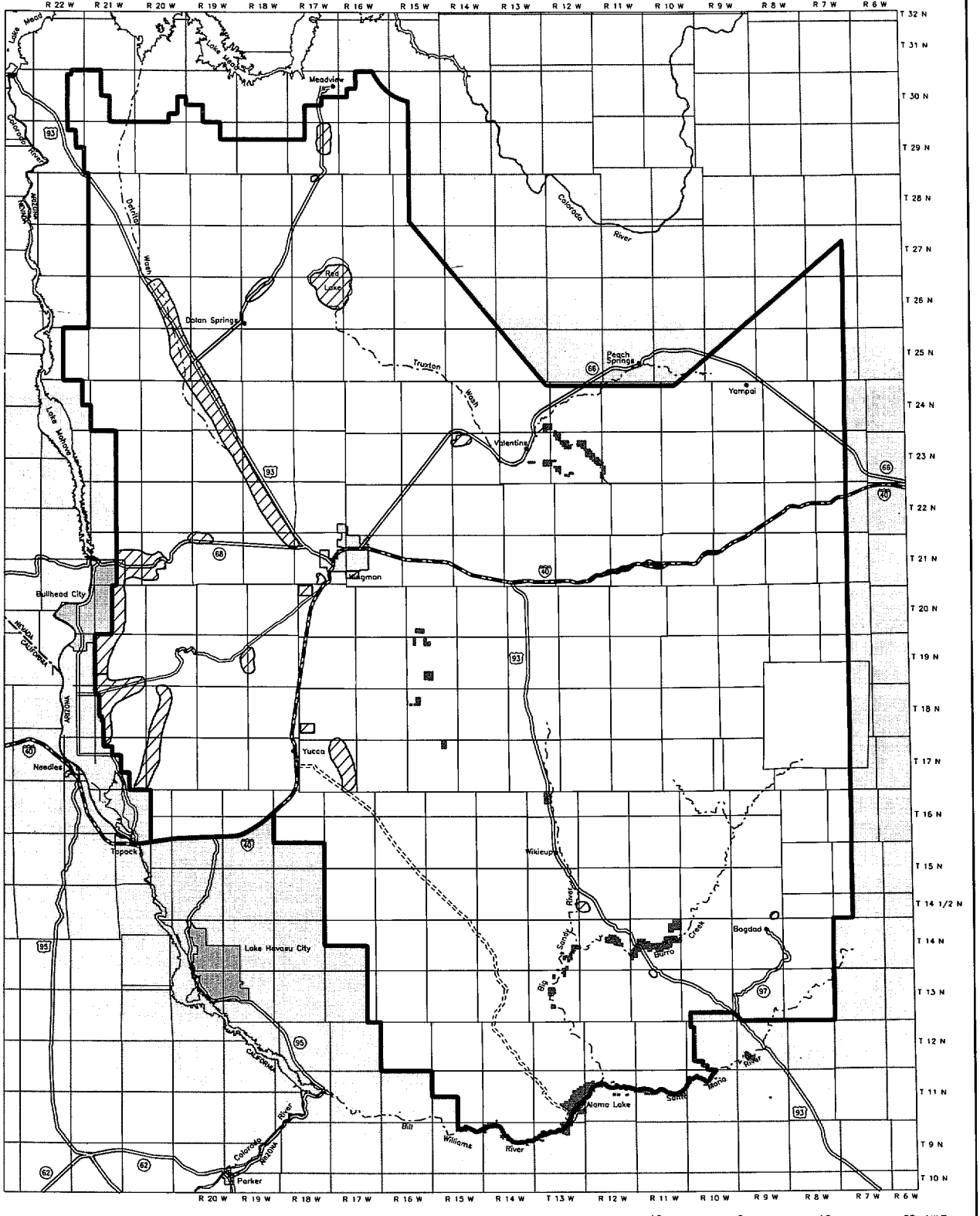
ALTERNATIVE 2 – NO SURFACE OCCUPANCY



NO SURFACE OCCUPANCY

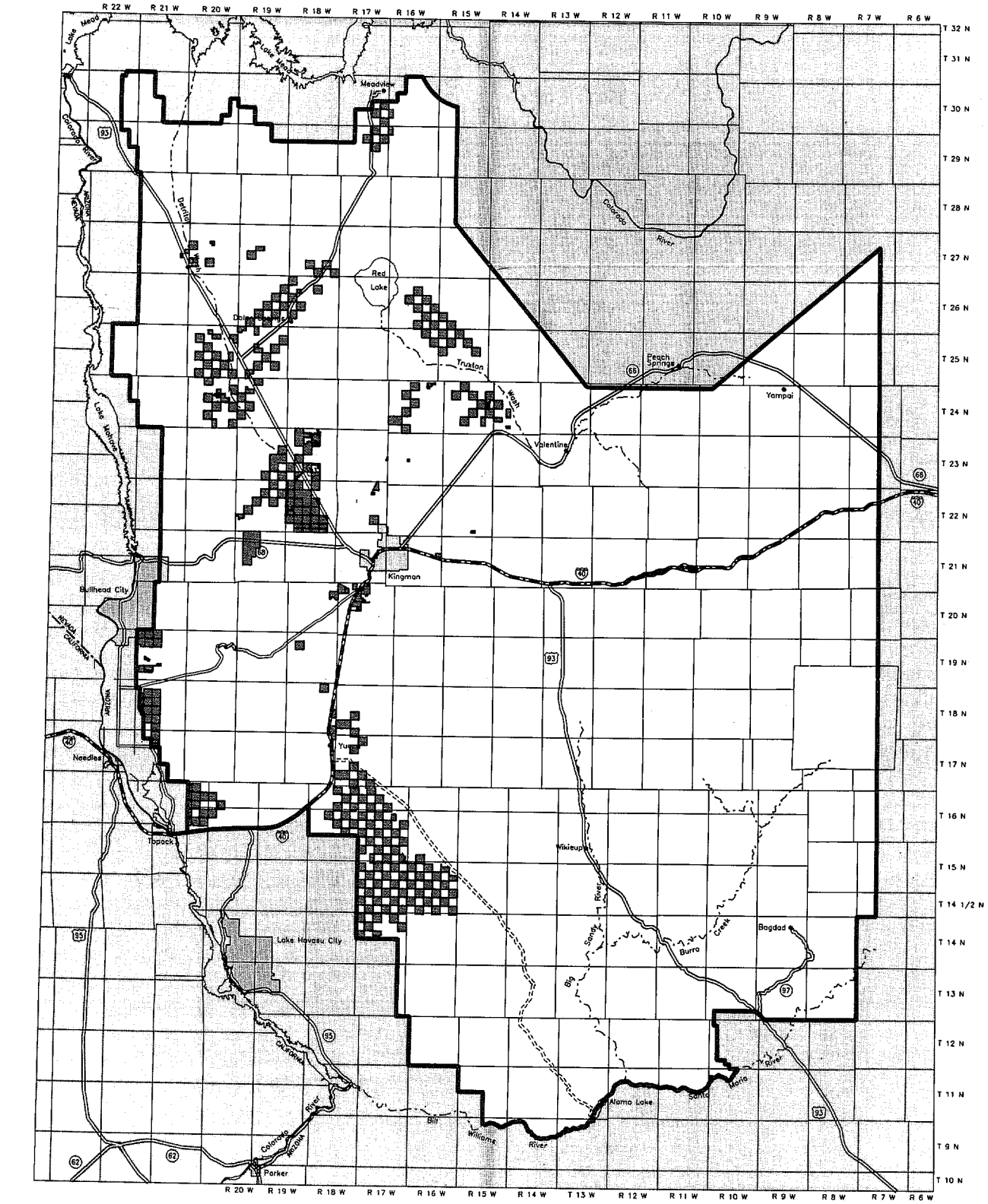
Map 11

NO MINERAL MATERIAL DISPOSALS ALT 2



Map 12

LAND DISPOSALS – ALTERNATIVE 2



Map 13

mately 13,072 acres has been removed from disposal areas proposed in Alternative 1 (see Appendix 13).

Public lands in the proposed disposal area near Yucca in Dutch Flat, as noted in Appendix 12, contain Category III desert tortoise habitat and white-margined penstemon sites. This area is possibly suitable for development. It would be disposed of only in exchange for private and state lands in the Hualapai Mountains, Dutch Flat and McCracken Mountains (which have been classified as Category II desert tortoise habitat and would become Category I if the area were well blocked public land), Hualapai Mexican vole historic and occupied habitat and other lands with high natural resource values. However, if all private lands owned by the Santa Fe Pacific Railroad Company could be converted to public lands through exchange, the large expanded area identified for disposal south and east of Yucca, in Dutch Flat, would be dropped as a disposal area.

In areas outside of disposal areas, having a checkerboard or intermingled landownership pattern and other areas containing scattered parcels of public lands, exchanges that are in the public interest will be strongly pursued, within staffing capabilities, with willing landowners or grazing permittees to consolidate landownership patterns into well-blocked areas of public and private lands. The primary intent of this provision is to let grazing permittees withdraw their private properties from the BLM grazing allotment, if they so choose.

Exchanges would be on an equal value basis as determined by procedures consistent with exchange regulations at 43 CFR 2200. Specifically, the bargaining or arbitration procedures in the regulations will be used as the basis for resolving any dispute over appraisal values when regulations are finalized. If it is mutually agreed upon to enter into arbitration, the BLM agrees to split the cost of arbitration procedures with the exchange proponent.

Within such exchange/consolidation areas, landowners/permittees may apply for acquisition of any lands within the allotment areas, as long as such lands do not have significant resource, cultural and/or environmental values, the loss of which cannot be appropriately mitigated.

Within the framework of the exchange, the BLM or approved contract appraiser will appraise the lands and interests in the lands (e.g., private water rights, fences, and other range improvements as deemed appropriate) to be acquired as part of the exchange in accordance with 43 CFR 2200.

Upon completion of the exchange, the landowners/permittees would have the right to withdraw the consolidated private lands and property rights from the BLM allotment. The BLM will examine the new allotment configuration and make adjustments in grazing use consistent with the Resource Management Plan, including allocation of forage for wildlife, wild horses and burros, etc. The grazing permittees would not retain the grazing privileges on the affected allotments unless agreed to by both parties to the exchange.

After land exchanges have been completed, the need for boundary fences will be examined on a case-by-case basis. When it is determined to be of mutual benefit and in the public interest, the BLM will examine the opportunities for sharing in the costs of fencing, subject to the availability of appropriated funds.

Maintenance of fences and waters on the BLM allotments will be consistent with established BLM policy. If the range improvements are for the primary benefit of livestock grazing, the permittees will be required to perform the necessary maintenance as a condition of their permits. In situations where there are no permits for livestock grazing and the range improvements are essential for meeting other resource management objectives, the BLM will ensure that maintenance is accomplished.

Public Lands in Coconino County

The Kingman Resource Area administers 7,717 acres of public lands in Coconino County (see Appendix 14) that are isolated and uneconomical to manage. Most of the public lands northeast of Flagstaff near the western boundary of the Navajo Reservation are under powersite and Central Arizona Project withdrawals. Unless supporting justification to retain these withdrawals is provided by the appropriate agency, the withdrawals will be recommended for termination as no longer needed. The lands will then be made available for disposal by exchange. All lands currently not covered by withdrawals are identified for disposal through exchange (see Appendix 12). If exchange is unsuccessful, disposal through sale will be pursued.

State Land Exchanges

When the state of Arizona can resume exchanges with BLM, exchanges would be pursued to acquire resources and consolidate public landownership for better resource management.

Lands in secs., 4, 5 and 6, T. 19 N., R. 21 W. would be made available for exchange only to the state of Arizona.

Lands in T. 22 N., R. 18 W. and west of Highway 93 within the Curtain and Mud Springs grazing allotments and lands in T. 17, 18 and 19 N., R. 21 W. would be made available for exchange primarily, but not exclusively, to the state of Arizona (see Appendix 12).

Land Withdrawals and Classifications

All actions proposed in this Resource Management Plan would be carried out if not prohibited by the terms of a withdrawal or classification. Any action prohibited by a withdrawal or classification would be denied until such withdrawals or classifications are terminated. Appendices 15 and 16 show the acreages of the existing withdrawals and classifications.

The recommendation is to retain withdrawals and classifications on 21,623.18 acres of public lands, where justified, and 867.10 acres of Hualapai Indian Reservation on three scattered parcels as shown in Appendix 15.

Revocation of an additional 4,017.09 acres of Central Arizona Project withdrawals in Coconino County is recommended. Rec-

ommended withdrawal actions for areas of critical environmental concern are identified in the management prescriptions for each area.

On July 2, 1948, Public Land Order 492 withdrew 19,403.12 acres for the Corps of Engineers for the Alamo Dam and Reservoir on the Bill Williams River. The lands were withdrawn from all forms of appropriation under the public land laws, including the mining and mineral leasing laws.

The Federal Energy Regulatory Commission had a 41,889-acre withdrawal that partially overlapped the northwest portion of the Alamo Dam withdrawal. This land was withdrawn in 1927 for conducting a feasibility study for hydroelectric power. On December 14, 1983, 26,104 acres of these lands were restored to the operation of the public land laws and opened to location under the mining laws and to mineral leasing under the mineral leasing laws.

Application AR 035844 was filed April 28, 1966 by the Corps of Engineers to add 3,488.62 acres to the lands withdrawn by Public Land Order 492. In 1982, the Kingman Resource Area recommended dropping 2,093.86 acres from this application, but a final decision was not made. Section 204 of the Federal Land Policy and Management Act requires the review of all existing land withdrawals, with some exceptions. The Corps of Engineers' Alamo Lake withdrawal Public Land Order 492, in place since July 2, 1948 and subject to review, states: "it is the intention to return lands to the Department of Interior when they are no longer needed for the purposes for which they are reserved." The existing withdrawal will be reviewed according to the terms of the Federal Land Policy and Management Act and a decision will be made on application AR 035844. A major objective of the review will be to assure that the Corps of Engineers continues its flood control responsibilities and that the BLM assumes resource management responsibilities, which include wildlife, threatened and endangered species, recreation, leases, protection of scenic values, as well as the existing management of livestock and burro grazing.

A recommendation has been made to retain 360 acres withdrawn as public water reserves scattered throughout the resource area, some as is and some needing modification, as shown in Appendix 16. These withdrawals were made to retain springs and other important water sources in public ownership. They are needed for the BLM's application for water rights to be adjudicated by the state of Arizona. Revocation of a withdrawal for ten acres for a public water reserve, as shown in Appendix 16, is recommended.

Recreation and Public Purposes

Existing classifications of lands for lease and conveyance under the Recreation and Public Purposes Act would continue.

On the basis of review and public input, certain lands near Mohave County communities would be set aside and classified for future Recreation and Public Purposes Act leases and conveyances (see Appendix 17). This would prevent the disposal of all public lands in an area without preserving lands for future community purposes and growth.

The lands listed in Appendix 17 would be reserved strictly for recreation and public purposes, subject to valid existing rights. Other lands within disposal areas may also be considered for recreation and public purposes. No other lands would be considered for recreation and public purposes until the lands specifically identified have been depleted. Special consideration may be given to incompatible uses or to developing communities not identified.

Forty acres in T. 17 N., R. 21 W., sec. 9, SW1/4SW1/4, previously used as a county landfill, may be available for recreation and public purposes lease once testing has proven no hazard to human health exists.

Linear Rights-of-way

Nine right-of-way utility corridors were designated in the management framework plans. Corridor 6 has been modified to exclude the Clay Hills Area of Critical Environmental Concern. Two of the corridors have been combined and eight have been carried forward as follows and as shown on Map 14. Interstate 40 has been added to the highway corridor, but is not shown on the map.

Number	Width	Name	Utility
1	one mile	Four Corners/ El Dorado	500-kV powerline
2	one mile	Mead to Phoenix	345-kV powerline
3	two miles	Davis to Prescott	230-kV powerline
4	one mile	San Juan Crossover	El Paso pipelines
5	one mile	Davis to Parker	230-kV powerline
6	*	Bagdad Lateral	El Paso pipeline
7	one mile	Highway	U.S.93/S.R.66/I-40
8	two miles	El Paso	El Paso pipelines

The following corridors have existing or proposed facilities and would be designated as shown on Map 14.

9	one mile	AT&T	communication cables
10	one mile	Kingman Water	water pipeline
11	one mile**	Transwestern/ Four Corners	pipelines

*two miles west and one mile east of Mead to Phoenix
**1/2 mile on Mount Nutt Wilderness boundary

Large utility facilities would be restricted to the above eleven corridors where technically possible. The powerline corridors are to be used for aerial rights-of-ways. All others are for buried facilities with the exception of Highway 93 and Interstate 40, which may be used for both. Additions to existing lines not within corridors would be permitted following compliance with the National Environmental Policy Act, i.e., Black Mesa, adding a loop to their existing coal slurry line.

Restrictions on authorization of rights-of-way in areas of critical environmental concern are identified in the management prescriptions for each area. All other minor rights-of-way would be evaluated through the environmental review process and granted

or rejected on a case-by-case basis. Existing rights-of-way would be used when possible to minimize surface disturbance.

Communication Site Rights-of-Way

There are numerous communications facilities on public lands in the resource area, most consisting of specific use facilities to serve linear rights-of-way, such as pipeline and powerline control operations or cellular telephone relays. These would continue to be processed on a case-by-case basis and granted or rejected based on National Environmental Policy Act compliance. Eleven mountaintop communication sites will be designated in the planning area, as listed below, shown on Map 15 and described in Appendix 18. No other mountaintops will be used for communication sites except the BLM Poachie site which will be used for BLM administrative purposes only.

Communication site management plans are needed on all designated sites; however, priority would be placed on developing communication site plans for the Oatman and Getz Peak sites first. Tower heights at all sites will be restricted so as to not require lighting in accordance with Federal Aviation Administration regulations. All new and replacement towers will be self-supporting and non-guyed. New users on all sites will be responsible for notifying existing users of frequencies and for resolving any interference problems.

1. Hayden Peak

   New rights-of-way must comply with the technical standards established in the communication site plan. Clearances are required prior to authorization of structural additions and new rights-of-way or facilities.

2. Potato Patch I

   New rights-of-way must comply with the technical standards established in the communication site plan. Clearances are required prior to authorization of structural additions and new rights-of-way or facilities.

3. Potato Patch II

   Existing leases will continue until expiration or cancellation due to noncompliance, after which a Federal Land Policy and Management Act right-of-way would be required. At that time, the users would be required to join the Hualapai Mountain User Group and to bring their sites into compliance with the communication site plan as changes occur or within three years. New users must comply with the technical standards established in the plan. Clearances are required prior to authorization of structural additions and new rights-of-way or facilities.

4. Getz Peak

   Existing leases will continue until expiration or cancellation due to noncompliance, after which a Federal Land Policy and Management Act right-of-way would be required. At that time, the user would be required to join the Hualapai Mountain User Group due to proximity to the Hayden Peak and Potato Patch sites and possible interference problems. New rights-of-way will be considered on a case-by-case basis, subject to existing users and compliance with the National Environmental Policy Act.

5. Oatman

   After a determination is made as to the site's physical boundaries, new development or towers may be authorized on a case-by-case basis, subject to existing users and compliance with the National Environmental Policy Act.

6. Mount Perkins

   New development would be restricted to government entities using helicopter access and solar power only, subject to existing users and compliance with the National Environmental Policy Act.

7. North Mount Perkins

   The existing leases would be continued through expiration or cancellation due to noncompliance, after which a Federal Land Policy and Management Act right-of-way would be required. New development may be authorized within 150 feet of the existing two facilities, if technically and geographically possible, subject to existing users and compliance with the National Environmental Policy Act. Prior to development outside of this area or installation of power, a communication site plan will be required.

8. Willow Beach

   New development may be authorized within 150 feet of the existing facility if technically and geographically possible, subject to existing users and compliance with the National Environmental Policy Act. Prior to development outside of this area, a communication site plan will be required.

9. Windy Point

   New development may be authorized within 200 feet of the existing facility if technically and geographically possible, subject to existing users and compliance with the National Environmental Policy Act. Prior to development outside of this area, a communication site plan will be required.

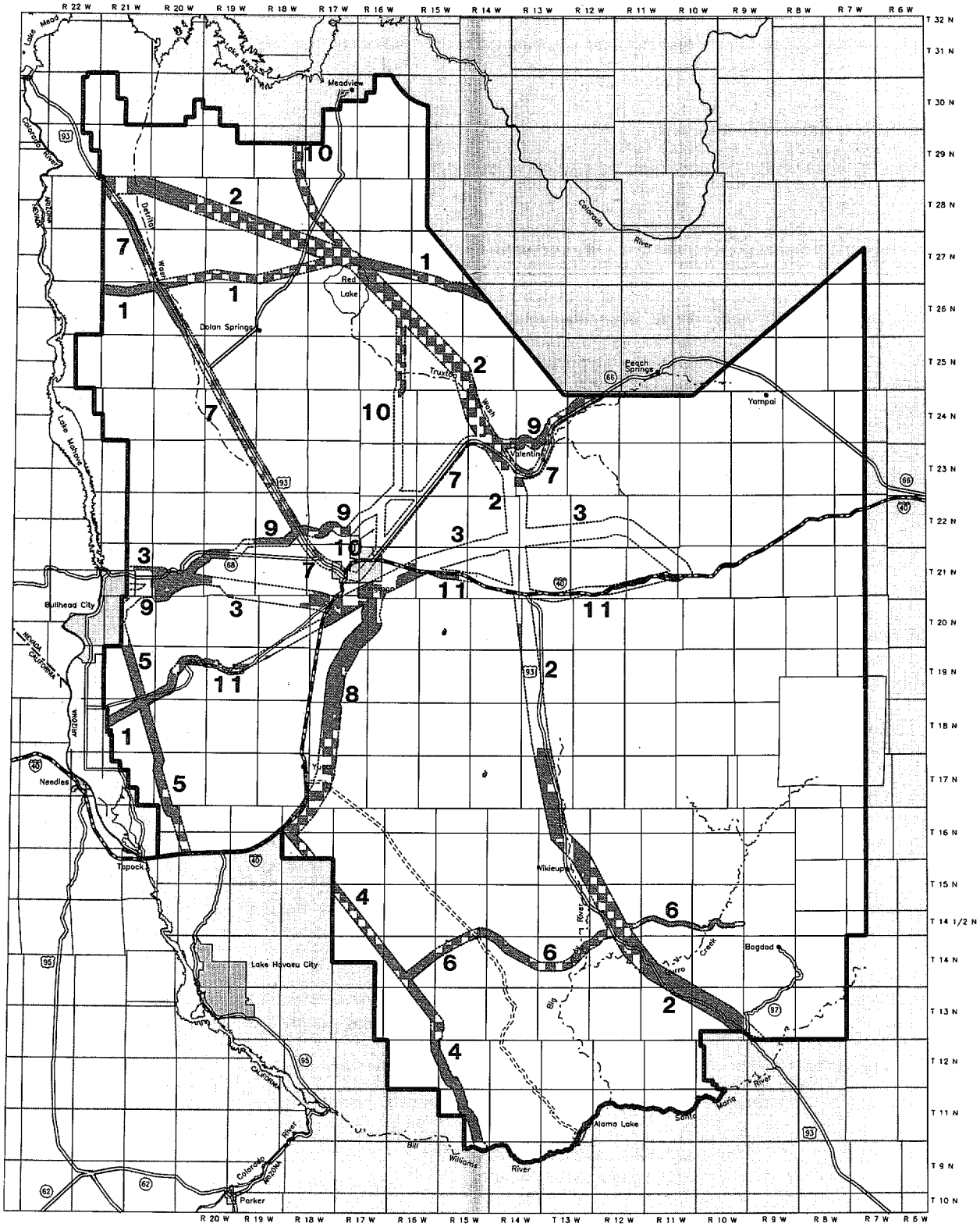
10. Patterson Slope

    New development may be authorized within 100 feet of the existing facilities if technically and geographically possible, subject to existing users and compliance with the National Environmental Policy Act. Prior to development outside of this area, a communication site plan will be required.

11. Cherum Peak

    Development of up to a total of .25 acres may occur before a communication site plan would be required. No roads or powerlines would be authorized without completion of a communication site plan.

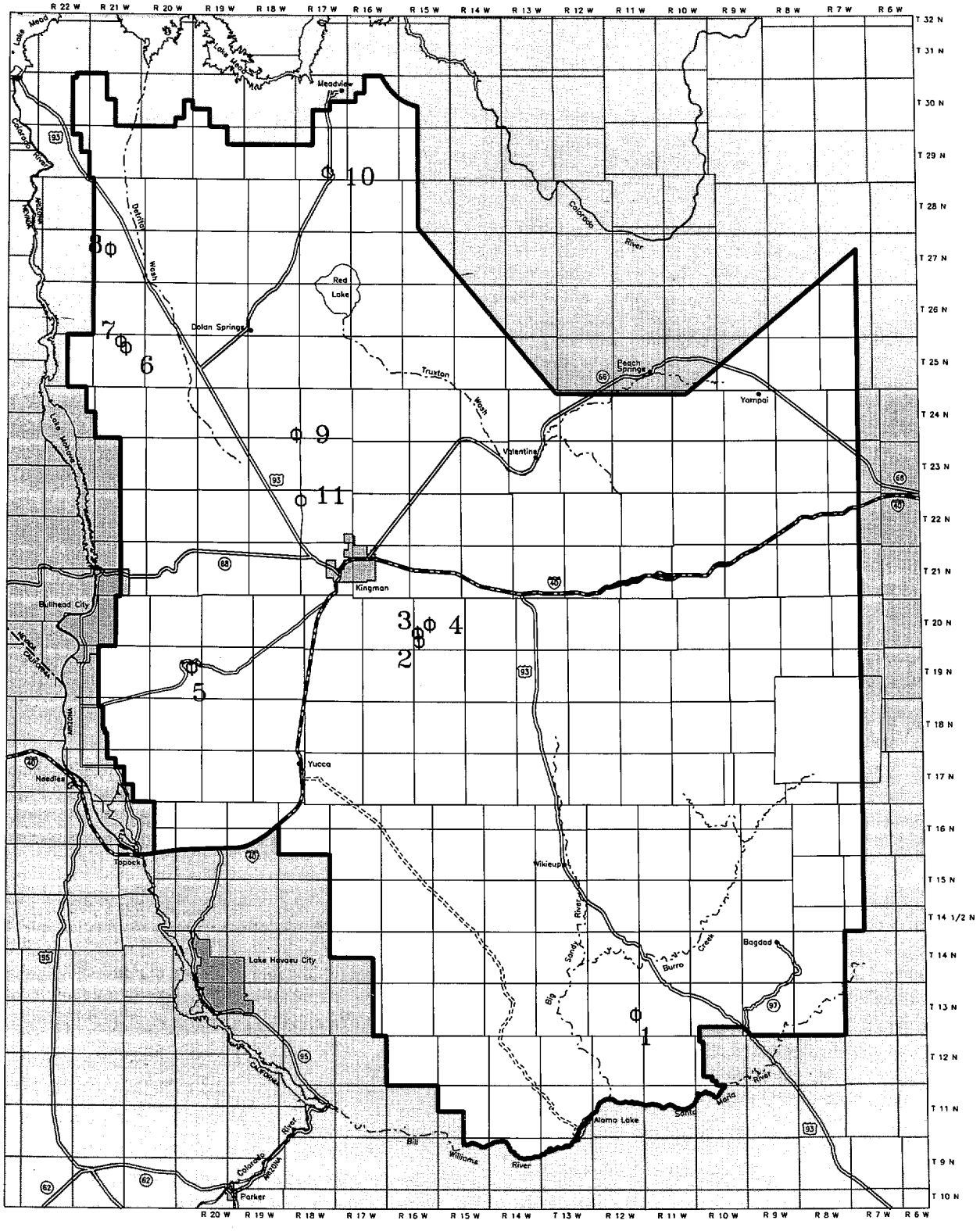
UTILITY CORRIDORS



UTILITY CORRIDORS OVER BLM LANDS

Map 14

DESIGNATED COMMUNICATION SITES



Φ DESIGNATED COMMUNICATION SITES

Map 15

Federal Land Policy and Management Act Leases and Permits and Sales

Use permits would continue to be issued on a case-by-case basis following environmental review. **Commercial leases would be considered only if there is substantial evidence that the facility is needed and that there are no other suitable lands available.**

Because of the amount of public lands proposed for disposal through the exchange program, the sale of lands, other than those described below, was not deemed necessary. Trespass may be resolved through removal, lease, sale or exchange. **One parcel presently included in a pending exchange may be sold if the exchange is not completed. This parcel consists of lots 3 and 4, sec. 8, T. 20 N., R. 17 W. Parcels isolated by patented mining claims may also be available for sale subsequent to survey.**

All public lands in Coconino County would be made available for exchange if and when withdrawals are terminated, where applicable (see Appendix 14). If disposal through exchange is unsuccessful, lands would be made available for sale.

The following lands would be made available for direct sale to resolve inadvertent trespass (Section 203 of the Federal Land Policy and Management Act).

T. 23 N., R. 18 W., sec. 3	NE1/4SW1/4	Chloride
T. 13 N., R. 10 W., sec. 8	Lot 1	Nothing
T. 19 N., R. 19 W., sec. 18	NE1/4	Route 66 east of Oatman
T. 19 N., R. 19 W., sec. 7	E1/2	same as above
T. 19 N., R. 19 W., sec. 10	NW1/4, S1/2	same as above
T. 19 N., R. 19 W., sec. 15	NE1/4	same as above

Exact acreages will be determined upon completion of cadastral surveys.

All lands identified for sale will meet disposal criteria of Section 203 (a)(1) and (3) for sale because the lands are difficult and uneconomical to manage as part of the public lands and are not suitable for management by another federal agency.

Occupancy Trespass

Trespass situations would be resolved by removal or authorization in accordance with regulations at 43 CFR 2920 and policy and procedures in the BLM Trespass Abatement Handbook. **Authorization may be accomplished through issuance of a life estate lease or by sale or exchange.**

WATERSHED (Soil, Water and Air) RESOURCES

Objective

The objective for watershed management are to prevent or minimize environmental damage to soil, water and air/climate resources.

Plan Actions

This alternative is the same as *Alternative I* except for the following: **The BLM would consult with the Arizona Department of Environmental Quality to design a water quality monitoring program. Parameters to be tested may include, but are not limited to, total dissolved solids, turbidity, fecal coliform, nutrients, heavy metals and pH.**

All grazing allotments are categorized according to current and potential watershed condition, as shown in **Appendix 19.** This categorization would be validated in the field. Categories are described as follows.

Category I - These areas are in satisfactory condition and have a low vulnerability to accelerated erosion. The objective is to maintain current land use and vegetative cover.

Category II - These areas are in satisfactory condition; overall erosion is slight, but the areas are susceptible to accelerated erosion. The objective are to maintain or enhance vegetative cover and to monitor the area to detect the onset of localized erosion problems on fragile or saline soils. All surface disturbance proposals will be evaluated for their impacts to silt loading in localized drainages.

Category III - These areas are not in satisfactory condition, have critical erosion problems and have no reasonable potential for improvement. There are only very few localized areas in the resource area. The objective is to develop special management plans to protect soil and vegetation and prevent these areas from expanding.

Category IV - These areas are not in satisfactory condition and have moderate to severe erosion problems but do have potential for improvement. The objective is to improve vegetative groundcover through grazing management or land treatments. Developing and maintaining activity plans for these areas is a priority, as are evaluating and mitigating impacts to active water sources.

This categorization process would be used in setting grazing allotment priorities for allotment management plan development or revision, as well as for developing watershed activity plans. **Highest priority would be given to Category IV allotments, followed by allotments in Category II. Plans to improve watershed conditions would stress the use of appropriate native and naturalized plant species.**

Key ecological communities would be studied and monitored to gain an understanding of species and system adaptations and functioning for predicting future changes likely to result from changing climate regimes.

In areas of saline soils, management prescriptions in activity plans would have the objective of maintaining an optimum water infiltration rate for soils to reduce sediment load in runoff. An optimum infiltration rate would be maintained by keeping forage utilization of key species at or below 40 percent and by implementing rotation grazing systems to eliminate yearlong grazing in pastures, a common source of soil compaction. On highly erosive soils these same practices may be applied to maintain the maximum protective vegetative cover capable for the site. Surface-disturbing activities would be required to reclaim sites to a suitable condition using a combination of vegetation, management or structures.

VEGETATIVE PRODUCTS MANAGEMENT

Objective

The objective for the vegetative products program is to meet public demand for vegetative resources on public lands on a sustained yield basis without impairing resources.

Timber Harvest

Ponderosa pine and mixed conifer on the Hualapai Mountains, and riparian habitats would receive priority for long-term protection. Resource activities significantly disturbing these habitats would be eliminated or their effects mitigated.

Timber harvest would be considered if insect infestation, fire or blowdown threatened a significant area. Consideration of the physiological needs of ponderosa pine and mixed conifer stands for regeneration would be incorporated into environmental documents necessary for the approval and development of a coordinated resource management plan.

Woodland and Yucca Harvest

The commercial harvest of any vegetative products would not be permitted until an environmental analysis has been undertaken to determine suitability of the lowest harvest activity demanded by the public.

Criteria used to determine suitability for woodland and yucca harvest would include the following:

- Percent slope would be determined on a site-specific basis depending on soil stability, vegetative cover, aspect and other factors which affect erosion potential
- Accessibility from existing roads and trails
- Conformance with visual resource management policy
- Consistency with management objectives of wilderness management or areas of critical environmental concern plans
- Ability to harvest on a sustained yield basis
- Lack of significant impacts to soils, cultural resources, threatened and endangered species, riparian areas and other sensitive resources

Following determination of suitability for harvest of a vegetative product, a management plan may be developed to identify program objectives, long-range goals, monitoring needs and necessary mitigation to minimize resource conflicts and potential resource damage. Management plans would be developed for activities including, but not limited to, woodcutting and yucca harvest. Objectives would include harvest practices designed to enhance wildlife and livestock habitat, protect soils and vegetation, maintain or improve watershed condition, protect threatened and endangered species, scenic values and harvest on a sustained yield basis.

Mitigation would include, but is not limited to, seeding of disturbed sites with suitable native and naturalized (found growing in the geographic area) plant species, seasonal restrictions on harvest and stipulations on harvest techniques. All actions would occur only after compliance with the National Environmental Policy Act.

Casual use collection of the following materials would be permitted.

1. Flowers, leaves and fruit (which include cones, nuts, berries and seeds), limited to 20 pounds per person per year.
2. Skeletons of cholla, saguaro, agave stalks and ocotillo, limited to 50 pounds per person per year, with proper state permits and BLM authorization.
3. Down and dead wood for campfire use; excluded is ironwood because of its limited distribution within the resource area.

Permits would be issued up to the amount of vegetative material available under sustained yield.

This procedure would not be used for harvesting desert vegetation for private and commercial landscaping. The harvest of landscape plants would continue to be allowed only through salvage where vegetation would be destined for destruction because of surface disturbance. Public demand for these plants would be handled in one or more of the following ways.

- Removal and stockpiling for replanting during rehabilitation
- Removal and transplanting out of surface disturbance area
- Removal and salvage by private individuals
- Removal and salvage by commercial dealers

Any demand for desert plants in future years would be subject to compliance with the National Environmental Policy Act process before permits are issued and compliance with state law as described for *Alternative 1*.

RANGELAND MANAGEMENT

Objectives

The objectives for rangeland management under *Alternative 2* would be the same as those for *Alternative 1*.

Plan Actions

This alternative would be the same as under *Alternative 1* except for the following.

Rangeland trend and utilization studies would continue to be installed where a need arises, i.e., when new information is needed to provide supporting data for evaluating progress in meeting multiple use objectives, in areas where more studies are needed to respond to changes on an allotment or as new lands are acquired. Intensity of monitoring is dependent upon priorities established by selective management category criteria (see Appendix 1).

Development or revision of allotment management plans would be accomplished through consultation, cooperation, and coordination with affected interests and other agencies. Management goals would be met through grazing programs including systematic, timed periods of grazing and rest from grazing, designed to meet the phenological needs of key forage plants and improve soil stability and watershed conditions. A specific grazing system

would be designed to meet the needs of the public land resources and the rancher using public lands on each allotment or group of allotments under a single rancher's control. Changes necessary to meet vegetation, soil, watershed, water quality, wildlife and wild horse and burro goals may include, but are not limited to, season of use, livestock numbers, kind or class of livestock and development of new range improvements (fences, waters, etc.). All actions would occur only after compliance with the National Environmental Policy Act.

Best Management Practices designed to attain state water quality standards through grazing management would include the practices outlined in the preceding paragraph.

Upon completion of the soil survey and ecological site inventory, new data would be used to review and possibly revise the ephemeral line. Affected perennial-ephemeral allotments would be reclassified, consistent with the guidelines of the Special Ephemeral Rule of 1968. If new guidance is approved on ephemeral rangelands, the allotments would be reclassified consistent with the new guidelines. The BLM would coordinate with any affected interests and initiate consultation with grazing permittees prior to proposing reclassification of specific allotments to ephemeral designation.

In addition to the public lands closed to livestock grazing in *Alternative 1*, livestock grazing would no longer be permitted on the Chino Springs, Silver Creek and Alamo allotments, including the portion of the Alamo allotment in the Lower Gila Resource Area (see Map 16). The available forage produced from these lands would be allocated to wildlife and wild burros, through the activity planning process, and after analysis of impacts to the environment. The potential of the habitat to support existing and target species populations would be determined and habitat use limits set. However, when fences are built to exclude neighboring livestock from these ungrazed areas, minor intrusions into these areas may be allowed, if needed, to facilitate fence construction and maintenance. Where lands are acquired within areas closed to livestock grazing, the acquired lands also will be closed to livestock.

Because these allotments have relatively low values for livestock grazing, they have been historically licensed on an ephemeral basis. Also, because they have high values for wildlife and wild burro habitat, they have been or may be voluntarily relinquished by the grazing permit holder. As opportunities arise in the future, other allotments with sufficient values could be similarly reserved for wildlife, wild horses and wild burros.

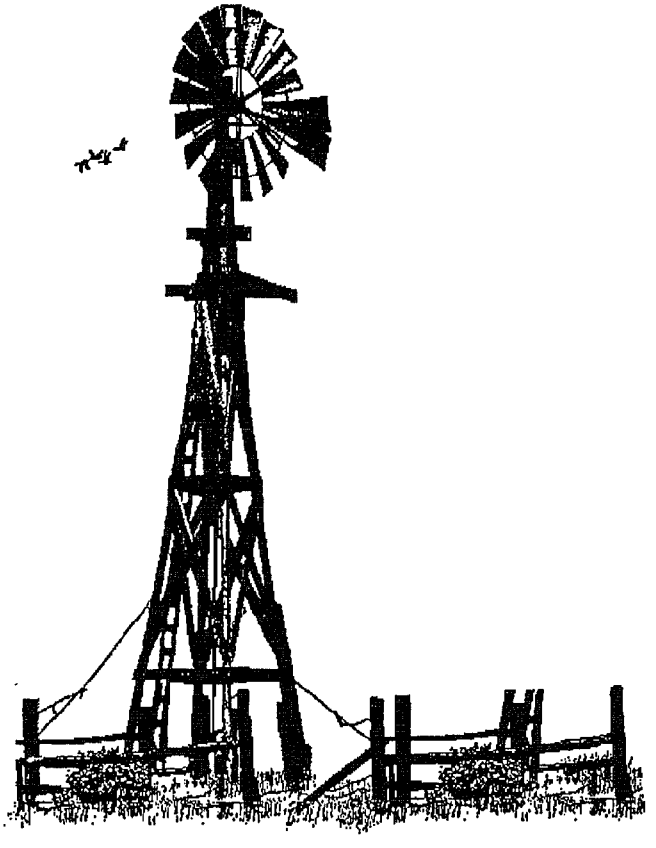
When private or state lands are acquired through the land exchange program, allocation of forage would be accomplished following analysis of impacts and public involvement. The following factors would also be considered.

- existing grazing capacity, BLM inventory data and BLM utilization and trend data for the acquired and adjacent lands
- a new ecological site inventory of the acquired land, if deemed necessary
- demands placed on the resource by other users, including wild horses and burros, livestock and wildlife
- presence of sensitive resources
- other site-specific factors as they arise

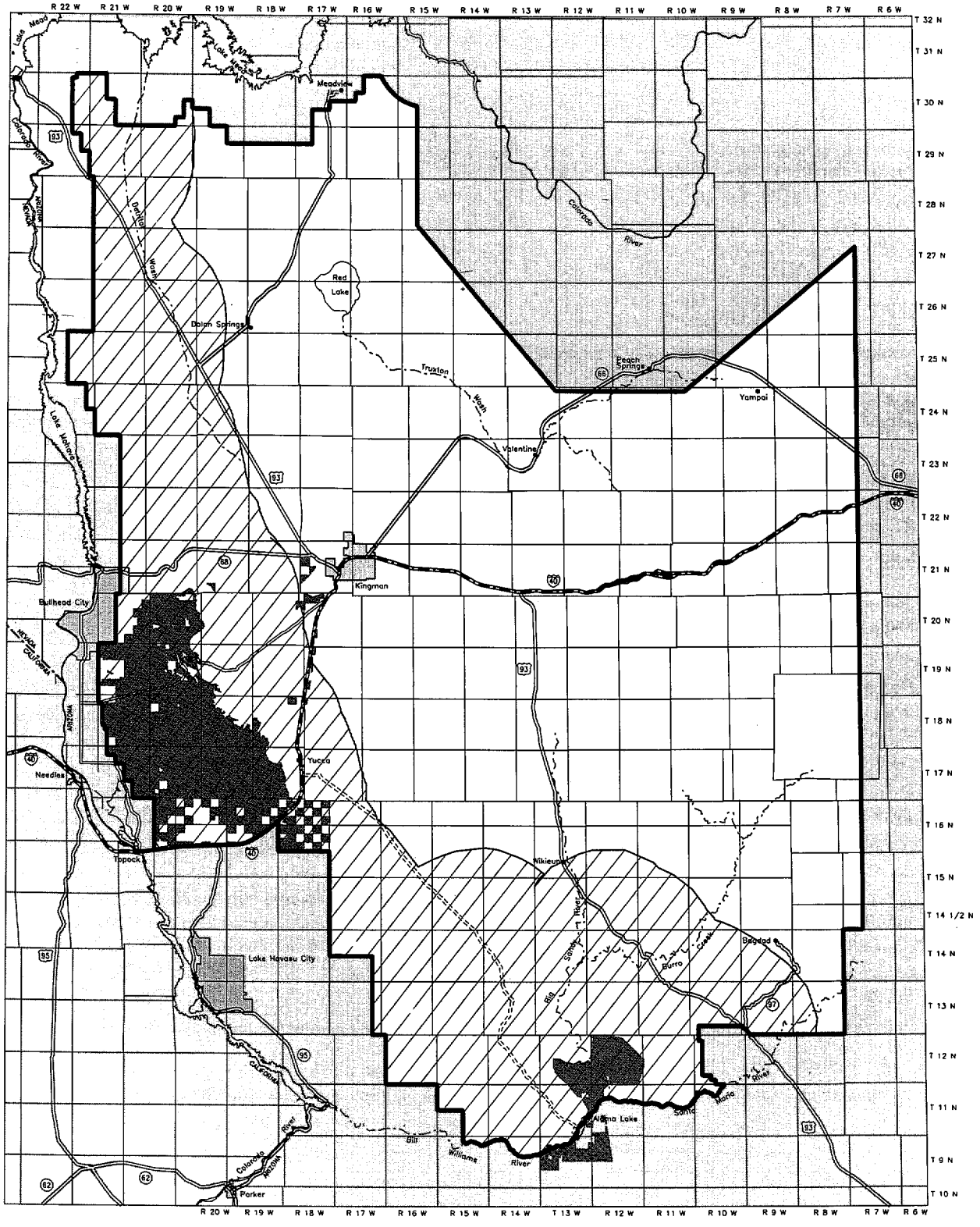
In all situations where public lands are acquired and forage is allocated to livestock, monitoring of grazing use will be used to adjust stocking rates to achieve proper use of forage resources.

Allotments in selective management categories Improve and Maintain which are wholly or partially within areas of critical environmental concern would be subject to allotment management plan development or revision, as needed, to meet the goals and objectives of each area. Where management potential of public lands is limited on Custodial allotments which are partially or wholly within areas of critical environmental concern, grazing prescriptions would be developed through area of critical environmental concern plans and incorporated into grazing permits to meet the goals and objectives of these plans.

Priority listing of Improve and Maintain category allotments for allotment management plan development or revision would be shown in forthcoming Range Program Summary updates. This listing would be based on management issues such as wilderness, areas of critical environmental concern, watershed and range condition, riparian values and threatened and endangered species.



GRAZING RESTRICTIONS ALTERNATIVE 2



CLOSED TO GRAZING

DOMESTIC SHEEP AND GOAT LICENSES PROHIBITED

Map 16

CULTURAL RESOURCES

Objectives

Cultural resource management objectives are to protect the scientific information potential of sites, enhance the public use values of sites and manage sites for conservation.

Plan Actions

This alternative would be the same as *Alternative 1* except for the following.

Five areas with significant cultural values would be included in areas of critical environmental concern designations to ensure proper management and protection. The Carrow and Stephens Ranch headquarters are the only known intact historical ranching and farming structures existing on public lands within the resource area. They represent typical rural life-styles during the period from the 1870s through the 1930s. This area depicts the settlement history of the Big Sandy River Valley and represents many other settlement histories throughout Mohave County as well. These two unique historical areas would become a special recreation management area and be designated an area of critical environmental concern. Management of these areas would emphasize cultural/historical education and encourage public enjoyment of Arizona's living history.

The Grand Wash Cliffs and the plains below them represent a combination of several prehistoric human cultures that occurred in this area over centuries. Evidence of these occupations is displayed through the presence of large prehistoric roasting pits, unique to this area, as well as other prehistoric sites. The Joshua Tree Forest-Grand Wash Cliffs Area of Critical Environmental Concern would be designated to protect and preserve the integrity of these unique sites for scientific and educational purposes.

The Black Mountains range in Mohave County represents the resource area's most significant and abundant known prehistorical rock shelters, rock art and other cultural sites. The most significant of these sites is Bighorn Cave. This large cave contains evidence of human activity dating back at least 3,000 years and continues to provide insight into the various peoples who inhabited the area and their cultures. In addition, there are numerous historical sites throughout the range. The Black Mountains Ecosystem Management Area of Critical Environmental Concern would provide special management of Bighorn Cave, a National Register of Historic Places site. Other significant prehistoric and historic sites would also be protected from increasing vandalism and preserved for scientific and educational purposes.

The Wright and Cottonwood creeks and surrounding watershed contain the largest number of archaeological sites per square mile known to exist in the resource area. Most of these sites belong to the little-known Western Cohonina and Prescott cultures, prehistoric groups found mainly near Williams and Prescott, Arizona. The region around these two creeks is the northernmost known occurrence of the Prescott Culture, with their associated stone masonry pueblos. An additional unique cultural resource is evidence of prehistoric agriculture, which was very rare away from the main rivers of northwestern Arizona. The Wright-Cottonwood Creeks Area of Critical Environmental Concern would protect these important resources for future studies and public education.

Burro Creek represents the westernmost known occurrence of the Prescott Culture. Stone walls of Prescott pueblos still stand more than eight feet in height among evidences of the Yavapai and Hualapai peoples who coexisted in the region during historic times. The Burro Creek Area of Critical Environmental Concern would provide a vehicle for planning and developing means to preserve these properties for educational, scientific and conservation purposes.

For details of special designations, see **Table 11** and individual area of critical environmental concern descriptions in the Special Management Areas section of this Alternative. Class II (random sampling) inventories would be initiated and cultural resource project plans or activity plans would be developed for designated areas.

A total of **3,735** acres containing important cultural resources would be acquired **(see Appendix 20).**

Two interpretive sites, one near Kingman and one near Dolan Springs, would be developed for public education and enjoyment of petroglyphs.

Studies would be initiated using extensive existing ethnographic reports to precisely locate historic Hualapai, Yavapai, Chemehuevi, Paiute and Mojave cultural resources.

Class III (intensive) inventories and research would be conducted in concentrated areas of historic or prehistoric mining. Several hundred historic mines and several prehistoric mines **have been documented.**

An expanded cultural resource educational program would be developed to include the BLM, law enforcement, judges and attorneys as well as the public.

Little data exist on the cultural resources of the Aquarius Mountains and Alamo Lake regions. These areas would be selected for inventory by volunteer members of the Arizona Archaeological Society).

Cultural resource protection systems involving fencing, stabilization and education would be developed for selected cultural resources that have either a high level of significance or a history of vandalism. Selected cultural resources would be stabilized or restored to stop erosion.

RECREATION MANAGEMENT

Objective

The objective of the recreation management program is to provide outdoor recreation opportunities for the public while continuing the BLM policy of providing dispersed and backcountry recreation.

Plan Actions

The recreation program actions under *Alternative 2* would be the same as under *Alternative 1* with the addition of the following.

Current and projected population growth in the Kingman, Golden Valley, Bullhead City and Laughlin areas will continue to constrict potential areas for open space. Large expanses in the Black Mountains are crucial to satisfying the demand for dispersed recreation opportunities close to population centers throughout Mohave County. Projected increases in wilderness recreation and off-highway vehicle use will dominate recreation management in this region.

The Joshua Tree Forest-Grand Wash Cliffs area contains a large, spectacularly scenic stand of Joshua trees set against a dramatic backdrop provided by the escarpment of the Grand Wash Cliffs. This area is unique in the planning area and is considered by many to be one of the best representations of Joshua tree/blackbrush associations in the Southwest. The area provides outstanding opportunities for dispersed recreation and also has the potential for satisfying the demand for developed recreation opportunities in the northeast portion of the resource area.

Burro Creek is a focal point for a variety of recreational pursuits because of its perennial waters, outstanding riparian vegetation and surrounding canyon walls. Most important among these pursuits are camping, hiking, backpacking, nature study, rockhounding and photography.

Six special recreation management areas for intensive recreation management would be established, as shown in Table 7. Locations are shown on Map 17. These areas are those in which significant public recreation issues or management concerns occur. Recreation area management plans would be prepared for each area to consider all uses and resources within the special recreation management areas while outlining measures to protect and enhance recreation opportunities, historic values and scenic resources found in the area. The Hualapai Mountain Recreation Area Management Plan would supersede the Hualapai Highlights Trail System Plan in *Alternative 1*. National Environmental Policy Act compliance documentation will be completed prior to development or revision of recreation area management plans.

Table 7
Special Recreation Management Areas

Name	Acres*
Joshua Tree Forest/Grand Wash Cliffs	44,260
Kingman Regional Park	12,300
Historic Route 66	10,970
Hualapai Mountain	53,425
Carrow-Stephens Historic Ranches	542
Burro Creek	26,000

*** Acres include non-federal lands within the boundaries of each special recreation management area. Management prescriptions do not apply to non-federal lands within these areas.**

The remainder of the resource area would be within the Kingman Extensive Recreation Management Area. Within the management area, dispersed recreation would be encouraged and visitors would have greater freedom of recreation choice with minimal regulatory constraint. At least one campground and other support facilities would be developed.

New recreation sites with facilities to accommodate overnight use would be developed. In addition, day use/trailhead sites and interpretive sites would be developed. Table 8 shows a preliminary list of proposed new sites. Additional recreation sites may

be identified in the future on a case-by-case basis to meet resource management objectives. A recreation project plan would be prepared for each that would further refine the types of facilities to be provided, the expected user groups and how each fits into the management objectives of the special recreation management area or extensive recreation management area. Approximately 500 acres for existing and proposed campgrounds would be withdrawn from mineral entry, mineral material disposals and subject to no surface occupancy stipulations for mineral leasing.

The proposed facilities would serve the expected population growth and would help satisfy the increasing demand for camping opportunities on BLM-administered public lands in northwestern Arizona.

Two parcels of land would be made available for concessionaire-operated recreational vehicle parks/campgrounds. These include one in the vicinity of Boundary Cone along Historic Route 66 in secs. 27, 28, 32 or 33, T. 19 N., R. 20 W. and one north of the Carrow-Stephens Ranches Area of Critical Environmental Concern, west of U.S. Highway 93 in sec. 35, T. 17 N., R 13 W. Both sites would allow for private investment and enterpreneurism in providing for future recreation demand.

The Joshua Tree Forest-Grand Wash Cliffs Special Recreation Management Area would be proposed for designation as a national conservation area by Congress. This action is in response to a request by the people living in Meadview and support from local employees of the National Park Service.

The Hualapai Mountain National Back Country Byway would continue to be managed as a four-wheel drive road limited to high clearance vehicles. Historic Route 66 would continued to be managed as a Type I National Back Country Byway or a National Scenic Byway.

Commercial and competitive recreation uses would continue to be accommodated through the issuance of special recreation permits. Proposals for these permits would be analyzed on a case-by-case basis.

Recreation site sign plans have been prepared for two of the four existing developed recreation sites. The Burro Creek Recreation Site Sign Plan has been implemented. The Wild Cow Springs Recreation Site Sign Plan would be implemented with completion of the projects called for under the Wild Cow Springs Recreation Site Improvements Recreation Project Plan, thus creating the need for updated signing.

Recreation site sign plans would also be prepared and implemented for the Packsaddle and Windy Point recreation sites. Recreation site sign plans would be prepared as part of the overall new recreation site and interpretive site planning. Maintenance plans have been prepared for the four existing developed recreation sites in the resource area. These plans consist of a Schedule of Operational and Corrective Maintenance (1986 to 1996) and are being implemented in an ongoing process. These existing plans would need periodic upgrading as the two existing recreation site improvement plans are implemented and as other circumstances or maintenance requirements change. As recreation project plans are implemented for new developed recreation sites and interpretive sites, a maintenance plan would be prepared for each.

The Kingman Regional Park Special Recreation Management Area would include 6,137 acres of public lands, 2,051 acres of lands owned by the city of Kingman, 3,784 acres of other private lands and 344 acres of state lands. The BLM may acquire the 3,784 acres of private lands through exchange (see **Appendix 21**). A master plan for the regional park would be prepared in cooperation with the city of Kingman and Mohave County. Local, state and federal funding would be sought for implementing the plan. This area would also be designated as a cooperative recreation management area.

Through public meetings, various user groups and individuals have stated a need to establish a system of hiking/equestrian/mountain bike trails. The trails shown in **Table 16** would partially fill these needs. Other opportunities to develop trails would be explored as recreation area management plans are prepared for these six special recreation management areas.

The BLM would continue to encourage and accommodate individual volunteers and organized groups wishing to perform developed recreation site improvement maintenance. The Burro Creek Recreation Site would continue to be staffed with volunteer campground hosts. In addition to continuing these present volunteer efforts, the following volunteer programs would be established:

1. Schedule individuals or groups to perform a regular program of wilderness area site monitoring and compliance.

2. Maintain an ongoing roster of groups or individuals willing to assist the BLM in building and maintaining hiking and equestrian trails.

3. Schedule and logistically support volunteer trail construction and maintenance projects for trails having completed recreation project plans.

Off-Highway Vehicle Designation

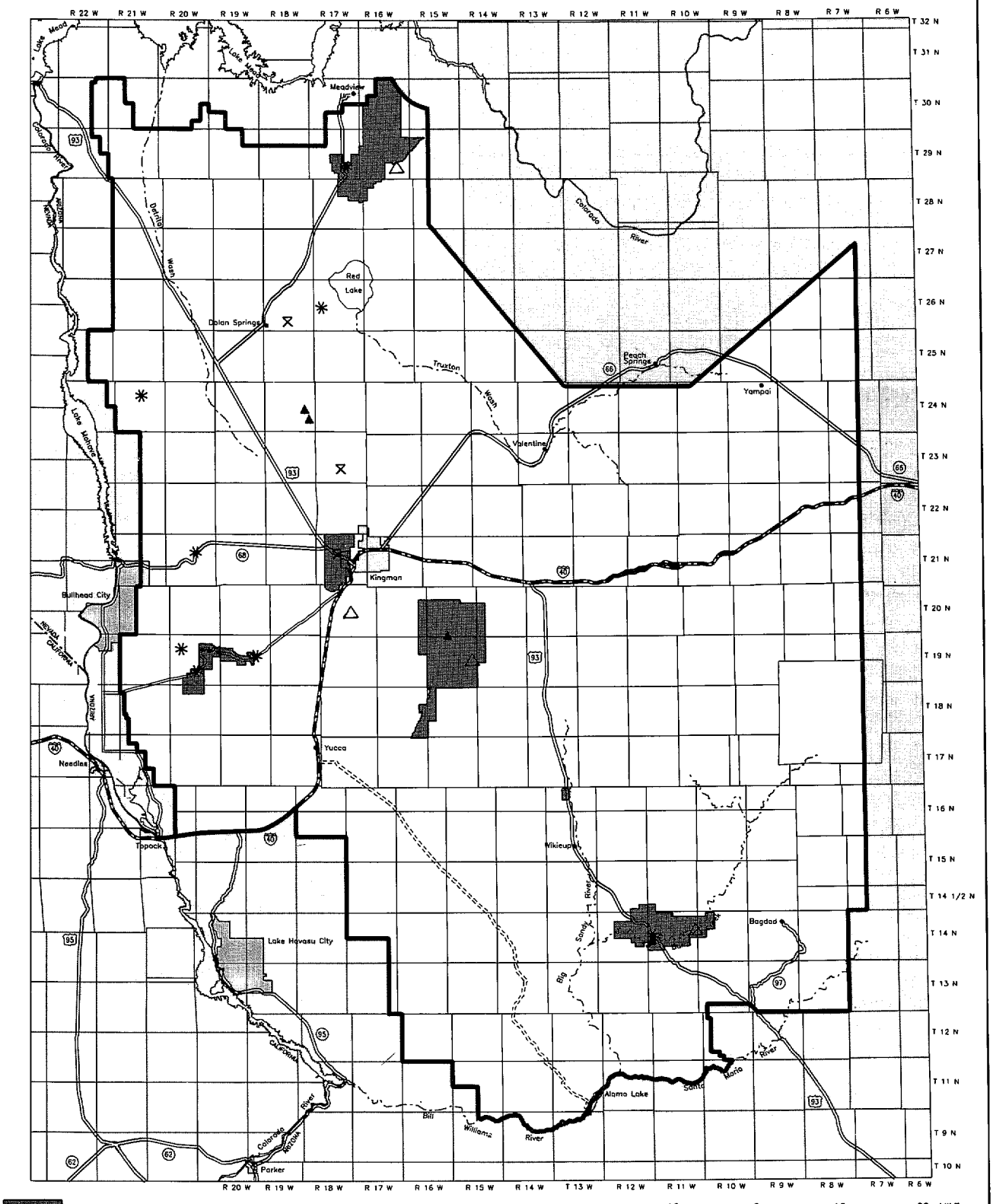
The following off-highway vehicle designations (see **Map 18**) would best balance the whole range of motorized vehicular access needs with the restoration and protection of wildlife, soils, vegetation, scenic values, nonmotorized recreation opportunities and cultural/historical values.

* One area would be open to off-highway vehicle use contingent upon compliance with Section 106 of the National Historic Preservation Act, Section 7 of the Endangered Species Act and development of a management plan:

  North of Golden Shores along old Highway 66, sec. 36, all; sec. 35, E1/2 and sec. 25, S1/2, T. 17 N., R. 21W.

* An open area would be proposed on Red Lake if, in the future, private lands in the playa could be acquired through exchange and public access could also be acquired.

RECREATION SITES ALTERNATIVE 2



SPECIAL RECREATION MGMT AREAS

DAY USE AND HIKING TRAIL AREA

SCENIC OVERLOOK

PROPOSED CAMPGROUND

EXISTING CAMPGROUND

Map 17

Table 8
Proposed Recreation Sites

Name	Type	Recreation Management Area	Facilities	Approximate Location
Thimble Butte	Day use and trailhead	Historic Route 66	Picnic sites, trailhead	sec. 14, T. 19 N., R. 19 W.
Sitgreaves Pass	Scenic overlook	Historic Route 66	Interpretive signs	sec. 8, T. 19 N., R. 20 W.
Boundary Cone	Scenic overlook	Historic Route 66	Interpretive signs	sec. 27, T. 19 N., R. 20 W.
Thimble Butte	Scenic overlook	Historic Route 66	Interpretive signs	sec. 14, T. 19 N., R. 19 W.
Moss Wash	Campground	Hualapai Mountain	Vault toilets, campsites, fire rings, ramadas	sec. 13, T. 19 N., R. 15 W.
Six-Mile Crossing	Campground	Burro Creek	Vault toilets, campsites, fire rings, ramadas	sec. 13, T. 14 N., R. 11 W.
Burro Creek Overlook	Scenic overlook	Burro Creek	Interpretive signs	sec. 18, T. 14 N., R. 11 W.
Joshua Tree	Campground	Joshua Tree-Grand Wash Cliffs	Vault toilets, campsites, fire rings, ramadas	sec. 26, T. 29 N., R. 16 W.
Grapevine Mesa	Scenic overlook	Joshua Tree-Grand Wash Cliffs	Interpretive signs	sec. 26, T. 29 N., R. 17 W.
Kingman Regional Park	Day use and trailhead	Kingman Regional Park	Picnic sites, trailheads	sec. 16, T. 21 N., R. 17 W.
Boulder Springs	Campground	Kingman ERMA*	Vault toilets, campsites, fire rings, ramadas	sec. 21, T. 20 N., R. 17 W.
Cerbat Pinnacles	Scenic overlook	Kingman ERMA	Interpretive signs	sec. 20, T. 26 N., R. 17 W.
Antelope Springs	Day use and trailhead	Kingman ERMA	Picnic sites, trailhead	sec. 28, T. 26 N., R. 18 W.
Black Mountain Escarpment	Scenic overlook	Kingman ERMA	Interpretive signs	sec. 10, T. 24 N., R. 21 W.
Black Mountains West	Scenic overlook	Kingman ERMA	Interpretive signs	sec. 15, T. 21 N., R. 20 W.
Canyon Station Spring	Day use and trailhead	Kingman ERMA	Picnic sites, trailhead	sec. 28, T. 23 N., R. 17 W.

* Extensive Recreational Management Area

* Only designated wilderness areas would be closed to off-highway vehicle use.

* Most areas of critical environmental concern, including riparian areas and Category I desert tortoise areas, contain off-highway vehicle use designations specific to each area. These designations are listed in the management prescriptions for each area in the Special Management Area section for this alternative. In addition, off-highway vehicle use in Kingman Regional Park would be limited to designated roads, trails and navigable washes.

* Off-highway vehicle use on the rest of the planning area would be limited to existing roads, trails and navigable washes. Acreages for each off-highway vehicle designation are listed in Table 9.

Table 9
Alternative 2
Off-Highway Vehicle Designations

OHV Designation	Acres
Open	1,311
Limited to existing roads, trails and washes	1,844,792
Limited to existing roads and trails	106,725
Limited to designated roads, trails and washes	29,007
Limited to designated roads and trails	54,726
Closed by wilderness designation	392,844
Total	2,428,405

Management Guidelines

In areas where off-highway vehicles are limited to existing roads or trails or washes and areas not designated as areas of critical environmental concern, authorized public land users holding a permit or license (i.e., grazing permits, wood permits, hunting licenses, rights-of-way, mining claims, etc.) may drive off roads if required to fulfill their permit or license. Motorized vehicles must park within 100 yards of an existing road or trail for camping.

In areas where off-highway vehicles are limited to designated roads, trails or navigable washes, specific requests and approval by the authorized officer are required prior to any off-highway vehicle use in these areas, including valid permit and license holders as defined in the above paragraph. Off-highway vehicle use for casual use mineral activities will be discouraged without prior filing of a notice of intent. Vehicle parking must be within 50 feet of designated roads, trails or washes.

Visual Resources

A new visual resource management inventory has been completed as part of the resource management planning process. This inventory included the lands that the BLM acquired through exchange and yielded a set of maps which show 82 scenery units, final visual resource management classes and a brief summary narrative of the scenery units. Map 19 shows the visual resource management classes for which lands within the planning area will be managed. Table 16 lists the acreage of each visual resource management class.

Use of the Visual Contrast Rating Worksheet permits the systematic visual evaluation of a proposed action. This assessment process provides a means for determining visual impacts and for selecting measures to mitigate these impacts.

WILD AND SCENIC RIVERS

Same as under *Alternative 1*.

WILDLIFE HABITAT MANAGEMENT

Objectives

The objectives of the wildlife habitat management program are to ensure optimum habitat condition, healthy and viable populations and maintain a natural abundance and diversity of wildlife. This would be accomplished by restoring, maintaining and enhancing habitat conditions. Habitat management plans would be developed and implemented through coordination with other programs, state and federal agencies and interest groups. Specific actions would include integrated monitoring and habitat improvement projects.

Plan Actions

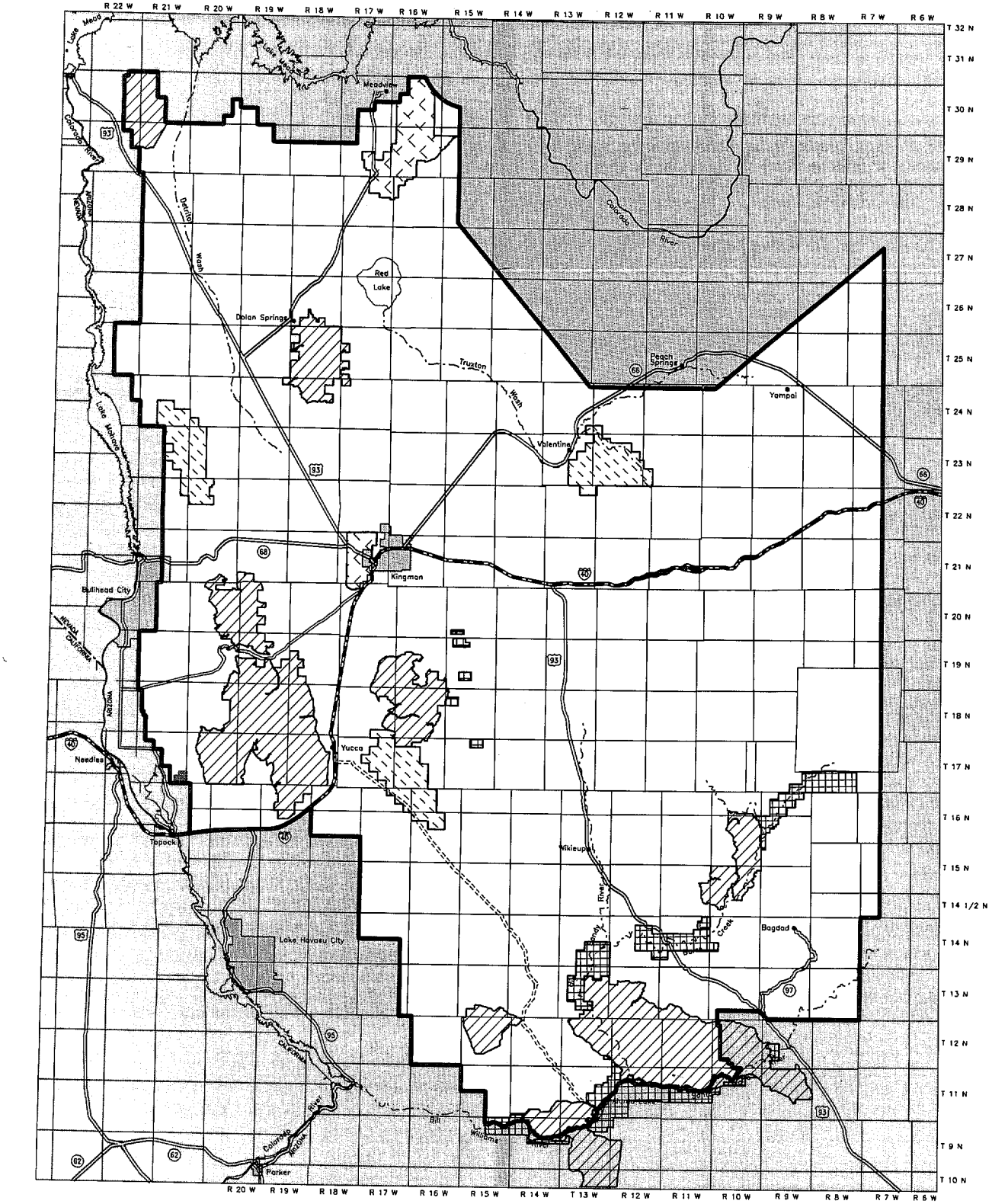
Alternative 2 is similar to *Alternative 1* with increased management emphasis on improvement and maintenance of threatened and endangered species habitat, riparian areas and habitat for priority big game species. Special management areas would be designated to assist the BLM in achieving management goals in crucial habitat areas. Wildlife movement corridors would be established and maintained. Under this alternative, other BLM resource programs would be integrated with wildlife program activities to ensure compatibility with habitat resource demands.

Habitat management plans would be revised to incorporate Resource Management Plan objectives and management prescriptions. Management actions would be developed through the habitat management plan process to achieve specific resource objectives. Habitat and population monitoring study plans would be continued, developed and incorporated into habitat management plans to assure that resource goals are being met.

Thirteen wildlife movement corridors and lands between mountains in southern Mohave County are proposed to ensure that biotic diversity is maintained (see Map 20). Specifications for the corridors have been derived from research information developed for the Central Arizona Project and a similar program in Florida called "Landscape Linkages." The range of width for movement corridors would be two to three miles. Movement corridors have been proposed for the following locations.

1. Highway 68, reestablishing movement between separated portions of the Black Mountains across Union Pass. An overpass across Highway 68 would be planned, funded and built cooperatively by the BLM and state agencies. Two possible locations are the SW1/4NW1/4 and NW1/4SW1/4 of sec. 11, T. 21 N., R. 20 W. and the SW1/4SE1/4 of sec. 10, T. 21 N., R. 20 W.

OFF-HIGHWAY VEHICLE DESIGNATIONS - ALTERNATIVE 2



OPEN

CLOSED

UNSHADED AREAS WITHIN RMP BOUNDARY ARE EXISTING ROADS, TRAILS & WASHES

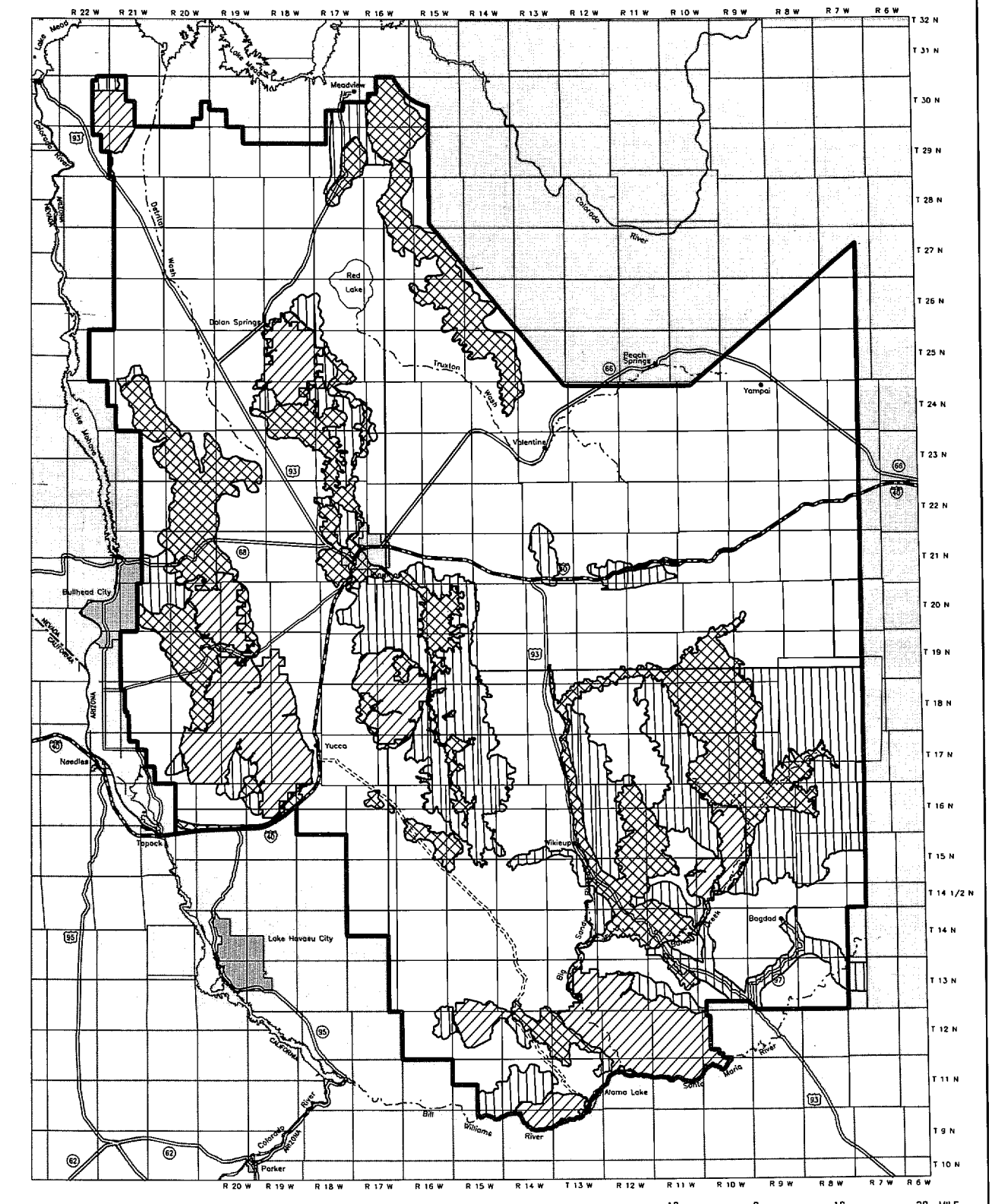
EXISTING ROADS & TRAILS

DESIGNATED ROADS, TRAILS & WASHES

DESIGNATED ROADS & TRAILS

Map 18

VISUAL RESOURCE MANAGEMENT CLASSES



UNSHADED AREAS WITHIN PLANNING BOUNDARY ARE CLASS IV

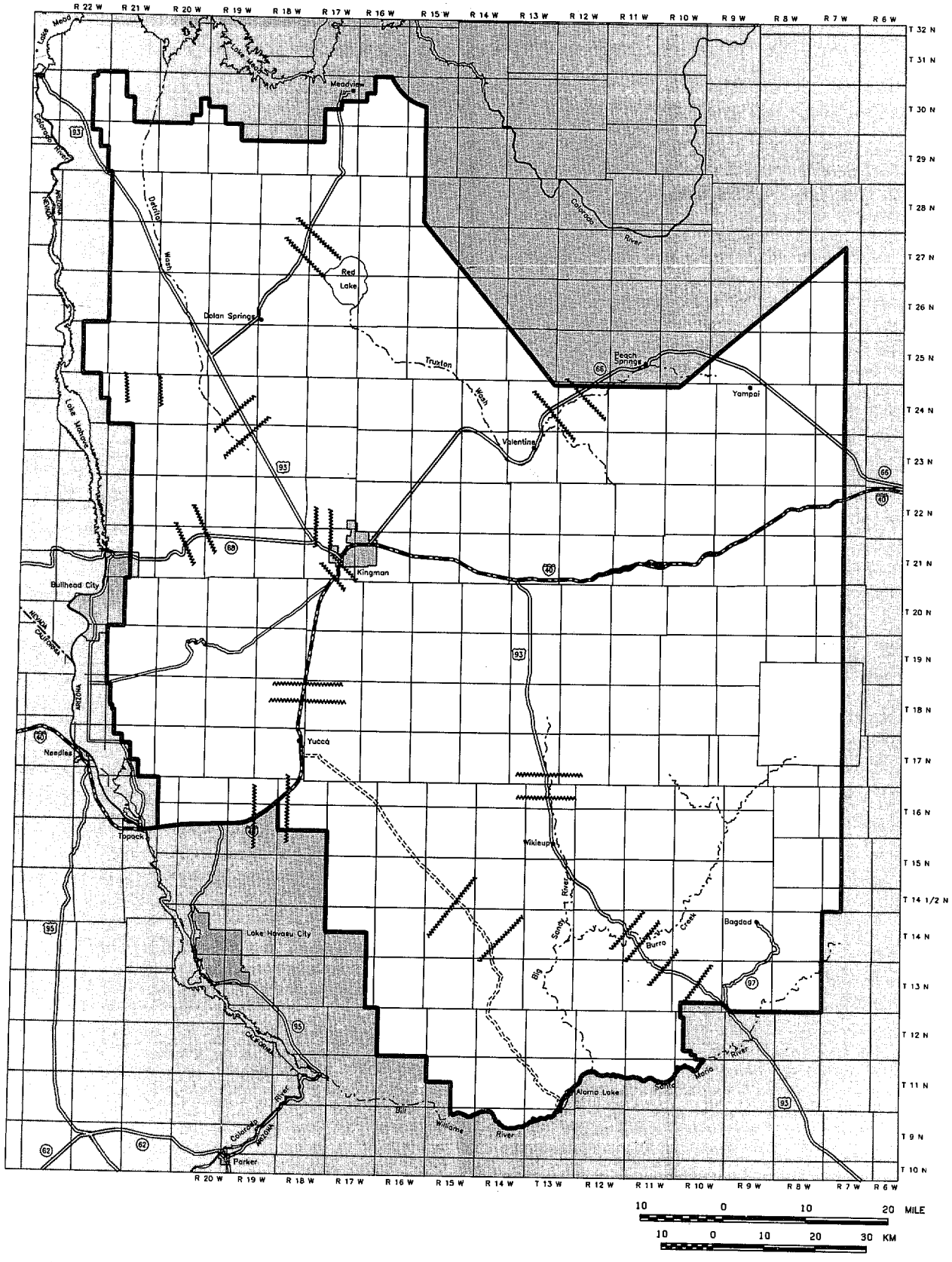
CLASS III

CLASS II

CLASS I

Map 19

WILDLIFE MOVEMENT CORRIDORS ALT 2



Map 20

2. Highway 93 north, connecting the Cerbat and Black mountains (Grasshopper Junction).

3. Highway 93 south, linking the Hualapai and Aquarius mountains (three corridors).

   a. Carrow-Stephens Ranches
   b. Burro Creek
   c. Between the Poachie Range and the Grayback Mountains

4. I-40, connecting the Black and Hualapai mountains (two corridors).

   a. Walnut Creek/Haviland
   b. Buck Mountain Wash

5. Highway 66, linking the Cottonwood and Music mountains.

6. Pierce Ferry Road, linking the Cerbat Mountains and Lake Mead.

7. Cottonwood Road linking portions of the Black Mountains north and south of the road.

8. Highway 93 north near Kingman (Coyote Pass), linking the Cerbat and Hualapai mountains.

9. Alamo Road, linking the McCracken and Hualapai mountains.

10. I-40 near Kingman, linking the Hualapai and Cerbat mountains (Holy Moses Wash).

In southern Mohave County, the Casteneda, McCracken, Aubrey, Rawhide, Artillery and Poachie mountains are currently well linked by movement corridors. Due to the remote nature of these areas, development is low, enabling wildlife to move freely among these mountain ranges. These links would remain in public ownership. Across resource area boundaries, the Bill Williams, Mohave and Buckskin mountains are also well linked with the above mountain ranges, and these links would remain in public ownership.

Future rights-of-way, especially road development, would not fragment these mountain ranges because they are critical to the ongoing survival of wildlife in this region.

These corridors would be managed to maintain, develop or reestablish natural movement of wildlife species while minimizing the death of these animals.

Construction of overpasses or underpasses, culvert modification and fencing designed to allow wildlife movement would be requested of the Arizona Department of Transportation. A total of 46,252 acres would need to be acquired for management and retention of the corridors (see Appendix 20).

Additional corridors may be identified in the future on a case-by-case basis to meet resource management objectives.

General Wildlife Habitat

Management of general wildlife habitat would preserve habitat integrity under all types of land uses. Clearances would continue as proposed under *Alternative 1*.

Big Game

In addition to activities proposed under *Alternative 1*, crucial big game habitat would be designated within the Black Mountains Ecosystem Management and Aubrey Peak Bighorn Sheep habitat areas of critical environmental concern.

Desert bighorn sheep have very specific habitat requirements that can only be met in the presence of certain physical and biological conditions. In addition to the typical requirements for food, water and cover, desert bighorn require sparsely vegetated areas with steep, rocky slopes. The relative size of these habitats must be large to accommodate movements and permit the exchange of genetic material throughout the populations. Habitat partitioning and segregation have been a serious threat to bighorn sheep populations throughout the range of the species. Furthermore, bighorn sheep have shown extreme sensitivity to human disturbance, communicable diseases and interspecific and intraspecific competition for food, water and space.

The Black Mountains are widely recognized as critical to the welfare and continued existence of desert bighorn sheep. They represent the largest contiguous block of desert bighorn sheep habitat in Arizona. This area provides all of the habitat requirements of desert bighorn sheep in an optimal arrangement. Topographic relief provides the essential escape habitat for bighorns through much of the mountain range. Perennial springs provide abundant water over much of the range. Numerous manmade water developments have improved the quality of these habitats by making them available to bighorn year-round. The predominately public ownership of the Black Mountains has protected them from significant habitat disturbance.

While desert bighorn sheep are currently thriving throughout much of their range, their existence was tenuous in the relatively recent past. Because of the bighorn sheep's specific habitat requirements and their inherent sensitivity to environmental disturbance, resource managers must exercise caution in managing conflicting or threatening uses in sheep habitat.

The Black Mountains have been identified as one of the outstanding desert bighorn sheep habitats in Arizona (see area A on Map 9). The forage allocations established for deer, bighorn sheep, wild burros and livestock in the 1978 Cerbat/Black Mountains Grazing Environmental Impact Statement identified complex habitat use conflicts among these ungulates. To resolve these conflicts, available forage would be allocated for each species using the ratios shown in Table 10. A total of 9,500 animal unit months would be allocated for all ungulates in the Black Mountains Ecosystem Management Area of Critical Environmental Concern, Wilson Ridge, and important wild burro habitat to the

west (see area A on Map 9). This would not include areas primarily grazed by cattle, such as the lower elevation areas between the Black Mountains and State Highway 93 (see area B on Map 9); Area B accounts for the 2,500 animal unit months difference between the forage allocations identified in Alternatives 1 and 2). This alternative allows for a realistic forage allocation based on actual use patterns. The forage allocation assures sufficient vegetation remains for protection of non-game animals, wilderness values and watersheds.

Table 10
* PERCENT FORAGE ALLOCATION RATIOS

Desert Bighorn Sheep	Mule Deer	Wild Burros	Cattle
30%	10%	30%	30%

* Forage is allocated to animal units at the ratio of cattle 1:1; bighorn sheep 5:1, deer 4:1 and wild burros 2:1.

The forage allocations shown in Table 10 would be the basis for initial adjustments of ungulate numbers. These allocations will be applied generally over the entire Black Mountains area, but may be differentially applied in a stratified habitat area management concept. Habitat stratification is the delineation of specific habitats preferred by separate ungulate species that are selected for their unique combination of topography, forage, water and cover. These initial allocations may be modified with continuing utilization and habitat trend studies. Management priority would be given to desert bighorn sheep in lambing grounds and high-value bighorn habitat within the Black Mountains Wild Burro Herd Management Area. Desert bighorn sheep habitat has been divided into four stratified habitat areas by the Arizona Game and Fish Department (see Map 33). Stratified habitat areas are classified as Lambing Grounds, High Value, Medium Value and Low Value areas. The classification relates to the quality of topography, forage, water and cover requirements of desert bighorn sheep. In priority areas, burros will not be excluded from historic areas without development of an alternative water strategy. Overlap may occur in joint use areas.

Where population overlaps and significant competition for habitat exists among ungulates, data would be compiled and analyzed through studies (research, monitoring, inventories, etc.) to identify the crucial elements of each species' habitat. This would include food, water, cover and space. As these elements are identified, forage allocation ratios would be refined and adjusted. Through consultation and coordination with the Arizona Game and Fish Department, wildlife population adjustments would be made based on analysis of integrated habitat monitoring data and resource objectives.

Aubrey Peak provides crucial habitat for desert bighorn sheep in the southern portion of the resource area (see area D on Map 9). The most limiting factors for bighorn sheep in this portion of the area are lambing ground habitat and water. Aubrey Peak is the only habitat in the southern portion which provides a combination of these crucial factors and supports a resident herd of bighorn sheep. As a result, Aubrey Peak is the biological key to desert bighorn sheep herds within a complex of mountain ranges in the Lower Bill Williams watershed. Forage allocations for bighorn sheep, mule deer and livestock were proposed in the 1981 Hualapai-Aquarius Grazing Environmental Impact Statement. Use overlap was not identified as a conflict as forage was not allocated for livestock on slopes greater than 50 percent, based upon the BLM's livestock grazing suitability criteria. In addition, competition for forage among mule deer and bighorn sheep is minimal due to low population levels of deer and differences in forage preference. Prevalent conflicts occurring in the Aubrey Peak area are human activities associated with mining, off-highway vehicle travel and development of communication sites.

No domestic or feral sheep or goats will be allowed within nine miles surrounding desert bighorn habitat unless a cooperative agreement has been reached to the contrary. Domestic sheep and goats will be trucked rather than trailed when trailing would bring sheep and goats closer than nine miles to occupied desert bighorn ranges.

Activities (excluding work on mining claims) which could harm lambing or rearing of newborn bighorn sheep in the Black Mountains, Aubrey Peak or other future or existing lambing areas would be excluded from December 1 to May 31.

Mineral leasing would be allowed on identified lambing grounds with special stipulations (see Map 33) and management prescriptions in the Black Mountains Ecosystem Management and Aubrey Peak areas of critical environmental concern. Elsewhere, mineral leasing would be allowed in riparian areas with a no surface occupancy stipulation (see Map 11).

Guidelines used to develop mineral leasing stipulations include soil moisture conditions, soil characteristics and time of year or season.

A total of 22,962 acres would have a seasonal no surface occupancy stipulation.

Pronghorn antelope habitat on public lands would be managed according to existing habitat management plans to support 400 animal unit months on Goodwin Mesa and 300 animal units around Cherokee Point. Habitat would be improved to provide crucial spring forbs necessary for fawn survival and other habitat components important for increasing the size of the antelope population.

As new information is obtained on the distribution and habits of elk and their associated impacts in the Hualapai Mountains, existing habitat management plans would be revised and updated cooperatively with the U.S. Fish and Wildlife Service and the Arizona Game and Fish Department. Potential conflicts exist between elk and the endangered Hualapai Mexican vole in the Hualapai Mountains. Detailed information concerning

these conflicts is found in the Special Status Species section below and in the Special Management Areas section, Hualapai Mountain Research Natural Area/Area of Critical Environmental Concern.

SPECIAL STATUS SPECIES MANAGEMENT

Objectives

The objectives of special status species management are to provide for the recovery of listed species, to manage other species to avoid the need to federally list them and to improve habitat of special status species.

Plan Actions

Special management areas are proposed to protect special status species. Other areas may be established to meet the need to protect habitat of other species as determined by further studies and inventory.

Plant Species

This alternative is the same as under *Alternative 1* with the additional protective management specified below. For specific management prescriptions, see the areas of critical environmental concern described in the Special Management Areas section in this alternative.

Arizona cliffrose: Of the five known populations of the endangered Arizona cliffrose (*Purshia subintegra*), two are on public lands in the resource area, two are 20-acre sites and the other is a 1,114-acre area in the Clay Hills. The Arizona cliffrose is threatened by site-specific mining activity of pharmaceutical quality clay, grazing, existing rights-of-way and recreational activities such as rockhounding and off-highway vehicle use in the immediate area. The Clay Hills Natural Area/Area of Critical Environmental Concern would be designated to protect existing populations and enhance recovery of habitat through resolution of conflicting uses.

Cerbat beard-tongue: The Cerbat beard-tongue (*Penstemon bicolor ssp. roseus*), a federal candidate Category 2 species, is a rare plant found in the Black Mountains and Wilson Ridge of northwestern Arizona. This species is thought to be impacted by grazing, off-highway vehicle use in washes and surface mining activities. It is known to occur in the Black Mountains Ecosystem Management Area of Critical Environmental Concern and would be monitored to determine if detrimental resource impacts are occurring on populations outside the area versus inside the area.

White-margined penstemon: The white-margined penstemon (*Penstemon albomarginatus*) is a federal candidate Category 2 species found in northwestern Arizona near Yucca. The only additional known population is a very limited site in southeastern California. Public lands in Arizona provide the most significant habitat area known for this species. It is threatened primarily by destruction of habitat from construction of roads and houses. Off-highway vehicle use and construction and maintenance of utility rights-of-way are also of concern. The 17,489-acre White-Margined Penstemon Reserve Area of Critical Environmental Concern would be designated to enhance species protection and recovery of habitat and resolve use conflicts.

Animal Species

Special status species would be protected as proposed under *Alternative 1*. In addition, several areas of critical environmental concern would be designated to protect federally listed, threatened or endangered species. More detailed descriptions of relevance, importance, goals, objectives and management prescriptions are found in the Special Management Areas section of this alternative, in Table 11 and in the Special Management Areas section of this alternative.

Hualapai Mexican vole: The Hualapai Mountains provide the only known habitat for the federally endangered Hualapai Mexican vole. Ungulates graze the wet areas and spring sites which are critical components of the vole habitat. In the 1920s, elk were introduced into the Hualapai Mountains. Livestock have grazed the area since the late 1880s. However, the extent of impacts from elk and livestock grazing on vole habitat are unknown at this time. Other conflicts detrimental to vole habitat include mining, off-highway vehicle use, road construction, picnicking and camping in key areas. The Hualapai Mexican Vole Recovery Plan has been prepared and emphasizes these same concerns. The Hualapai Mountain Research Natural Area/Area of Critical Environmental Concern would be established to resolve use conflicts and implement the Hualapai Mexican Vole Recovery Plan. The BLM would monitor the impact of elk and livestock grazing and recreation on vole habitat.

Peregrine falcon: The Grand Wash Cliffs in the northeast portion of the resource area provide important nesting habitat for the federally listed peregrine falcon. The open spaces surrounding these cliffs provide key hunting habitat for peregrine falcons. This area is one of three known aeries in the resource area. Peregrine falcon habitat management would be emphasized in the Joshua Tree Forest-Grand Wash Cliffs Area of Critical Environmental Concern. The area would be managed in a manner compatible with the American Peregrine Falcon Recovery Plan (1984). Peregrine falcon habitat in other areas would be managed in a similar manner.

Bald eagle: Riparian zones within the resource area provide crucial nesting and wintering habitat for both southern and northern bald eagles. Three of the 26 known nesting pairs of bald eagles in Arizona and New Mexico occur in the resource area. In addition, riparian zones and water systems provide key recreational opportunities and important water and forage for livestock and wild burros. The Three Rivers Riparian and the Burro Creek Riparian and Cultural areas of critical environmental concern would be established to balance the resource demands on the habitat within these riparian zones. Management would include improvement and protection of riparian and aquatic habitats through more intensive management as outlined in the Special Management Areas section in this alternative.

Desert tortoise: The Sonoran population of the desert tortoise is a candidate for federal listing as an endangered species. Desert tortoise habitat is found on boulder-strewn hills and in steep, rocky terrain. The habitat is usually dominated by ocotillo, saguaro and paloverde vegetation. In keeping with the BLM's Desert Tortoise Rangewide Plan (1988), areas of crucial tortoise habitat were identified and assigned priorities. The McCracken and Poachie mountains were identified as the most significant tortoise habitat in the resource area, outside of wilderness areas. Forage in desert tortoise habitat is also being utilized by livestock, wild burros, bighorn sheep, javelina and deer. Potential conflicts for desert tortoise exist due to grazing pressure from ungulates.

Additional conflicts may result from human surface-disturbing activities. The management prescriptions within the McCracken and Poachie areas of critical environmental concern are designed to reduce or resolve these conflicts with desert tortoise.

RIPARIAN AREA MANAGEMENT

Objective

Same as under *Alternative 1*.

Plan Actions

Same as under *Alternative 1* except the most significant riparian areas (Burro, Francis, Wright and Cottonwood creeks, the Big Sandy, Santa Maria and Bill Williams rivers and Alamo Lake) would be designated as areas of critical environmental concern and plans would be developed for these areas (see Table 5).

Management prescriptions necessary to protect and improve these riparian areas are described in the Special Management Areas section below and in Table 11. Mineral closures for areas of critical environmental concern are found in appendices 10 and 11.

Riparian zones are the most productive and sensitive habitats within the Sonoran and Mohave deserts and are used by wildlife more than any other habitat type. They support species found nowhere else except in riparian zones.

Strips of riparian woodland, such as cottonwood-willow communities, provide nesting habitat, aquatic habitat, movement corridors and havens of refuge and food sources for species not common to the southwest, but which must cross the desert during their migrations.

In addition, properly functioning riparian areas enhance watershed values such as water storage, long-term flow, reduction of peak flows, flooding, erosion and regeneration and maintenance of riparian communities.

Smaller riparian areas such as springs, seeps, canyon bottoms and other water-influenced areas would be managed to improve riparian conditions. Riparian improvement techniques could include, but are not limited to, construction of exclosure fences around riparian zones and piping of water outside to grazing animals, rotation of livestock grazing and development of alternate water sources.

HAZARDOUS MATERIALS MANAGEMENT

Objective

The objective is to reduce hazards to the public and natural resources on public lands from toxic materials.

Plan Actions

Plot location of land uses which use or generate toxic materials in groundwater basins. All authorized uses on public lands would be monitored through mining plans of operation, mining notices, environmental assessments, right-of-way stipulations, etc., to ensure that the use of hazardous materials is in compliance with existing laws and regulations.

Through an interdisciplinary team effort, known or possible conditions which might contaminate aquifers or riparian systems would be outlined. All mines using hazardous materials would be required to institute measures to meet the requirements of all pertinent environmental laws as addressed in 43 CFR 3809.2-2. State and federal laws would be enforced.

WILD AND FREE-ROAMING HORSE AND BURRO MANAGEMENT

In addition to the management proposed in *Alternative 1*, the Black Mountains Ecosystem Management Area of Critical Environmental Concern would be designated in the Black Mountains Herd Management Area.

The Wild Free-Roaming Horse and Burro Act of 1971 (Public Law 92-195, as amended) established policy regarding management of wild free-roaming horses and burros on the public lands. Congress found wild horses and burros to be "living symbols of the historic and pioneer spirit of the West." These animals were identified as "an integral part of the natural system" in those areas where populations existed at the passage of the Act.

Three wild horse and burro herd management areas were identified in the Kingman Resource Area, based on population inventories following passage of the Act. These areas are the Big Sandy, the Cerbat and the Black Mountains herd management areas. Approximately 25 percent of the nation's wild burro population is found on BLM-administered lands in these three areas. Animals may not be relocated to areas where populations did not exist in 1971 (Public Law 92-195, Sec. 9). The herds are managed to assure their free-roaming character, health and self-sustaining ability in a thriving ecological balance.

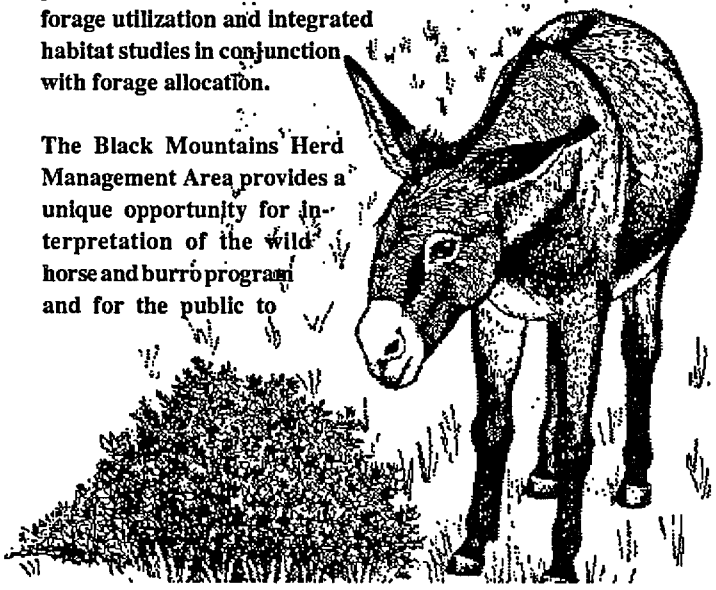
Wild horse and burro management on public lands requires maintenance of a herd inventory, habitat monitoring and the removal and placement of excess animals to the public for adoption.

Detailed estimates of wild horse and burro forage allocations are presented in the Cerbat/Black Mountains and Hualapai-Aquarius grazing environmental impact statements. Both are on file at the BLM office in Kingman. These allocations will be carried forward except where modified when habitat monitoring indicates the need for changes.

The Black Mountains have been identified as one of the BLM's outstanding wild burro herd areas in the West (see area A and B on Map 9). The forage allocation established for deer, bighorn sheep, wild burros and livestock in the 1978 Cerbat/Black Mountains Grazing Environmental Impact Statement identified complex habitat use conflicts among these ungulates. To resolve these conflicts, available forage would be allocated for each species using the ratios in Table 10. This alternative allows for a realistic forage allocation based on actual use patterns. The forage allocation assures sufficient vegetation remains for protection of non-game animals, wilderness values and watersheds.

Forage allocation percentages will serve as a starting point for habitat monitoring. Where ungulate populations overlap, data would be compiled and analyzed through studies (research, monitoring, inventories, etc.) to identify the crucial elements of each species' habitat. This would include food, water, cover and space. As these elements are identified, forage allocation ratios would be refined. Monitoring will determine which ungulate species are using an area and determine the percentage of forage used by each species. Ungulate population adjustments would be made based on analysis of integrated habitat monitoring data and resource objectives and in consultation and coordination with other state and federal government agencies and interested publics. Removal of excess burros will be authorized based on forage utilization and integrated habitat studies in conjunction with forage allocation.

The Black Mountains Herd Management Area provides a unique opportunity for interpretation of the wild horse and burro program and for the public to observe wild burros on public lands. Initially, roadside signs interpreting wild burro management and providing information on the species and its role in the West would be placed at viewing areas along the Historic Route 66 Back Country Byway. Other routes in the herd management area would be considered on a case-by-case basis. In addition, the BLM would consider the designation of a wild burro range after further review and study on a state-wide basis. Any designation proposal would be developed in consultation and coordination with other state and federal agencies and interested publics.



The Big Sandy Herd Management Area would be managed to support a genetically viable population of burros defined as a minimum of 50 effective breeding animals (see Map 9a). Integrated habitat monitoring would be developed to determine forage allocations necessary to support a thriving natural ecological balance among all ungulates using the Area. Population adjustments would be based on analysis of integrated monitoring data and resource objectives, and in consultation with other government agencies and interested publics. Riparian habitat objectives would be developed in new resource activity plans and revisions of existing plans.

The boundary of the Cerbat Herd Management Area would be identified using the initial 1974 inventory of wild horse and burro use areas recorded in the Cerbat Mountain Unit Resource Analysis (see Map 9a). This delineation would determine a manageable wild horse unit through identification of the resources needed to sustain a free-roaming population of wild horses. Additional resources such as water, escape cover and other crucial habitat components would also be analyzed. The BLM would seek to acquire suitable resource components existing in private ownership through exchange or purchase with willing sellers or through cooperative agreements with private landowners (see habitat acquisition areas on Map 9a). Approximately 39,000 acres is identified for acquisition and addition to the Cerbat Herd Management Area (see map 9a).

In some situations, wild horses are benefiting from privately owned water sources. The BLM recognizes that livestock permittees are under no obligation to continue to provide water to wild horses. If private waters are no longer available, the BLM will develop waters to keep the horses in their present range on public lands and support a viable wild horse population. In 1992, two BLM waters were developed to support the Cerbat horse herd.

In addition to determining and incorporating a manageable wild horse use area, the BLM would determine the population structure necessary for a viable herd. Integrated habitat monitoring would allow the BLM to determine forage allocations necessary to support a thriving natural ecological balance among all ungulates using the Cerbat Herd Management Area. Studies would also be initiated to identify the ecological niche currently being occupied by the Cerbat wild horses and to determine wild horse

social behavioral traits, genetic viability and habitat use patterns including crucial habitat components. If proper forage use limits are exceeded when the wild horses are at or below the minimum viable population limit, livestock numbers would be reduced and the BLM would recommend to the Arizona Game and Fish Department that deer be reduced accordingly. If the wild horse population is above the minimum viable level, an equitable reduction in grazing allocation among wild horses, wildlife and livestock would occur based on forage utilization and integrated habitat studies.

SUPPORT SERVICES

Objective

The objective is to provide the services needed to support all the resource programs and the assistance needed to meet their program objectives.

Plan Actions

Access

The following actions would be implemented to improve access to public lands. **None of the proposed actions imply taking private property. Access would be acquired through working cooperatively with private landowners and would involve a willing seller. Actions would occur only after compliance with the National Environmental Policy Act. Additional access and improvements may be acquired as new needs and opportunities are identified.**

1. Acquire legal vehicular access across private and state lands on 24 roads and trails (see **Appendix 23**).
2. Acquire legal administrative and public access on the Burro Creek hiking/equestrian trail across the private lands in secs. 10, 11, 15, 23 and 24, T. 14 N., R. 12 W. and in sec. 35, T. 15 N., R. 12 W.
3. Reserve legal access for administrative and public vehicular use on Putman Road when the public lands in secs. 15 and 22, T. 24 N., R. 19 W. are conveyed out of federal ownership.
4. Improve nine roads and trails (see **Appendix 24**).
5. Build hiking/equestrian trail systems as identified in **Table 16**.

Acquisitions

Table 6 and appendices 10, 11, 20, 21 and 22 describe proposed acquisitions to be obtained through exchange, donation or purchase with Land and Water Conservation Fund monies including lands with high values in wildlife, recreation, wilderness, cultural, riparian and special status plant and animal resources.

Lands acquired through exchange, donation, fee simple purchase or other means, lying within special management areas (such as areas of critical environmental concern, designated wilderness areas, special recreation management areas, etc.) will become part of the special management area at the time of acquisition. Management objectives for these acquired lands will be identical to those for their special management area.

Law Enforcement

The resource area would need more rangers to provide the area with resource protection and public safety through on-the-ground patrols. With growth projected at 200 to 300 percent in the next 10 to 15 years, the use of public lands and resources will increase at roughly the same rate. Reported fuelwood and native plant thefts, vandalism, occupancy trespass and illegal dumping are increasing. Also, wilderness designation would increase the need for patrolling wilderness areas.

A law enforcement plan **would be developed** to determine the number of rangers needed and duties of the resource area law enforcement staff.

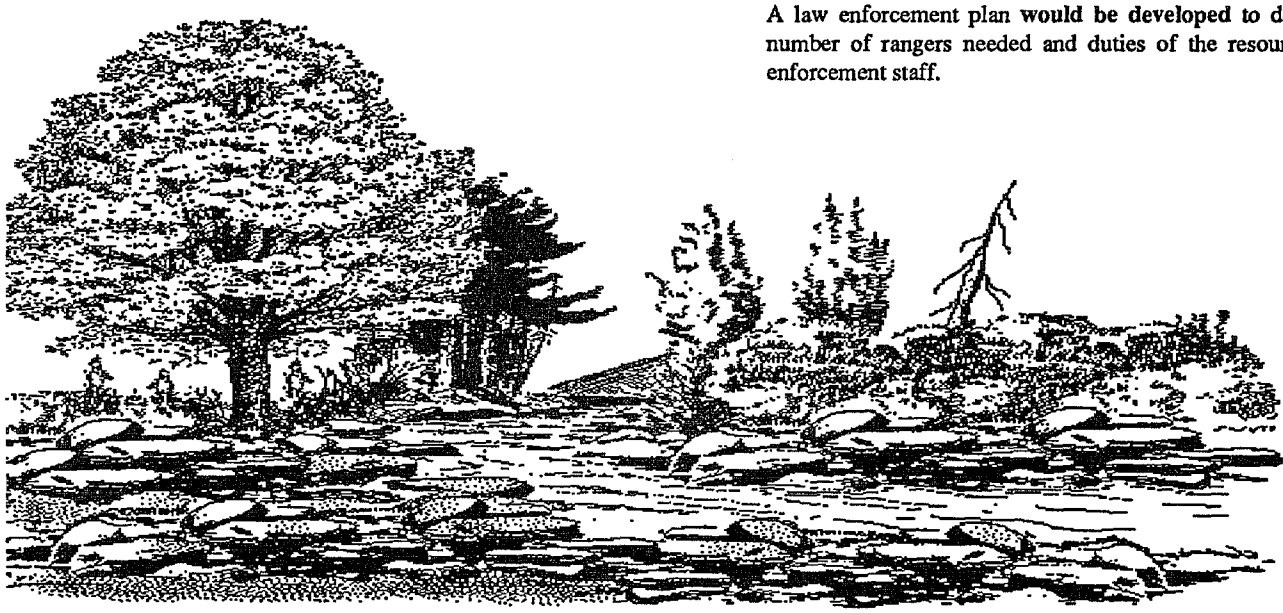


Table 11
ALTERNATIVE 2 SUMMARY OF MANAGEMENT PRESCRIPTIONS FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Special designations are proposed to help protect special status plants and animals, cultural values, scenic values and wildlife and riparian resources.

Site Name and Designation	Values	Lands	Minerals	Range and Watershed Management	Cultural	Recreation and OHVs	Wildlife and T&E	Riparian	Vegetative Products
Joshua Tree Forest-Grand Wash Cliffs ACEC (39,060 acres)*	Unique vegetation; outstanding scenic values; rare cultural resources; peregrine falcon aerie	Acquire private and state lands and minerals; do not allow Recreation and Public Purposes and limit communication facilities to designated sites; route major rights-of-way away from the ACEC; implement withdrawal decisions; prohibit road developmeent withn 1/2 -mile of peregrine aeries	Require mining plans of operation and mandatory bonding **for other than casual use**; allow mineral leasing subject to stipulations	Revise existing allotment management plan to incorporate Joshua tree desired plant community description objectives	Prepare site project plans	Limit off-highway vehicles to designated roads, trails and washes; plan scenic overlooks and interpretive sites; recreation facilities would be in harmony with the natural environment and protect scenic values	No intensive recreation within 1/4 mile of aerie from March 1 to June 15; prohibit helicopter flights within 1/2 mile of aerie from March 1 to June 15		Prohibit removal of native plants except for salvage operations
Black Mountains Ecosystem Management ACEC (114,242 acres)*	Premiere bighorn sheep **and wild burro** habitat; federal candidate plant species habitat; outstanding scenic values; open space near major population centers; rare and outstanding cultural resources; high locatable mineral potential	Acquire identified state and private lands and minerals; confine new major rights-of-way to existing corridors; limit new communication facilities to existing sites; restrict activities in bighorn lambing grounds from 12/1 through 5/31 and wild burro foaling grounds from 5/1 to 7/31	Require mining plans of operation and mandatory bonding **for other than casual use**; allow mineral leasing subject to stipulations	Manage livestock and burro grazing to achieve bighorn sheep, **wild burro, deer** and Cerbat beard-tongue desired plant community description objectives and improve Cerbat beard-tongue habitat; classify allotments within nine miles of bighorn sheep habitat for grazing by cattle only	Prepare site-specific project plans	Limit off-highway vehicles to existing roads, trails and washes; to roads and trails in Cerbat beard-tongue habitat	**Maintain viable desert bighorn sheep populations in a thriving natural ecological balance with the habitat;** inventory and map Cerbat beard-tongue, **Mohave sandpaper bush and Mohave cottonthorn** populations and **begin monitoring studies**	Maintain existing riparian exclosures around springs; fence Burns Spring Wash riparian zone; improve riparian conditions elsewhere as opportunities arise	Harvest of native plants must be compatible with other resource values or limitations/ exclusions will be imposed

* Public land surface acres

(continued)

Table 11 (continued)
ALTERNATIVE 2 SUMMARY OF MANAGEMENT PRESCRIPTIONS FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Site Name and Designation	Values	Lands	Minerals	Range and Watershed Management	Cultural	Recreation and OHVs	Wildlife and T&E	Riparian	Vegetative Products
Wright-Cottonwood Creeks Riparian and Cultural ACEC (27,285 acres)*	Rare and outstanding cultural resources; outstanding potential riparian resources	Acquire state and private lands and minerals; confine new major rights-of-way to existing corridors; implement withdrawal	In riparian zone, withdraw **4,570 acres** from mineral entry, allow mineral leasing with no surface occupancy and do not allow mineral material disposals; require mining plans of operation and mandatory bonding **for other than casual use elsewhere**	Manage livestock grazing to achieve riparian desired plant community objectives	Prepare site-specific project plans, conduct inventories, evaluate cultural resources and conduct historical research	Limit off-highway vehicle use to existing roads and trails; do not allow developed campgrounds in 100-year floodplain		File for instream flow water rights; continue Riparian Area Condition Evaluation inventory; designate Wright Creek as a demonstration riparian area and develop a demonstration plan	Prohibit removal of native plants
Hualapai Mountain Research Natural Area ACEC (3,303 acres)*	**Crucial** habitat for federally listed voles; riparian resources	Acquire private lands; do not allow communication sites; route rights-of-way around the ACEC; acquire nonfederal minerals; implement withdrawal decisions	Withdraw **2,186 acres** from mineral entry, do not allow mineral material disposals **and** allow mineral leasing with no surface occupancy; **require mining plans of operation and mandatory bonding including casual use**	Exclude livestock **and elk** from crucial habitat; graze surrounding watersheds to accomplish vole habitat desired plant community description objectives and reduce soil and flood damage to vole habitat		Limit off-highway vehicle use to designated roads and trails; do not allow developed facilities develop interpretive and educational materials	Implement a species recovery plan; develop a cooperative agreement with other agencies; promote public appreciation of endangered species; **initiate a formal Section 7 consultation prior to approval of mining plans of operation; exclude elk from current and historically occupied vole habitat**	File for instream flow water rights	Prohibit removal of native plants.

* Public land surface acres

(continued)

Table 11 (continued)
ALTERNATIVE 2 SUMMARY OF MANAGEMENT PRESCRIPTIONS FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Site Name and Designation	Values	Lands	Minerals	Range and Watershed Management	Cultural	Recreation and OHVs	Wildlife and T&E	Riparian	Vegetative Products
White-Margined Penstemon Reserve ACEC (17,489 acres)*	Crucial habitat for the white-margined penstemon and desert tortoise	Acquire private and state lands and minerals; confine new major rights-of-way to existing corridors	Require mining plans of operation and mandatory bonding for other than casual use; allow mineral leasing subject to stipulations	Manage livestock grazing to achieve white-margined penstemon desired plant community description objectives		Limit off-highway vehicle use to designated roads and trails; do not allow developed recreation facilities	Monitor white-margined penstemon and desert tortoise populations; support research on population dynamics; develop a coordinated resource management plan and include objectives for white-margined penstemon and desert tortoise		Prohibit removal of native plants except for salvage operations
Carrow-Stephens Ranches ACEC (542 acres)*	Excellent historic sites and paleontological resources	Confine rights-of-way to the area west of Highway 93; acquire non-federal surface and subsurface; implement withdrawal decisions	Withdraw 524 acres from mineral entry, allow mineral leasing with no surface occupancy and do not allow mineral material disposals; require mining plans of operation and mandatory bonding, including casual use	Fence the area and remove it from consideration for public livestock grazing	Prepare a site project plan; plan inventories and interpretation of existing resources	Limitoff-highway vehicle use to designated roads and trails; develop plans for recreation facilities and visitor use in a special recreation management area plan		File for water rights on springs and for instream flow	Prohibit removal of native plants
McCracken Desert Tortoise Habitat ACEC (21,740 acres)*	Excellent habitat for desert tortoise; scenic values; important backcountry recreation opportunities	Acquire private and state land and minerals; confine new major rigths-of-way to existing corridors; do not allow communication sites	Require mining plans of operation and mandatory bonding for other than casual use; allow mineral leasing subject to stipulations	Manage ungulate grazing to achieve desert tortoise desired plant community description objectives		Limit off-highway vehicle use to existing roads, trails and washes; do not allow developed recreation facilities; plan for dispersed backcountry recreation	Conduct inventories and monitor habitat condition; assess impacts of ungulate grazing and make necessary adjustments in ungulate numbers and grazing season		Prohibit removal of native plants except for salvage operations

* Public land surface acres

(continued)

Table 11 (continued)
ALTERNATIVE 2 SUMMARY OF MANAGEMENT PRESCRIPTIONS FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Site Name and Designation	Values	Lands	Minerals	Range and Watershed Management	Cultural	Recreation and OHVs	Wildlife and T&E	Riparian	Vegetative Products
Poachie Desert Tortoise Habitat ACEC (32,752 acres)*	Excellent habitat for desert tortoise; scenic values; important backcountry recreation opportunities	Acquire private and state lands and minerals; confine new major rights-of-way to existing corridors; do not allow new communication site development	Require mining plans of operation and mandatory bonding for other than casual use; allow mineral leasing subject to stipulations	Manage ungulate grazing to achieve desert tortoise desired plant community objectives		Limit off-highway vehicle use to existing roads and trails; do not allow developed facilities; plan for dispersed backcountry recreation	Conduct inventories; monitor habitat condition and assess impacts of ungulate grazing; make necessary adjustments in ungulate numbers and grazing season		Prohibit removal of native plants except for salvage operations
Aubrey Peak Bighorn Sheep Habitat ACEC (3,460 acres)*	Excellent bighorn sheep habitat; outstanding scenic values	No activity from 12/1 to 5/31; route new major rights-of-way around the ACEC; do not allow communication sites; acquire nonfederal minerals	Require mining plans of operation and mandatory bonding for other than casual use; allow mineral leasing subject to stipulations	Manage livestock grazing to achieve bighorn sheep desired plant community objectives		Limit off-highway vehicle use to existing roads , trails and washes; do not allow developed facilities; plan for dispersed backcountry recreation	Monitor wildlife habitat improvement projects (water developments) annually; manage bighorn sheep habitat for desired plant community		Prohibit removal of native plants
Burro Creek Riparian and Cultural ACEC (22,682 acres)*	Outstanding riparian resources; rare and outstanding cultural resources; important threatened and endangered habitat	Acquire identified private and state lands and minerals; confine new major rights-of-way to existing corridors; implement withdrawal decisions	In riparian zone, withdraw 5,160 acres from mineral entry, allow mineral leasing with no surface occupancy and do not allow mineral material disposals; require mining plans of operation and mandatory bonding for other than casual use; allow mineral leasing with stipulations elsewhere	Manage livestock and burro grazing to achieve threatened and endangered and riparian habitat desert plant community objectives	Prepare site-specific project plans; plan for inventories and evaluate, sign and monitor selected cultural resources; promote scientific study; stabilize selected sites	Limit off-highway vehicle use in riparian areas to designated roads, trails and crossings; plan facilities outside 100-year floodplain	No intensive recreation within 1/4 mile of aerie from 1/1 to 6/1; prohibit helicopter flights within 1/2 mile of aerie from 1/1 to 6/1; assist in statewide bald eagle nestwatch program; monitor black-hawk breeding activities	Acquire water rights; acquire data to support and perfect instream flow water rights; continue to monitor water quality, including heavy metals; continue riparian area condition evaluation inventory	Prohibit removal of native plants except for salvage operations

* Public land surface acres

(continued)

Table 11 (continued)
ALTERNATIVE 2 SUMMARY OF MANAGEMENT PRESCRIPTIONS FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Site Name and Designation	Values	Lands	Minerals	Range and Watershed Management	Cultural	Recreation and OHVs	Wildlife and T&E	Riparian	Vegetative Products
Clay Hills Research Natural Area ACEC (1, 114 acres)*	Crucial habitat for Arizona cliffrose	Route new rights-of-way around the ACEC; implement withdrawal decisions	Withdraw **1,114 acres** from mineral entry and mineral leasing and do not allow mineral material disposals; **require mining plans of operation and mandatory bonding, including casual use;** seek voluntary relinquishment of mining claims	Continue to exclude grazing by livestock and burros		Limit off-highway vehicle use to designated roads and trails; prohibit camping	Implement recovery plan; post the area with native plant protection signs; monitor status of *Purshia* within exclosure; monitor effects of browsing on *Purshia;* **initiate a formal Section 7 consultation prior to approval of a mining plan of operation**		Prohibit removal of native plants
Three Rivers Riparian ACEC (32,043 acres)*	Outstanding existing and potential riparian resources; threatened and endangered habitat; recreation values	Acquire private and state lands and minerals; confine new major rights-of-way to existing corridors; implement withdrawal decisions; prohibit road development within 1/2 mile of bald eagle aeries	In riparian zone, withdraw **10,228 acres** from mineral entry, allow mineral leasing with no surface occupancy and do not allow mineral material disposals; require mining plans of operation and mandatory bonding **for other than casual use;** allow mineral leasing with stipulations elsewhere	Manage livestock grazing to achieve threatened and endangered and riparian habitat desired plant community description objectives		Limit off-highway vehicle use in riparian areas to designated roads and trails; plan developed recreation facilities outside of 100-year floodplain	No intensive recreation within 1/4 mile of aerie from 1/1 to 6/1; prohibit helicopter flights within 1/2 mile of aerie from 1/1 to 6/1; assist in the statewide bald eagle nest watch program; monitor and assess habitat condition	File for instream flow water rights; continue riparian area condition evaluation inventory **and monitoring**	Prohibit removal of native plants except for salvage operations

* Public land surface acres

Table 12
Alternative 2 Mineral Closures

Name	Closed to Mineral Material Disposals	Withdrawn from Mineral Entry	Mineral Leasing No Surface Occupancy	Withdrawn from Mineral Leasing
Joshua Tree Forest - Grand Wash Cliffs	**0**	**0**	**0**	**0**
Black Mountains	**0**	**0**	**0**	**0**
Wright-Cottonwood Creeks Riparian and Cultural	**4,570**	**4,570**	**4,570**	**0**
Hualapai Mountain	**2,186**	**2,186**	**2,186**	**0**
White-Margined Penstemon	**0**	**0**	**0**	**0**
Carrow-Stephens Ranches	**542**	**542**	**542**	**0**
McCracken Desert Tortoise Habitat	**0**	**0**	**0**	**0**
Poachie Desert Tortoise Habitat	**0**	**0**	**0**	**0**
Aubrey Peak Bighorn Sheep Habitat	**0**	**0**	**0**	**0**
Burro Creek Riparian and Cultural	**5,160**	**5,160**	**5,160**	**0**
Clay Hills Research Natural Area	**1,114**	**1,114**	**0**	**1,114**
Three Rivers Riparian	**10,228**	**10,228**	**10,228**	**0**
Campgrounds	**500**	**500**	**500**	**0**
Total Public Land Acres*	**24,300**	**24,300**	**23,186**	**1,114**

* The acreages were obtained from the Geographic Information System. Margin of error is ± one percent.

SPECIAL MANAGEMENT AREAS

Objectives

Special designations are proposed to help protect special status plants and animals, cultural values, scenic values and wildlife and riparian resources.

Plan Actions

Twelve areas of critical environmental concern are proposed, totalling 315,712 acres. The citizens of Meadview have stated that they want stronger protection for the Joshua Tree Forest-Grand Wash Cliffs than can be afforded by an area of critical environmental concern. They have requested that the BLM pursue national conservation area status to improve protection for this area. The National Park Service has also expressed strong support for this action (see Map 21). Another area of critical environmental concern (Carrow-Stephens) is also proposed as a special recreation management area, covering 542 acres. Areas of critical environmental concern would be managed under principles of multiple use. Existing and proposed uses would be evaluated for compatibility with area of critical environmental concern goals and objectives. Management strategies would be developed in activity plans to conform with management prescriptions outlined in each area. Existing uses not compatible with area of critical environmental concern values would be eliminated, mitigated or modified to lessen adverse impacts. It is the intent of the BLM to facilitate public access (ranchers, hunters, etc.) while protecting natural resource values. All actions will occur only after compliance with the National Environmental Policy Act.

Lands proposed for area of critical environmental concern now covered by wilderness have been dropped from consideration for area of critical environmental concern status. However, in these areas, management prescriptions to protect sensitive resources in wilderness will be included in wilderness management plans.

One area of critical environmental concern proposed in the draft Resource Management Plan (1990) has been dropped from further consideration in this alternative. The proposed Western Bajada Area of Critical Environmental Concern was identified to protect desert tortoise habitat and sensitive cultural resources. Further site-specific inventory indicated high levels of surface disturbance due to the proximity of Bullhead City. Future management would be hindered by continued use of the area and urban expansion. It would be almost impossible to protect the resources identified for special attention.

The lands adjacent to Bullhead City have now been identified for disposal to facilitate city expansion. Mitigation will be provided for the loss of desert tortoise habitat or cultural resources in any exchange (see map 13). These disposal lands would be used to acquire additional high-value desert tortoise habitat or significant cultural resources.

The Clay Hills Research Natural Area of Critical Environmental Concern southern boundary has been modified. Those parts of sections 21, 22, 26 and 27, T. 16.5 N., R. 17W. (south of Alamo Road) area excluded from the original area. The parts of sections 25 and 36, T. 16.5 N., R. 17 W. (south of Alamo Road) and the north half of section 1, T. 16 N., R. 17 W., are included in the area of critical environmental concern boundary.

The relevance and importance criteria which qualify each area to be an area of critical environmental concern are outlined in the following pages. Also shown are the goals, objectives and management prescriptions required to protect and improve the sensitive resources of each area of critical environmental concern. Table 11, which follows the detailed information for each area of critical environmental concern, summarizes the management prescriptions for each area of critical environmental concern, showing how the prescriptions would benefit or constrain important resources. Acquisitions for areas of critical environmental concern are found in Appendix 22.

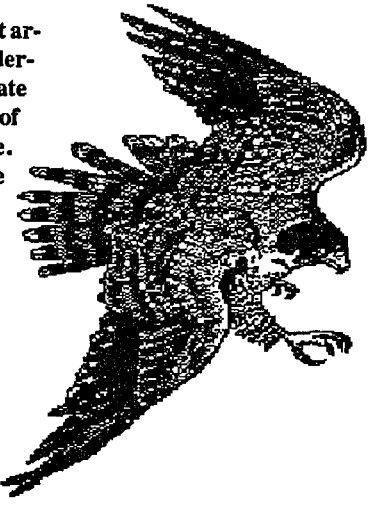
Approximately 23,800 acres of federal minerals would be proposed for withdrawal from mineral entry (see Table 12) to protect sensitive resources in areas of critical environmental concern (see appendices 10 and 11). Sensitive plant and animal species, riparian areas and cultural resources are impacted by surface-disturbing activities which alter crucial habitat and destroy irreplaceable scientific information. The continuation of these activities has the potential to destroy the irreplaceable resources identified for protection in the areas of critical environmental concern.

Areas withdrawn from mineral entry are subject to valid existing rights. Area of critical environmental concern designations would require bonding and mining plans of operation for all activities (other than casual use) conducted under the 1872 Mining Law.

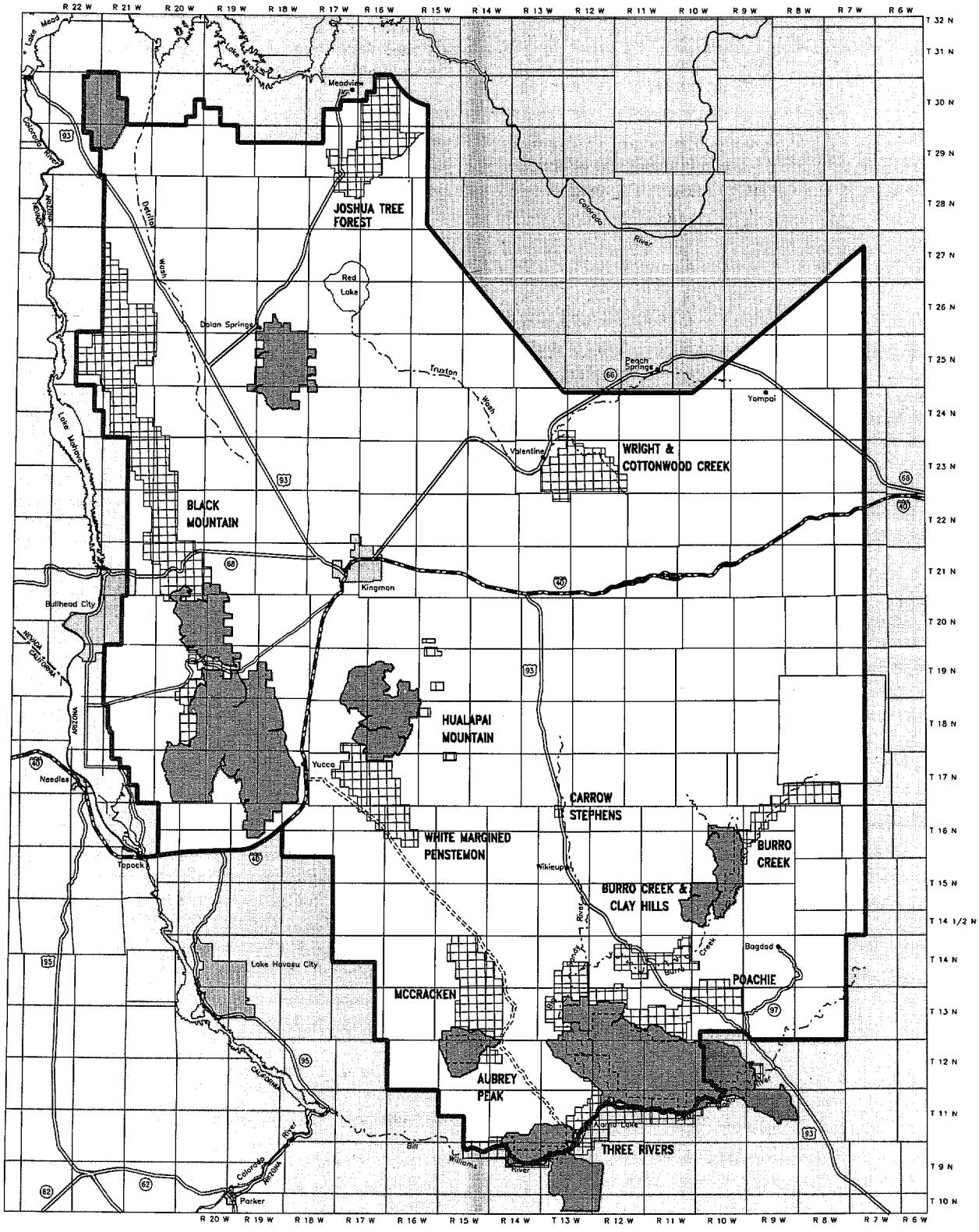
A total of 35,864 acres of non-federal minerals are within the withdrawn areas. They are not subject to withdrawal restrictions, but are proposed for acquisition. If these are acquired they would be withdrawn from mineral entry (see appendices 10 and 11).

For restrictions on mineral leasing and mineral material disposals (see tables 11 and 12).

Within special management areas, the total amount of federally controlled surface estate exceeds the total amount of federal mineral estate. Therefore, the total acreage of mineral withdrawals may be less than the total federally controlled surface acreage.



ALTERNATIVE 2 ACECs



ALTERNATIVE 2 ACEC

DESIGNATED WILDERNESS

--------- ACEC INSIDE WILDERNESS

Map 21

JOSHUA TREE FOREST - GRAND WASH CLIFFS AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

This area has been recommended as an area of critical environmental concern by the Phoenix District Advisory Council and the residents of Meadview. Approximately 3,200 acres are included in the Grapevine Mesa Joshua Tree Forest National Natural Landmark, which was designated by the Secretary of the Interior in 1967 after a determination that the area possessed national significance as defined in 36 CFR 62.5, National Landmark Criteria.

For several years, an active land exchange effort has resulted in blocking up a significant area of public lands, making it more manageable. The area does, however, still contain over 5,168 acres of private lands.

A variety of concerns in the area include placer claims (gold) which blanket much of the prime stands of Joshua trees, privately owned mineral estate, expanding residential developments directly west of the boundary and a potential for residential development of private lands. Other concerns include the growing need of people living in the surrounding subdivided sections and Meadview for utility rights-of-way through the area, damaging cross-country use by off-highway vehicles and theft of young Joshua trees. A peregrine falcon aerie has been found in the Grand Wash Cliffs. The peregrine falcon is a federally listed endangered species.

IMPORTANCE

This outstandingly scenic area contains the densest stand of mature Joshua trees in Arizona and a particularly imposing ten-mile-long segment of the Grand Wash Cliffs. These 2,000-foot-high cliffs are among the most prominent and colorful escarpments in North America. The areas above and below the cliffs were used extensively by early-day Native Americans, as evidenced by roasting pits, for a period of at least 3,000 years. The resulting cultural resources are very significant to northwestern Arizona.

As an endangered species, peregrines are of national significance. Major efforts have been expended on the federal, state and private levels to bring this species back from the brink of extinction.

GOALS

To protect and enhance ecologic, scenic, cultural and threatened and endangered values while providing for recreational and educational experiences.

OBJECTIVES

1. Maintain a viable Joshua tree forest community.
2. Minimize surface disturbance.
3. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.
4. Maintain the scenic quality of the Joshua Tree Forest and the Grand Wash Cliffs.
5. Restore the visual quality of degraded areas in the Joshua Tree Forest.
6. Determine the extent and significance of cultural resources.
7. Develop educational materials and interpretative sites to increase public understanding of the area's natural values.
8. Promote opportunities for scientific research of ecological and cultural resources by qualified institutions and individuals.
9. Develop low impact recreation opportunities.
10. Prohibit human activities which may cause potentially adverse disturbances to nesting birds during the breeding season.
11. Propose the area for designation as a national conservation area.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of **39,060** acres of public land as an area of critical environmental concern.
2. Recommend the area of critical environmental concern for designation as a national conservation area.
3. Limit the use of off-highway vehicles to designated roads, trails and washes.
4. **If the private surface and subsurface mineral rights on alternating sections ever convert to public ownership, all public lands within the area of prime Joshua tree forest would be identified for withdrawal from mineral entry.**
5. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, **other than casual use.**
6. Mineral leasing would be allowed, subject to appropriate stipulations designed to protect resource values.
7. **Mineral material disposal would be authorized only when no reasonable management alternative can be identified *and* the disposal would not conflict with objectives for the area.**
8. Acquire 5,160 acres of private surface and subsurface and 15,199 acres of nonfederal subsurface estate (see Appendix 22).
9. Do not issue recreation and public purpose leases or patents.
10. Limit new communication facilities to designated sites.
11. Route major rights-of-way to the west or south of the area of critical environmental concern **within existing corridors.**

12. Recreation facilities will be in harmony with the natural environment and goal to protect ecologic and scenic values.

13. Prohibit camping, hiking, rock climbing and off-highway vehicle use within 1/4 mile of a peregrine nest during the breeding season (March 1 to June 15).

14. Prohibit helicopter flights within 1/2 mile of active aeries during the breeding season (March 1 to June 15).

15. Prohibit road development within 1/2 mile of a peregrine aerie.

16. Review current management to assure that livestock grazing is in accordance with goals and objectives of the area of critical environmental concern. Develop desired plant community descriptions for Joshua tree sites and include these in allotment management plan objectives. Design grazing prescriptions to achieve them.

17. Do not allow removal of native plants except for salvage on surface-disturbing projects. Require that a nursery be set up for each mining operation to hold live plants. Topsoil would also be stored and reclamation would involve replacement of soil and planting of nursery stock.

18. Conduct cultural and paleontological inventories and evaluate selected cultural resources.

19. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

20. Develop an area of critical environmental concern management plan. This plan will include a recreation project plan specifically addressing interpretive sites, scenic overlooks, educational natural history brochures, off-highway vehicle designations and other general recreation issues. It will also address cultural resources, land tenure adjustment, mining and grazing.

BLACK MOUNTAINS ECOSYSTEM MANAGEMENT AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

The Black Mountains provide a complex mix of resource values for wildlife, livestock, wild burros and humans. The presence of wilderness, rich mineral deposits, important wildlife habitat, a wild burro area and abundant recreation opportunities can lead to conflicting uses in key areas of the Black Mountains. The Black Mountains Ecosystem Management Area of Critical Environmental Concern is proposed to focus management to resolve these conflicts.

The Black Mountains provide outstanding habitat for desert bighorn sheep in the form of food, water, cover and space. The habitat area is made up of a unique geographic and topographic mix, abundant natural water sources and essential forage species. Lambing grounds and crucial foraging and escape areas are interspersed with general open space habitat.

The entire range of the Black Mountains is within the Black Mountains Wild Burro Herd Management Area. This management area, designated after passage of the Wild Horse and Burro Act of 1971, as amended, is one of the outstanding wild burro management areas in the West. The presence of abundant forage, natural water sources, foaling areas and escape cover provide quality habitat for viable herds of burros. The Black Mountains provide a unique research opportunity for continued study of wild burros to determine population dynamics, movement patterns and critical habitat requirements.

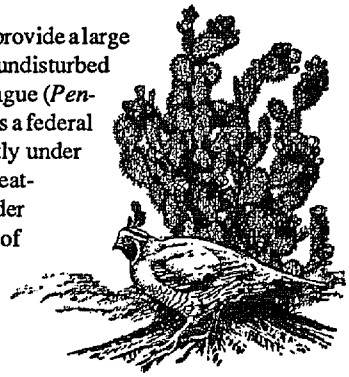
The three wilderness areas in the Black Mountains, designated in November 1991, include Mount Wilson to the north and Warm Springs and Mount Nutt in the south. The BLM is mandated to manage designated wilderness areas to protect wilderness values while maintaining valid existing rights in place at the time of designation.

Recreation use in the Black Mountains is increasing due to growth of the communities of Kingman, Bullhead City and Golden Valley and the current demand for open-space recreation. Off-highway vehicle use, hunting, rockhounding and wilderness hiking are a few of the recreation uses present. Each year, the demand for recreation permits for off-highway vehicle events, outfitters and guides increases. Individually, each action has a small impact on sensitive resources; however, when combined over the entire range, the total impacts to resources are multiplied.

The Black Mountains are a Basin and Range fault block mountain range following a north-northwest trend. They consist of an assemblage of Precambrian gneisses and schist cut by Tertiary intrusives and overlain by sequences of Tertiary- and Quaternary-age volcanic flows, breccias and tuffs. Several historic mining districts occur: from south to north, they include the Oatman-Goldroad, Union Pass and Katherine districts. Each historically produced significant quantities of precious metals, primarily gold. Sand and gravel deposits are present and there is some potential for oil and gas exploration.

Some of these areas are still considered to have potential primarily for disseminated gold deposits. The Portland Mine, south of Cottonwood Road on the west slope of the Black Mountains, produced gold commercially as recently as 1988. To the north of Cottonwood Road, the Klondyke-Golden Door Mine is awaiting development as another small open pit gold operation.

In addition to gold, silver, zirconium and perlite have been reported as potentially significant deposits through the area.



The northern Black Mountains provide a large contiguous area of relatively undisturbed habitat for the Cerbat beard-tongue (*Penstemon bicolor var. roseus*). It is a federal candidate plant species currently under consideration for listing as threatened or endangered status under the Endangered Species Act of 1973. This species is known only from southern Nevada, northeastern California and

northwestern Arizona. Populations in California and Nevada are apparently rare and declining from a variety of causes associated with development and human activity. The species was collected in Arizona in 1937 and not redocumented until a collection was made in Lost Cabin Wash from the Portland Mine down to Lost Cabin Spring and in Burns Spring Canyon in 1989. The Cerbat beard-tongue occurs on mountainside sites of rhyolite and andesite parent material and in sandy washes. Its ecological requirements are poorly understood.

The Black Mountains contain several very important cultural resources. Bighorn Cave is listed on the National Register of Historic Places. The area around Mount Nutt contains the best pictographs known in the resource area. Numerous prehistoric rock shelters, campsites and historical mines occur in the mountains. The stone cabins along Silver Creek are the remains of the oldest Caucasian habitations in Mohave County (1859 to 1863) and were occupied by troops from Fort Mojave who had been allowed to prospect for gold by their commanding officer.

Human activities are increasing at a tremendous rate in the Black Mountains, including urban development, communication facilities, highway construction and recreational activities. Much of this activity is occurring in or near sensitive habitat for wildlife and wild burros, wilderness areas and cultural sites. Continuing growth of these communities will create further use conflicts in the Black Mountains.

IMPORTANCE

The increasing demand for recreational opportunities, including wilderness, on public lands will continue to impact sensitive resources in the Black Mountains. Recreation management must include a proper balance of opportunities while protecting the needs of the other resource and development demands in the area.

The demand for mineral development is expected to increase over the next several years. The area is highly mineralized and rife with mining claims. Mineral development will need to be promoted in a manner compatible with other resource uses and needs.

The positive results of intensive management of desert bighorn sheep habitat has recently led to this species being removed from the Arizona Game and Fish Department's list of threatened native wildlife in Arizona. Nonetheless, this species is extremely sensitive to disturbance. The Black Mountains provide important habitat for a viable population which is a major source of animals for transplant throughout Arizona, and for important research.

The Black Mountains also provide important habitat for wild burros. The wild burro herd provides excellent opportunities for viewing burros in their habitat. Annual increases in population or animals in excess of forage needed to sustain the herd would be removed and made available for adoption throughout the nation. These animals are highly prized and in demand on sheep ranches and farms and by people wanting excellent family pets.

Desert bighorn sheep and wild burro herds are considered important resources of national significance. Management of grazing and other uses within the Black Mountains is critical to resolving conflicts among all ungulates in the region. Management prescriptions developed for **desert** bighorn sheep **and wild burro habitat would** also provide protection for other wildlife species in the Black Mountains.

With new measures to protect the limited habitat of the Cerbat beard-tongue in Arizona, the BLM can ensure the continued survival of this species and prevent the need for listing it as threatened or endangered. The area of critical environmental concern boundaries include about half of the species' habitat in Arizona. This is adequate to provide habitat for a viable population over the long-term, even with some mining development anticipated.

Cultural resources in the area are extremely rare, unique, fragile and threatened. Some of the pictographs were incised into volcanic tuff and then painted. These are the only examples of this type of prehistoric art known in this part of the state. The Moss Mine (1863) was one of the richest and most concentrated gold deposits ever found in the West.

GOALS

To maintain balanced resource development while providing for public demand and sensitive resource needs. To protect and enhance special status species habitat. To protect cultural resources. To manage wilderness to maintain wilderness values and characteristics.

OBJECTIVES

1. **Improve and maintain habitat while providing for the needs of wild burros, desert bighorn sheep, other wildlife species and livestock.**
2. Protect and improve Cerbat beard-tongue habitat.
3. Minimize surface disturbance.
4. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.
5. Manage recreational activities to reduce adverse interactions/ **impacts to Cerbat beard-tongue, desert bighorn sheep, wild burros,** wilderness and cultural resources.
6. Minimize conflicts **and balance uses among** grazing **and** browsing animals.
7. **Prioritize management of lambing grounds and high-value bighorn habitat to meet the needs of desert bighorn sheep.**
8. Determine the extent and evaluate the significance of cultural resources.
9. Promote opportunities for scientific research of ecological and cultural resources.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of **114,242** acres of public lands as an area of critical environmental concern.

2. Limit off-highway vehicle use to existing roads, trails and washes. Limit off-highway vehicle use within Cerbat beard-tongue habitat to existing roads and trails. Close **desert bighorn sheep** lambing grounds to construction of new roads. **Limit construction of new roads in other crucial habitat areas.**

3. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, **other than casual use.** Temporary access needed for mineral exploration and production would remain closed to the public and would be reclaimed when no longer needed by the **operator.** In Cerbat beard-tongue habitat, locate any temporary access for mineral activities out of washes and avoid occupied habitat.

4. **Manage mining exploration and development activities to minimize the impacts on desert bighorn sheep lambing grounds from December 1 through May 31 and on wild burro foaling grounds from May 1 through July 31.**

5. Allow mineral leasing subject to the following stipulations designed to protect resource values:

   -- **No surface occupancy in desert bighorn sheep lambing grounds from December 1 through May 31.**

   -- **No surface occupancy in foaling grounds during the hot, dry season from May 1 through July 31 to avoid pushing jennies and foals from water sources.**

   -- Close temporary access to the public to prevent precedent-setting off-highway vehicle use into previously unroaded areas.

   -- When no longer needed by the leasee, roads would be reclaimed and made impassible by deep ripping, berms, boulder placement, etc.

   -- Unused roads which are upgraded to provide short-term access to mineral activities would be closed on a case-by-case basis when no longer needed by the leasee.

   -- To avoid harassment and undue disturbance of **desert** bighorn sheep, workers would not be allowed to live on-site.

   -- Limit well spacing to 160 acres.

6. Prohibit oil and gas production facilities inside the boundaries of lambing grounds.

7. **Mineral material disposal would be authorized only when no reasonable management alternative can be identified *and* the disposal would not conflict with objectives for the area.**

8. Acquire 2,360 acres of state and 8,040 acres of private lands (surface and subsurface) and 27,925 acres of nonfederal subsurface identified in Appendix 22.

9. **Manage for dispersed recreation.**

10. Confine new major rights-of-way to existing corridors.

11. Limit new communication facilities to designated sites.

12. Develop desired plant community descriptions for important **desert** bighorn sheep, **deer and wild burro** habitat and include these in allotment management plan, habitat management plan **and herd management area plan** objectives and design specific management actions to achieve them.

13. **Stratify ungulate habitat to identify key range areas for each species. Some strata will be defined for use by a single ungulate species, while others will be defined as joint use areas by more than one ungulate species.**

14. **Develop perennial water sources for wild burros in important habitat outside lambing grounds and high-value bighorn sheep habitat.**

15. **Develop a comprehensive monitoring plan for all ungulates, including the joint use areas, to assure that the goal and objectives are being met.**

16. **Write coordinated resource management plan for all resources and review existing activity plans to ensure conformance with the goal and objectives of the area of critical environmental concern.**

17. Complete an inventory to determine present extent and density of Cerbat beard-tongue populations and **begin** monitoring studies to determine habitat conditions and any changes in plant density.

18. **Manage grazing by ungulates in riparian-wetland areas to restore and maintain proper functioning condition of these areas.**

19. Classify grazing allotments on or adjacent to the area critical environmental concern for use by cattle, prohibiting grazing by feral goats and sheep.

20. Removal of native plants must be compatible with other resource values or limitations or exclusions will be applied.

21. Fence the Burns Springs Wash riparian area on public lands below the spring to exclude **wild** burros and livestock to enhance **riparian** vegetative recovery.

22. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

23. Promote cultural resource inventories and research projects by qualified institutions and individuals.

24. Develop site-specific project plans for important cultural resources.

WRIGHT AND COTTONWOOD CREEKS RIPARIAN AND CULTURAL AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

Wright and Cottonwood creeks are completely isolated from all other drainages in the resource area which support fish populations. Wright Creek is a perennial stream with exceptional scenic qualities providing habitat for an atypical strain of **the native** *Agosia chrysogaster*, the longfin dace. Recent land exchanges have blocked up public lands, making intensive management possible. Recovery of riparian corridors is expected to be rapid under proper management.

This area has a unique blend of prehistoric and historic resources. The Beale/Mojave Road, along the northern boundary, is a 1,000-year-old Indian trail which later became the first wagon road across northern Arizona. This same route was later used for the first railroad and still later for U.S. Route 66. The first cattle ranching homesteads in Mohave County were established in this area in the 1870s.

The area is unique because of the numerous **(16 per square mile)** sites of the Cohonina culture dating from approximately A.D. 700 to 1150. The western Cohonina sites have never been studied. **These sites are found throughout the proposed area of critical environmental concern. The region around these two creeks is also the northernmost occurrence of the Prescott culture, with their associated stone masonry pueblos.** This area offers opportunity to learn about these prehistoric **cultures** and see how they interacted. **An additional unique cultural resource here is evidence of prehistoric dryland agriculture, a very rare occurrence away from the main rivers of northwestern Arizona.**

IMPORTANCE

Wright Creek has been historically grazed by livestock. Recent inventories indicate that virtually all of the Wright Creek riparian habitat **is not functioning properly and is** currently in unsatisfactory ecological condition. Since the area is now well-blocked public lands, the BLM has a unique opportunity to develop management prescriptions designed to reestablish healthy riparian ecosystems.

The area is a cultural and geographic crossroads. The diagonally trending mountains of central Arizona, the Colorado Plateau and the Great Basin all meet here. Major prehistoric Indian trails run east-west and north-south. This is the only area where the unique Cohonina culture is found on BLM-administered lands. The area is also near the center of the present-day Hualapai tribe and probably has historic Pai sites, which might help answer questions concerning their origin and development.

GOALS

To improve and maintain aquatic and riparian habitat conditions. To protect and enhance cultural resources.

OBJECTIVES

1. Obtain optimum riparian habitat conditions along Wright and Cottonwood creeks. **Restore these creeks to proper functioning condition.**
2. Achieve and maintain diverse plant communities and stable soils.
3. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.
4. Obtain minimum instream flow to support aquatic and riparian habitat.
5. Minimize surface disturbance.
6. Reduce vandalism of selected cultural resources which show evidence of pothunting and surface collecting of artifacts.
7. Determine the nature and degree of interaction between the prehistoric Cohonina and Prescott cultures.
8. Determine the extent and distribution of various cultural resources.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of **27,285** acres of public lands as an area of critical environmental concern.
2. Limit off-highway vehicle use to existing roads and trails.
3. Withdraw **4,570 acres** in the riparian zone from mineral entry, **subject to valid existing rights.** Acquire 3,220 acres of nonfederal minerals and do not open to entry.
4. Acquire 2,697 acres of private lands and 545 acres of state lands (surface and subsurface) and 11,252 acres of nonfederal subsurface (see Appendix 22).
5. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities **other than casual use.**
6. Allow mineral leasing in designated lands along Wright and Cottonwood creeks with no surface occupancy and in other areas subject to appropriate stipulations designed to protect resource values.
7. Do not allow mineral material disposals in riparian zones.
8. Confine new major rights-of-way to existing corridors.
9. Determine the need and file for water rights for minimum instream flow on Wright and Cottonwood creeks to support aquatic and riparian habitat. **Acquire data necessary to support and perfect instream flow water rights. Monitor instream flow to support water rights applications.**
10. Do not allow developed campgrounds in the 100-year flood plain.
11. Do not allow removal of native plants.

12. Manage livestock grazing to achieve goals and objectives of the area of critical environmental concern. Develop desired plant community descriptions for the riparian zone and design grazing management objectives and a grazing system to achieve them.

13. Promote cultural resource inventories and research projects by qualified institutions and individuals, evaluate selected sites and prepare site-specific project plans.

14. Conduct historical research.

15. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

16. Develop an area of critical environmental concern plan.

HUALAPAI MOUNTAIN RESEARCH NATURAL AREA/AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

This area provides crucial habitat for the Hualapai Mexican vole, *Microtus mexicanus hualpaiensis*, a federally listed endangered species. Biologists believe this animal is on the brink of extinction. The area includes two intermittent narrow stream bottoms (Grapevine Spring and Upper Bull Flat) and their attendant watersheds.

IMPORTANCE

The Hualapai Mexican vole is a very rare mammal currently found in three isolated localities. **Cattle and introduced elk have historically grazed the area, drawn by water developments in or near key vole habitat. Camping and picnicking have been important uses in or near vole habitat because of the proximity of water and trees. The Flag Mine is in vole habitat. These influences have threatened the vole population. Aggressive management is necessary to ensure the continued existence of the vole in presently occupied habitat and to reestablish populations in historic, but presently unoccupied, habitat.**

GOAL

To provide optimum habitat for a viable population of the Hualapai Mexican vole.

OBJECTIVES

1. Maintain excellent habitat conditions on occupied sites.

2. Improve habitat conditions on historical sites, especially in riparian and ponderosa pine plant communities.

3. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.

4. Minimize surface disturbance.

5. Obtain adequate data on vole population dynamics to guide management decisions.

6. Minimize adverse interactions between people and sensitive species.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of **3,303** acres of public lands as an area of critical environmental concern.

2. Limit off-highway vehicle use to designated roads and trails.

3. Withdraw **2,186 acres** from mineral entry, **subject to valid existing rights,** and do not allow mineral material disposals **on the same land.**

4. **Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, including casual use.**

5. **Initiate a formal Section 7 (Endangered Species Act) consultation prior to approval of a mining plan of operation. It has been determined that crucial vole habitat may be affected by mining activities.**

6. Allow mineral leasing with no surface occupancy.

7. Acquire 1,186 acres of private lands (surface and subsurface) and 1,004 acres of nonfederal subsurface estate (see Appendix 22).

8. **Maintain existing recreation facilities where compatible with vole habitat management. Allow new facilities outside occupied habitat to reduce use conflicts in vole habitat.**

9. Develop interpretive and education materials to promote public appreciation and protection of endangered species.

10. Prohibit location of communication sites. Route rights-of-way around the areas.

11. Exclude livestock from **current** occupied vole habitat.

12. Review existing allotment management plan and incorporate objectives designed to protect and enhance watersheds surrounding the area of critical environmental concern. Develop desired plant community descriptions and design specific grazing management actions to achieve them **through coordinated resource management plans.**

13. **Cooperate with the Arizona Game and Fish Department to develop a site-specific strategy to reduce documented conflicts between voles and elk in occupied vole habitat.**

14. Do not allow removal of native plants.

15. Coordinate with the U.S. Fish and Wildlife Service to implement a vole recovery plan.

16. File for water rights and minimum instream flow, where **appropriate,** on occupied and historic sites.

17. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

18. Pursue development of a memorandum of understanding among the Mohave County Parks Department, the U.S. Fish and Wildlife Service and the BLM in an effort to implement a recovery plan and reestablish vole populations.

19. **Develop a coordinated resource management plan.**

WHITE-MARGINED PENSTEMON RESERVE AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

This area provides crucial habitat for the white-margined penstemon, *Penstemon albomarginatus,* a federal candidate plant species currently under consideration for listing as threatened or endangered status under the Endangered Species Act of 1973. The majority of this species' range is in Arizona near the town of Yucca, but it is also represented by a small known population in northeastern California and three collections from southern Nevada. In Arizona, it occurs on sandy outwash plains, ridges and washes in a narrow elevational range west of the Hualapai Mountains. All populations are threatened by urban development and off-highway vehicle activity. In Arizona, the checkerboard landownership pattern intensifies problems of managing the habitat on public lands. Without effective management of the habitat, it may not be possible to maintain a viable population in its native environment over the long term.

The area provides excellent habitat for the Sonoran desert tortoise, also being considered for federal listing as threatened or endangered. With acquisition of private lands within the area of critical environmental concern, this area would meet the BLM's criteria for Category 1 tortoise habitat.

IMPORTANCE

With land exchanges and some simple new measures to protect the limited habitat of the white-margined penstemon in Arizona, the BLM can ensure the continued survival of the species and prevent the need for listing the species as threatened or endangered. Because it occurs in such a limited range in Arizona, the area of critical environmental concern boundaries include about two-thirds of the species' habitat. It is designed to include a major portion of a watershed to allow control of factors that could generate soil erosion problems and also to cover the full range of environmental conditions in which the species occurs. This is adequate to provide habitat for a viable population over the long term, even with some loss of plants and habitat from development anticipated in the area.

The management prescriptions for protection of the white-margined penstemon will also serve to prevent habitat loss for the Sonoran desert tortoise.

GOAL

To promote long-term viability of the white-margined penstemon and a desert tortoise population.

OBJECTIVES

1. Achieve and maintain diverse plant communities and stable soils and watersheds.

2. Minimize surface disturbance.

3. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.

4. Minimize adverse interactions between people and sensitive plant and animal species.

5. Obtain adequate data on white-margined penstemon and desert tortoise population dynamics to guide management decisions.

6. Enhance public awareness of the rapid decline of threatened or endangered species and provide education on the importance of protecting their habitat and applying management procedures designed to ensure their long-term existence.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of **17,489** acres of public lands as an area of critical environmental concern.

2. Limit off-highway vehicle use in riparian areas to designated roads and trails.

3. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, **other than casual use.**

4. Allow mineral leasing, subject to appropriate stipulations designed to protect resource values.

5. **Authorize mineral material disposal only when no reasonable management alternative can be identified *and* the disposal would not conflict with objectives for the area. If either species becomes federally listed in the future, mineral material disposal would not be allowed.**

6. Acquire 749 acres of private (surface only) and 15,289 private and 2,114 acres of state lands (surface and subsurface) and **3,513** acres of non-federal subsurface estate (see Appendix 22).

7. Do not allow developed recreation facilities.

8. Do not allow removal of native plants except for salvage.

9. Confine new major rights-of-way to existing corridors.

10. Develop and implement a livestock **grazing** management plan to achieve goals and objectives of the area of critical

environmental concern. Develop desired plant community descriptions and include these in a coordinated resource management plan.

11. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern, including reclamation withdrawals.

12. Continue to monitor white-margined penstemon and desert tortoise populations.

13. Support research proposals designed to obtain information about population dynamics for white-margined penstemon and desert tortoise.

14. Develop a coordinated resource management plan.

CARROW-STEPHENS RANCHES AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

This area contains rare historic cultural resources including an 1880s two-story adobe ranch house, numerous outbuildings, a system of canals and ditches and irrigated fields, a pioneer cemetery and a 1930s Depression-era cannery. Pliocene fossil deposits and prehistoric Indian sites are also found in or near the area.

IMPORTANCE

Irreplaceable historic resources, exemplary of late nineteenth century farming and ranching life in northwestern Arizona, have tremendous potential for recreational and educational development. The area contains physical evidence of 5-1/2 million years of life, revealed through unique fossils, prehistoric Indian sites and two pioneer homesteads.

GOALS

To protect, preserve and develop the historical, prehistorical and paleontological resources of the area.

OBJECTIVES

1. Minimize surface disturbance.

2. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.

3. Provide a unique living history experience for the public.

4. Provide recreational and educational opportunities.

5. Obtain a sufficient water supply to develop and maintain the project.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of 542 acres of public lands as an area of critical environmental concern.

2. Limit off-highway vehicle use to existing roads and trails.

3. Withdraw 542 acres from mineral entry, subject to valid existing rights, and do not allow mineral material disposals.

4. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, including casual use.

5. Allow mineral leasing with no surface occupancy.

6. Acquire 133 acres of private lands (surface and subsurface, see Appendix 22).

7. Fence the area of critical environmental concern and remove it from consideration of public livestock grazing.

8. Within the existing corridor, confine new rights-of-way to the area west of Highway 93.

9. Apply for a permit with the state and drill a well for irrigating pastures and orchards as part of a proposed living history exhibit.

10. Do not allow removal of native plants.

11. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

12. Promote cultural and paleontological resource inventories, research projects by qualified institutions and individuals and evaluate site information.

13. Develop an area of critical environmental concern plan to include a cultural resource project plan and a special recreation area management plan, specifically addressing educational brochures, interpretive materials for strategic locations, living history activities and recreation facilities.

McCRACKEN DESERT TORTOISE HABITAT AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

This area has been identified as Category I habitat for the desert tortoise, as defined in the BLM's Rangewide Tortoise Habitat Management Plan. The Sonoran desert tortoise is a candidate for federal listing as an endangered species. Under the rangewide plan, category I areas have been identified as habitat essential for the continued existence of a viable population of desert tortoise. Aggressive, positive management of other desert tortoise habitat is needed.

The McCracken Mountains are typical, small, desert mountains with rugged boulder-strewn slopes rising above the surrounding bajadas. There are few roads into the area. The unique vegetation, jumbled granitic boulder piles which dominate the area, and limited vehicle access offer visitors both scenic views and back country recreation opportunities.

IMPORTANCE

The desert tortoise has existed for tens of thousands of years and now **is being significantly impacted by pressures of an expanding human population, development in tortoise habitat and other competing uses.** There are few places where a desert tortoise population is considered to be in a healthy, thriving, stable condition. The future of this species could depend on how well the BLM manages the remaining desert tortoise habitat.

In addition, the McCracken Mountains support an unusual plant community that is transitional between Mohave and Sonoran desert scrub. The species assemblage found in this area is known only from Arizona. Several characteristic species here are among the most distinctive dominants of the two desert regions, giving the area a very unusual vegetative aspect.

Concern for the rapid decline of the Mohave tortoise population has gained international attention, being closely monitored by such conservation groups as the Desert Tortoise Council, the Natural Resources Defense Council, the Environmental Defense Fund and the Defenders of Wildlife. Similar concern has been expressed regarding the Sonoran population. In response, the BLM developed the Desert Tortoise Rangewide Plan (1988). Management goals, objectives and prescriptions would conform to the rangewide plan.

GOAL

To promote long-term viability of a desert tortoise population.

OBJECTIVES

1. Achieve and maintain diverse plant communities and stable soils.
2. Minimize surface disturbance.
3. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.
4. Minimize adverse interactions between people and tortoises.
5. Obtain adequate data on tortoise population dynamics to guide management decisions.

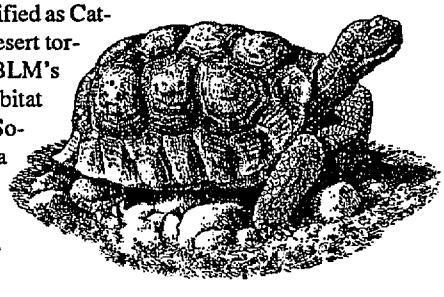
MANAGEMENT PRESCRIPTIONS

1. Propose designation of **21,740** acres of public land as an area of critical environmental concern.
2. Limit off-highway vehicle use to existing roads and trails.
3. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, **other than casual use.**
4. Allow mineral leasing, subject to appropriate stipulations designed to protect resource values.
5. **Authorize mineral material disposal only when no reasonable management alternative can be identified *and* the disposal would not conflict with objectives for the area.**
6. Acquire 11,024 acres of private, 320 acres of state lands (surface and subsurface) and 3,638 acres of nonfederal subsurface estate (see Appendix 22).
7. Do not allow developed recreation facilities; plan for dispersed recreation.
8. Confine new major rights-of-way to existing corridors.
9. Do not allow communication sites.
10. Develop and implement livestock management plans incorporating desired plant community descriptions to achieve goals and objectives of the area of critical environmental concern on the Chicken Springs 0021, Bateman Springs 0006 and Artillery Range 0003 allotments.
11. Manage **ungulate** grazing to ensure adequate and suitable perennial and ephemeral forage and cover for tortoises throughout the year, especially during the spring and late summer-fall. **Adjust ungulate grazing through analysis of monitoring data which would consider forage allocation, use limits and season of use.**
12. Conduct tortoise inventories, monitor habitat conditions and assess impacts of **ungulate** grazing.
13. Do not allow removal of native plants except for salvage operations.
14. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

POACHIE DESERT TORTOISE HABITAT AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

This area has been identified as Category I habitat for the desert tortoise, as defined in the BLM's Rangewide Tortoise Habitat Management Plan. The Sonoran desert tortoise is a candidate for **federal** listing as a **threatened or endangered species.**



Under the rangewide plan, Category I areas have been identified as habitat essential for the continued existence of a viable population of desert tortoise. **Aggressive, positive management of other desert tortoise habitat is needed.**

The Poachie Mountains are typical, small, desert mountains with rugged boulder-strewn slopes rising above the surrounding bajadas. There are few roads into the area. The unique vegetation, jumbled granitic boulder piles which dominate the area and limited vehicle access offer visitors both scenic views and back country recreation opportunities.

IMPORTANCE

The desert tortoise has existed for tens of thousands of years and now **is being significantly impacted by pressures of an expanding human population, development in tortoise habitat and other competing uses.** There are few places where a desert tortoise population is considered to be in a healthy, thriving, stable condition. The future of this species could depend on how well the BLM manages the remaining desert tortoise habitat.

In addition, the Poachie Mountains support an unusual plant community that is transitional between Mohave and Sonoran desert scrub. The species assemblage found in this area is known only from Arizona. Several characteristic species, such as saguaro and Joshua tree, are among the most distinctive dominants of the two desert regions, giving the area a very unusual vegetative aspect.

Concern for the rapid decline of the Mohave tortoise population has gained international attention, being closely monitored by such conservation groups as the Desert Tortoise Council, the Natural Resources Defense Council, the Environmental Defense Fund and the Defenders of Wildlife. Similar concern has been expressed regarding the Sonoran population. In response, the BLM developed the Desert Tortoise Rangewide Plan (1988). Management goals, objectives and prescriptions would conform to the rangewide plan.

GOAL

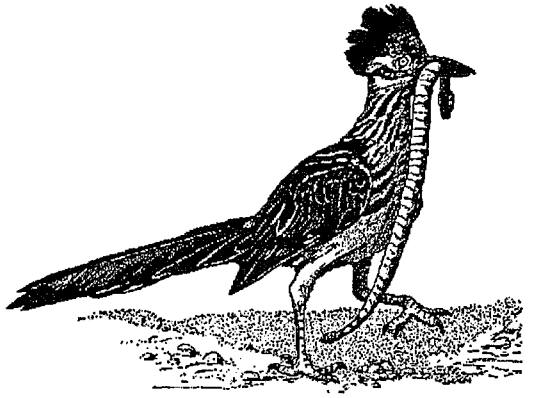
To promote long-term viability of a desert tortoise population.

OBJECTIVES

1. Achieve and maintain diverse plant communities and stable soils.
2. Minimize surface disturbance.
3. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.
4. Minimize adverse interactions between people and tortoises.
5. Obtain adequate data on tortoise population dynamics to guide management decisions.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of **32,752** acres of public lands as an area of critical environmental concern.
2. Limit off-highway vehicle use to existing roads and trails.
3. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, **other than casual use.**
4. Allow mineral leasing subject to appropriate stipulations designed to protect other resource values.
5. **Authorize mineral material disposal only when no reasonable management alternative can be identified *and* the disposal would not conflict with objectives for the area.**
6. Acquire 1,147 acres of private **and state** lands (surface and subsurface) and 637 acres of non-federal subsurface estate (see Appendix 22).
7. Do not allow developed recreation facilities; plan for dispersed recreation.
8. Confine new **major** rights-of-way to existing corridors.
9. Do not allow new communication sites or additional users at the existing BLM administrative site.
10. Develop and implement livestock management plans incorporating desired plant community descriptions to achieve goals and objectives of the area of critical environmental concern on the Greenwood Community 0039, Burro Creek Ranch 0014 and Arrastra Mountain 0002 allotments.
11. Manage **ungulate** grazing to ensure adequate and suitable perennial and ephemeral forage and cover for tortoise throughout the year, especially during the spring and late summer-fall. **Ungulate grazing would be adjusted through analysis of monitoring data which would consider forage allocation, use limits and season of use.**
12. Conduct tortoise inventories, monitor habitat conditions and assess impacts of **ungulate** grazing.



13. Do not allow removal of native plants except for salvage operations.

14. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

AUBREY PEAK BIGHORN SHEEP HABITAT AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

Aubrey Peak is a rugged volcanic protrusion rising from the surrounding, relatively flat, Sonoran desert floor. This rugged mountain provides the best escape terrain in the immediate region for a struggling herd of desert bighorn sheep, as well as being a crucial lambing ground. The area was originally proposed for area of critical environmental concern designation in the Hualapai/Aquarius Management Framework Plan.

IMPORTANCE

Aubrey Peak is the only bighorn sheep lambing ground in the southern part of the planning area and is used year-round as well. Despite continued efforts to protect this area from adverse disturbance, **desert bighorn** sheep habitat is being adversely impacted, principally by mining activities, **off-highway vehicle use and development of communication sites.**

Federal, state and private organizations and individuals have invested significant time and money on habitat improvement projects and bighorn transplants to encourage the continued existence of sheep in this region.

GOAL

To provide critical bighorn sheep lambing habitat on Aubrey Peak, supporting population reestablishment in the surrounding region.

OBJECTIVES

1. Manage for optimum bighorn sheep lambing habitat conditions.

2. Minimize surface disturbance.

3. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.

4. Manage recreational activities to reduce adverse interactions between people and bighorn sheep.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of **3,460** acres of public lands as an area of critical environmental concern.

2. Limit off-highway vehicle use to existing roads, trails and washes. Close the lambing ground to construction of new roads.

3. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, **other than casual use.** Temporary access needed for mineral exploration and production would remain closed to the public and would be reclaimed when no longer needed by the claimant.

4. Allow mineral leasing subject to the following stipulations:

   -- No activity in the area of critical environmental concern from December 1 through May 31.

   -- Temporary access would be closed to the public and would be reclaimed and made impassible by deep ripping, berms, boulder placement, etc.

   -- Unused roads which are upgraded to provide short-term access to mineral activities would be closed on a case-by-case basis when no longer needed by the leasee.

   -- To avoid harassment and undue disturbance of **desert** bighorn sheep, workers would not be allowed to live on-site.

   -- Limit well spacing to 160 acres.

5. Prohibit oil and gas production facilities inside the boundaries of the area of critical environmental concern.

6. Land uses, with the exception of mineral entry under the mining laws, which could adversely affect lambing would be excluded from December 1 through May 31.

7. **Mineral material disposal would be authorized only when no reasonable alternative exists *and* the disposal would not conflict with objectives for the area.**

8. Acquire 70 acres of non-federal mineral estate (see Appendix 22).

9. Route new major rights-of-way around the area of critical environmental concern.

10. Do not allow communication sites.

11. Do not allow developed recreation facilities.

12. Do not allow removal of native plants except for salvage operations.

13. Develop desired plant community descriptions for bighorn sheep habitat and include these in allotment management plan and habitat management plan objectives and design management **prescriptions** to achieve them.

14. Monitor habitat improvement projects (water developments) annually.

15. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

BURRO CREEK RIPARIAN AND CULTURAL AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

Burro and Francis creeks are free-flowing **intermittent** perennial streams with outstanding scenic qualities including riparian vegetation, cliffs and largely undeveloped shorelines uncluttered by human activity. The creeks provide opportunities for solitude and water-based recreation along stretches of the streams. Access is provided to some portions of both streams.

This area provides habitat for a wide variety of unique wildlife. Species include 14 federal-, state- and BLM-sensitive species, such as the bald eagle, Mexican black-hawk, zone-tailed hawk and round-tailed chub. The riparian habitat associated with this area supports a great diversity of birds of prey.

Even though Burro Creek was set aside as a special management area in 1983, only one allotment management plan has been implemented to date. In the past, the Burro Creek drainage has been contaminated by mine wastes along the creek. Heavy metal contamination has killed invertebrates and fish in the creek and in turn adversely impacted the rest of the food chain, particularly raptors. Such pollution also creates hazards for people engaged in water-based recreation provided by Burro Creek.

The westernmost known occurrence of multi-storied, stone masonry pueblos constructed by the Prescott culture in A.D. 1200 is along Burro Creek and its headwaters. Several historic and prehistoric peoples used this area together. It was a major source of obsidian for construction of tools and also contains important petroglyphs. It is important because it affords opportunities to study how groups interacted with one another, such as the prehistoric Cerbat and Prescott cultures and the historic Hualapai and Yavapai tribes.

IMPORTANCE

Riparian habitat is extremely limited throughout the Southwest, comprising less than one percent of the land area. Burro and Francis creeks provide a major stronghold for many riparian-dependent species of wildlife. There are more breeding pairs of Mexican black-hawks in Burro Creek than anywhere else in North America.

Various individuals and organizations have been involved in intensive studies and recreational activities in Burro and Francis creeks. These include the University of Arizona, Arizona State University, Southwest Hawkwatch, the National Audubon Society, the Desert Tortoise Council, the U.S. Fish and Wildlife Service, the Arizona Natural Heritage Program, The Nature Conservancy, Prescott Community College, New Mexico State University, the Arizona Game and Fish Department, the Arizona Department of Health Services, the Arizona State Land Department and the U.S. Geological Survey. Recreationists come from all over the U.S. to visit this area. This involvement demonstrates a more-than-local significance.

The Burro Creek drainage is one of only two known sources of obsidian in northwestern Arizona. The pueblos are very rare and unique, some still having standing walls eight feet high. The area requires special management because of existing vandalism of these examples of the Prescott culture.

GOAL

To protect and enhance riparian, threatened and endangered plant and animal species and cultural resources, emphasizing total ecosystem management.

OBJECTIVES

1. Minimize surface disturbance and erosion.
2. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.
3. Manage for optimum riparian habitat conditions **by allowing the creek to be restored to proper functioning condition.**
4. Maintain adequate instream flows to support aquatic and riparian resources.
5. Maintain the naturally occurring water quality of Burro Creek.
6. Stop vandalism to cultural resources.
7. Determine the extent and significance of cultural resources.
8. Educate the public regarding riparian, cultural and threatened and endangered species issues and management needs.
9. Provide adequate nesting habitat for threatened and endangered **and special status** raptors by establishing native trees through natural reproduction to replace existing dead and dying old-growth trees. Also, increase the present density of trees.
10. Prohibit human activities which may cause potential adverse disturbances to nesting birds during the breeding season.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of **22,682** acres of public lands as an area of critical environmental concern.
2. Limit off-highway vehicle use in Burro and Francis creeks' riparian areas to designated roads, trails, **washes** and river crossings.
3. Withdraw **5,160 acres** in the riparian zone from mineral entry, **subject to valid existing rights.** Acquire 1,873 acres of nonfederal minerals and do not open to entry.
4. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, **other than casual use.**
5. Allow mineral leasing in the riparian zone with no surface occupancy and in other areas subject to appropriate stipulations designed to protect resource values.

6. Do not allow mineral material disposals in the riparian zone.

7. Acquire 280 acres of non-federal mineral estate under public land.

8. Acquire 7,296 acres of identified parcels of private and 8,996 acres of state lands (surface and subsurface).

9. Construct developed campgrounds outside of riparian zone and the 100-year floodplain.

10. Confine new major rights-of-way to existing corridors.

11. **All existing rights-of-way will continue as long as necessary and maintenance/redesign will be allowed subject to compliance with National Environmental Policy Act.**

12. Develop and implement livestock management plans incorporating desired plant community descriptions to achieve goals and objectives of the area of critical environmental concern on the Bagdad 0005, Greenwood Peak Community 0039, Burro Creek Ranch 0014, Artillery Range 0003 and **7L Cattle Company 0111** allotments.

13. **Review the existing Burro Creek 0013 Allotment Management Plan to ensure that it conforms with goals and objectives of the area of critical environmental concern.**

14. Review existing **activity plans** to ensure **that they** conform with goals and objectives of the area.

15. **Acquire data necessary to support and perfect the stream flow water rights.** Acquire water rights to ensure adequate instream flows to support riparian **and aquatic** habitat.

16. Require monitoring to assess impacts of uses with a potential to adversely impact water quality.

17. Manage land uses to promote an all-aged stand of key native trees, shrubs and grasses.

18. Do not allow removal of native plants except for salvage operations.

19. Prohibit intensive recreation activities (camping, hiking and off-highway vehicle use) within 1/4 mile of a bald eagle nest during the breeding season (January 1 to June 1).

20. Prohibit helicopter flights within 1/2 mile of active aeries during the breeding season.

21. Prohibit development **of new roads** within 1/2 mile of a bald eagle aerie.

22. Continue to assist the bald eagle nest watch program.

23. Monitor common black-hawk breeding activities.

24. Continue the riparian area condition evaluation **inventory** and monitoring.

25. Sign and monitor selected cultural resources.

26. Conduct cultural inventories and evaluations of selected cultural resources. Promote scientific studies and stabilize selected sites.

27. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

28. Prepare an area of critical environmental concern plan incorporating existing activity plans. Prepare site-specific cultural project plans.

29. **The center portion of the area of critical environmental concern has been dropped from consideration because of the high proportion of state and private lands. Management prescriptions for this stretch of Burro Creek will be incorporated into a cooperative management agreement with Cyprus Bagdad Copper Corporation/Byner Cattle Company and the area will be managed in a manner similar to the rest of the area of critical environmental concern.**

CLAY HILLS RESEARCH NATURAL AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

This area provides crucial habitat for the endemic Arizona cliffrose (*Purshia subintegra*) a federally listed endangered species. The cliffrose is associated specifically with soils high in lithium and magnesium. This habitat is threatened by **site-specific** mining of **pharmaceutical quality** montmorillonite clays, **recreational activities such as rockhounding** and off-highway vehicle traffic and browsing by livestock, burros and other wildlife.

The presence of a federally listed endangered species gives a high priority to protection and special management of the area. The unique flora associated with this habitat contributes to the natural diversity of the resource area and the state of Arizona.

IMPORTANCE

Four populations **of Arizona cliffrose are known to exist. Two of these occur on** federally administered land. **The Clay Hills site is important because it offers the greatest potential to maintain this species through special management practices. These are** needed to protect existing populations, maintain genetic diversity and **enhance recovery of habitat through resolution of conflicting uses.**

GOAL

To maintain a viable population of *Purshia subintegra.*

OBJECTIVES

1. Prohibit **or minimize** surface-disturbing activities adversely impacting *Purshia subintegra.*

2. Educate the public regarding Arizona's native plant laws.

3. Determine population status and life history requirements of *Purshia subintegra.*

4. Prevent overutilization of threatened and endangered plants by browsing and grazing animals.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of **1,114** acres of public lands as an area of critical environmental concern.

2. Limit off-highway vehicle use to designated roads and trails.

3. Withdraw 1,114 acres from mineral entry, subject to valid existing rights, and mineral leasing and do not allow mineral material disposals.

4. **Seek to acquire existing mining claims through voluntary relinquishment.**

5. **Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, including casual use.**

6. **Initiate a formal Section 7 (Endangered Species Act) consultation prior to approval of a mining plan of operation. It has been determined that crucial Arizona cliffrose habitat may be affected by mining activities.**

7. **Eliminate unnecessary roads and trails.**

8. Post the area with Arizona Native Plant Law protection signs.

9. Do not allow removal of native plants.

10. Assess the status of *Purshia subintegra* by continued monitoring of plants within permanent study plots.

11. Continue to exclude grazing by livestock and burros.

12. Monitor the affects of browsing by deer and modify fences **to exclude deer if necessary.**

13. Route new rights-of-way around the area of critical environmental concern.

14. Prohibit camping.

15. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

16. **Incorporate specific provisions identified in the draft recovery plan for *Purshia subintegra* into the area of critical environmental concern plan.**

THREE RIVERS RIPARIAN AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

The Big Sandy, Santa Maria and Bill Williams rivers - Alamo Lake complex is one of the most important desert riparian ecosystems in the state of Arizona. These particular riparian habitats are extremely valuable because of their tremendous size (including surrounding watershed), availability of year-round water, high primary productivity, diversity of vegetation and crucial habitat for bird, fish, other wildlife and insect populations. This extensive riparian complex provides both wintering and breeding habitat for endangered bald eagles and suspected habitat for breeding peregrine falcons. Both of these species are federally listed as endangered.

These rivers are free-flowing and have outstanding scenic qualities including riparian vegetation, surrounding mountains and cliff features and largely undeveloped shorelines uncluttered by human activity. They provide opportunities for solitude and water-based recreation along stretches of the streams. Access is provided to some portions of each stream.

IMPORTANCE

Riparian habitats throughout the Southwest historically have been severely damaged and degraded. Very few of these areas remain in public ownership. Their attendant plant and wildlife resources fall under the jurisdiction of resource management agencies such as the BLM, the U.S. Fish and Wildlife Service, the Arizona Game and Fish Department and the Arizona State Land Department. All federal agencies are charged with the conservation of habitat for endangered species such as the bald eagle and peregrine falcon.

Public input has focused concern on the plight of this particular habitat. The Big Sandy, Santa Maria and Bill Williams rivers - Alamo Lake complex supports one of the best populations of bald eagles in Arizona. This particular area could provide an important nucleus of bald eagles capable of recolonizing the Colorado River and the Grand Canyon. Proposed improvement of the riparian habitat through proper resource management would improve the habitat for this **and other riparian dependent** species.

GOALS

To protect and enhance aquatic, riparian and threatened and endangered resources, emphasizing total ecosystem management.

OBJECTIVES

1. Provide nesting habitat for the southern bald eagle by establishing native cottonwood trees. Promote natural regeneration of native cottonwood-willow habitat to replace existing dead and dying old-growth native trees. Increase the present density of native trees and reduce the density of exotic plants.

2. Prohibit human activities which may cause potentially adverse disturbances to nesting birds during the breeding season.

3. Obtain minimum instream flow to support aquatic and riparian habitat values.

4. Manage for optimum riparian habitat conditions **and maintain or restore the creek to proper functioning condition.**

5. Minimize adverse interactions between people and sensitive natural resources.

6. Minimize surface disturbance.

7. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.

8. Enhance public awareness of aquatic, riparian and threatened and endangered values.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of **32,043** acres of public lands as an area of critical environmental concern.

2. Limit off-highway vehicle use in riparian areas to designated roads and trails.

3. Withdraw **10,228 acres** in the riparian zone from mineral entry, **subject to valid existing rights.**

4. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities, **other than casual use.**

5. Allow mineral leasing in the riparian zone **with no surface** occupancy and in other areas, subject to appropriate stipulations designed to protect resource values.

6. Do not allow mineral material disposals in riparian zones.

7. Implement the decisions recommended in the Withdrawal and Classification section of Lands in *Alternative 2*.

8. Acquire 14,496 acres of private and 3,655 acres of state lands (surface and subsurface) and close to mineral entry.

9. **Determine need and** file on water rights **to obtain** minimum instream flows **to support aquatic and riparian habitat. Acquire data necessary to support and perfect instream flow water rights.**

10 Do not allow removal of native vegetation, except for salvage.

11. Develop a systematic program for removal of salt cedar *(Tamarix gallica)*, focusing on primary drainage channels.

12. Restrict development of campgrounds to areas outside of riparian zones and the 100-year floodplain.

13. Confine new major rights-of-way to existing corridors.

14. Manage livestock, burro **and big game** grazing to achieve goals and objectives of the area of critical environmental concern. Develop desired plant community descriptions and incorporate these into allotment management plans and herd management area plans.

15. Continue to assist the bald eagle nest watch program.

16. Prohibit camping, hiking and off-highway vehicles within 1/4 mile of a bald eagle nest during breeding season (January 1 to June 1).

17. Prohibit helicopter flights within 1/2 mile of active aeries during the breeding season (January 1 to June 1).

18. Prohibit road development within 1/2 mile of a bald eagle aerie.

19. Continue the riparian area condition evaluation inventory **and monitoring.**

20. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

21. Develop an area of critical environmental concern plan, incorporating existing plans affecting the area of critical environmental concern.

ALTERNATIVE 3

Alternative 3 is generally less restrictive throughout the resource area, providing for the use of resources while still offering some protection for sensitive or limited resources. *Alternative 3* also reflects planning for a greatly increased demand by a more urban public.

MINERALS

Same as under *Alternative 2* except approximately 1,545,000 acres would remain open to mineral entry (see Map 22). Approximately 10,000 acres would be closed to mineral leasing, but 16,900 acres would be with a no surface occupancy stipulation (see Map 23). Approximately 149,000 acres would be closed to mineral material disposal (see Map 24 and Table 15).

LANDS

Objectives

Same as under *Alternative 2* except provide additional lands for exchange of private lands having high natural resource values and drop other lands having high resource values (see Map 25).

Plan Actions

Land Tenure Adjustments

Two areas would be eliminated from disposal on the west edge of Golden Valley to maintain important wildlife habitat in public ownership. Thorne Spring is an important wildlife water (sec. 30, T. 22 N., R. 19 W.) and the area along Highway 68 is important as a buffer between the developed Golden Valley and bighorn sheep habitat in the Black Mountains. Six sections of land southeast of Bullhead City would be removed from disposal to provide for the Western Bajada Area of Critical Environmental Concern. The Curtain grazing allotment, near Kingman is valued highly for development. It would be removed from the proposed area for disposal to the state of Arizona to maintain the allotment in federal ownership to allow the BLM to continue to manage the Holistic Resource Management grazing system.

This alternative would add a total of 2,550 acres to the disposal areas identified in *Alternative 2* and drop 8,832 acres for a net loss of 6,282 acres (see Appendix 25). *Alternative 3*, therefore, would propose 175,271 acres for disposal.

Withdrawals

New withdrawals to protect critical resources, as shown in Appendix 26, will be pursued. Approve Army Corps of Engineers application AR 035844 for the entire 3,488.62 acres.

Recreation and Public Purposes

Same as under *Alternative 2.*

Linear Rights-of-Way

Same as under *Alternative 2.*

Communication Sites

Same as under *Alternative 2.*

Leases, Permits and Sales

Same as under *Alternative 2.*

WATERSHED (Soil, Water, Air and Vegetation) RESOURCES

Same as under *Alternative 2.*

VEGETATIVE PRODUCTS MANAGEMENT

Same as under *Alternative 2* except that private and commercial firewood cutting and yucca harvesting would be eliminated throughout the resource area.

RANGELAND MANAGEMENT

Same as under *Alternative 2* except that livestock grazing would be discontinued on those allotments or portions of allotments within the McCracken and Poachie desert tortoise habitat areas of critical environmental concern (see Map 26).

CULTURAL RESOURCES

Same as under *Alternative 2* except the size of four areas of critical environmental concern proposed by *Alternative 2* would be reduced and three cultural areas of critical environmental concern would be created to protect high cultural resource values that would otherwise receive no special designation (see Table 14).

1. The Silver Creek Area of Critical Environmental Concern would protect early historic mining and habitation sites on the west side of the Black Mountains. Other significant cultural resources not included in the reduced Black Mountains Area of Critical Environmental Concern would be protected under wilderness designation.

2. The Cottonwood Mountains Area of Critical Environmental Concern would protect extensive petroglyphs and other cultural resources in the Wright Creek-Cottonwood Creek complex.

3. The Black Butte Area of Critical Environmental Concern would include the significant Prescott Culture pueblos and an extensive obsidian source in the upper Burro Creek area.

RECREATION MANAGEMENT

The objective is to intensively develop areas which can provide full recreational opportunities. To respond to a future high rate of population growth and growing public awareness, the BLM would provide a broad spectrum of recreation opportunities for public lands

visitors such as developed campgrounds, interpretive centers and concessionaire/leases.

Alternative 3 would follow the general scope and proposals of *Alternative 2* in addition to the following.

The Burro Creek Interpretive Overlook Recreation Project Plan would be updated and redesigned to accommodate a major fully developed recreation vehicle campground and ancillary facilities. In addition to the six special recreation management areas previously addressed in *Alternative 2*, three more would be added to highlight recreational and scenic aspects of certain areas.

These include Packsaddle/Windy Point, Mount Nutt and Cerbat Pinnacles (see **Table 16**).

In addition, the following areas have been identified for intensive campground/interpretive site development.

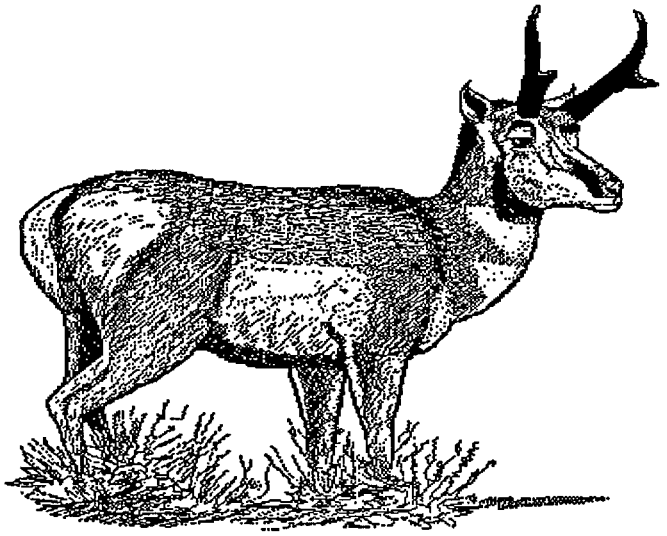
- Antelope Springs day use picnic area and developed campground in sec. 28, SE1/4SE1/4, T. 26 N., R. 18 W. Facilities would include a well for water, flush toilets, picnic tables, ramadas and cooking grills.

- Grand Wash Cliffs overlook and developed campsite in sec. 26, SE1/4SW1/4, T. 30 N., R. 16 W. Facilities would include chemical toilets, picnic tables, cooking grills, fire pits and a small interpretive panel with an information kiosk.

- Walnut Spring developed campground day use picnic area in sec. 28, SW1/4, T. 24 N., R. 13 W. Facilities would include chemical toilets, picnic tables, cooking grills and fire pits. Public access is available above Crozier in the NE1/4 of sec. 34, T. 24 N., R. 13 W.

- Hualapai Valley overlook and developed campground in the east center of sec. 19, T. 24 N., R. 13 W. Facilities include chemical toilets, picnic tables, cooking grills and fire pits.

- Grapevine Spring (Music Mountain) developed campground in sec. 8, NW1/4, T. 24 N., R. 13 W. Facilities would include chemical toilets, picnic tables, cooking grills and fire pits. Three additional miles of road improvement would be required from the Hualapai Valley overlook.



- Wright Creek (south of Truxton) day use picnic area and developed campground in sec. 10, T. 23 N., R. 12 W. Facilities would include a well for water, flush toilets, picnic tables, ramadas and cooking grills.

- Cottonwood Creek (south of Truxton) developed campground in sec. 30, T. 23 N., R. 12 W. Facilities would include chemical toilets, picnic tables, ramadas and cooking grills.

- Natural Corrals Wash (west of Wikieup) developed campground in sec. 12, T. 16 N., R. 14 W. Facilities would include chemical toilets, picnic tables, ramadas and cooking grills.

- **Approximately 515 acres for proposed campgrounds would be withdrawn from mineral entry, mineral material disposals and subject to no surface occupancy stipulations for mineral leasing.**

Off-Highway Vehicle Designations

The acres under each off-highway vehicle designation are listed in **Table 13** (also see **Map 27**).

Table 13
Alternative 3
Off-Highway Vehicle Designation

OHV Designation	Acres
Open	7,094
Limited to existing roads, trails and washes	1,876,916
Limited to existing roads and trails	89,243
Limited to designated roads, trails and washes	8,495
Limited to designated roads and trails	53,813
Closed by wilderness designation	392,844
Total	2,428,405

VISUAL RESOURCES

Same as under *Alternative 2.*

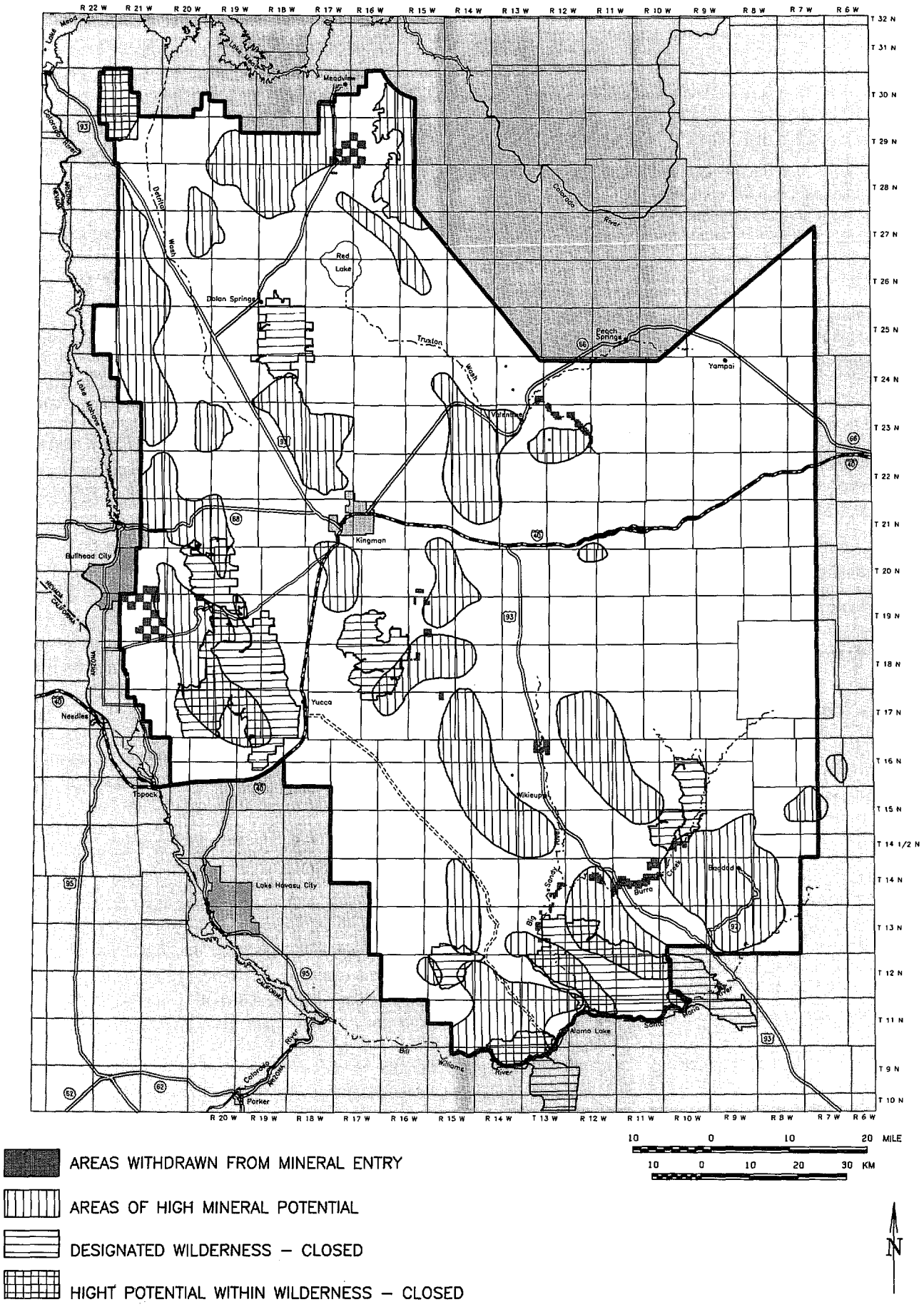
WILD AND SCENIC RIVERS

Same as under *Alternative 1.*

WILDLIFE HABITAT MANAGEMENT

Same as under *Alternative 2* except the McCracken and Poachie desert tortoise habitat areas of critical environmental concern would be closed to livestock grazing, the Black Mountains Ecosystem Management Area of Critical Environmental Concern would be reduced to include **crucial ungulate conflict areas such as lambing and foaling grounds, key watering sites** and high-value habitat and the Cherokee Point Area of Critical Environmental Concern **would be added to improve habitat for pronghorn antelope** (see **Table 14**).

MINERAL WITHDRAWALS – ALTERNATIVE 3



AREAS WITHDRAWN FROM MINERAL ENTRY

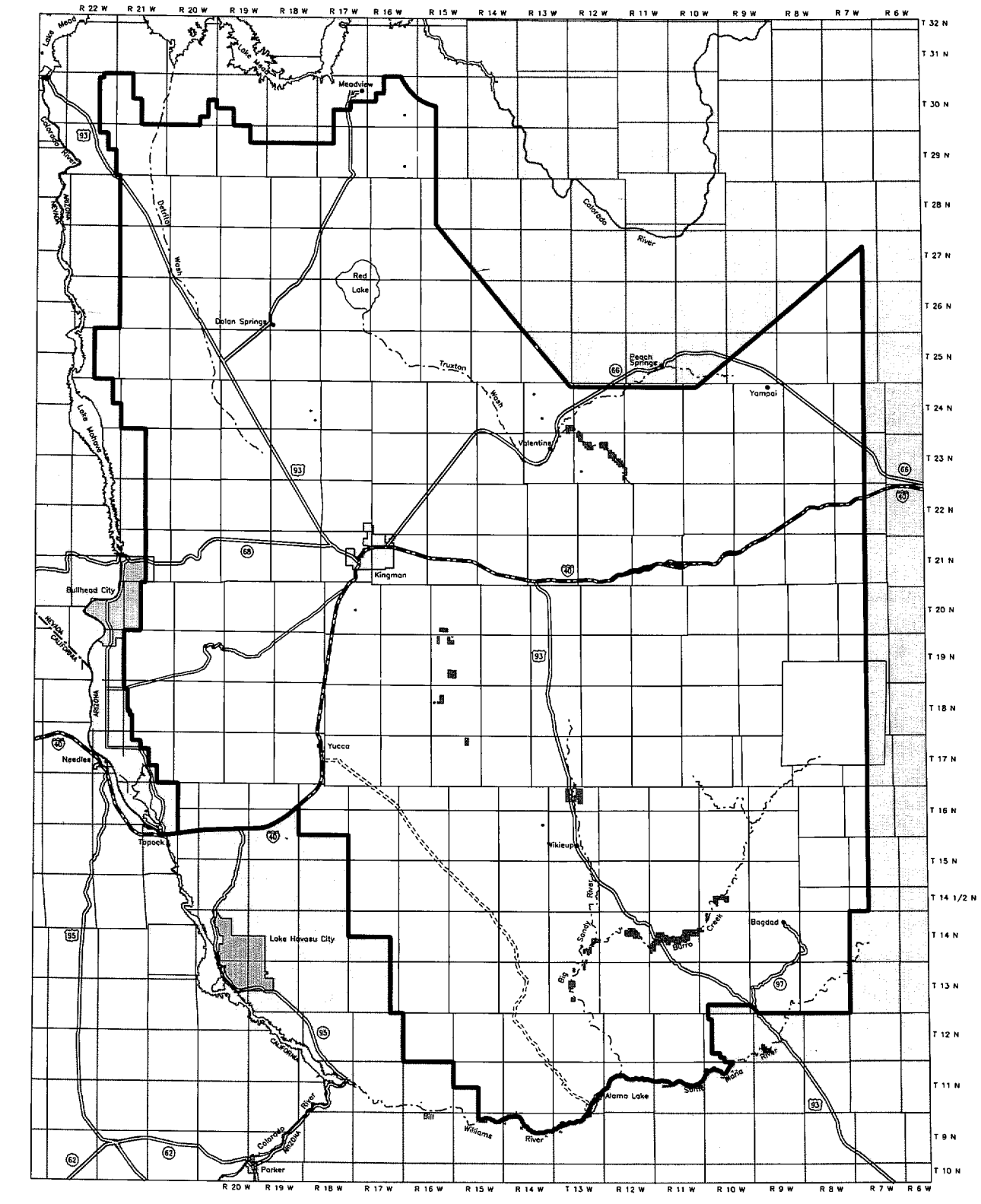
AREAS OF HIGH MINERAL POTENTIAL

DESIGNATED WILDERNESS – CLOSED

HIGHT POTENTIAL WITHIN WILDERNESS – CLOSED

Map 22

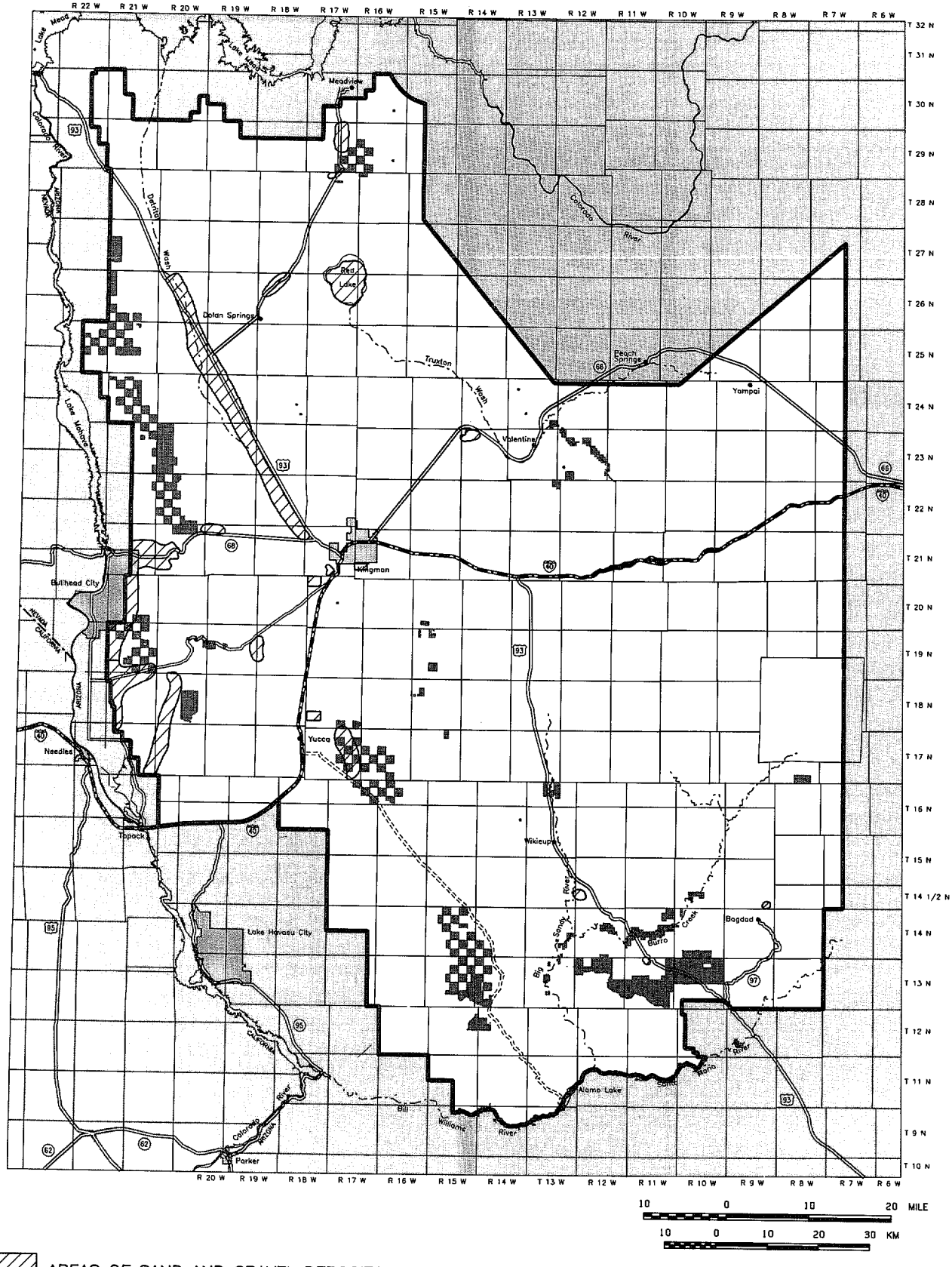
ALTERNATIVE 3 – NO SURFACE OCCUPANCY



NO SURFACE OCCUPANCY

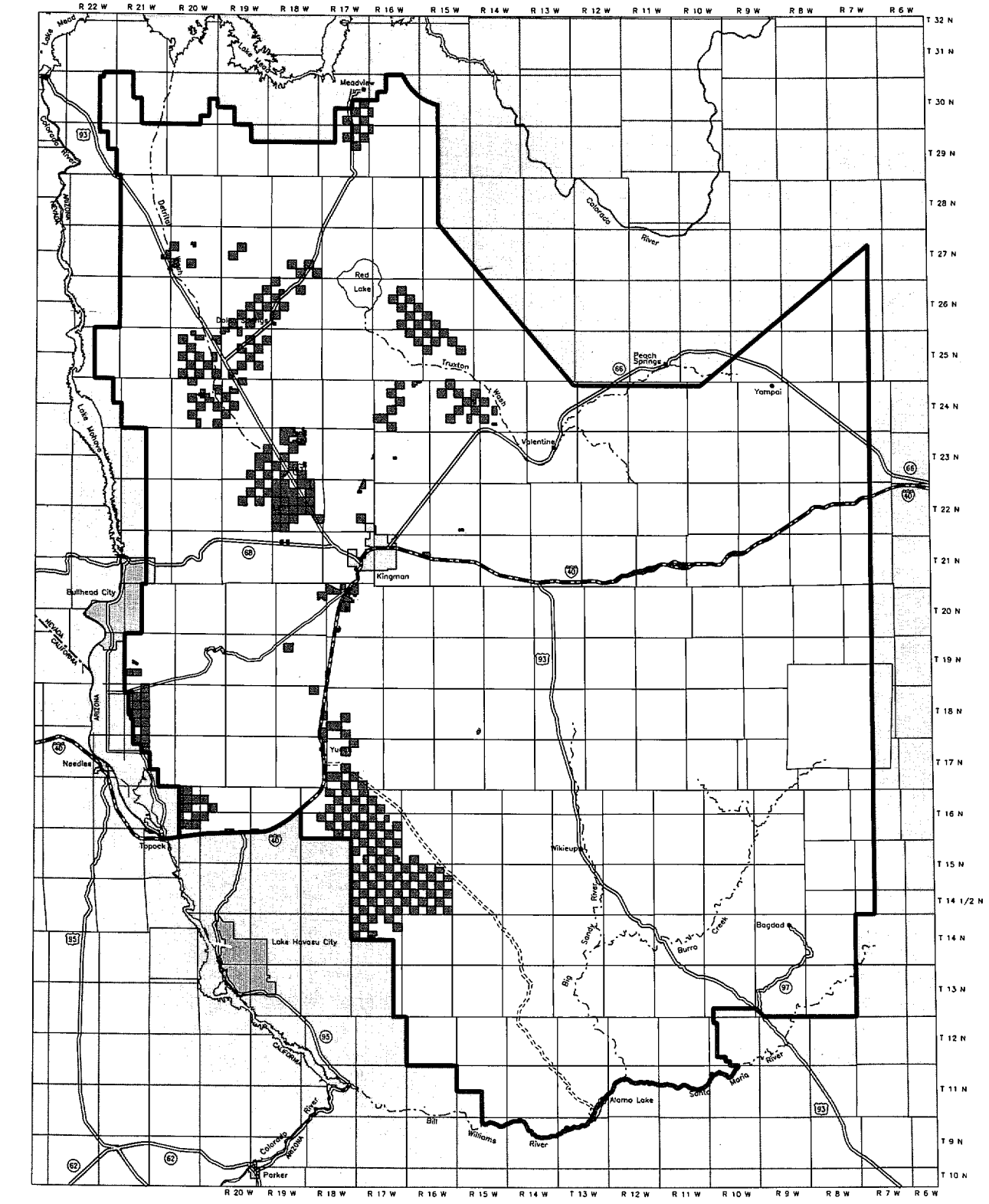
Map 23

NO MINERAL MATERIAL DISPOSALS ALT 3



Map 24

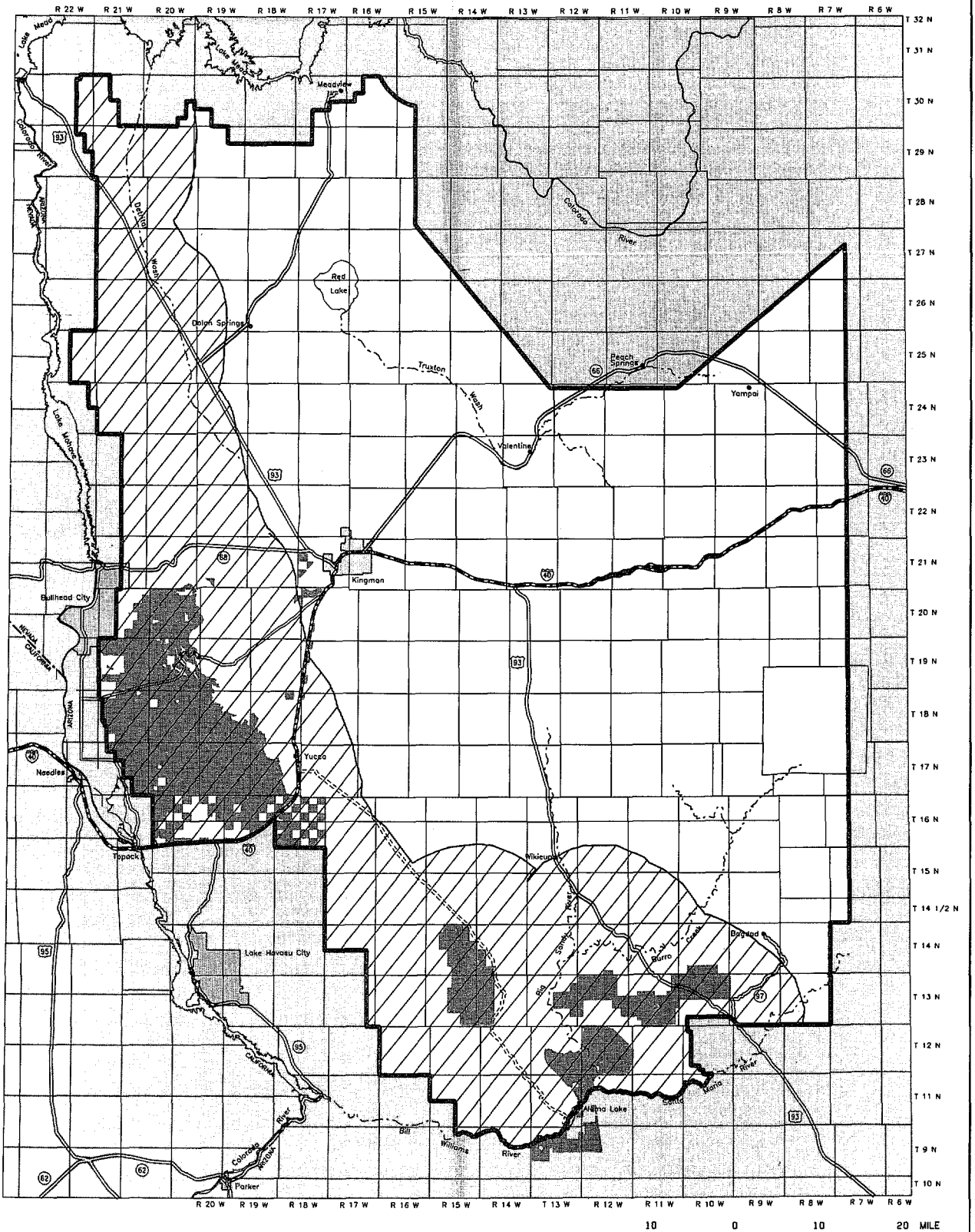
LAND DISPOSALS – ALTERNATIVE 3



LANDS PROPOSED FOR FUTURE DISPOSAL

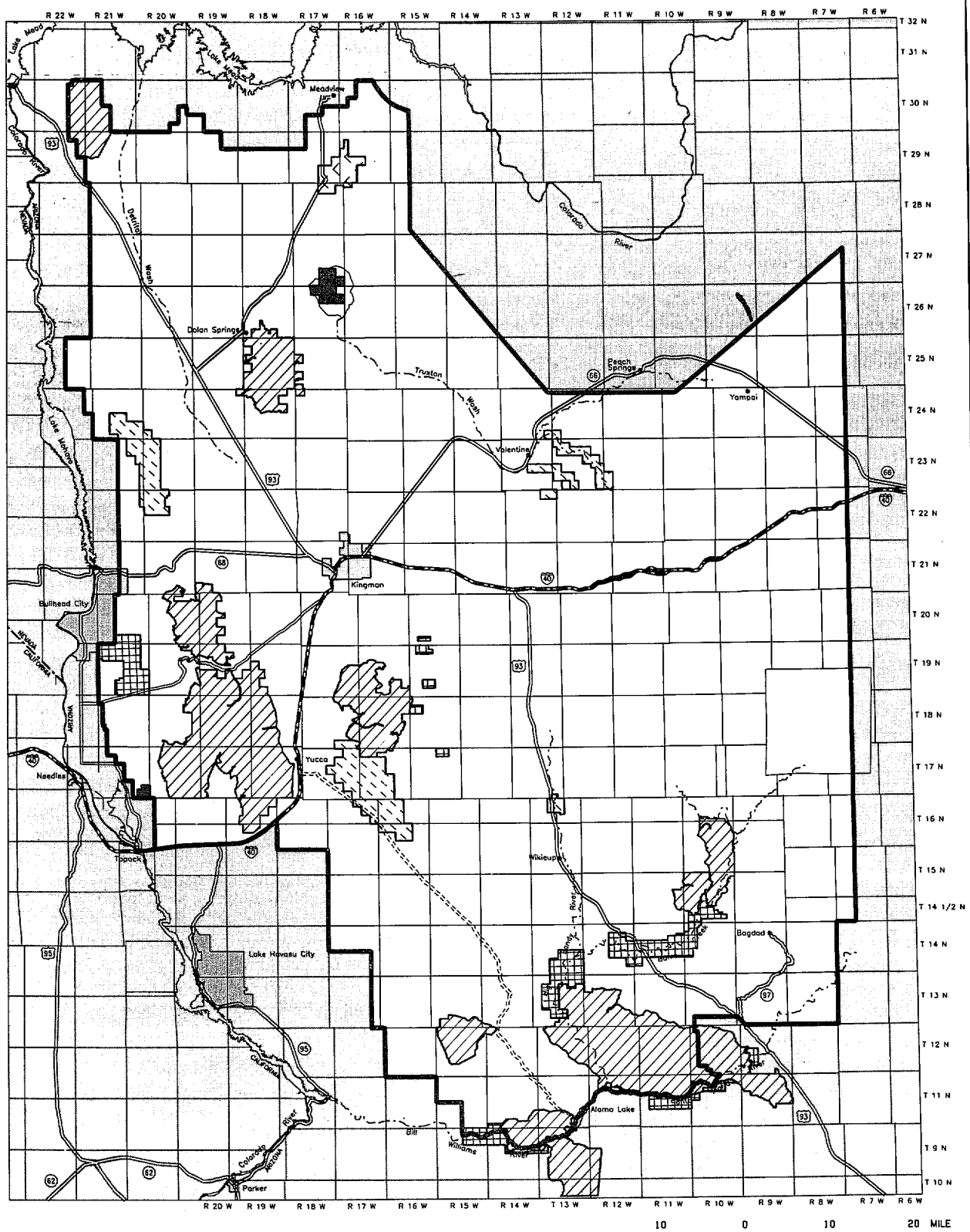
Map 25

GRAZING RESTRICTIONS ALTERNATIVE 3



Map 26

OFF-HIGHWAY VEHICLE DESIGNATIONS – ALTERNATIVE 3



OPEN

CLOSED

UNSHADED AREAS WITHIN RMP BOUNDARY ARE EXISTING ROADS, TRAILS & WASHES

EXISTING ROADS & TRAILS

DESIGNATED ROADS, TRAILS & WASHES

DESIGNATED ROADS & TRAILS

Map 27

SPECIAL STATUS SPECIES MANAGEMENT

Objectives

Plant Species

Same as under *Alternative 2*.

Animal Species

Same as under *Alternative 2*.

Plan Actions

Desert Tortoise

Land exchanges would continue. Resources would be evaluated on lands for acquisition and disposal. If resources on the lands to be acquired outweigh the resources on the disposal lands, the exchange would proceed regardless of the presence of desert tortoises.

RIPARIAN AREA MANAGEMENT

Same as under *Alternative 2* except the area of critical environmental concern covering Wright and Cottonwood creeks would include only the area immediately along the creeks and not the area further back from the drainages.

Also, the upper portion of Burro Creek on public and state lands would be excluded from the area of critical environmental concern. Alamo Lake would be dropped from the Three Rivers Area of Critical Environmental Concern because of the Army Corps of Engineers withdrawal. Mineral closures in riparian areas are listed in Appendix 27 and Table 15.

WILD AND FREE-ROAMING HORSE AND BURRO MANAGEMENT

Same as under *Alternative 2* except the wild horse use area within the Cerbat Herd Management Area would be modified to reflect the area of manageability. The current use area identified as Marble Canyon would be eliminated from active wild horse use because the major water sources used by wild horses in this area are privately owned. Those lands within the Marble Canyon area (T. 25 N., R. 18 W. and T. 24 N., R. 18 W.) would not be identified for acquisition (see Map 9a). The horses now existing within the Marble Canyon area would be relocated to the two remaining use areas to preserve the genetic integrity of those horses. The population of wild horses in these would be managed within the constraints of the crucial elements of the habitat, including water and available forage. If this population level is below the level of genetic viability, horse numbers would be allowed to increase. Management prescriptions for the herd would include age and sex ratio manipulation, as well as preservation of an outside gene pool for periodic reintroductions.

SUPPORT SERVICES

Access

In addition to the actions described under *Alternative 2*, actions would be implemented to resolve the access concern by improving the Walnut Spring Road in secs. 8, 17, 18, 19, 20, 27, 28, 29, 33 and 34, T. 24 N., R. 13 W., a distance of seven miles.

Acquisitions

Appendix 28 and Table 6 describe proposed acquisitions to be obtained through exchange, donation or purchase with Land and Water Conservation Fund monies including lands with high values in wildlife, recreation, wilderness, cultural, riparian and special status plant and animal resources.

Lands acquired through exchange, donation, fee simple purchase or other means within special management areas (i.e., areas of critical environmental concern, designated wilderness areas, special recreation management areas, etc.) will become part of the Special Management Area at the time of acquisition. Management objectives for these acquired lands will be identical to those for their special management area.

Law Enforcement

Same as under *Alternative 2*.

CHANGES BY ALTERNATIVES

Table 16 summarizes the changes made for each resource activity within each of the three alternatives.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED

The alternatives described below were considered by the team and management but were dropped from further consideration after the Preferred Alternative was developed. The Preferred Alternative incorporates the goal and objectives of the biodiversity and recreation alternatives. *Alternative 3* includes more recreation development than did the original recreation alternative.

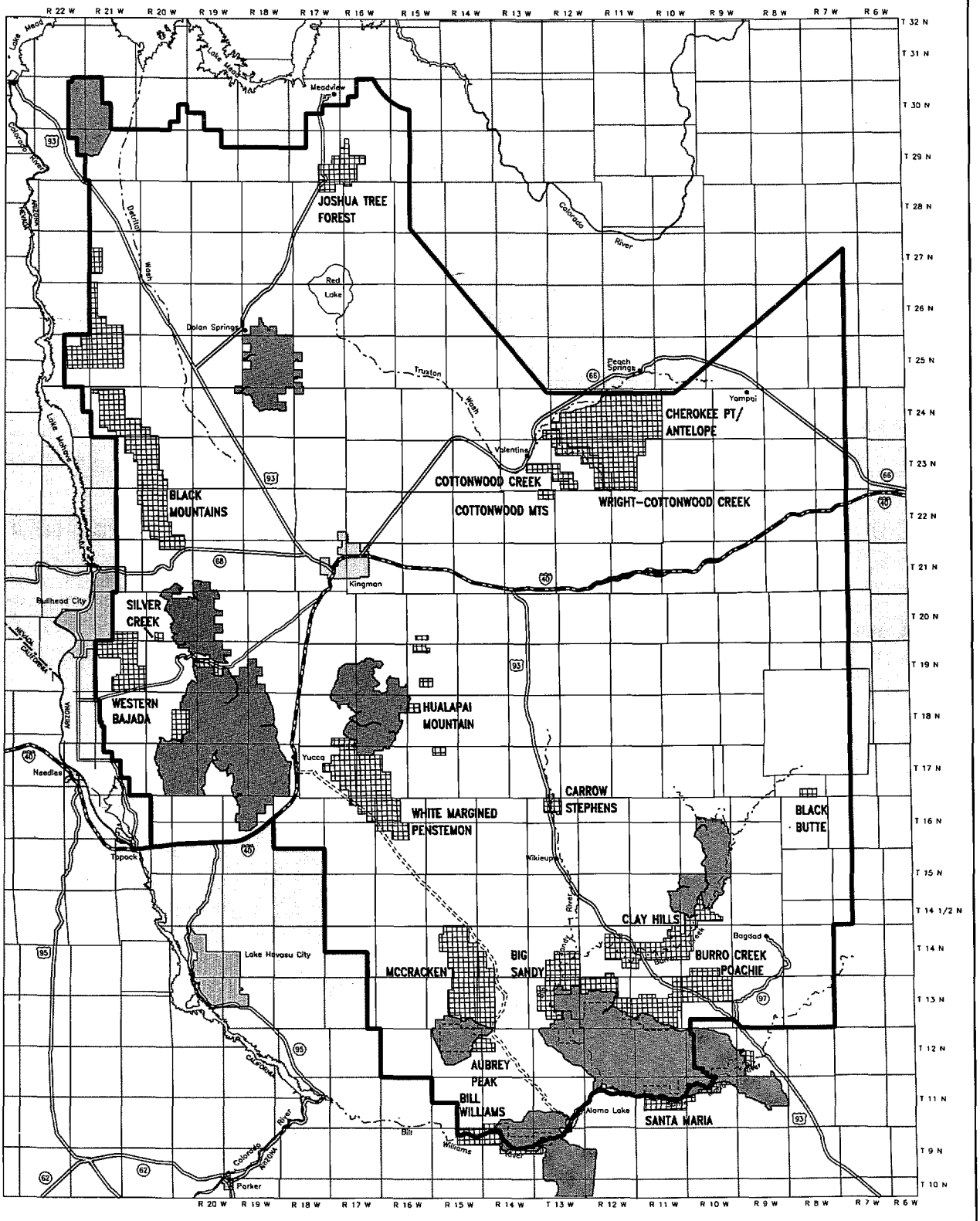
Biodiversity Alternative

The goal of this alternative was to manage resources and uses to resolve planning issues. This alternative would place the highest priority on maintaining and improving watershed (natural environment) values. Resource uses would be allowed only if they would not significantly impair such watershed values as soil, water, vegetation, rangeland, wildlife and riparian habitat.

Recreation Alternative

The goal of this alternative was to resolve planning issues while emphasizing developed and undeveloped recreation opportunities without significantly impairing watershed values. Use of other resources would be allowed as described for the Biodiversity Alternative above.

ALTERNATIVE 3 ACECs



ALTERNATIVE 3 ACEC

DESIGNATED WILDERNESS

ACEC INSIDE WILDERNESS

Map 28

RESOURCE MONITORING

Table 17 contains a proposed monitoring schedule for the resource area.

SUMMARY OF IMPACTS BY ALTERNATIVE

Table 18 summarizes the impacts from each of the three alternatives.

SPECIAL MANAGEMENT AREAS

Objectives

The objective is to protect critical resources by designating only the most critical areas as areas of critical environmental concerns.

Plan Actions

Same as under *Alternative 2* except for the following changes. Management prescriptions would remain the same as shown in the **areas of critical environmental concern descriptions outlined in the Special Management Areas section of *Alternative 2*, Table 6 and Table 11** except where changes are specifically mentioned (see **Map 28 and Table 14**). Land acquisitions are listed in **Appendix 27. Mineral restrictions for *Alternative 3* areas of critical environmental concerns are shown in Table 15.**

Within special management areas, the total amount of federally controlled surface estate exceeds the total amount of federal mineral estate. Therefore, the total acreage of mineral withdrawals may be less than the total federally controlled surface acreage.

The Cherokee Point Antelope Habitat Area of Critical Environmental Concern is described below.

The Joshua Tree Forest-Grand Wash Cliffs Area of Critical Environmental Concern would be restricted to only the area of prime stands of Joshua trees and be called the Joshua Tree Area of Critical Environmental Concern. The **entire** area would be closed to mineral entry.

The Black Mountains Area of Critical Environmental Concern would be the same as under *Alternative 2* except that it would include **crucial ungulate conflict areas such as** lambing **and foaling** grounds, **key watering sites** and high-value habitat.

The Silver Creek Area of Critical Environmental Concern **would contain the same management prescriptions as the Black Mountains Area of Critical Environmental Concern in *Alternative 2*.** These prescriptions address cultural resource needs (**see description below**).

Wright Creek would be designated a separate area of critical environmental concern encompassing mainly the riparian zone. Cottonwood Creek would become a separate area of critical environmental concern encompassing mainly the riparian zone. Off-highway vehicle use would be allowed on designated roads within the areas of critical environmental concern.

The Cottonwood Mountains Area of Critical Environmental Concern **(part of the Wright and Cottonwood areas of critical environmental concern in *Alternative 2)*** would become a separate area of critical environmental concern encompassing lands with critically important cultural values, **(see description below).**

The size of the Burro Creek Riparian and Cultural Area of Critical Environmental Concern would be reduced by dropping the upland watershed on the McElhaney Allotment and the segment of creek passing through state and private land all east of the Upper Burro Creek Wilderness Area.

The Black Butte Area of Critical Environmental Concern **(part of the Burro Creek Area of Critical Environmental Concern in *Alternative 2)*** would include only critically important cultural features.

CHEROKEE POINT ANTELOPE HABITAT AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

The high elevation grasslands east of Wright Creek support a native herd of pronghorn antelope. This habitat is in **unacceptable** condition. Potential for habitat improvement is very high. Antelope and other plant and animal species associated with this native grassland habitat contribute significantly to the overall biological diversity of this area.

IMPORTANCE

Year-round grazing and other factors have resulted in a decline in range condition which needs to be changed. The antelope habitat will respond quickly and positively to proper grazing of livestock, including periodic rest periods. Since the area is now well-blocked public land, the BLM has a unique opportunity to develop management prescriptions designed to reestablish healthy rangeland ecosystems.

GOAL

To improve and maintain rangeland habitat conditions.

OBJECTIVES

1. Achieve and maintain diverse plant communities and stable soils.

2. Resolve conflicts caused by incompatible activities on private and state lands which affect management of resources on neighboring public lands.

3. Minimize surface disturbance.

4. Improve antelope habitat and enhance population viability.

5. Provide high quality livestock forage on a sustained yield basis.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of 54,457 acres of public lands as an area of critical environmental concern.

2. Limit off-highway vehicle use to existing roads, trails and washes.

3. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities above casual use.

4. Allow mineral leasing subject to appropriate stipulations designed to protect resource values.

5. Acquire 1,267 acres of private lands and 320 acres of state lands (surface and subsurface) and 19,747 acres of nonfederal subsurface estate (see Appendix 28).

6. Confine new major rights-of-way to existing corridors.

7. **Do not allow fuelwood cutting.**

8. Manage livestock grazing to achieve goals and objectives of the area. Develop desired plant community descriptions **for pronghorn antelope and livestock habitat** and incorporate these into the allotment management plan.

9. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

10. Develop an area of critical environmental concern plan.

SILVER CREEK CULTURAL RESOURCES AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

This area has the oldest remains of non-Indian habitations known in the resource area. These include more than a dozen stone cabins from the 1860s, which are collectively known as Fort Silver. Rare arrastras (an early type of gold and silver mill) have also been recorded.

IMPORTANCE

The only non-Indian occupation older than the Fort Silver area was Fort Mojave (1859) along the Colorado River. Almost all traces of Fort Mojave have been destroyed. This adds to the importance of the Silver Creek area where early lifestyles, architecture, mining techniques, etc., can be studied and preserved. At least two persons important to local history are also connected with Silver Creek.

GOAL

To improve management of the historic cultural resources and their scientific, public and conservation values.

OBJECTIVES

1. Determine the extent and significance of the historic cultural resources.

2. Promote opportunities for scientific study and public enjoyment of the historic cultural resources.

3. Resolve conflicts caused by incompatible activities on private lands which affect management of resources on neighboring public lands.

4. Minimize adverse interactions between people and cultural resources.

5. Reduce vandalism **and reduce deterioration from natural forces.**

6. Minimize surface disturbance.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of 601 acres of public lands as an area of critical environmental concern.

2. Limit off-highway vehicle use to designated roads, trails and washes.

3. Acquire 20 acres of private lands.

4. Acquire 640 acres of non-federal subsurface estate (see Appendix 27).

5. Promote cultural resource inventories and research projects by qualified institutions and individuals. **Stabilize and interpret historic structures and features for public education and enjoyment.**

6. Route all rights-of-way around the area of critical environmental concern.

7. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

8. Develop site-specific project plans.

9. Do not allow removal of native plants.

10. Develop an area of critical environmental concern plan including patrols, signing, monitoring, etc.

11. **Require mining plans of operations and mandatory bonding of all mineral operations above casual use.**

12. Allow mineral leasing subject to stipulations.

13. Do not allow mineral materials disposals.

COTTONWOOD MOUNTAINS CULTURAL RESOURCES AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

The area is important because it affords opportunities to study how groups interacted, such as the prehistoric Cerbat and Prescott cultures and the historic Hualapai and Yavapai tribes. It has the most extensive petroglyphs known in the resource area. The cultural resources are unique for several reasons, in addition to their size. They have a great variety of styles, showing use of the area by several groups over a long time in areas where rock art is not usually found. One local Native American reported that this area was a neutral region among tribes where they could meet without war. The sites are in excellent condition with almost no vandalism.

IMPORTANCE

The Cottonwood Mountains are in a transition zone between the Great Basin and the Colorado Plateau. This area is unique because of the numerous sites of the Cohonina culture dating from approximately A.D. 700 to 1150. It also contains Prescott culture pueblos which date to the same time period. The western Cohonina sites have never been studied. This area offers opportunity to learn about these prehistoric people and see how they interacted with their Prescott neighbors. It also has a prehistoric agricultural site, only one other of which has been recorded in the resource area. Agricultural activities away from the main rivers were extremely rare in northwestern Arizona.

GOAL

To improve management of the cultural resources and their scientific, public and conservation values.

OBJECTIVES

1. Determine the extent and significance of the historic cultural resources.

2. Promote opportunities for scientific study of the historic cultural resources.

3. Resolve conflicts caused by incompatible activities on private lands which affect management of resources on neighboring public lands.

4. Protect cultural sites on private and public lands.

5. Minimize adverse interactions between people and cultural resources.

6. Stop vandalism.

7. Minimize surface disturbance.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of 1,278 acres of public lands as an area of critical environmental concern.

2. Limit off-highway vehicle use to designated roads, trails and washes.

3. Conduct cultural inventories and foster research projects.

4. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities.

5. Allow mineral leasing subject to appropriate stipulations designed to protect resource values.

6. Do not allow mineral material disposals.

7. Acquire 804 acres of private lands (surface and subsurface) (see Appendix 28).

8. Promote cultural resource inventories and research projects by qualified institutions and individuals.

9. Route major rights-of-way around the area of critical environmental concern.

10. Do not allow removal of native plants except for salvage operations.

11. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.

12. Develop an area of critical environmental concern plan including patrols, signing, monitoring, etc..

BLACK BUTTE CULTURAL RESOURCES AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

This area contains the westernmost known multi-storied, Anasazi-like stone masonry pueblos constructed by the Prescott culture in A.D. 1200, as evidenced by pueblos with eight-foot-tall walls still standing in some locations. Several prehistoric peoples used this area together. It was a major source of obsidian for construction of tools.

IMPORTANCE

Very little scientific research has been conducted in this area. It is one of the most remote and scenic areas in the state. This area may contain the greatest density of rare and unique cultural resources in the entire resource area. It is a prime area for answering questions about the origin and development of both the Hualapai and the Yavapai peoples. The obsidian quarry has unusually large nodules and may have been a major source for several groups. The area

requires special management because of existing vandalism of these examples of the Prescott culture.

GOAL

To improve management of the cultural resources and their scientific, public and conservation values.

OBJECTIVES

1. Determine the extent and significance of the historic cultural resources.
2. Promote opportunities for scientific study of the historic cultural resources.
3. Protect cultural sites on public lands.
4. Minimize adverse interactions between people and cultural resources.
5. Stop vandalism.
6. Minimize surface disturbance.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of 1,280 acres of public lands as an area of critical environmental concern.
2. Limit off-highway vehicle use to designated roads, trails and washes.
3. Require mining plans of operation and mandatory bonding for all mineral exploration and development activities above casual use.
4. Allow mineral leasing subject to appropriate stipulations designed to protect resource values.
5. Do not allow mineral material disposals.
6. Promote cultural resource inventories and research projects by qualified institutions and individuals.
7. Route major rights-of-way around the area of critical environmental concern.
8. **Acquire non-federal minerals.**
9. Do not allow removal of native plants.
10. Evaluate all other land use authorizations for compatibility with goals and objectives of the area of critical environmental concern.
11. Develop an area of critical environmental concern plan including patrols, signing, monitoring, etc.
12. **Stabilize selected archaeological sites.**

WESTERN BAJADA TORTOISE AND CULTURAL AREA OF CRITICAL ENVIRONMENTAL CONCERN

RELEVANCE

This area has been identified as Category II habitat for the desert tortoise, as defined in the BLM's Rangewide Tortoise Habitat Management Plan. The desert tortoise represents a wildlife resource with a very uncertain future. The tortoise is now listed as a federally threatened species throughout most of its range, with the exception of the Sonoran Desert population, which is also a candidate for listing. Under the rangewide plan, Category II areas have been identified as habitat which may be essential for the continued existence of a viable population of desert tortoise.

This area contains several very significant historic and prehistoric resources, including the Mojave Road Indian Trail, the Beale Wagon Road, macroflake sites and petroglyphs. The Mojave Road has high significance to the Mojave Indians. It was a major trading and communication route between tribes in California, Nevada, Arizona and New Mexico for more than 1,000 years. The Beale Wagon Road is of national importance as the first wagon road across northern Arizona and is known historically as the site for the U.S. Army's camel experimentation project.

IMPORTANCE

The desert tortoise has existed for tens of thousands of years and now is said by some to face the threat of extinction. It is now a listed species in most of its range and a candidate for listing throughout the rest of its range. There are few places where a desert tortoise population is considered to be in a healthy, stable, thriving condition. The future of this species depends on how well the BLM manages the remaining desert tortoise habitat.

Concern for the rapid decline of the Mohave tortoise population has gained international attention, being closely monitored by such conservation groups as the Desert Tortoise Council, the Natural Resources Defense Council, the Environmental Defense Fund and the Defenders of Wildlife. Similar concern has been expressed regarding the Sonoran population. In response, the BLM developed the Desert Tortoise Rangewide Plan (1988). Management goals, objectives and prescriptions would conform to the rangewide plan.

All of the historic and prehistoric resources are extremely rare, fragile, irreplaceable and threatened. The desire for more residential and civic lands by developers and city officials in Bullhead City is a major threat to the continued existence of these important cultural resources. Part of the Beale Wagon Road was damaged by unauthorized construction of access roads in 1986. The area contains the last remaining location, on public lands, of a large macroflake site. Other areas are now in private and state ownership as a result of land exchanges.

GOAL

Promote long-term viability of a desert tortoise population and protection of cultural resources.

OBJECTIVES

1. Achieve and maintain diverse plant communities and stable soils.
2. Obtain adequate data on tortoise population dynamics to guide management decisions.
3. Resolve conflicts caused by incompatible activities occurring on private and state lands which affect management of resources on neighboring public lands.
4. Minimize adverse interactions among people, tortoises and cultural resources.
5. Minimize surface disturbance.
6. Determine the extent and significance of cultural resources.
7. Promote opportunities for scientific study of cultural resources.

MANAGEMENT PRESCRIPTIONS

1. Propose designation of 15,866 acres of public lands as an area of critical environmental concern.
2. Limit off-highway vehicle use to designated roads and trails.
3. Withdraw the area from mineral entry and mineral leasing and not allow mineral material disposals.
4. Acquire 6,968 acres of non-federal subsurface.
5. Promote cultural resource inventories and research projects by qualified institutions and individuals.
6. Develop opportunities to cooperatively manage or acquire non-federal lands containing significant cultural resources.
7. Route new major rights-of-way around the area of critical environmental concern.
8. Do not allow removal of native plants except for salvage operations.
9. Prohibit camping and discourage day use of the area.
10. Evaluate all other land use authorizations for compatibility with the goals and objectives of the area of critical environmental concern.
11. Implement the decisions recommended in the withdrawal and classification section of Lands in Alternative 2.
12. Formally classify the forage on the area for use by wildlife.
13. Develop an area of critical environmental concern plan.

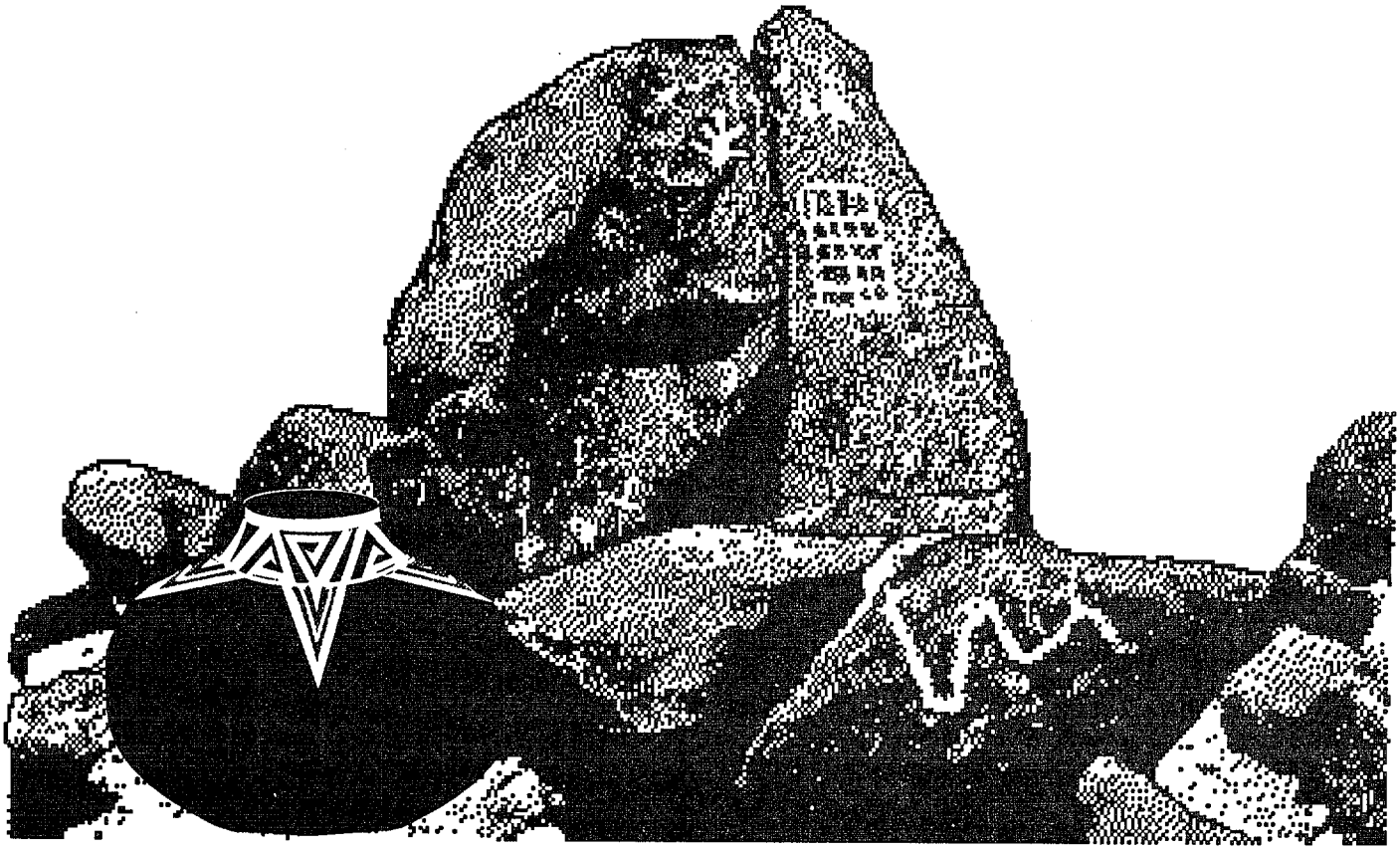


Table 14
ALTERNATIVE 3 SUMMARY OF MANAGEMENT PRESCRIPTIONS FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Site Name and Designation	Values	Lands	Minerals	Range and Watershed Management	Cultural	Recreation and OHVs	Wildlife and T&E	Riparian	Vegetative Products
Joshua Tree Forest ACEC	Prescriptions are the same under alternative 2, except the area covered includes only the prime Joshua tree forest, thus reducing the size of the ACEC from 39,060 acres to 8,510 acres								
Black Mountains ACEC	Prescriptions are the same under Alternative 2, except the area covered includes only the lambing grounds and high-value habitat, reducing the size of the ACEC from 114,242 acres to approximately 65,600 acres								
Silver Creek Cultural Resources ACEC (601 acres)* In Alternative 2, this area is included in the Black Mountains ACEC	Rare and outstanding cultural and historical resources	Route all rights-of-way around the ACEC; acquire non-federal lands and minerals	Require mining plans of operation and mandatory bonding; allow mineral leasing subject to stipulations; do not allow mineral material disposals		Prepare specific project plans; promote inventories and research by qualified institutions and individuals; develop an ACEC plan, including patrols, signing and monitoring	Limit off-highway vehicle use to designated roads, trails, and washes			Prohibit removal of native plants
Wright Creek ACEC	This area includes only the Wright Creek riparian zone. The surrounding watershed has been eliminated. The area is reduced to 9,236 acres. Prescriptions dealing with riparian values are the same as the Wright-Cottonwood Creeks Riparian and Cultural ACEC in *Alternative 2*. The prescriptions for cultural resources have been eliminated								
Cottonwood Creek Riparian ACEC	This area includes only the Cottonwood Creek riparian zone. The surrounding watershed has been eliminated. The area is reduced to 4,924 acres. Prescriptions dealing with riparian values are the same as the Wright-Cottonwood Creeks Riparian and Cultural ACEC in *Alternative 2*, except mineral withdrawal and no surface occupancy stipulations have been removed. The prescriptions for cultural resources have been eliminated.								

* Public land surface acres

(continued)

Table 14 (continued)
ALTERNATIVE 3 SUMMARY OF MANAGEMENT PRESCRIPTIONS FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Site Name and Designation	Values	Lands	Minerals	Range and Watershed Management	Cultural	Recreation and OHVs	Wildlife and T&E	Riparian	Vegetative Products
Cottonwood Mountains Cultural Resources ACEC **(1,278 acres)** In Alternative 2, this area is included in the Wright-Cottonwood-Creeks ACEC	Rare and outstanding cultural resources	Acquire private lands and minerals; route major rights-of-way around the ACEC	Require mining plans of operation and mandatory bonding; allow mineral leasing subject to stipulations; do not allow mineral material disposals		Prepare site-specific project plans; promote inventories and research by qualified institutions and individuals; develop an ACEC plan including patrols, signing and monitoring	Limit off-highway vehicle use to designated roads, trails and washes			Prohibit removal of native plants
Cherokee Point Antelope ACEC (54,472 acres)	Important potential to improve antelope habitat	Acquire private and state lands and minerals; confine new rights-of-way to existing corridors	Require mining plans of operation and mandatory bonding; allow mineral leasing subject to stipulations	Manage livestock grazing to achieve antelope habitat desired plant community description objectives		Limit off-highway vehicle use to existing roads, trails and washes	Manage antelope habitat at its optimum potential		Do not allow fuelwood cutting
Hualapai Mountain Natural Area Resource ACEC	Prescriptions are the same as under *Alternative 2*								
White-Margined Penstemon Reserve ACEC	Prescriptions are the same as under *Alternative* 2, **except 13,974 acres are closed to mineral material disposals**								

* Public land surface acres

(continued)

Table 14(continued)
ALTERNATIVE 3 SUMMARY OF MANAGEMENT PRESCRIPTIONS FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Site Name and Designation	Values	Lands	Minerals	Range and Watershed Management	Cultural	Recreation and OHVs	Wildlife and T&E	Riparian	Vegetative Products
Carrow-Stephens Ranches ACEC	Prescriptions are the same as under *Alternative 2*								
McCracken Desert Tortoise Habitat ACEC	Prescriptions are the same as under *Alternative 2*, **except the area would be closed to livestock grazing; 19,038 acres are closed to mineral material disposals**								
Poachie Desert Tortoise Habitat ACEC	Prescriptions are the same as under *Alternative 2*, **except the area would be closed to livestock grazing; 32,121 acres are closed to mineral material disposals**								
Aubrey Peak Bighorn Sheep Habitat ACEC	Prescriptions are the same as under *Alternative 2*; **2,391 acres are closed to mineral material disposals**								
Burro Creek Riparian ACEC	Prescriptions are the same as under *Alternative 2*, except the eastern third of the area, **through state and private lands,** has been eliminated from the ACEC, reducing the size of the area to 16,049 acres								
Black Butte Cultural Resources ACEC (1,280 acres)* In *Alternative 2*, this area is included in the Burro Creek ACEC	Rare and outstanding cultural resources	Route major rights-of-way around the ACEC; acquire non-federal minerals	Require mining plans of operation and mandatory bonding; allow mineral leasing subject to stipulations; do not allow mineral material disposals		Prepare site-specific project plans; promote inventories and research by qualified institutions and individuals; develop an ACEC plan including patrols, signing and monitoring	Limit off-highway vehicle use to designated roads, trails and washes			Do not allow removal of native plants

* Public land surface acres

(continued)

Table 14 (continued)
ALTERNATIVE 3 SUMMARY OF MANAGEMENT PRESCRIPTIONS FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Site Name and Designation	Values	Lands	Minerals	Range and Watershed Management	Cultural	Recreation and OHVs	Wildlife and T&E	Riparian	Vegetative Products
Clay Hills Research Natural Area	Prescriptions are the same as under *Alternative 2*.								
Big Sandy Riparian ACEC (13,948 acres)*	Prescriptions are the same as the Three Rivers Riparian ACEC under *Alternative 2* except that the Alamo Lake area has been eliminated and the Big Sandy, Santa Maria and Bill Willliams rivers have been placed in separate ACECs.								
Santa Maria Riparian ACEC (20,674 acres)*	Prescriptions are the same as Three Rivers Riparian ACEC in Alternative 2 except that the Alamo Lake area has been eliminated and Big Sandy, Santa Maria, and Bill Williams Rivers have been placed in separate ACECs.								
Bill Williams Riparian ACEC (10,916 acres)*	Prescriptions are the same as the Three Rivers Riparian ACEC under *Alternative 2* except that the Alamo Lake area has been eliminated and the Big Sandy, Santa Maria and Bill Williams rivers have been placed in separate ACECs.								
Western Bajada Tortoise and Cultural ACEC (15,866 acres)	Excellent habitat for desert tortoise; rare cultural resources; open space near major population centers	Acquire private lands; route new rights-of-way around the ACEC; implement recommended withdrawal decisions; acquire non-federal minerals.	Withdraw from mineral entry and leasing; do not allow mineral material disposals	Classify all animal unit months for wildlife	Prepare site-specific project plans; seek a cooperative agreement to manage sites on private lands not acquired	Limit off-high way vehicle use to designated roads and trails; discourage camping and other intensive uses of the area	Prepare an ACEC plan including tortoise habitat improvement objectives		Prohibit removal of native plants except for salvage operations

* Public land surface acres

Table 15
Alternative 3 Mineral Closures

Name	Closed to Mineral Material Disposal	Withdrawn from Mineral Entry	Mineral Leasing No Surface Occupancy	Withdrawn from Mineral Leasing
Joshua Tree Forest	5,620	5,620	0	0
Black Mountains	46,383	0	0	0
Silver Creek Cultural	601	0	0	0
Western Bajada	8,902	8,902	0	8,902
Wright Creek	3,380	3,380	3,380	0
Cottonwood Creek	1,190	0	0	0
Cottonwood Mountains Cultural	1,278	0	0	0
Cherokee Point Antelope	0	0	0	0
Hualapai Mountains	2,186	2,186	2,186	0
White-Margined Penstemon	13,974	0	0	0
Carrow-Stephens Ranches	542	542	542	0
McCracken Desert Tortoise Habitat	19,038	0	0	0
Poachie Desert Tortoise Habitat	32,121	0	0	0
Aubrey Peak Bighorn Sheep Habitat	2,391	0	0	0
Burro Creek Riparian	5,160	5,160	5,160	0
Black Butte Cultural	1,280	0	0	0
Clay Hills	1,114	1,114	0	1,114
Big Sandy Riparian	1,739	1,739	1,739	0
Santa Maria Riparian	1,268	1,268	1,268	0
Bill Williams Riparian	900	900	900	0
Campgrounds	515	515	515	0
Total Public Land Acres*	149,582	31,326	15,690	10,016

* The acreages were obtained from the Geographic Information System. Margin of error is ± one percent.

Table 16
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (Current Management)	Alternative 2 (Preferred Alternative)	Alternative 3
MINERALS MANAGEMENT			
Leasing categories	**253,795** acres open to lease subject to no surface occupancy to protect bighorn sheep habitat; remaining acres open to leasing subject to standard lease terms and conditions; **386,532 acres withdrawn in wilderness areas.**	**1,555,272** acres open to lease subject to standard lease terms and conditions; **23,186** acres open to lease with no surface occupancy; **1,114** acres withdrawn from mineral leasing (see **Table 12**); **386,532 acres withdrawn in wilderness areas.**	**1,545,381** acres open to lease subject to standard lease terms and conditions; **16,893** acres open to lease with no surface occupancy; **10,016** acres would be withdrawn from mineral leasing (see **Table 15**); **386,532 acres withdrawn in wilderness areas.**
Mining law	Entire resource area open to exploration and development subject to surface management regulations; **386,532 acres withdrawn in wilderness areas.**	**Approximately 23,800** acres closed to mineral entry (see appendices 10 and 11); **386,532 acres withdrawn in wilderness areas.**	**32,529** acres would be closed to mineral entry (see appendices 10 and **27**); special stipulations would be added to exploration and development plans to maintain unique features and wildlife habitat; **386,532 acres withdrawn in wilderness areas.**
Material disposal	Entire resource area open to disposal of mineral materials on a case-by-case basis; **386,532 acres closed in wilderness.**	**Approximately 23,800 acres** closed to mineral material disposal; **386,532 acres closed in wilderness area;** resource area open to disposal of mineral materials on a case-by-case basis (**1,555,272** acres).	**148,993** acres closed to mineral material disposal; remainder of resource area open to disposal of mineral materials on a case-by-case basis (**1,428,917** acres); **386,532 acres closed in wilderness area.**
LANDS			
Designating areas suitable for disposal through exchange or sale	**The 102,547 acres shown in the management framework plans** would remain as presently designated (see Appendix 3); sales only to resolve trespass.	**Increase disposal areas to 181,553 acres (see Appendix 12); 13,072 acres reduced from the management framework plan proposed disposal acres (Appendix 13); sales to resolve trespass and Coconino County lands if not disposed of through exchange.**	Same as under *Alternative 2* **except increases and decreases in disposal areas would result in a net reduction of 6,282 acres (see Appendix 25).**
Designating lands as suitable for future lease or conveyance under the Recreation and Public Purposes Act	Some areas have no lands left for future disposal under the Recreation and Public Purposes Act for community purposes.	Appendix 17 **describes lands to be reserved for recreation and public purposes near communities.**	Same as under *Alternative 2*.
Options to resolve trespass situations not clearly stated in management framework plan	Resolution may not be possible if not defined in the management framework plan; sales limited to identified parcels.	Existing and new trespass cases will be resolved by removal or authorization such as Federal Land Policy and Management Act lease, sale or exchange after evaluation on a case-by-case basis.	Same as under *Alternative 2*.
Option of allowing commercial leases on retention lands not discussed in management framework plan	Proposals cannot be considered because the management framework plan did not address this type of land use.	Proposals for commercial Federal Land Policy and Management Act leases will be evaluated on a case-by-case basis to determine need and appropriateness and whether they meet resource management objectives.	Same as under *Alternative 2*.

(continued)

Table 16 (continued)
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (Current Management)	Alternative 2 (Preferred Alternative)	Alternative 3
LANDS (continued)			
Right-of-way utility corridors	The nine rights-of-way utility corridors designated in the management framework plan are incorporated into this Resource Management Plan.	**Two of nine corridors combine to make eight carried forward from management framework plans; one corridor modified to exclude the area of critical environmental concern.**	Same as under *Alternative 2*.
	A plan amendment could be needed for additional corridors.	Additional corridors are designated for transportation, utility and pipeline corridors: coal slurry pipeline, AT&T fibre optic line (one mile wide), **Lake Mead to Kingman water/natural gas pipeline (one mile wide) and Transwestern/Four Corners (one mile wide).**	Same as under *Alternative 2*..
Designating communication sites	The Oatman and Willow Beach sites were designated in the management framework plans. All other areas are open to further development, except retention areas in the Cerbat Management Framework Plan.	**Ten commercial mountaintop sites would be restricted to those designated in Appendix 18, with limited development until site plans are completed; Cherum Peak will be designated for possible future use; other non-mountaintop single-use communication sites would be issued on a case-by-case basis.**	Same as under *Alternative 2*.
Developing communication site plans and user groups	Communication sites are crowded and no site plans exist.	Develop communication site **plans for all designated sites in Appendix 18, placing priority on Oatman and Getz peaks.**	Same as under *Alternative 2*.
Recommendations to retain or revoke withdrawals and classifications required	Unnecessary classifications would continue to exist; withdrawals would continue until evaluated through withdrawal review process.	Recommend 22,490.28 acres of withdrawals for retention, if justified, and 4,027.09 acres for revocation or rejection as shown in appendices 15 and 16; classifications would be terminated if not needed; new withdrawals will be pursued as identified in area of critical environmental concern prescriptions.	Same as under *Alternative 2*; approve Army Corps of Engineers Application AR-035844 for entire 3,488.62 acres.
WATERSHED (SOIL, WATER, AIR AND VEGETATION MANAGEMENT)			
Management direction	No change.	Same as under *Alternative 1* except upon completion of the soil survey and ecological site inventory, areas for potential vegetation treatments will be identified and priorities will be set.	Same as under *Alternative 2*.
Management direction	No change.	Woodcutting, yucca harvesting or other large-scale harvesting subject to inventory and development of management plans before authorized; during development of management plans, consideration would be	Same as under *Alternative 1* except private and commercial fuelwood cutting and yucca harvesting would be eliminated throughout the resource area.

(continued)

Table 16 (continued)
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (Current Management)	Alternative 2 (Preferred Alternative)	Alternative 3
VEGETATIVE PRODUCTS MANAGEMENT (continued)			
		given to suitability criteria and impacts identified through monitoring.	
RANGELAND MANAGEMENT			
Management direction	Review and revise allotment management plans, as necessary, to incorporate goals and objectives of the Resource Management Plan; the Silver Creek, Chino, Alamo, Lazy YU B and Black Mountain B grazing allotments would be closed to livestock grazing.	To resolve habitat use conflicts, livestock would be allocated 30 percent of the total forage available to all ungulates in the Black Mountains. Data would be compiled and analyzed on areas where use overlap occurs. Forage allocations would be refined based on the results of these analyses. Monitoring studies continue to be installed as needs arise. Allotment management plans or grazing systems developed or revised, as needed, on allotments within areas or environmental concern or special management areas to meet area of critical environmental concern or special management area goals and objectives **and comply with state water quality standards.** Priority for allotment management plan development or revision based on management issues. Ephemeral line would be reviewed and revised to reflect forage availability, following completion of the soil survey and ecological site inventory. Affected allotments would be reclassified. **The Silver Creek, Chino, and Alamo** grazing allotments would be closed to livestock grazing and the forage reserved for wildlife. **The Lazy YU B and Black Mountain B** grazing allotments would be closed to livestock grazing because of conflict between livestock and homeowners. Domestic sheep or goats on public lands within nine miles of bighorn sheep habitat subject to immediate impoundment.	Same as under *Alternative 2* except **the McCracken and Poachie areas of critical environmental concern would be closed to livestock grazing. The following grazing allotments would be affected:** **Chicken Springs** **Bateman Springs** **Artillery Range** **Greenwood Community** **Burro Creek Ranch** **Arrastra Mountain**
CULTURAL RESOURCE MANAGEMENT			
Management direction	No change.	Initiate Class II inventory and develop Cultural Resource Project Plans for areas designated. Acquire **2,746** acres of priority cultural resource lands. Develop two petroglyph resources for public use. Initiate ethnographical studies. Promote inventories and research in mining areas. Develop expanded cultural resource education program.	Same as under *Alternative 2*.

(continued)

Table 16 (continued)
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (Current Management)	Alternative 2 (Preferred Alternative)	Alternative 3
CULTURAL RESOURCE MANAGEMENT (continued)			
		Promote inventories in poorly known areas by qualified volunteers. Develop cultural resource protection systems. Stabilize and interpret selected sites.	
Designations	Designate 542 acres at the Carrow-Stephens ranches as an interpretive area.	Designate the following areas of critical environmental concern: **NAME — ACRES** Carrow-Stephens Ranches **542** Black Mountains Ecosystem **114,242** Joshua Tree Forest-Grand Wash Cliffs **39,060** Wright and Cottonwood Creeks **27,285** Burro Creek **22,682** Management actions to be taken on each area of critical environmental concern and the special recreation management area are described in **Chapter II and Table 11.**	Designate the following areas of critical environmental concern: **NAME — ACRES** Black Mountains Ecosystem **65,600** Silver Creek **599** Cottonwood Mountains **1,277** Burro Creek **16,049** Black Butte 1,280 Joshua Tree Forest -Grand Wash Cliffs 8,510 Management actions would be the same as under *Alternative 2*.
RECREATION MANAGEMENT			
Management direction; developed recreation sites and recreation project plans	**Continue administration and maintenance of existing recreation sites.** Implement the two completed recreation project plans and prepare plans for the two existing developed sites.	Same as under *Alternative 1*. Also, prepare and implement recreation project plans for the following new developed recreation sites: 1. Boulder Springs - campground 2. Antelope Springs - day-use/trailhead 3. Six-Mile Crossing (Burro Creek) - campground 4. Thimble-Butte (Black Mountains) - day-use/trailhead 5. Moss Wash (east slope of Hualapai Mountains) - campground 6. **Canyon Station Spring - day-use/trailhead** 7. **Joshua Tree - campground** 8. **Kingman Regional Park - day-use/trailhead**	Same as under *Alternative 2* and add the following: 1. Antelope Springs campground and larger picnic area. 2. Grand Wash Cliffs overlook and developed campground. 3. Hualapai Valley (Music Mountains) overlook and developed campground. 4. Walnut Spring (Music Mountains) developed campground and day-use picnic area. 5. Grapevine Spring (Music Mountain) developed campground. 6. Wright Creek (south of Truxton) day-use picnic area and developed campground. 7. Cottonwood Creek (south of Truxton) developed campground. 8. Natural Corrals Wash (west of Wikieup) developed campground

(continued)

Table 16 (continued)
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (Current Management)	Alternative 2 (Preferred Alternative)	Alternative 3
RECREATION MANAGEMENT (continued)			
Interpretive sites	A recreation project plan has been prepared for a Burro Creek Overlook Interpretive Site. This recreation project plan has not been implemented to date. Implement the Burro Creek Overlook Interpretive Site Plan.	Same as under *Alternative 1*. Also, prepare and implement recreation project plans for the following interpretive overlook sites: 1. Sitgreaves Pass Overlook Interpretive Site 2. Grapevine Mesa Overlook Interpretive Site 3. Boundary Cone Scenic/Interpretive Pullout 4. Cerbat Pinnacles-Red Lake Scenic/Interpretive Pullout 5. Black Mountains Escarpment Overlook Interpretive Site 6. Thimble Butte Scenic/Interpretive Pullout 7. Black Mountains West Scenic/Interpretive Pullout	Same as under *Alternative 2*. **Also, expand the Burro Creek Overlook Site to accommodate a recreational vehicle campground and ancillary facilities.**
Sign plans	Sign plans have been prepared for two of the existing four developed recreation sites. One of the sign plans has been implemented. Implement the other completed sign plan. Prepare and implement sign plans for the two developed recreation sites that lack such plans.	Same as under *Alternative 1*. Also, **incorporate** sign **needs** into project plans, for new developed recreation and interpretive sites.	Same as under *Alternative 2*.
Recreation maintenance	Maintenance plans have been prepared for all four developed recreation sites. All four plans are being implemented.	Same as under *Alternative 1*. Also **incorporate** maintenance **needs into project plans,** for new developed recreation sites.	Same as under *Alternative 2*.
National Back Country Byway Program	The Hualapai Mountains National Back Country Byway has been proposed. Historic Route 66 National Back Country Byway is designated.	Same as under *Alternative 1* except for the additional back country byways: Diamond Bar Road Alamo Road	Same as under *Alternative 2*.
National conservation area	No action.	Propose congressional designation of the Joshua Tree Forest-Grand Wash Cliffs **Special Recreation Management Area** as an national conservation area.	Same as under *Alternative 2*.
Special recreation management areas	No special recreation management areas are designated within the resource area.	Designate six special recreation management areas: **NAME** — **ACRES*** Burro Creek — 26,000 Hualapai Crest — 53,425	Same as under *Alternative 2* except for the additional areas: **NAME** — **ACRES*** Pack Saddle/Windy Points — 6,193

(continued)

Table 16 (continued)
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (No Action)	Alternative 2 (Preferred Alternative)	Alternative 3
RECREATION MANAGEMENT (continued)			
		Historic Route 66 10,970 Carrow-Stephens Historic Ranches 542 Kingman Regional Park 12,300 Joshua Tree Forest-Grand Wash Cliffs 44,260 ***Acres include non-federal lands within the boundaries of each special recreation management area. Management prescriptions do not apply to non-federal lands within these areas.**	Mount Nutt 45 Cerbat Pinnacles 36
Extensive recreation management areas would include all public lands not within special recreation management areas	Allow for dispersed recreation. Enhance opportunities for high quality, back country recreation experiences.	Same as under *Alternative 1*.	Same as under *Alternative 1*.
Visual resource management classes	No change. The classes established under the existing management framework plans would remain unchanged.	- Designate **392,843** acres as Class I - Designate 881,569 acres as Class II - Designate 781,334 acres as Class III - Designate 3,281,290 acres as Class IV	Same as under *Alternative 2*.
Off-highway vehicle designations	Off-highway vehicle designations have not been made.	Designate OHV use areas as follows: **ACRES** **Open 1,311** Limited to: Existing roads, trails and washes **1,844,792** Existing roads and trails **106,725** Designated roads, trails and washes **29,007** Designated roads and trails **54,726** **Closed by wilderness designation 392,844**	Designate OHV use areas as follows: **ACRES** **Open 7,094** Limited to: Existing roads, trails and washes **1,876,916** Existing roads and trails **89,243** Designated roads, trails and washes **8,495** Designated roads and trails **53,813** **Closed by wilderness designation 392,844**
Long-term visitor area	None would be established.	Same as under *Alternative 1*.	Same as under *Alternative 1*.
Hiking trails	No trails.	Implement a reduced and somewhat re-directed trail construction effort including the following: 1. Hualapai Crest (modified) trail system 2. Kingman Regional Park trail system 3. Wabayuma Peak access trail 4. Mount Nutt East-to-West trail	Same as under *Alternative 2*.

(continued)

Table 16 (continued)
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (Current Management)	Alternative 2 (Preferred Alternative)	Alternative 3
RECREATION MANAGEMENT (continued)			
		5. Burro Creek-Hell's Half Acre-Kaiser Wash Loop Trail 6. Grand Wash Cliffs/Grapevine Mesa areas 7. Cerbat Crest (Packsaddle Mountain to Cerbat Pinnacles via Mount Tipton) 8. Aubrey Peak Loop Trail 9. Black Mountains Escarpment/Portland Wash area trail 10. Black Mesa to Eagle Point overlook trail 11. Cherum Peak Trail	
WILD AND SCENIC RIVERS			
	Fourteen segments of six streams have been determined to be eligible for inclusion into the National Wild and Scenic Rivers System (see Table 2). They would be managed according to protective management prescriptions so as to not impair their suitability for inclusion into the national system.	**Same as under *Alternative 1*.**	**Same as under *Alternative 1*.**
WILDLIFE HABITAT MANAGEMENT			
Management direction	Continue to manage wildlife habitats in accordance with existing habitat management plans, guidance documents, the district's wildlife policy and the needs as determined through monitoring and habitat management plan evaluations.	Increase emphasis on most sensitive wildlife resources: threatened and endangered species, riparian habitat and bighorn sheep. **Establish 13 wildlife movement corridors to maintain biotic diversity.**	Same as under *Alternative 2*.
Desert bighorn sheep	**Forage would be initially allocated for desert bighorn sheep at 24 percent of total available forage in the Black Mountains. Forage allocations for wildlife have been set in the Hualapai/Aquarius Grazing Environmental Impact Statement.**	**To resolve habitat use conflicts, desert bighorn sheep would initially be allocated forage at 30 percent of the total forage available to all ungulates in the Black Mountains. Data would be compiled and analyzed on areas where use overlaps occur, to identify crucial elements of each species' habitat. Forage allocations would be refined based on results of these analyses. Forage allocations for Aubrey Peak would remain unchanged.**	Same as under *Alternative 2*.
Changes in kind of livestock	**No domestic or feral sheep or goat grazing will be allowed within 20 miles of occupied desert bighorn habitat.**	**No domestic or feral sheep or goat grazing will be allowed within nine miles surrounding desert bighorn habitat. Unless a cooperative agreement has been reached to the contrary, domestic sheep and goats will be trucked rather than trailed when trailing would bring domestic sheep and goats closer than nine miles to occupied desert bighorn sheep ranges.**	Same as under *Alternative 2*.

(continued)

Table 16 (continued)
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (Current Management)	Alternative 2 (Preferred Alternative)	Alternative 3
WILDLIFE HABITAT MANAGEMENT (continued)			
Lambing	No change. **There is no current guidance on this issue.**	Land uses which could adversely affect lambing or rearing of newborn bighorn sheep in the Black Mountains, Aubrey Peak or **other lambing areas** would be excluded in lambing grounds from December 1 through May 31.	Same as under *Alternative 2*.
Mule deer	**Forage would be allocated for mule deer at 10 percent of total available forage in the Black Mountains.**	**To resolve habitat use conflicts, mule deer would initially be allocated forage at 10 percent of total forage available to all ungulates in the Black Mountains. Data would be compiled and analyzed on areas where use overlaps occur, to identify crucial elements of each species habitat. Forage allocations would be refined based on results of these analyses. Forage allocations for Aubrey Peak would remain unchanged.**	**To resolve habitat use conflicts, mule deer would initially be allocated forage at 10 percent of total forage available to all ungulates in the Black Mountains. Data would be compiled and analyzed on areas where use overlaps occur, to identify crucial elements of each species habitat. Forage allocations would be refined based on results of these analyses. Forage allocations for Aubrey Peak would remain unchanged.**
Antelope	Manage habitat to support **400 animal unit months of forage for** antelope on Goodwin Mesa and **300 animal unit months of forage** around Cherokee Point.	Same as under *Alternative 1*.	Antelope habitat would be improved and maintained at its optimum potential, while conducting monitoring studies to determine and adjust to the optimum numbers consistent with habitat potential and other resource values.
Designations	No action.	Manage the Black Mountains, Aubrey Peak, Burro Creek, Alamo Lake and the Santa Maria, Big Sandy and Bill Williams rivers as areas of critical environmental concern. See Table **11** for management prescriptions and Map **21** for locations.	Same as under *Alternative 2* except the Black Mountains, Wright Creek, Cottonwood Creek and Burro Creek areas of critical environmental concern would be smaller. Alamo Lake would be eliminated from the Three Rivers Riparian Area of Critical Environmental Concern. **Add the Cherokee Point Antelope Habitat Area of Critical Environmental Concern.** See Table **14** for management prescriptions and Map **28** for locations.
SPECIAL STATUS SPECIES MANAGEMENT - Plant Species			
Management direction	No change. **Continue to provide for recovered species and to improve habitats.**	Same as under *Alternative 1*.	Same as under *Alternative 1*.
Designation **of areas of critical environmental concern**	None.	Designate the Clay Hills Area of Critical Environmental Concern to protect the Arizona cliffrose (*Purshia subintegra)* and the White-Margined Penstemon	Same as under *Alternative 2*.

(continued)

Table 16 (continued)
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (Current Management)	Alternative 2 (Preferred Alternative)	Alternative 3
SPECIAL STATUS SPECIES MANAGEMENT - Plant Species (continued)			
		Reserve Area of Critical Environmental Concern to protect *Penstemon albomarginatus*. The Cerbat beard-tongue (*Penstemon bicolor var. roseus)* would be protected in the Black Mountains Ecosystem Management Area of Critical Environmental Concern.	
SPECIAL STATUS SPECIES MANAGEMENT - Animal Species			
Desert tortoise	The Rangewide Plan and Arizona Implementation Plan would be implemented.	**Same as under *Alternative 1* except the following areas of critical environmental concern would be designated:**	Same as under *Alternative 2* **except** grazing would be eliminated from the McCracken and Poachie areas of critical environmental concern.
		McCracken Desert Tortoise Habitat **Poachie Desert Tortoise Habitat**	**Designate the** Western Bajada Tortoise and Cultural Area of Critical Environmental Concern.
Hualapai Mexican vole		**Hualapai Mountain**	**Same as under *Alternative 2*.**
Bald eagle		**Burro Creek and Three Rivers**	**Same as *Alternative 2* except the Burro Creek Area of Critical Environmental Concern would be smaller and Alamo Lake would be eliminated from the Three Rivers Area of Critical Environmental Concern.**
Peregrine falcon		**Joshua Tree Forest-Grand Wash Cliffs, Burro Creek and Three Rivers**	**Same as under *Alternative 2* except the Joshua Tree and Burro Creek areas of critical environmental concern would be smaller.**
	Implement the BLM Riparian Management Strategy and inventory and classify all riparian areas. Protect and improve all riparian areas through proper land management. A priority list would identify where management actions would begin. Some priority areas in unsatisfactory condition will be corrected before completion of inventory and classification. Wild and Scenic River designation would assist management efforts.	Same as under *Alternative 1* and further emphasis would be placed on protection and enhancement of riparian areas through management prescriptions in area of critrical environmental concern plans.	Same as under *Alternative 2*.

(continued)

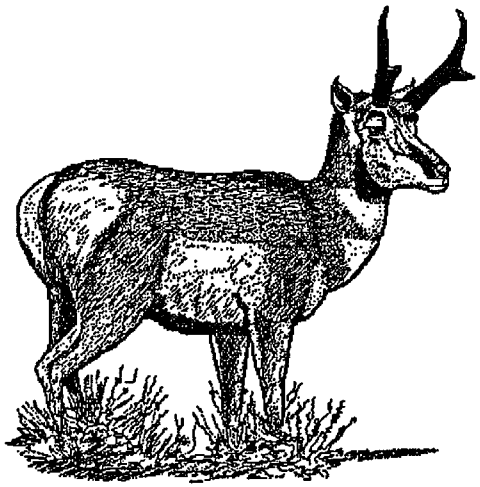
Table 16 (continued)
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (Current Management)	Alternative 2 (Preferred Alternative)	Alternative 3
HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT			
Management direction	No Change	Same as under *Alternative 1* **except groundwater basin would be mapped. Locate possible sources of contamination. Develop criteria for mitigating measures and monitor to assure compliance.**	Same as under *Alternative 2*.
WILD AND FREE-ROAMING HORSE AND BURRO MANAGEMENT			
Management direction			
Black Mountains Herd Management Area	**No Change. Forage would be initially allocated for wild burros at 20 percent of total available forage. Conduct monitoring studies to determine and adjust numbers consistent with a thriving ecological balance.**	**To resolve habitat use conflicts, wild burros would be initially allocated forage at 30 percent of the total forage available to all ungulates. Data would be compiled and analyzed on areas where use overlaps occur to identify crucial elements of each species' habitat. Forage allocations would be refined based on results of these analyses. A proposal to designate a wild burro range would be studied on a statewide basis.**	Same as under *Alternative 2*.
Big Sandy Herd Management Area	**No Change. Conduct monitoring studies to determine and adjust numbers consistent with a thriving ecological balance.**	Same as under *Alternative 1*.	Same as under *Alternative 1*.
Cerbat Herd Management Area	**A herd management area plan would be prepared outlining measures to preserve this unique herd at a viable population level in a thriving natural ecological balance with the habitat. Conduct monitoring studies to determine and adjust numbers consistent with a thriving ecological balance.**	**The boundary of the Cerbat wild horse herd management area would be identified. The BLM would determine the population structure necessary for a viable herd. Integrated habitat monitoring would allow the determination of forage allocations necessary to support a thriving natural ecological balance among all ungulates using the area. If proper use limits are exceeded, all ungulates would be reduced on an equitable basis, as long as wild horses are at or above the minimum viable population limit.** Identify and protect critical water sources. Eliminate authorized grazing use by domestic horses or burros on public lands.	**Same as under *Alternative 2*, except the Marble Canyon use area would be eliminated from active wild horse use, because the major water sources are privately owned. Horses in this area would be moved to other use areas in the Cerbat Mountains. Land identified for acquisition in T. 25 N., R. 18 W. and T. 24 N., R. 18 W. would be dropped from consideration.**

(continued)

Table 16 (continued)
SUMMARY OF CHANGES BY ALTERNATIVES

Change Agent	Alternative 1 (Current Management)	Alternative 2 (Preferred Alternative)	Alternative 3
ACCESS			
Management direction	Legal vehicular access would be acquired across private and state lands on 75 roads.	Acquire legal vehicular access across private and state lands on 24 roads and trails (see Appendix 23). Acquire legal administrative and public access on the Burro Creek hiking/equestrian trail across the private lands in secs. 10, 11, 15, 23 and 24, T. 14 N., R. 12 W. and in sec. 35, T. 15 N., R. 12 W. Reserve legal access for administrative and public vehicular use on Putnam Road when the public lands in sec. 16, T. 24 N., R. 19 W. is conveyed out of federal ownership. Improve nine roads and trials (see Appendix 24). Build hiking/equestrian trail systems identified under recreation management in this table.	Same as under *Alternative 2*, plus improve the Walnut Spring Road in secs. 8, 17, 18, 19, 20, 27, 28, 29, 33 and 34, T. 24 N., R. 13 W. a distance of seven miles.



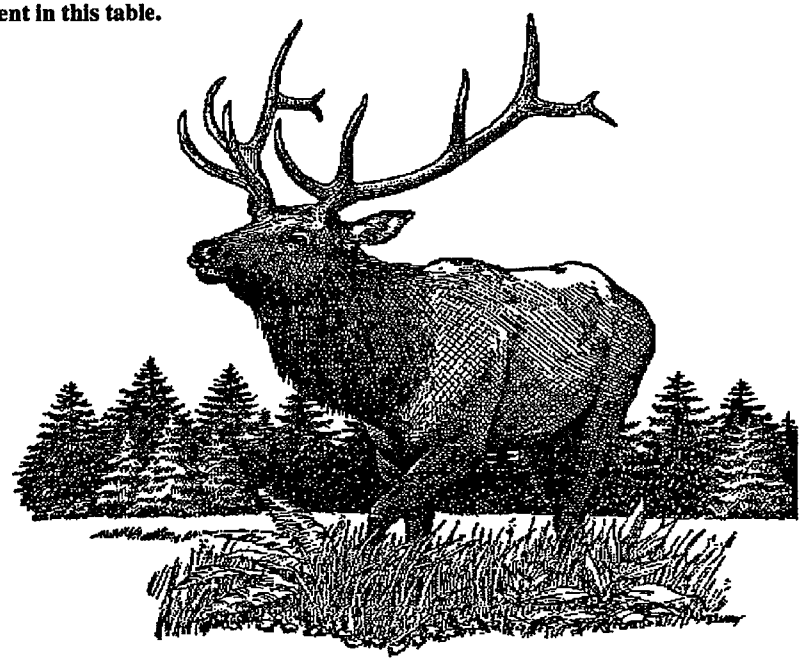


Table 17
Resource Monitoring and Evaluation Plan

Element	Item	Location	Technique	Unit of Measure	Frequency and Duration	Information Warranting Review of Decision or Activity Plan
Minerals	Material sales	All active material sale sites	Standardized appraisal methods	Tons	Annually	Depletion of material from pit area
	Mineral exploration and development	**All mineral exploration and development** activities other than casual use	Site inspection	Acres of disturbance	Annually	Adverse impacts to protected resources and values
Lands	Right-of-way	Various	Field check/inquiry	Compliance check	During and after construction every 20 years	Noncompliance Non-use
	R&PP leases	Various	Field check	Compliance	Every five years	Noncompliance
	R&PP patents	Various	Field check	Compliance	Every five years	Noncompliance
	Permits	Various	Field check	Compliance	During and after use	Noncompliance
	Trespass	Various	Field check	Compliance	Cleanup/rehab	Noncompliance
	Other leases	Various	Field check	Compliance	Every five years	Noncompliance
Soil	Classification	North half of resource area	**National Cooperative Soil Survey** (Soil Conservation Service)	Map units by soil series	One-time effort to be completed in 1996	Estimations of suitability and productivity of soils for land use action
		South half of resource area	**National Cooperative Soil Survey** (Soil Conservation Service)	Map units by soil series	One-time effort to be completed in 1998; current soil survey to be revised to meet national standards	Estimations of suitability and productivity of soils for land use action
	Soil loss	Benchmark soils, selected vegetative areas	Erosion plots at key locations	Tons/acre/year	Pre- and post-vegetative treatment	Soil loss not reduced in treated areas
Water	Quality	Riparian areas within special management areas, unique waters, scenic rivers	Field and/or laboratory analysis	Constituents (pH, parts/million, etc.) compared to quality standards	Quarterly or biannually	Progressive decline in water quality below Arizona standards
	Quantity	Riparian areas within special management areas, unique waters, scenic rivers	Stream gauging	Flow in cubic feet per second	Quarterly or biannually	Significant change in flow

(continued)

Table 17 (continued)
Resource Monitoring and Evaluation Plan

Element	Item	Location	Technique	Unit of Measure	Frequency and Duration	Information Warranting Review of Decision or Activity Plan
Climate	Influence on forage growing conditions	Strategic sites and National Oceanic and Atmospheric Administration stations	Precipitation and temperature measurements	Inches of precipitation; high and low temperatures	Quarterly on year-round basis	Excessively poor or good growing season factors
Vegetative Products	Available biomass	Where product is located	Inventory/cruising	Pounds; cords; number of plants	As demands develop	Situations where demand is exceeding sustained yield
	Sustained production	Where product is located	Growth measurements	Pounds; cords; number of plants	Annually	Situations where demand is exceeding sustained yield
	Actual use	Where permits are issued	Field observation; law enforcement patrols	Specific problem areas	Weekly during effective dates on permits	Recurrent problem areas
Rangeland	Shrub utilization	58 Improve and Maintain allotments	Key forage plant method	Percent of forage removed	Up to three times annually	Utilization exceeding use limits
	Grass and forb utilization	58 Improve and Maintain allotments	Grazed photo class guide method	Percent of forage removed	Up to three times annually	Utilization exceeding use limits
	Trend	58 Improve and Maintain allotments	Pace frequency method	Relative frequency of plant species and groundcover	Five-year intervals	Significant changes in frequency of key species
	Trend	Chaparral and blackbrush sites	Photo plots	Visual changes in plant community	Five-year intervals	Significant change in plant community
	Ecological status	Throughout resource area	Ecological site inventory	Relative abundance of plant species (by annual production); status class	Initial effort in north half of resource area to be completed by 1996; south half of resource area to be completed by 1998	Areas remain in early ecological status
	Desired plant community					
	Actual use	By allotment or other planning unit as needed	Ecological site inventory	Relative abundance of plant species (by annual production)	Determined by specific objectives	Areas not meeting desired plant community objectives

(continued)

Table 17 (continued)
Resource Monitoring and Evaluation Plan

Element	Item	Location	Technique	Unit of Measure	Frequency and Duration	Information Warranting Review of Decision or Activity Plan
Rangeland (continued)	Actual use	Throughout resource area	Certified actual use reports	Animal units	Annually	Overutilization by livestock
	Site vandalism, including off-highway vehicle damage	58 Improved and Maintain allotments	Field compliance checks	Animal units	Annually	Compliance counts not similar to authorized use
Cultural Resources	Natural degradation	Black Mountains, Silver Creek, Burro Creek, Mineral Park and Carrow-Stephens ranches	Site inspection with documentation	Number of sites disturbed; major disturbances on given sites	Annually	Trends indicating increased disturbance
	Extensive recreation management areas	Black Mountains, Silver Creek, Burro Creek, Mineral Park and Carrow-Stephens ranches	Site inspection with photo documentation	Number of deteriorating features	Annually	Significant site deterioration
Recreation	Special recreation management areas	Throughout resource area	Patrol; area inspections	Visitor days	Biannually	Data reveal significant user conflicts
	Developed campgrounds and RV parks	Six sites	Patrol; visitor registration; traffic counter	Visitor days	Weekly in heavy use periods, then monthly	Data indicate visitor use significantly higher than expected
	Off-highway vehicles	Nine sites	Patrol; visitor registration; traffic counter	Visitor days	Weekly in heavy use periods, then monthly	Data indicate visitor use significantly higher than expected
		Closed and designated areas	Aerial reconnaissance and ground patrol	Number of violators	Biannually	Repeated violations noted
Wild and Scenic Rivers	See Water Quality, Quantity, Riparian Areas (trend) and Recreation					
	Eligible streams	Six streams	Aerial reconnaissance	Intrusions	Biannually	Repeated violations observed
Riparian Areas						
Satisfactory Areas	Ecological status	Priority riparian areas	Phoenix District riparian area status evaluation	Miles	Five-year intervals	Decline in status class
Unsatisfactory Areas	Ecological status	Priority riparian areas	Phoenix District riparian area status evaluation	Miles	Three-year intervals	No improvement from unsatisfactory to satisfactory status

(continued)

Table 17 (continued)
Resource Monitoring and Evaluation Plan

Element	Item	Location	Technique	Unit of Measure	Frequency and Duration	Information Warranting Review of Decision or Activity Plan
Unsatisfactory Areas (continued)	Trend	Perennial waters along seven creeks/rivers	Greenline transects and/ or photo plots	Change in percentage of key species in plant community	Annually	Decline in trend
Wildlife *Desert Bighorn Sheep; Pronghorn Antelope; Elk; Mule Deer; Javelina*	Population estimate	**Throughout resource area**	Arizona Game and Fish Department population survey information	Estimate total number **Sex and age class ratios by group** **Seasonal movements by group** **Lambing and recruitment success by group**	Annually	Significant population changes **Significant population changes** **Significant changes in habitat use areas** **Significant changes in lambing and recruitment rate**
	Crucial habitat elements (water, food, cover, space)	**Throughout resource area**	**Field observation studies**	**None**	**Initial effort to gather baseline data**	**Significant use conflicts identified through studies**
	Diet and key forage species	**Throughout resource area**	**Fecal analysis and direct observation**	**Forage composition**	**Initial effort to establish baseline data to assess diets on a seasonal basis**	**None**
	Habitat assessment	**Throughout resource area; may include use of exclosures for data comparison**	**Utilization studies** **Vegetative trend studies** **Photo points**	**Percentage of forage removed** **Relative frequency of plant species and groundcover** **Visual changes in plant community**	**Annually** **Baseline information then monitor every three to five years** **Baseline information then monitor every three to five years**	**Utilization exceeding use limits** **Significant changes in frequency of key species** **Significant change in plant community**
	Crucial waters	**Throughout resource area**	**Inventory, development and maintenance**	**An identified water source**	**Annually or as needed**	**Revisions to coordinated activity plans**
	Desired plant community	**By use area or other planning unit as needed**	**Ecological site inventory**	**Relative abundance of plant species (by annual production)**	**Determined by specific objectives**	**Areas not meeting desired plant community objectives**

(continued)

Table 17 (continued)
Resource Monitoring and Evaluation Plan

Element Special Status Species: Animal	Item	Location	Technique	Unit of Measure	Frequency and Duration	Information Warranting Review of Decision or Activity Plan
Desert Tortoise	Relative densities	Categories I and II	Square-mile plots, three-mile transects	Number per square mile	Five-year intervals	Change in habitat category **Significant change in population**
	Habitat assessment	Categories I and II	Pace frequency	**Relative frequency of plant species and ground cover**	**Baseline data, then** five- to seven-year intervals	Change in habitat category **Significant changes in frequency of key species**
Hualapai Mexican vole	Habitat assessment	Hualapai Mountains	Photo points; ocular reconnaissance; others to be determined	Not yet determined	Annually	Significant habitat deterioration
	Crucial habitat elements	**Current and historic habitat**	**Field observations**	**None**	**Initial effort to gather baseline data**	**Significant use conflicts identified through studies**
	Population estimates	**Throughout resource area in current and historic habitat**	**Field observations**	**Estimate of total number**	**Annually**	**Significant population changes**
Bald eagle *Peregrine falcon* *Common black-hawk*	Breeding success	Alamo Lake, Burro Creek, Music Mountains and Cerbat Mountains	Arizona bald eagle nest watch program; Arizona Game and Fish Department monitoring program; nest surveys	Number of young fledged; number of active territories	Annually	Discovery of new nesting territories; **significant changes in reproductive success**
	Habitat assessment	Alamo Lake, Burro Creek, Music Mountains and Cerbat Mountains	**Nest site availability assessment**	**Number of nest sites available**	**Annually**	**Significant change in available nest sites**
			Prey-base evaluation	**Available prey biomass**	**Annually**	**Significant change in available prey biomass**
Other Special Status Species	Population and habitat stability	Habitat throughout resource area	Field survey	Occurrence, number of counts, density, age/class, distribution, habitat size and condition	Varies by species and degree of security of habitat	five-year downward trend in population numbers, age/class, disparity, shrinking distribution or range contraction, habitat loss

(continued)

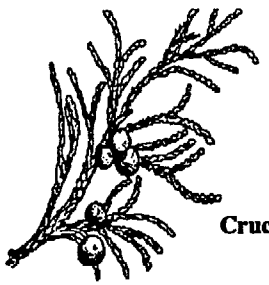
Table 17 (continued)
Resource Monitoring and Evaluation Plan

Element	Item	Location	Technique	Unit of Measure	Frequency and Duration	Information Warranting Review of Decision or Activity Plan
Special Status Species: Plants	Population and habitat stability	Habitat throughout resource area	Field survey	Occurrence, number of counts, density, age/ class, distribution	Varies by species and degree of security of habitat	Five-year downward trend in population numbers, age/class, disparity, shrinking distribution or contraction of usable rangeland
Areas of Critcial Enviornmental Concern	See specific resources					
HAZMAT	Tailings	Mineral Park	Visual	Tons	Annually	Tailings erosion
	Water quality	Bagdad (Cyprus)	Sampling	Parts per million (ppm)	Biannually	Surface water discharge
	Water quality	Portland Mine	Sampling/Arizona Department of Environ-mental Quality wells	parts per million (ppm)	Biannually	Surface water discharge; ground water quality
	Cyanide use	All use sites	Visual	None	Quarterly	Cyanide use, heap leach pad design
	Suspected HAZMAT incidences; inventory abandoned mining operations	Throughout resource area	Sampling/visual	None	On demand	Presence of hazardous materials
Wild Horses and Burros						
Horses	Population	Herd area	Helicopter sight/resight method	Number of individuals **Sex and age class by group** **Foaling and recruit-ment success** **Seasonal movements by group**	Three-year intervals	20 percent change in population, less than 10 percent juveniles 20 percent change in population, less than 10 percent juveniles **Significant changes in habitat use areas**
	Forage use	Herd Area	Key forage plant method	Percentage of forage removed	Annually	Grass/shrub utilization greater than 30 percent

(continued)

Table 17 (continued)
Resource Monitoring and Evaluation Plan

Element	Item	Location	Technique	Unit of Measure	Frequency and Duration	Information Warranting Review of Decision or Activity Plan
Burros	Population	Herd area	Helicopter sight/resight method	Number of individuals Sex and age class ratios by group Foaling and recruitment success Seasonal movement by group	Three-year intervals	30 percent change in population, less than 10 percent juveniles 30 percent change in population, less than 10 percent juveniles Significant changes in habitat use areas
	Forage use	Herd area	Key forage plant method	Percentage of forage removed	Annually	Grass/shrub utilization greater than 30 percent
Horses and Burros	Crucial habitat elements (water, food, cover, space)	Throughout resource area	Field observation studies	None	Initial effort to gather baseline data	Significant use conflicts identified through studies
	Diet and key forage species	Throughout resource area	Fecal analysis and direct observation	Forage composition	Initial effort to establish baseline data to assess diets on a seasonal basis	None
	Habitat assessment	Throughout resource area; may include use of exclosures for data comparisons	Utilization studies; vegetative trend studies; photo points	Percentage of forage removed Relative frequency of plant species and ground cover Visual changes in plant community	Annually Baseline information, then monitor every three to five years Baseline information, then monitor every three to five years	Utilization exceeding use limits Significant changes in frequency of key species Significant change in plant community
	Crucial waters	Throughout resource area	Inventory, development and maintenance	An identified water source	Annually or as needed	Revisions to coordinated activity plans
	Desired plant community	By use area or other planning unit as needed	Ecological site inventory	Relative abundance of plant species (by annual production)	Determined by specific objectives	Areas not meeting desired plant community objectives



The monitoring methods/techniques in this table are not intended to be an exhaustive list and may change as needed to collect appropriate resource data.

Table 18
Summary of Impacts by Alternative

Resource Impacted	Alternative 1 (Current Management)	Alternative 2 (Preferred Management)	Alternative 3
Minerals	With the exception of land disposals planned in the existing management framework plans, the continued management as prescribed in this alternative would encourage mineral resource development on the public lands. Lands would generally remain open to mineral resource development with the exception of the no surface occupancy stipulation on mineral leasing in the Black Mountains.	The designation of 12 areas of critical environmental concern would leave nearly 99 percent of the federal locatable minerals open to entry, **nearly** 99 percent of leasable minerals open to mineral leasing **with standard lease stipulations**, less than one percent open to mineral leasing with a no surface occupancy stipulation and **nearly 99** percent open to mineral material disposals. Mining plans of operation and mandatory bonding in areas of **critical** environmental concern would lead to orderly development.	Similar to *Alternative 2* except mineral restrictions would be reduced in some areas of critical environmental concern and offset by increases in others.
Lands	A total 102,547 acres are identified for disposal and 3,200 acres are identified for recreation and public purposes in disposal areas. Scattered development in retention areas would occur when lands are no longer available. Two communication sites are designated, none allowed in the Cerbat Management Framework Plan and on a case-by-case basis in Hualapai-Aquarius, causing scattered development and more impact. Nine utility corridors are designated. Resources, i.e., watershed, vegetation, range, cultural, recreation, wildlife, riparian and wild horses and burros all may require stipulations to protect, thereby increasing project cost. Disposal is beneficial to reduce hard-to-manage lands and acquire lands high in resource values, promoting multiple use. Unnecessary withdrawals would be identified, termination recommended and opened to multiple use.	A total of 181,553 acres would be identified for disposal and 6,165 acres reserved for recreation and public purposes. Mountaintop communication sites are restricted to 11 areas, limiting development until a site plan is done. Eleven utility corridors would be designated. Similar actions also may be restricted due to wildlife corridors and special management areas. Costly mitigation would be required in some areas. Additional lands for disposal further reduces hard-to-manage lands.	Same as under *Alternative 2* except 6,282 less acres would be available for disposal and an additional 3,488.62 acres would be withdrawn for Alamo Dam.
Local Economy	The local economy could realize benefits by placing more developable lands in private ownership, therby increasing the tax base. Some ownership adjustments could provide jobs.	Same as under *Alternative 1*.	Same as under *Alternative 1*.
Watershed (Soil, Water and Air)	Surface-disturbing activities **may** cause increased runoff and erosion, reduced vegetation cover, reduced soil productivity and	Same as under *Alternative 1* plus **mining plans of operation and mandatory bonding in areas of critical environmental concern**	Same as under *Alternative 1*.

(continued)

Table 18 (continued)
Summary of Impacts by Alternative

Resource Impacted	Alternative 1 (Current Management)	Alternative 2 (Preferred Management)	Alternative 3
Watershed (Soil, Water and Air) (continued)	**increased production of** dust. Development of allotment management plans, habitat improvement projects (such as exclosures and spring developments) and seeding of firewood clearcuts would maintain or improve vegetative cover, reduce runoff and erosion and increase soil productivity. Land acquisition would create opportunities for better watershed management.	**and additional restrictions on surface-disturbing activities may** reduce soil loss, improve water quality and increase vegetative cover.	
Vegetative Products	Surface-disturbing activities would provide opportunities for salvage of desert vegetation. Land exchanges would cause both losses and gains in vegetative products available for harvest. Suitability of areas for vegetative harvest would be subject to review of compatibility with other sensitive resource values on each site.	Impacts similar to those under *Alternative 1* except less area may be available for salvage of native plants because of restrictions on special management areas, but increased opportunities on lands gained through exchange.	Impacts are similar to those under *Alternative 2* except private and commercial firewood cutting and yucca harvest would be eliminated throughout the resource area.
Range Management	Surface-disturbing activities **may** cause short-term loss of forage but long-term benefits could more than offset losses. Land exchanges would cause changes in grazing preference, changes in ownership of range improvements and increase management efficiency where public lands are consolidated. Implementation of grazing management principles **may** improve forage and livestock gains. Grazing management and construction of range improvements would be constrained by the presence of sensitive resources.	Impacts would be similar to those under *Alternative 1* except designation of special management areas for unique resource values throughout the resource area would place constraints on construction of range improvements and impose limitations on grazing use on affected allotments. Grazing allotments in wild horse **and burro** herd management areas would be subject to actual use and/or grazing preference adjustments where over-obligation of available forage exists.	Impacts would be similar to those under *Alternative 2* except the elimination of yucca and firewood harvest would lessen impacts to vegetative productivity. Closure of the Poachie and McCracken areas of critical environmental concern to livestock grazing would affect grazing operations on six grazing allotments. Additional proposed intensive recreational areas would increase livestock/public interaction and associated problems. Decreases in acreages for several areas of critical environmental concern would reduce the degree of limitations and constraints pertaining to grazing practices.
Cultural Resources	Continuation of current management would harm priority cultural areas with moderate to high losses of cultural properties over the life of the Resource Management Plan.	Implementation of *Alternative 2* would benefit the most significant cultural resources, but would result in some losses to vandalism because of increased use by the public. Impacts would be lower in areas designated as areas of critical environmental concern and special recreation management areas due to increased management emphasis.	Same as under *Alternative 2* except reducing the size of the areas of critical environmental concern would reduce beneficial impacts, especially for the smaller Joshua Tree Forest area.

(continued)

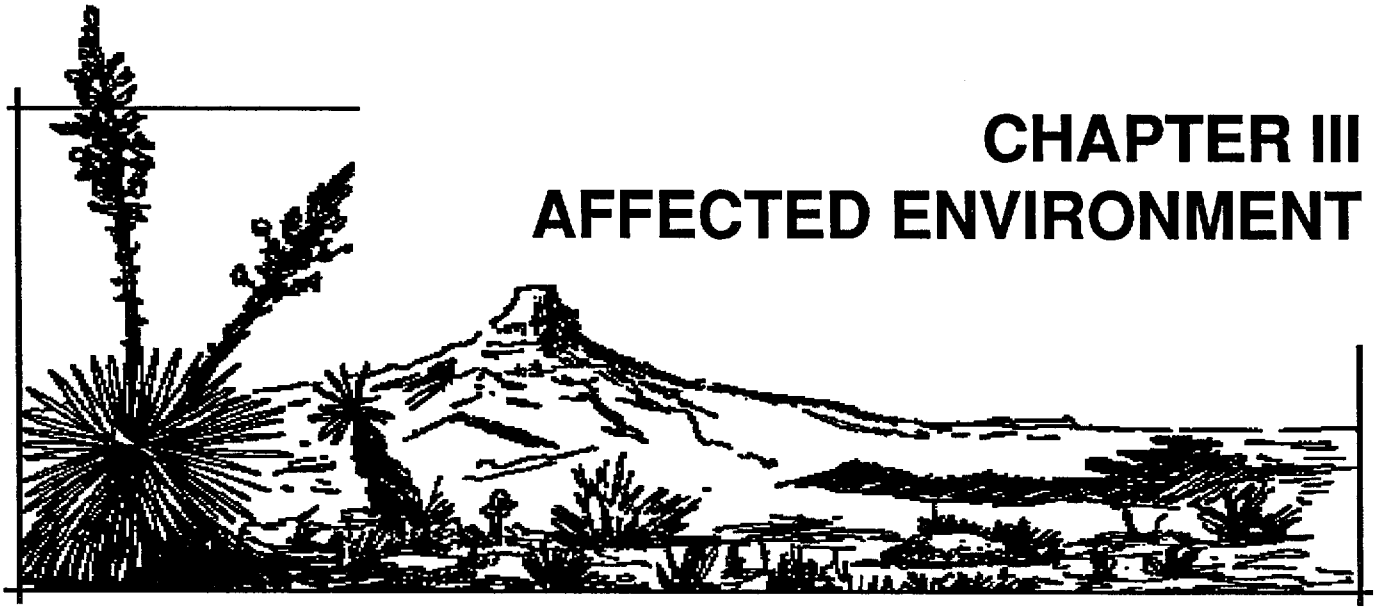
Table 18 (continued)
Summary of Impacts by Alternative

Resource Impacted	Alternative 1 (Current Management)	Alternative 2 (Preferred Management)	Alternative 3
Recreation Resources	**Under *Alternative 1*, recreation opportunities would be maintained at existing levels. No significant impacts would occur, but increased public demand for outdoor recreation opportunities would not be satisfied.**	**Development of new facilities, trail development and providing interpretive displays would significantly enhance outdoor recreation opportunities. Designation of areas of critical environmental concern, establishment of off-highway vehicle designations and management of visual resources would provide quality natural settings for visitors. These would combine to create significant beneficial impacts to recreation resources.**	Same as under *Alternative 2*, but **additional recreation facilities would be offered to the public. Less protection of natural values in areas of critical environmental concern would slightly reduce the quality of the recreational settings.**
Wild and Scenic Rivers	**The free-flowing nature and outstandingly remarkable values of six streams found to be eligible for inclusion into the National Wild and Scenic Rivers System will be adequately protected under *Alternative 1*. No significant impacts are expected.**	Same as under *Alternative 1*.	Same as under *Alternative 1*.
Wildlife Habitat	Mining operations would have no long-term impact on wildlife habitat. Short-term disturbance from woodcutting would occur because of the presence of people, cross-country vehicle traffic and chain saw noise. Long-term enhancement of habitat would occur through reduced competition between trees and grass/forbs/shrubs and a greater diversity of escape cover. Implementation of livestock grazing principles **and management of wild horse and burro populations** would lead to improved wildlife habitat. Increased recreation use would increase disturbance of wildlife. Improved riparian area condition would greatly benefit wildlife.	Same as under *Alternative 1* except mineral withdrawals on areas of critical environmental concern would benefit wildlife habitat. Management prescriptions in areas of critical environmental concern would greatly improve wildlife habitat. Establishing wildlife movement corridors would ensure genetic diversity of species. Increased recreation use would increase people/wildlife interactions, but developed sites would serve to mitigate impacts by concentrating people in smaller areas rather than having them spread over the resource area to camp out.	Impacts would be similar to those under *Alternative 2* except elimination of woodcutting and yucca harvest would maintain wildlife habitat in a more stable condition. The size of areas of critical environmental concern would be reduced, resulting in less protection of wildlife habitat.
Special Status Species	Surface-disturbing activities would cause minor losses to special status species and/or their habitat and would be minimized through compliance with the National Environmental Policy Act. Land exchanges would cause both losses and gains of habitat for special status	Impacts would be similar to those under *Alternative 1* except a greater degree of protection would be provided to special status plant and animal habitat. This protection includes withdrawals from mineral entry in area of critical environmental concern	Impacts would be similar to those under *Alternative 2* except that elimination of firewood cutting would greatly reduce the impacts to freckled milkvetch habitat. Reduction of acreage in four areas of critical environmental concern would reduce the

(continued)

Table 18 (continued)
Summary of Impacts by Alternative

Resource Impacted	Alternative 1 (Current Management)	Alternative 2 (Preferred Management)	Alternative 3
Special Status Species (continued)	species. Management of activities affecting soil and vegetation would cause improvements in habitat condition.	proposals, off-highway vehicle limitations, restrictions on new rights-of-way and law enforcement patrols. Land exchanges would cause similar impacts to those under *Alternative 1*, but would be greater in degree. Increased recreational activity may occur within the Clay Hills Area of Critical Environmental Concern when the Burro Creek campground is developed.	amount of acreage providing protection for habitat of special status species.
Riparian Area Management	**Placer mining and sand and gravel operations would destroy stream beds and banks and eliminate vegetation which may be impossible to restore in a reasonable length of time.** Restricting rights-of-way in sensitive riparian areas would reduce impacts. Development or revision of 56 allotment management plans would maintain or improve riparian vegetation along 704 miles of streams and washes. Restricting cross-country vehicle traffic would benefit riparian areas. Some use in washes may cause deterioration of riparian vegetation. Wildlife habitat management would lead to improvement in riparian areas.	Withdrawal from mineral entry, requiring mining plans of operation and mandatory bonding of mining operations, grazing to meet area of critical environmental concern objectives, restricting rights-of-way to corridors and area of critical environmental concern management prescriptions designed to improve wildlife habitat and riparian areas would result in greatly improved riparian conditions. Recreational activities would impact riparian-wetland areas **around recreation sites.**	Impacts would be similar to those under *Alternative 2* except the smaller riparian areas of critical environmental concern would afford less protection for riparian areas.
Special Management Areas	No special management areas are proposed.	Impacts are outlined under each of the affected resource activities listed above.	Same as under *Alternative 2* except smaller area of critical environmental concern would afford less protection for the critical resources found on public lands.
Wild and Free-Roaming Horse and Burro Management	**Wild** horses and burros would not be significantly impacted by mineral development or rights-of-way. Habitat would be improved by watershed, rangeland and wildlife habitat management.	Same as under *Alternative 1* except benefits would accrue faster as a result of added emphasis on watershed, rangeland and recreation management as a result of coordinated resource management plans.	Same as under *Alternative 2* except smaller area of critical environmental concern would afford less protection for the critical resources found on public lands.



CHAPTER III
AFFECTED ENVIRONMENT

INTRODUCTION

Chapter III describes the resources that would be significantly affected by implementing the alternatives only in as much detail as needed to explain the effects of implementation. Where impacts would be slight or nonexistent, the descriptions are brief or omitted. More detailed descriptions of the Kingman Resource Area's resources are in the Management Situation Analysis, which can be reviewed at the Kingman Resource Area office.

MINERAL RESOURCES

Physiography

The Kingman Resource Area **includes 2,428,405 acres of public surface and 2,045,625 acres** of federal minerals. This area is in west-central Arizona, mostly within the Basin and Range physiographic province and parts of the Transition Zone and Colorado Plateau. It has widespread igneous and metamorphic mountain ranges generally separated by shallow alluvial basins and plains, with extensive faulting and folding.

Minerals and Mineral Potential

Mineral potential has been rated using the guidance in the Bureau 3031 Manual. A summary of the rating for all mineral resources is presented in **Table 19**. A description of the potential and certainty levels is given in **Appendix 28**. The data show the highest rating for a resource within the area but do not imply the resource has the potential for uniform occurrence throughout the resource area.

TABLE 19
Mineral Resources Potential Rating*

Mineral Resource	Level of Potential	Level of Certainty
Oil and Gas	Zero/unknown	B
Coal	No Potential	D
Geothermal	Low	C
Sodium	High	D
Potassium	High	C
Metallic Minerals	High	D
Uranium	Mod	D
Non-Metallic	High	D
Common Varieties	High	D

* For rating explanation see Appendix 28.
Source: Kingman Resource Area files.

Oil and Gas

No economic occurrences of oil or gas have been encountered in wells drilled in the planning area, but only 14 wells have been drilled. The first well was completed in 1957, while the last was completed in 1970. Most of the wells are shallow, and no wells have tested rocks below 6,000 feet. Four wells were drilled in the portion of the resource area lying in the Transition Zone in the Red Lake area. Hydrocarbon shows have not been reported from any of the wells drilled.

Ryder (1983) and Butler (1988) rated the oil and gas potential of the resource area as zero or unknown on the basis of widely distributed outcrops and extensive exposures of Precambrian gneiss, schist, granite and Tertiary volcanic rocks that extend over most of the planning area. If oil and gas accumulations occur, they would be in structural or stratigraphic traps. Because of the absence of deep sequences of Mesozoic and Paleozoic marine sediments and the lack of oil shows reported from area wells, the potential for oil and gas accumulations is considered low to zero.

Sodium and Gypsum

Halite and gypsum deposits are known to exist in two locations within the planning area - Red Lake Playa, at the northern end of Hualapai Valley, and in Detrital Valley, northeast of the Black Mountains (see Map 29). The deposits are similar, both occurring at depths of 700 to 1,500 feet, and both contain several thousand vertical feet of evaporitic deposits, with a lateral extent of several miles on a north-northwest trending axis.

There has been considerable recent interest in development of the Red Lake deposit expressed by at least two companies, and one exploratory drillhole has been completed. It is assumed that, due to the depth of the deposits, recovery would be via solution mining, and the preliminary proposals seen so far include both solution mining and underground natural gas storage schemes.

Over 50 percent of the lands in these areas are federally owned and open to mineral entry. Since the potential exists for several similar operations in these two locations, each developmental proposal submitted must be analyzed with regard to cumulative environmental impacts.

Geothermal (areawide)

Evaluation of 33 thermal and nonthermal waters of the Kingman-Williams region has shown no evidence for the existence of large geothermal systems or high temperatures (greater than 150° C) (Hahman, 1978). The temperatures and volumes of each system might be suitable for local space heating/greenhouse applications. Larger volumes of water, if discovered, could supply industrial process water for low-temperature applications (less than 100° C). The potential for the use of the geothermal resource is considered low because of the remote locations of the thermal waters.

Coal

The Kingman Resource Area has no known coal occurrences.

Metallic And Nonmetallic Minerals

Mineral exploration and production dates back to the mid 1860s. Metals recovered include copper, gold, iron, lead, manganese, molybdenum, niobium, silver, tungsten, uranium and zinc. Nonmetallic commodities include fluorite, feldspar, lime, sand and gravel, salts, silica and stone. Other elements or commodities reported but never produced commercially include yttrium, bismuth, barite, lithium, arsenic, antimony and rare-earth elements.

Past production figures are among the highest in the state in manganese, copper, tungsten, silver and gold and show significant totals for lead, zinc and uranium. Appendix 30 summarizes the recorded production from the principal mining districts. Ten districts have recorded cumulative production up to or exceeding $1 million before 1980 with the Oatman, Walapai, Eureka and Old Dick districts far exceeding this figure. But for the most part, these figures do not reflect the production from relatively recently discovered volcanic and gneiss-hosted precious metals deposits that have become the focus of exploration interest in the region.

Three major copper producers are operating: Cyprus Bagdad, Cyprus Mineral Park and Emerald Isle. The Portland Mine (gold) in the Black Mountains halted production in March 1989. Several leaching operations are reprocessing old mine tailings for gold recovery.

Salable Minerals

Three major intermontane valleys (Detrital, Sacramento and Big Sandy) are structural troughs formed by block faulting and tilting associated with basin and range tectonism 14 to 17 million years ago. These valleys were filled with silt, sand, gravel and conglomerate derived in part from erosional processes acting on the surrounding bedrock highlands.

In addition to the material resources of the three major basins, sand and gravel resources are found along pediments of the major mountain ranges. These materials are often thin and discontinuous and are confined to relatively narrow zones. These resources may serve as material for smaller short-term projects. From the known occurrence of gravel in these environments, these areas have high favorability for the occurrence of this resource (see Map 30).

The Kingman Resource Area has 14 mineral material sale sites for sand and gravel and decorative stone. The most significant use of sand and gravel has been for highway construction along highways 68 and 93.

As population centers continue to grow, so will the demand for mineral materials. Mineral materials sites will need to be designated in or around communities for both commercial and residential uses.

Leasable Minerals

Two leasable mineral resources have been explored: oil and gas and sodium.

Fourteen oil and gas exploration wells have been drilled since the first well was drilled in 1957, but none have found oil and gas. Disturbance associated with each well, including access, typically totals between five and ten acres. Assuming an average of eight acres disturbed per well, roughly 112 acres have been disturbed for oil and gas exploration.

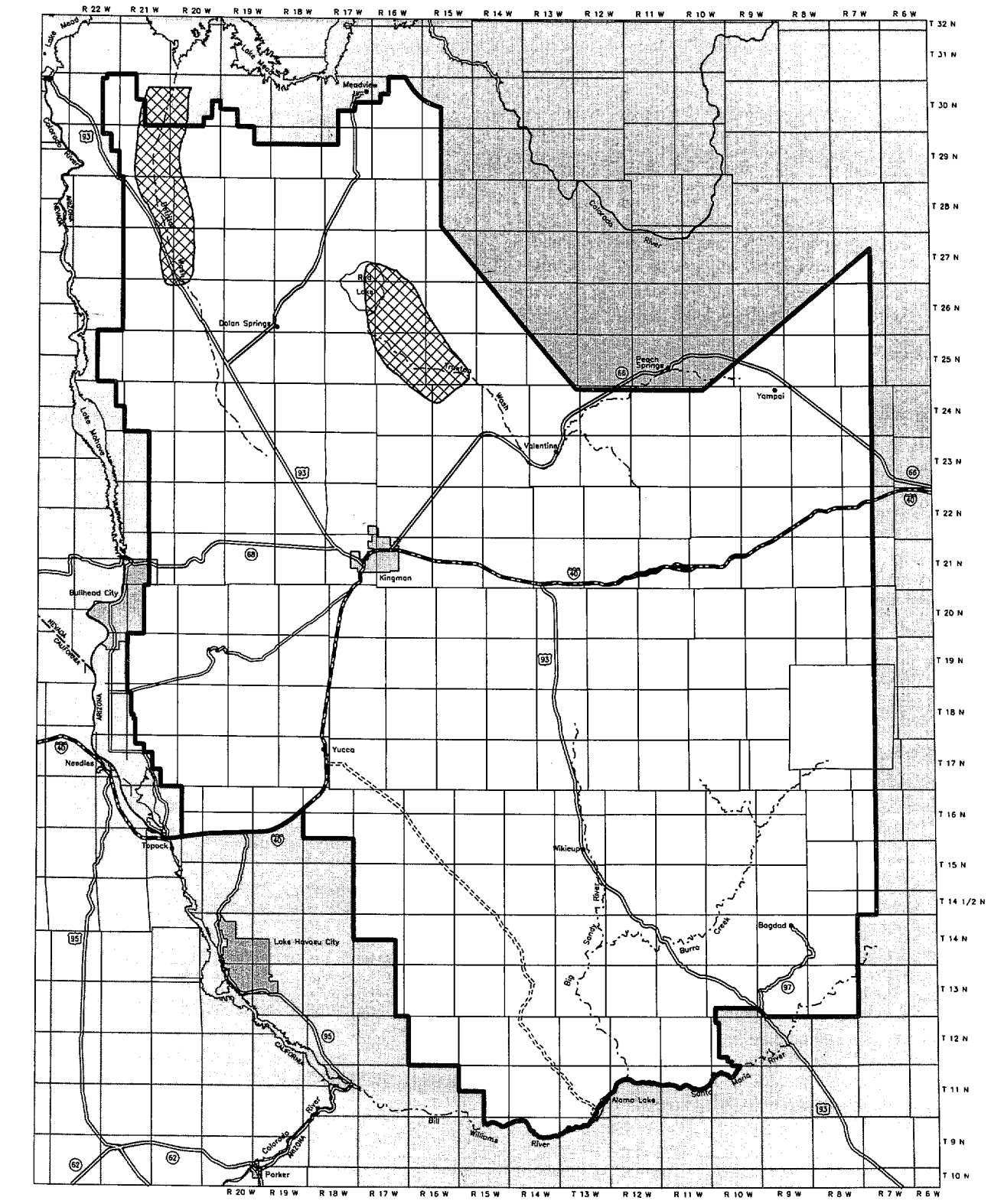
Typical well drilling operations may last as long as four months, though deep wells may take longer to drill. As no oil or gas has been produced from this area, all exploration disturbance has been reclaimed immediately after exploration. Complete reclamation of this disturbance may take from five to ten years.

Locatable Minerals

Locatable minerals are contained in a variety of geologic deposit types, including porphyry copper, epithermal precious metals, flat-fault gold, polymetallic veins, hot springs gold and volcanic and gneiss-hosted systems. Metals recovered include copper, gold, iron, lead, manganese, molybdenum, niobium, silver, tungsten, uranium and zinc (see Map 11).

Major copper producers operating include Cyprus Bagdad, Cyprus Mineral Park, and Emerald Isle. Cyprus Bagdad and Mineral Park

HALITE AND GYPSUM DEPOSITS



AREA OF HALITE (SALT) AND GYPSUM DEPOSITS

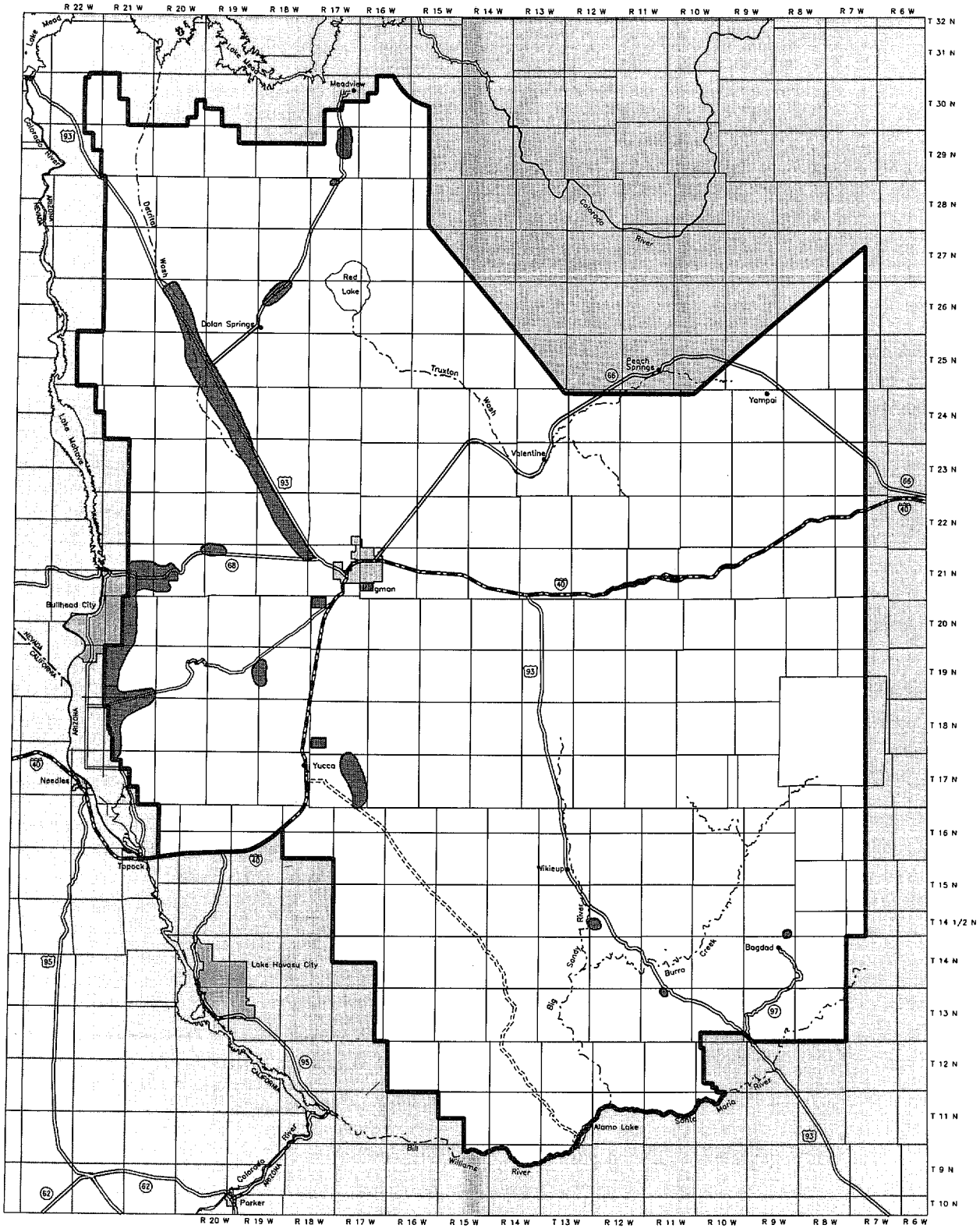
10 0 10 20 MILE

10 0 10 20 30 KM

N

Map 29

SAND & GRAVEL



AREA OF HIGH POTENTIAL FOR SAND & GRAVEL OCCURANCE

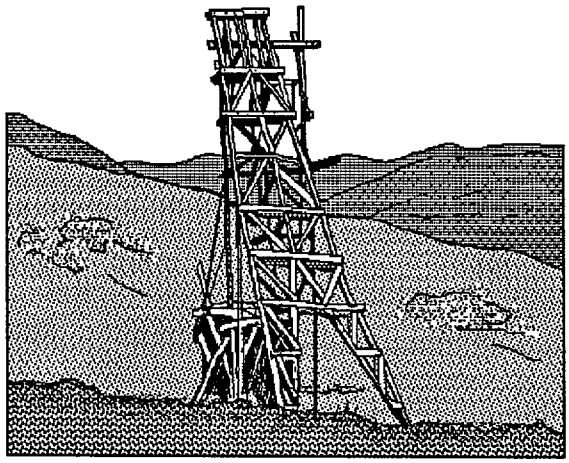
Map 30

mine copper ore from predominantly patented property. Only small areas of public land are involved in these operations.

Western State's heap leach gold operation at the Portland Mine in the Black Mountains halted production in March 1989. Western States is now reclaiming the site. Several small leaching operations are reprocessing tailings piles of old mines for gold recovery.

Complete reclamation of a disturbed site takes from 5 to 15 years. After a compliance inspection determines that a site is completely reclaimed, the operator and claimant are released from obligation for reclaiming that site. A site is determined to be reclaimed when measures have been taken to reshape lands to an appropriate contour and, where necessary, to revegetate the disturbed areas to control erosion. New roads built for mining exploration or development are reclaimed when they are no longer needed.

Over 70 percent of all exploration on public lands is attributable to the small miner. Most activities involve prospecting and performing annual assessment work.



For the 366 notices and plans submitted between fiscal years 1980 and 1989, 864 acres were disturbed (see Table 20). Exploration consists of drilling, trenching and creating temporary access. Sites not yet reclaimed include those undergoing exploration and development and these where future re-entry is planned. Of the 864 acres disturbed, 436 have been reclaimed. The remaining mine sites will be reclaimed when exploration and development cease. Reclamation generally begins immediately or soon after the operator determines that no further exploration is warranted or production has been completed.

LANDS ACTIONS

Kingman Resource Area administers roughly 2.4 million acres of public lands in Mohave, Yavapai and Coconino counties. Public lands are generally well-blocked in such areas as the Hualapai Mountains, central and southern Black Mountains, Goodwin Mesa in the Aquarius Mountains and lands bordering Lake Mead National Recreation Area and the Hualapai Indian Reservation. Elsewhere public lands are scattered in checkerboard patterns.

State lands are generally in a checkerboard pattern, except for well-blocked areas in the far northwest quarter and southeast of Bullhead City.

The checkerboard landownership pattern creates many problems for the land manager. In many areas, private land has been subdivided and sold. Most of these subdivisions do not have legal access as now required by the Arizona Department of Real Estate to sell property. Buyers are required to sign a waiver stating that they know there is no legal access.

Those who attempt to acquire legal access invariably have to cross public land and there is a recent increase in corner crossing rights-of-way in order to get diagonally from one private section

Table 20
Acres Disturbed by Mining

Activity	Fiscal Year 80	81	82	83	84	85	86	87	88	89	Total
Notices submitted	0	11	12	12	7	8	43	56	69	64	282
*Average Acres Disturbed		16.5	18	18	10.5	12	64.5	84	103.5	96	423
Notices Open	0	0	0	0	0	0	2	7	25	34	
Acres Reclaimed		16.5	18	18	10.5	12	61.5	73.5	66	45	321
Total Acres Not Reclaimed	0	0	0	0	0	0	3	10.5	37.5	51	102
*Average of 1.5 acres disturbed per notice											
Plan of Operations	2	7	15	3	3	7	5	11	21	12	84
Plan-open			3	1	1	4	2	7	13	9	
Acres Disturbed	5	17	47	17	8	31	10	190	41	75	441
Acres Reclaimed	5	17	47	12	3	14	2	7	7	1	115
Total Acres not Reclaimed	0	0	0	5	5	17	8	183	34	74	326

to the next. In many cases, the rights-of-way are assigned to Mohave County, thereby meeting the requirements for legal public access. The county may accept the rights-of-way for access but not necessarily for maintenance.

Inadvertent trespass often occurs when roads are maintained or bladed to these private checkerboard sections. Rights-of-way are issued to serve private land on a case-by-case basis after National Environmental Policy Act compliance with necessary stipulations to protect natural resources.

The checkerboard pattern also has created an illegal trash dumping problem on adjacent public land. Wherever there is a landfill, illegal dumping is commonly found within five miles regardless of landownership. Near more populated areas without landfills, residents dump on a regular basis. Case files are established for these dumps and an attempt is made to locate responsible parties. Files are closed after cleanup is accomplished.

As subdivisions are sometimes poorly or improperly marked, personal improvements may be found on adjacent public land. Public land is also used for occupancy by low income transients working in nearby communities. An aggressive approach is made to resolve unauthorized occupancy through removal and, in rare instances, through lease or sale.

The lands identified for disposal are in checkerboard areas or near urban and rural communities with low resource values. They serve as a trade base for lands high in resource values not only in this resource area but statewide. Since 1975, the resource area has completed private exchanges that transferred 43,377 acres of public land to private ownership within the disposal areas designated by the management framework plans. These exchanges reconveyed 223,291 acres of private lands to the United States within designated retention areas.

The exchange program between the BLM and the state of Arizona consolidates landownership to block up public lands for better management of natural resources and block up state lands to maximize revenue-producing development. A memorandum of understanding between the BLM and the state of Arizona establishing procedural guidelines for land exchanges was signed December 31, 1984. The state exchanges were processed under the Federal Land Policy and Management Act, Arizona Revised Statutes 37-604 and 37-722 and the Navajo-Hopi Relocation Act of 1980. But on March 30, 1990, the Arizona Supreme Court issued an opinion that state land exchanges were unconstitutional. A constitutional amendment approved by the voters of Arizona will be needed to allow further state land exchanges.

Since 1975, the BLM has transferred 102,774 acres of public land to the state and acquired 338,815 acres from the state.

The 6,165.11 acres identified in Appendix 17 for recreation and public purposes are mostly in disposal areas or adjacent to private land. These lands should meet the needs of every community in the resource area unless there is an incompatible use that may need special consideration. Approximately 3,184 acres of public land has have been leased or patented for recreation and public purposes.

Utility corridors have been identified along existing routes to limit major utilities to previously disturbed lands and to allow for future expansion needs.

Single use communication facilities will continue to be issued on a case-by-case basis, as needed, with stipulations to protect resources. Commercial mountaintop sites that have potential for development and their current status are listed below. The first five are in higher demand. The first three are covered by an existing communication site plan that sets standards for development.

Sites four and five are the most in need of communication site plans, with Site five being the highest priority. Sites have been generally haphazardly developed without a site plan. Mountaintops are usually where wildlife is more abundant. Sites three, four and seven were acquired through private exchanges subject to existing leases.

Site	Elevation	Access	Power	Users
1. Hayden Peak	8,390	road	electric	6
2. Potato Patch I	7,680	road	electric	6
3. Potato Patch II	7,240	road	electric	2
4. Getz Peak	7,680	road	electric	6
5. Oatman	4,000	road	electric	8
6. Mount Perkins	5,456	helicopter	solar	1
7. N. Mount Perkins	4,800	road	solar	1
8. Willow Beach	3,480	road	solar	1
9. Windy Point	6,200	road	electric	1
10. Patterson Slope	4,339	road	electric	2
11. Cherum Peak	6,983	helicopter	solar	0

Filming is popular in the resource area, particularly along Historic Route 66 and Red Lake. Permits are issued on a case-by-case basis after National Environmental Policy Act compliance with stipulations to protect resources. There currently are no commercial leases in the resource area.

Payment in Lieu of Taxes

The Payments in Lieu-of-Taxes Act provides money to county governments as compensation for the loss of property tax revenue on tax-exempt federal land. The BLM has been delegated the responsibility of administering the Act. These payments supplement other federal receipt-sharing funds which local governments may be receiving. The payments are based on the number of acres of "entitlement land" within the county. Entitlement land consists of land administered by the BLM, National Park System, U. S. Forest Service and land dedicated to use of federal water resource development projects. The payments made to Mohave County have increased from $971,656 in 1985 to $997,187 in 1989, approaching the maximum of $1,000,000.00. After the ceiling is reached, the county will not receive additional money, unless the ceiling is changed, for lands acquired by the BLM. These values include all of Mohave County, not only the portion in the Kingman Resource Area. During this timeframe, several land exchanges added to the entitlement land.

SOIL AND VEGETATION RESOURCES

The state of Arizona is divided into major land resource areas and subresource areas as described in the Soil Conservation Service Handbook 269 and the Soil Conservation Service National Range Handbook 269 and the Soil Conservation Service National Range Handbook. These subresource areas are geographic areas of similar topography, climate, soils and vegetation. Four major land resource areas occur within the Kingman Resource Area; within these areas are seven subresource areas. The soils and potential natural vegetation for each of the seven subresource areas are described herein to give a general overview of the area (see **Table 21**). More specific soil and vegetation information follows.

Soil Resources

Soils over the resource area are extremely diverse. Fairly detailed descriptions of soils are included in completed Soil Conservation Service soil surveys in the southern and eastern portions of the planning area. A soil survey underway for the northern portion of the planning area should be completed in 1993. Management decisions requiring soil information are based on detailed information from these surveys. A complete description of the Kingman Resource Area's soil is not practical in this document because of the volume of information involved. Specific information may be obtained from the Kingman Resource Area Office or the Soil Conservation Service Office in Kingman.

WATER AND AIR RESOURCES

Water Resources

All of the resource area lies within the lower Colorado River basin and includes portions of the Bill Williams River basin, Detrital Wash, Truxton/Hualapai Wash and Sacramento Wash. The following descriptions of BLM water resources focus on floodplain management, water availability and water quality.

Floodplains

A base floodplain is an area expected to be inundated by flood waters on the average of once in 100 years. As to be expected, these floodplains occur throughout the resource area, in and next to waterways.

Theoretically, every small wash and gully has a base floodplain associated with it. The task of delimiting each of these, much less managing them, would be impractical. For this reason, flood insurance rate maps prepared by the Federal Emergency Management Agency are generally accepted as the best delineations of base floodplains. The Phoenix District has coverage for most of its Kingman Resource Area.

Water Quantity

The resource area has many small springs, seeps, wells and stockponds. The most typical uses of water on public lands include wildlife and livestock watering, nonconsumptive recreational uses, maintenance of riparian vegetation and mining. Future conflicts for water are expected as municipal, industrial and agricultural consumptive demands increase and compete with nonconsumptive instream flow requirements of important streams.

Legal availability of water is provided by the assertion of public water reserve doctrine and compliance with state water law. The BLM filed for instream flow water rights with the Arizona Department of Water Resources in support of fish and wildlife and recreation beneficial uses on Burro and Francis creeks in 1984 and the Bill Williams River in 1988. Other important perennial streams (e.g., Big Sandy River, Wright Creek, Trout Creek) may need this protection in the near future.

The BLM will assert its claim to water in conjunction with the state of Arizona adjudication effort. In the adjudication process, the court will determine the legal right to use water, the amount authorized and the priority of that right. Like any other water user, the BLM is required to claim water sources it believes it is entitled to use. Accordingly, the BLM will submit claims as required by the court to protect its water uses.

Water Quality

Although the Arizona Department of Health Services documented that surface quality was generally good overall in the state (ADHS, 1984), the lack of data was cited as a major hindrance to assessing water quality in Arizona. The Arizona Department of Health Services called for other agencies to become more involved in water quality assessment and coordination.

The BLM generally monitors water quality where it has special resource management responsibility for fish, wildlife, riparian vegetation, and developed recreation. In 1983, the BLM contracted with the Arizona Department of Health Services for a study in Burro Creek to detect effects from mining on water quality. The Phoenix District currently implements a Unique Waters compliance monitoring program that began on Burro and Francis creeks in 1986.

Non-point source pollution problems appear to be the most significant type of water pollution. Surface pollution typically includes turbidity (sediment), heavy metals, total dissolved solids, nutrients and bacteria. Potential sources of these pollutants from BLM lands include natural dissolution of soil salts, livestock grazing, recreation (off-highway vehicles and dispersed camping near water) and mining.

Air Resources

Under the National Ambient Air Quality Standards, most BLM-administered lands within the Kingman Resource Area are rated Class II. The BLM manages no Class I areas, but one Class I area lies contiguous to Grand Canyon National Park (see Section 162 of the Clean Air Act, as amended in 1977).

WATERSHED MANAGEMENT

The U.S. Geological Survey has delineated watershed management units for Arizona based on topographical features (see USGS Hydrologic Unit Map-1974, state of Arizona). These units are generally large areas. For more effective resource management, the Kingman

Table 21

DESCRIPTION OF MAJOR LAND RESOURCE AREAS AND SUBRESOURCE UNITS

Mapping Unit	Representative Soils	Potential Natural Vegetation
SONORAN BASIN AND RANGE		
Subresource Area D30-2 (Mohave Desert Shrub)	**Soils** Typic Calciorthids that are deep and range in texture from gravelly sandy loam to gravelly loam make up a large part of the area (Gunsight and Rillito series). Deep Typic Torrifluvents ranging in texture from moderately coarse to fine are along the flood plains and low alluvial fans in the area (Antho, Indio, Holtville, Ripley and Glenbar series). Other Typic Torrifluvents occur along the flood plain of the Colorado River that are primarily moderately fine or textured, deep and high in soluble salt accumulations (Gadsen and Indio series, saline phases). Typic Torriorthents (Carrizo and Laposa series) vary in depth from deep to moderately deep and range in texture from cobbly sand to gravelly loam. These soils occur in desert washes, flood plains and low hills and mountains respectively. Typic Durorthids (Cherioni series) and Lithic Haplargids (Gachado series) are shallow, medium textured soils that dominate the volcanic hills and mountains. Typic Torripsamments that are coarse textured and deep occur on drainage ways, fans and dunes (Lagunita and Rosita series). Fine textured and deep Vertic Torrifluvents also occur in bottom positions along the Colorado River (Gadsen and Kofa series).	**Potential Natural Vegetation** The soils in this area will generally support a Mohave Desert Shrub plant community. Dominant shrubs on upland soils include creosote bush, white bursage, ratany, Mormontea, paloverde, brittlebush and various cactus species. Important grasses on upland soils include big galleta, bush muhly, slim tridens, perennial threeawns and dropseeds. Bottomland soils, with the exception of the saline soils adjacent to the Colorado river, are dominated by perennial midgrasses including big galleta, bush muhly and perennial threeawns. Dominant shrubs on bottomland soils include screwbean mesquite, catclaw acacia, paloverde, burrobush, smoketree and wolfberry. Salt influenced bottomland soils are almost exclusively shrub and tree sites. These soils are dominated by arrowweed, salt cedar, saltbush and mesquite. Salt cedars are not native, but have become naturalized to the area. Wet periods particularly in the spring months will produce large quantities of annual vegetation that is important to livestock operators. These plants are annual grasses and forbs and include lupine, desert indian wheat, primroses, needle grama, sixweeks grama and sixweeks fescue.
Subresource Area D30-3 (Grand Canyon Desert Shrub)	**Soils** Typic torrifluvents that are deep and range in texture from moderately coarse to fine make up a large part of the area (Anthony, Gila, Glendale, Vinton, Agua and Grabe series). Some of these Typic Torrifluvents occupy a large portion of valley areas in fan and terrace positions. Typic Haplargids are deep and range in texture from moderately coarse to fine (Continental, Eba, Mohave, Bitter Spring and Comville series). Typic Calciorthids which are deep, high in lime and generally medium textured occur as rolling hills and plains dissected by numerous desert washes (Latene, Nickel and Whitlock series). Other soils very high in lime are very shallow and generally medium textured. These soils are Typic Paleorthids (Tencee and Cave series). Lithic Torriorthents, ranging in depth from very shallow to shallow and in texture from coarse to medium, occur on low volcanic hills and mountains (House Mountain series). Other Lithic Torriorthents occur on granitic hills and mountains (Cellar series).	**Potential Natural Vegetation** The soils in this area will support Mohave Desert Shrub and mixed grassland plant communities. Blackbrush can dominate some upland soils in the northern portion of the area. Dominant shrubs on other upland soils include Joshua tree, creosote bush, ratany, yucca, white bursage, winterfat and various cactus species. Dominant midgrasses on upland soils include big galleta, bush muhly, black grama, Indian ricegrass, desert needlegrass, dropseeds and perennial threeawns. Bottomland soils are dominated by perennial midgrasses including big galleta, bush muhly, Indian ricegrass, desert needlegrass, perennial threeawns and dropseeds. Fine textured bottom land soils are dominated by alkali sacaton, tobosa, vine-mesquite, fourwing saltbush and shadscale. Wet periods, particularly in the spring months, will produce large quantities of annual vegetation important for livestock forage. Some of the more important annual plants include mares fat, desert indian wheat, other edible forbs, sixweeks grama, sixweeks fescue and red sprangletop.
(COLORADO AND GREEN RIVER PLATEAUS)		
Subresource Area D35-1 (Colorado Plateau Mixed Grass Plain)	**Soils** Torriorthents ranging in texture from coarse to fine and in depth from very shallow to deep make up a large part of the area (Moenkopie, Shalet, Claysprings, Fruitland and Winona series). Deep Torrifluvents ranging in texture from coarse to fine are along the flood plains and low alluvial fans (Trial, Ives, Tours and Navajo series). Torripsamments (Sheppard series) occur in much of the area, along with a rather large percentage of rock outcrop. Haplargids (Boysag series) are shallow, well drained, dark colored soils over Kaibab limestone and closely associated with the Winona series. Also in the unit are small areas of Badland (Miscellaneous Area) where geologic erosion keeps pace with soil development in the soft shales of the Chinle Formation. Camborthids (Moenkopie-like soils having a cambic horizon) also are present in the unit.	**Potential Natural Vegetation** The upland soils in this area will support mid- and short-grasses dominated by needlegrasses, Indian ricegrass, galleta and blue grama. The bottom soils are characterized by alkali sacaton, western wheatgrass and vine mesquite. Important shrubs and half shrubs are fourwing saltbush, winterfat, and Bigelow sagebrush. Some scattered open savannahs exist on shallow soils and are dominated by one-seed juniper and cliffrose.

(continued)

Table 21 (continued)

DESCRIPTION OF MAJOR LAND RESOURCE AREAS AND SUBRESOURCE UNITS

Mapping Unit	Representative Soils	Potential Natural Vegetation
	Moenkopie soils are very shallow and shallow, well-drained, moderately coarse to medium textured soils over sandstone and sandy shale. Shalet soils are shallow and very shallow, well-drained, moderately fine-textured soils residual on shale. Claysprings soils are shallow, well-drained, fine-textured soils over Chinle Shale. The Fruitland soils are deep, well-drained, moderately coarse textured soils formed in moderately coarse, calcareous alluvial sediments derived from sandstone, shale, siltstone and deposits of Quaternary alluvium. The Winona soils are very shallow, well-drained, carbonatic soils over Kaibab limestone. The coarse textured Trail soils, moderately coarse-textured Ives, moderately fine-textured Tours and fine-textured Navajo soils are well-drained, deep soils formed in recent alluvium. Sheppard soils are coarse-textured, somewhat excessively drained, deep soils formed in coarse-textured, wind-worked materials.	
Subresource Area D35-3 (Colorado Plateau Sagebrush - Grassland)	**Soils** Lithic Torriorthents, Lithic Torripsamments, Ustic and Typic Torrifluvents, Ustic Torripsamments, Lithic Ustollic Haplargids and Aridic and Lithic Arguistolls are the major soils in the area. Lithic Torriorthents (Winona, Moenkopie and Piute) are shallow and very shallow, loamy and sandy soils on limestone, sandy shale and sandstone uplands and plateaus respectively. Lithic Torripsamments (Schooner) are shallow and very shallow sandy soils on sandstone uplands. Ustic and Typic Torrifluvents (Redbank, Navajo and Tours) are deep, coarse and fine textured soils on flood plains. Ustic Torripsamments (Mespun) are deep, sandy soils on uplands. Lithic Ustollic Haplargids (Daze) are very shallow soils with clayey subsoils.	**Potential Natural Vegetation** The soils in this area will support mid- and short-grasses as well as shrubs. Sparse stands of juniper and pinyon are found on some sites. Indian ricegrass, needle and thread and western wheatgrass are the dominant cool-season grasses. Galleta, black grama, blue grama and sand dropseed are the major warm-season grasses. Winterfat, fourwing saltbush and big sagebrush are the important shrubs in this area.
ARIZONA AND NEW MEXICO MOUNTAINS		
Subresource Area D39-1 (Mogollon Plateau Coniferous Forest)	**Soils** Mollic Eutroboralfs are probably the most extensive soils in this subresource area. They are moderately deep to deep, stony to cindery and well drained, and have textures ranging from loam to clay. Mineralogy is both mixed and montmorillonitic. Dandrea soils, formed on schist, are in a subhumid moisture regime and are generally dry in May and June. The loamy-skeletal (Ess) soils, fine-loamy (Sponseller) soils and fine (Brolliar) soils are formed on basalt, cinders and bombs. They are in a subhumid climate and generally dry in May and June. The fine (Hogg) soils are formed on sandstone. Cryoborolls occur on the higher mountains and in concave sites on the high plateaus where air drainage is restricted. The Argic Pachic (Gordo) soils have gravelly loam textures and are on the steep high mountain slopes. The clayey-skeletal (Tatiyee) soils are on nearly level to moderately sloping meadows at high elevations. Extensive areas of Cryoboralfs have been formed in sandstone and exposed areas of cherty limestone. The clayey-skeletal, Glossic (Soldier) soils have formed in a cherty limestone member of the Kaibab formation. They are deep and moderately well drained. The fine (McVickers) soils have formed on sandstone and are deep and well drained. They are usually dry in May and June.	**Potential Natural Vegetation** Ponderosa pine dominates the area. Other important tree species include Gambel oak, Arizona walnut, sycamore, aspen, Douglas fir and blue spruce. Important understory grasses include Arizona and sheep fescue, mountain and screwleaf muhly, Junegrass, muttongrass, pine dropseed and dryland sedges. On wet-and-dry meadows dominated by cool-season grasses, rushes and sedges are scattered throughout the area. Principal plant species in these meadows include redtop, hairgrass, bluegrasses, rushes, sedges, willows, wildrose and other forbs.

(continued)

Table 21 (continued)

DESCRIPTION OF MAJOR LAND RESOURCE AREAS AND SUBRESOURCE UNITS

Mapping Unit	Representative Soils	Potential Natural Vegetation
	The frigid, Typic Ustorthents are gravelly, moderately coarse textured soils formed on granitic geologic materials. The Mirabal soils are moderately deep, well drained and are not dry for more than half of the growing season in most years. Moderately coarse textured, gravelly and cobbly Cryorthents occur on the steep slopes of the higher mountains. Baldy soils are deep and well drained. Precipitation is generally 30 inches or more per year.	
Subresource Area D39-4 (Arizona Interior Chaparral - Grassland)	**Soils** Dominant soils are Orthents - very shallow and shallow, gravelly and cobbly, medium and moderately fine textured, thermic soils with mixed mineralogy. They are Lithic Torriorthents (Cellar, Courthouse, House Mountain and Moano series). The Cellar soils are formed on granite and granite-related rocks on hills and low mountains with rolling to steep slopes. The Courthouse soils are formed on sandstone on undulating-to-steep hills and low mountains. The House Mountain soils are formed on basalt and related rocks and are on nearly-level to steep plains, hills and low mountains. The Moano soils are formed on schist and are on rolling-to-steep hills and mountains. Ustolls are nearly as prevalent as the Orthents and are very shallow and shallow, gravelly and cobbly, medium textured, thermic and mesic soils with dark surfaces. They are Lithic Haplustolls (Faraway and Tortugas series). The Faraway soils are formed on rhyolite, andesite and granitic, dominantly acid igneous rocks on hills and low mountains with rolling-to-very-steep slopes and mixed mineralogy. The Tortugas soils are formed on dolomitic limestone on undulating-to-steep hills and low mountains with carbonatic mineralogy. Ustolls - shallow, gravelly and cobbly, fine-textured soils with mesic temperature regimes and montmorillonitic mineralogy, are important. They are Lithic Argiustolls (Luzena and Cabezon series). The Luzena soils are formed on hills and low mountains of andesite, rhyolite and associated tuffs with undulating-to-steep slopes. The Cabezon soils are on nearly-level to rolling basalt plains. Cumulic Haplustolls (Lynx series) are present along the swales and drainageways. Lynx soils are deep, moderately fine textured and nearly level with mixed mineralogy and mesic temperature regimes.	**Potential Natural Vegetation** Potential plant communities are mixed shrub-grasslands. The percentage of shrubs increase on sites with shallow soils and in areas with rock outcrops. Important upland grasses include Junegrass, bottlebrush squirreltail, needle and thread, desert needlegrass, sideoats, black, blue and hairy grama, cane bluestem, muttongrass, New Mexico needlegrass, tobosa and curly mesquite. Bottomland soils are characterized by grassland plant communities dominated by western wheatgrass, sacaton, vine mesquite, spike muhly, sideoats grama and sedges. Major shrubs are birchleaf mountain mahogany, desert ceanothus, sugar sumac, skunkbush sumac, shrubby buckwheat, turbinella oak, Emory oak and Arizona white oak, manzanita, silktassel, canotia and jojoba.
CENTRAL ARIZONA BASIN AND RANGE		
Subresource Area D40-3 (Central Arizona Desert Grassland-Shrub)	**Soils** The soils in subresource area D40-3 are thermic. Lithic Haplargids (Lehmans series), Lithic Torriorthents (Cellar and House Mountain series) and Rock outcrop make up about 60 percent of the area. Haplargids (Mohave, Tres Hermanos and Vekol series) and Calciorthids (Latene and Rillino series) comprise about 30 percent of the area. Torrifluvents (Glendale, Gila, Anthony and Vinton series) make up the final 10 percent.	**Potential Natural Vegetation** The soils in this area will generally support a short- and mid-grass grassland and a mixed Mohave desert shrub-grassland. Upland soils are dominated by grass species such as big galleta, bush muhly, black grama, sideoats grama, desert needlegrass, slim tridens and dropseeds. Dominant upland shrubs include yucca, winterfat, woolly and white bursage, flattop buckwheat, shrubby buckwheat, Mormon tea and range ratany. Paloverde and Joshua are the dominant tree species. Low-lying soils receive extra run-in moisture and are dominated by midgrasses, including tobosa, big galleta, bush muhly, vine mesquite, western wheatgrass and sideoats grama. Important shrubs include catclaw (acacia), desert willow, twinberry, false mesquite, Mormon tea, and fourwing saltbush. The production of annual grasses and forbs may be important some years following good precipitation periods.

Resource Area determined allotment boundaries to be the logical management boundaries for site-specific watershed treatments. Current watershed condition has been evaluated on each grazing allotment. This evaluation considered current erosion conditions, potential erosion hazards and the soil temperature/moisture regime.

Appendix 19 lists each grazing allotment's assigned watershed category. The watershed categories are defined in Table 22.

Table 22
Watershed Categories

Category	Description
I	Watershed units are in satisfactory erosion condition and are not especially susceptible to wind and water erosion.
II	Watershed units are in satisfactory erosion condition, but are susceptible to wind and water erosion following disturbance.
III	Watershed units are in unsatisfactory erosion condition, but because of the soil temperature/moisture regime these soils would be unresponsive to treatment.
IV	Watershed units are in unsatisfactory erosion condition and the soils would be responsive to treatment.

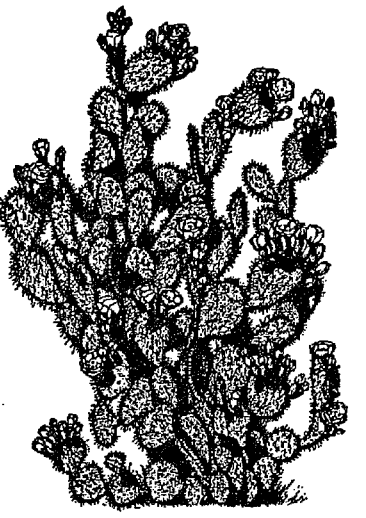
Allotments in either category I or II are in satisfactory or better erosion condition, and these watersheds are functioning properly. Soil cover is adequate for that range site. Moderate peak runoffs are maintained because of good infiltration and the absence of numerous gullies. Erosion is within acceptable levels. But Category II watersheds are particularly vulnerable to surface disturbances. Management of Category II watersheds would therefore focus on preventing undue surface disturbances.

Allotments in categories III and IV are in unsatisfactory erosion condition. Typified by poor soil cover, accelerated erosion, increased runoff, sediment yield and salinity discharge, these allotments contribute to the degradation of both air and water quality. Watersheds in Category III are too hot and dry for land treatments, such as seedings, to be successful. Category IV watersheds have climatic conditions that make them suitable for rehabilitation.

Soil salinity was not a classification criterion in this categorization. Rather, the relationship between erosion condition and sediment yield was inferred to have yet another relationship with salinity discharge. A highly eroded watershed will carry more sediments downstream. Where the watershed has saline soils, those sediments will also be saline. Salinity becomes important in planning management of erosion-prone or debilitated watersheds.

The exact locations and extent of salt-affected soils will be determined from ongoing and unpublished soil survey data as it is released. **Map 31** shows approximate locations of slightly saline areas.

Slightly saline soils occur in Detrital Valley, Sacramento Valley, Dutch Flat, Grapevine Wash and the Little Colorado River. Exact acreage figures can be obtained on completion of the soil survey.



Erosion is caused by both wind and water. But wind erosion is only occasionally severe, when open, bare or almost bare desert areas become dry and subjected to strong winds. Erosion due to water action is relatively minor except for localized sheet and gully erosion. The basic potential for water erosion is generally low because of the following characteristics.

1. A lack of steep slopes. Most topography consists of moderately to strongly sloping uplands, dissected with coalescing alluvial fans and nearly level, broad valley floors interrupted by several low to moderate elevation mountain ranges.

2. Soils of a relatively coarse texture with a moderate to moderately rapid permeability rate.

3. A relatively low annual rainfall, of which more than half falls as gentle winter rains.

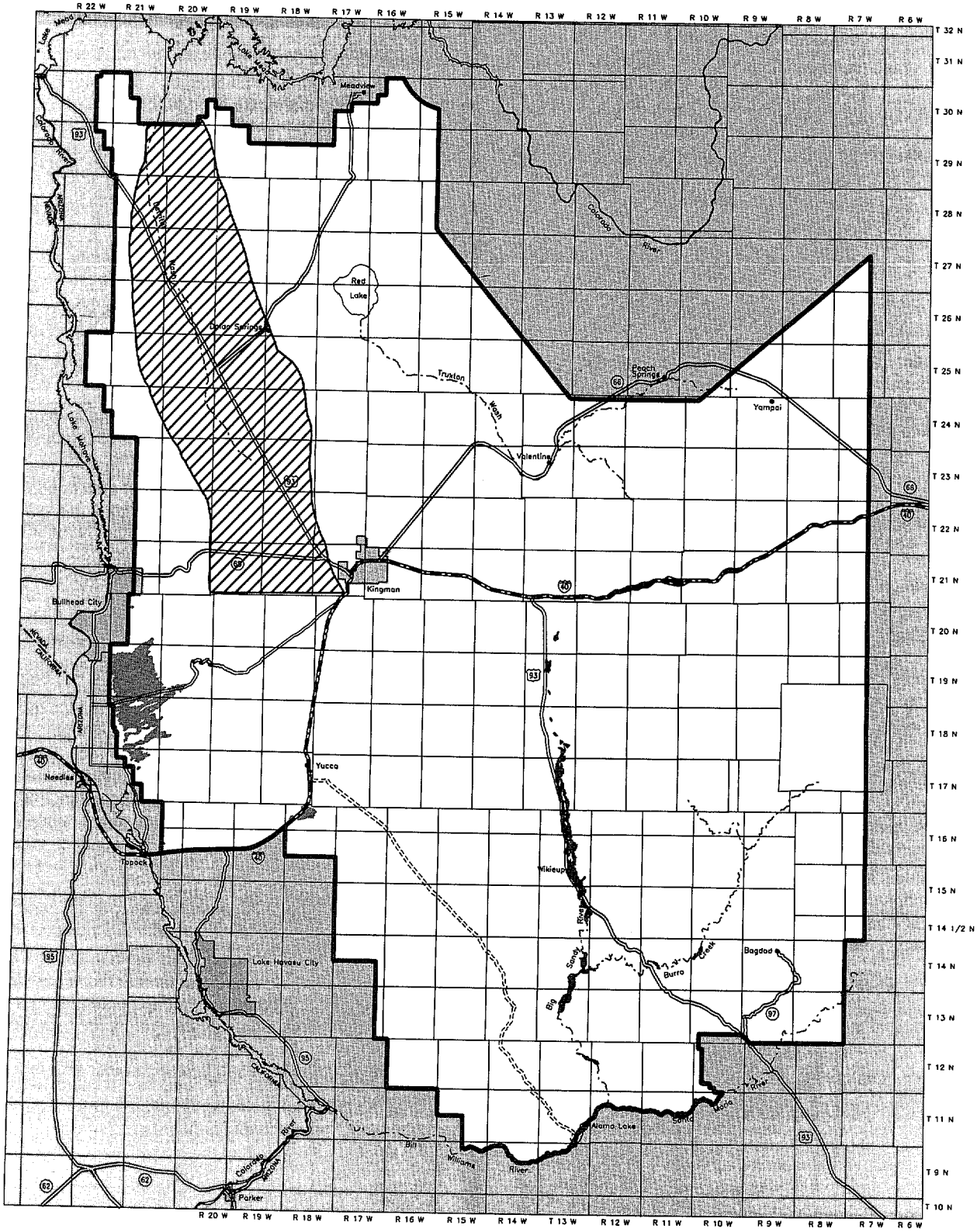
Areas of severe/critical erosion occur on alluvial fans near Wikieup, the Big Sandy River Valley, the Burro Creek area, the lands next to the Santa Maria River/Alamo Lake areas, the Dutch Flat area and small areas in the Sacramento, Detrital and Hualapai valleys, Hackberry and Truxton. Erosion conditions in most of the areas in the severe/critical class have been caused by geologic structure formations, drought, wind and overuse by livestock.

Riparian zones, especially along Burro Creek, Conger Creek, the Big Sandy River, Trout Creek and the Santa Maria River/Alamo Lake, have several small areas of moderate to severe/critical erosion along streambanks and in floodplains. Erosion in these areas is aggravated by heavy grazing pressure from livestock, wild burros and wildlife attracted by water, shade and palatable vegetation.

VEGETATIVE PRODUCTS

As diverse as the soils in which they grow, vegetative resources are influenced by a variety of other interrelated environmental factors, such as precipitation, topography and management practices. The southern and eastern portions of the resource area have been mapped in detail to delineate range or ecological sites, which, as unique products of their environmental factors, differ in their ability to produce a characteristic vegetative community. Ecological site mapping in the northern portion is ongoing and should be completed in 1993. This ecological site information provides the basic ecological data for planning the use, development, rehabilitation and management of rangeland.

SOIL SALINITY



SURVEYED SOILS – NON TO SLIGHTLY SALINE

SURVEYED SOILS – SLIGHTLY TO STRONGLY SALINE

UNSURVEYED SOILS WITH POTENTIAL FOR SALINITY

Map 31

Aside from the livestock production demand for forage, a variety of other native plants are also in demand. One of the most notable is firewood. Public lands support fairly large stands of pinyon and juniper trees in the northeast near Truxton. The extent of this resource has not yet been determined, in part because the demand for firewood has only recently escalated. The Kingman Resource Area issues 400 private woodcutting permits and 12 commercial permits each year.

A large demand has also developed for *Yucca schidigera,* a large desert-type plant. This plant is used as a water retention agent, a livestock feed supplement and for fertilizer and plant mulch. The Kingman Resource Area has issued a permit to harvest 50 tons of this plant each year. The extent of this resource has not yet been inventoried.

A large demand also exists for native plants for landscaping. This demand comes not only from commercial landscapers and nurseries but also from individuals wanting to landscape their yards. These requests have been limited to salvage operations where land is destined to be disturbed.

Demand for hardwoods such as catclaw acacia, mesquite and ironwood has also increased in recent years. These woods are desired for firewood and also for artistic purposes. These species occur on an extremely limited basis within the resource area.

RANGELAND MANAGEMENT

At present, 57 ranch operators hold permits or leases on 83 grazing allotments (see Map 32). A total of 135,411 animal unit months (AUMs) of active grazing use is allocated to these allotments. Roughly 2,279,000 acres of public land are being grazed. Most of the grazing use involves cattle, but some involves horses. Past licensing has also included a small amount of sheep or goat grazing.

Ranching operations on the public lands tend to be yearlong cow-calf enterprises. Some ranchers use public lands only seasonally.

Many allotments contain private and state-owned lands intermingled with public lands. The BLM administers grazing on the public lands.

Each Kingman Resource Area grazing allotment has been placed into one of three "selective management" categories to establish priorities for management. The criteria used in placing an allotment into a category included range condition, present **management situation** and potential resource production, resource use conflicts and the opportunity for economic returns from public investments. The three categories used and the objective for each category are shown in **Table 23.**

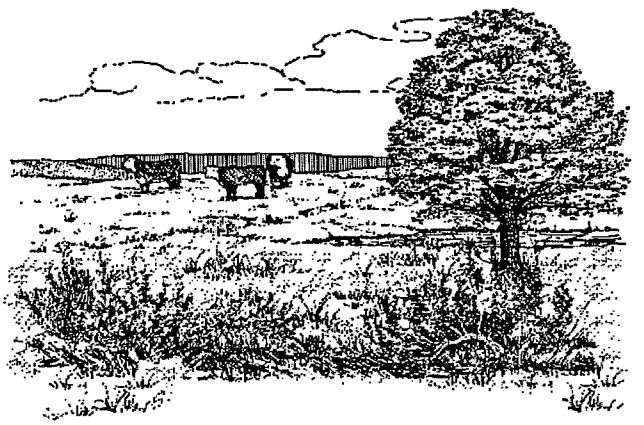


Table 23
Selective Management Categories

Category	Objective	No. of Allotments
Maintain	Maintain current satisfactory resource conditions	12
Improve	Improve current unsatisfactory resource conditions	44
Custodial	Manage custodially while protecting existing resource values	27

Source: Kingman Resource Area files

A complete listing of Kingman Resource Area grazing allotments and the categories into which they have been placed can be found in Appendix 1.

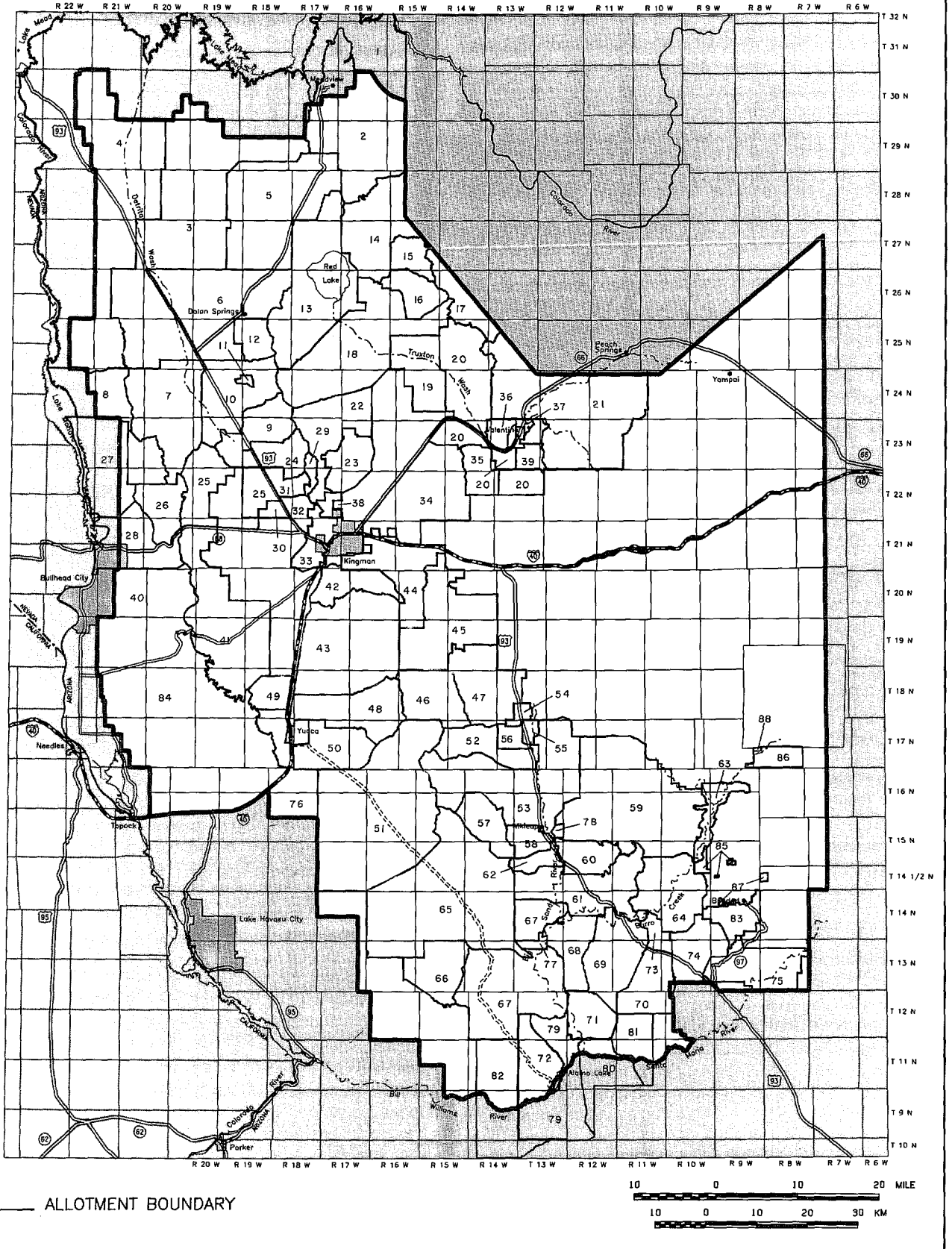
Each grazing allotment is also classified according to the type of forage available to livestock. Two classifications are used: perennial and ephemeral. Perennial forage is available consistently each year through perennially producing grasses, forbs and shrubs. Ephemeral forage consists of annual grasses and forbs that become productive only in response to adequate spring moisture and warm temperatures. Allotments have been placed into one of these two categories or a combination of both. The allocation of active grazing preference is based only on the availability of perennial forage. **The allocation will be used on an equitable ratio to achieve an ecological balance between livestock and other ungulates.** On ephemeral allotments, grazing is authorized only when ephemeral forage is abundant. The designation for each grazing allotment appears in Appendix 1.

BLM grazing preference is allocated to qualified parties who own or control "base property" that meets federal requirements. Livestock water serves as base property for most authorized grazing use. On scattered public land parcels at the far eastern end of the resource area, land serves as the qualifying base for the grazing preference. The type of qualifying base property for each allotment is shown in Appendix 1.

Twenty-two allotment management plans have been prepared for 26 grazing allotments, completed mostly in the 1980s. These call for developing range improvements and implementing pasture rotation to provide rest for forage plants. Allotment management plans are in various stages of implementation, and some need revising (see Appendix 1). Allotment management plans need to be completed for 31 Improve and Maintain category allotments.

An abundance of range improvement work has taken place in the Kingman Resource Area to improve the effectiveness of livestock grazing. Most allotment boundaries are defined by fences except where natural barriers effectively control livestock. Many allotments are further divided by interior fences to form pastures, which control livestock movement. Numerous springs, wells, dirt tanks and rain catchments have been developed to provide water for livestock and wildlife.

ALLOTMENT BOUNDARIES



ALLOTMENT BOUNDARY

Map 32

Index for Allotment Maps

1. Diamond Bar B
2 Diamond Bar A
3. Big Ranch A
4. Big Ranch B
5. Gold Basin
6. Dolan Springs
7. Fort MacEwen A
8. Fort MacEwen B
9. Cerbat
10. Quail Springs
11. Turkey Track
12. Mount Tipton
13. Cane Springs
14. Upper Music Mountains
15. Clay Springs
16. Middle Water
17. Music Mountain
18. Cedar Canyon
19. Walapai Ranch
20. Hackberry
21. Crozier Canyon
22. Canyon Ranch A
23. Canyon Ranch B
24. Mineral Park
25. Mud Springs
26. Gediondia
27. Portland Springs
28. Thumb Butte
29. Stockton Hill
30. Curtain
31. Pine Springs
32. Castle Rock
33. Cook Canyon
34. West Peacock
35. Peacock Mountain
36. Truxton Canyon A
37. Truxton Canyon B
38. Feldspar
39. Valentine
40. Silver Creek
41. Black Mountain
42. Lazy YU A
43. Walnut Creek
44. Hualapai Peak
45. Yellow Pine
46. Hibernia Peak A
47. Hibernia Peak B
48. Boriana A
49. Boriana B
50. Happy Jack Wash
51. La Cienega
52. Diamond Joe
53. Big Sandy
54. Cane Springs Wash
55. Sandy
56. Little Cane
57. Los Molinos
58. Wikieup
59. Francis Creek
60. Gray Wash
61. Greenwood Peak Community
62. Groom Peak
63. Burro Creek
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65. Chicken Springs
66. Bateman Springs
67. Artillery Peak
68. Greenwood Community
69. Burro Creek Ranch
70. Arrastra Mountain
71. Chino Springs
72. Alamo Crossing
73. Black Mesa A
74. Black Mesa B
75. Gibson
76. Crossman Peak
77. D.O.R.
78. Hot Springs
79. Alamo
80. Palmerita
81. Santa Maria Community
82. Primrose
83. **Kellis**
84. **Wildlife Reserve**
85. **Yolo Lease**
86. **McElhaney Lease**
87. **Byner Lease**
88. **JJJ Lease**

Several vegetation treatments have been undertaken to change the composition of the plant community. These treatments have involved herbicides, prescribed burning, roller chopping and reseeding of exotic or native plants. Range improvements have been funded by the BLM and grazing permittees.

Monitoring studies have been established on all of the grazing allotments in the Improve or Maintain selective management categories. These studies include (1) collecting climate data to determine the effectiveness of the growing season for forage plants, (2) collecting actual grazing use data to be compared with measures of forage removed, (3) conducting utilization transects to estimate forage removed and (4) conducting trend transects to determine long-term changes in the health of the vegetative community.

CULTURAL RESOURCES

Cultural resources have developed from centuries of human occupation, which can be divided into five time periods: Paleoindian (9500 to 7000 B.C.), Archaic (7000 B.C. to A.D. 500), Formative (A.D. 500 to 1300), Protohistoric (A.D. 1300 to 1700) and Historic (A.D. 1700 to 1945).

Cultural resources are generally concentrated near seeps and springs in the mountain ranges and along the few perennial streams such as

Burro Creek, the Big Sandy River and the Colorado River. The mountainous areas were also important because they provided a wide variety of plant and animal resources. Prehistoric and historic mining occurred mainly in the mountains. **Table 24** summarizes cultural resources located mainly in the mountains, recorded as of 1990.

Table 24
Cultural Resources Recorded as of 1990

Site Type	Number Recorded
Artifact Scatters	740
Rock Shelters	140
Historic Sites	130
Rock Art	37
Rock Features	30
Trails	12
Pueblos	7
Quarries	6
Total	**1,102**

Source: Kingman Resource Area files and Class I overviews

The age of most cultural resources is difficult to determine. The most common Native American resources are artifact scatters, consisting of nondiagnostic lithic (stone), shard (ceramic) and groundstone (metate and mano) artifacts. Much of the lithic and groundstone technology remained unchanged for thousands of years, making it difficult to date cultural resources. The most common shard type, Tizon Brown, was made from A.D. 700 to 1870.

The types and numbers **of cultural resources** mentioned above represent only these cultural resources that have been found. Only 48,450 acres (two percent of the resource area) has been surveyed. From an extrapolation of these figures, the resource area has more than 67,000 sites.

Important Cultural Resource Areas

While many cultural resources are known to exist in the resource area, some areas are known to contain particularly significant or high concentrations of sites. The areas described below are recognized as priority areas, but other areas of cultural significance also exist.

The Joshua Tree Forest area near the Grand Wash Cliffs is a spectacularly scenic area that also has some highly significant cultural resources. This area has some of the largest (five millimeter diameter) roasting pits in the Southwest, but no known large habitation sites in the area account for this activity. Who made these impressive features and when they were made are unknown.

The area around Wright Creek near Truxton is one of the few places in the resource area that had perennial water. The area is also a transition zone between the Colorado Plateau and the Great Basin. The resource area has a high density of Cohonina campsites dating from A.D. 700 to 1150 that are mixed with a few Prescott Culture pueblos dating from A.D. 1000 to 1250. This is the westernmost extension of these two cultures that were influenced by the Anasazi culture to the north and east.

The Black Mountains have a variety of significant cultural resources. The oldest known site (Bighorn Cave --1500 B,C.) is in this area. At least two other rock shelters have yielded rare prehistoric baskets. The Black Mountains have polychrome pictographs (rock paintings) and many petroglyphs. The Beale-Mojave Road, a combination wagon road and old Indian trail, crosses the area. Early (1860s) Caucasian stone cabins of prospecting troops from Ft. Mojave are also present.

The Bullhead City area is one of the main homelands of the Mojave Indians. The major prehistoric activity recorded is an extensive macro-flaking industry where, over a 36-square-mile area, large boulders were broken and shaped into blanks for metates and pestles. The area also has prehistoric trails, shrines, petroglyphs, rock rings and the best preserved section of the Beale-Mojave Road.

Burro Creek, in the southeast **portion of the planning area,** is another perennial water source. This area has Prescott Culture pueblos and campsites. Burro Creek has several obsidian sources used for prehistoric tool manufacturing. **This area has historic Yavapai and Hualapai cultural resources. Information from these resources may answer questions concerning the above mentioned tribes' origin and development. This area has socio-cultural values for the Yavapai tribe.** Several historic mines have been recorded, and the use of the arrastra, an early type of mill for gold and silver extraction, was common in this area. **A recently (1990) developed memorandum of understanding between the BLM and Arizona State University facilitated intensive cultural resource surveys, beginning in the fall of 1991.**

The area near Wikieup has a 25-mile-long Pliocene lake containing well-preserved fossils of birds, horses, camels and other animals. Prehistoric Indian camps, petroglyphs and lithic tool manufacturing have been recorded. The historic 19th century Carrow/Stephens ranches lie along the Big Sandy River. These ranches are well preserved and are suitable for restoration and development as recreation/interpretation areas for the public.

The Cerbat Mountains northwest of Kingman contain hundreds of old mines. Prehistoric Indian turquoise mines with dozens of stone picks and hammers have been found. Historic 19th century gold and silver mining sites are also found throughout the range. One of the most concentrated mining areas, Mineral Park, was also the Mohave County seat from 1877 to 1887. This area also has good potential for public use development.

RECREATION MANAGEMENT

The resource area offers a wide variety of topography, terrain features, vegetation, scenic values, historic resources, wildlife, wilderness and riparian resources. These all combine to make the region extremely valuable for such recreational pursuits as camping, backpacking, hiking, off-highway vehicle use, picnicking, hunting, photography, rockhounding, horseback riding and swimming. Visitors wishing to enjoy a recreation experience on the public lands may choose from primitive and unconfined activities to camping in developed campgrounds.

Much of the public lands in the resource area are remote and provide excellent opportunities for solitude and primitive camping and

backpacking. **Nine wilderness areas are within the resource area and provide unlimited opportunities for primitive recreation.**

The Kingman Resource Area is in a transition between the Basin and Range and the Colorado Plateau physiographic provinces. The Black, Cerbat, Hualapai, McCracken and Aquarius mountains trend north and south with long, linear valleys in between. The area contains many scenic features such as the Grand Wash Cliffs, Cerbat Pinnacles, Mount Nutt, Hualapai Mountains, Burro Creek Canyon and Aubrey Peak. A number of geologic formations are highly mineralized, resulting in spectacular scenery.

Vegetation communities are as diverse as the topography, soils and elevations. The area is in a transition zone between the Sonoran Desert to the south and the Mohave Desert to the north. Saguaro cactus and ocotillo can be seen intermixed with Mohave yucca and juniper in the region surrounding Burro Creek. Desert scrub vegetation (creosote bush, yucca and bursage) grows in the valleys and on the lower mountains and foothills of higher mountain ranges. Grasslands occur at mid-elevations such as the Hualapai Valley, Cherokee Point and Goodwin and Bozarth mesas. Juniper woodland occurs in the foothills of the Hualapai Mountains and at higher elevations in the Black, Cerbat, Music and Aquarius mountains. Pinyon is intermixed with juniper in the higher elevations of the Music, Cerbat, Hualapai and Aquarius mountains. Chaparral is found on the Hualapai Mountains as well as ponderosa pine, oak woodland and spruce-fir at the highest elevations. Riparian vegetation such as cottonwood and willow grows along perennial streams and around springs and seeps.

The lower elevations provide excellent recreation opportunities during the cooler months, the mid-elevations are used by visitors in the spring and fall and the higher elevations are used extensively in the spring, summer and fall. The diverse vegetation provides a variety of scenery, supports a variety of wildlife and offers a broad range of camping and photography experiences.

The area is highly mineralized and was mined by the early Spanish explorers and later European settlers since the 1860s. Many of the mountain areas contain a rich historical heritage of mining equipment, mine portals and buildings. Chloride, Oatman, Gold Road, Gold Basin and Mineral Park were early mining districts and towns, now important to people interested in history and photography. The mining industry has built an intricate network of roads and trails, which are now extensively used by off-highway vehicle enthusiasts and as access for hunters, campers and day-use visitors.

Water is a valuable resource in the arid Southwest. Several important riparian areas such as Wright and Burro creeks and the Big Sandy, Santa Maria and Bill Williams rivers provide excellent habitat for desert fisheries and wildlife. These areas also provide excellent recreation opportunities for hunting, camping, picnicking, swimming and photography.

The diverse topography, soils, vegetation and elevations provide excellent habitat for diverse wildlife species, including deer, elk, antelope, bighorn sheep, javelina, coyote, mountain lion, bald eagle, black-hawk and peregrine falcon. These species are important for hunting, photography and observation.

The Kingman Resource Area has four developed campgrounds. Burro Creek, along Highway 93, provides facilities for recreation vehicles as well as for campers. Wild Cow, Windy Point and Packsaddle campgrounds offer a more remote camping experience and are also suitable for picnicking.

Visual Resource Management

The BLM is responsible for recognizing and protecting visual values on public lands. The Visual Resource Management system provides a way to qualify and quantify potential visual impacts to an acceptable level, helping managers make resource allocation decisions.

The BLM administers visual resources on public lands according to four Visual Resource Management classes. **Table 25** shows the total acreages by class of inventoried public and nonpublic land that a recent inventory has yielded.

Table 25
Visual Resource Class Objective Acreages

Class	Acreage
VRM Class I Objectives	392,843
VRM Class II Objectives	882,491
VRM Class III Objectives	781,928
VRM Class IV Objectives	3,284,344
Total	**5,341,606**

WILDERNESS RESOURCES

With the passage of the Arizona Desert Wilderness Act of 1990 (Public Law 101-628, dated November 28, 1990), Congress designated some 1.1 million acres of BLM-administered public land in Arizona as wilderness. Nine separate wilderness areas, totalling over 390,000 acres, are located within the Kingman Resource Area. These wilderness areas are Mount Wilson, Mount Nutt, Warm Springs, Mount Tipton, Wabayuma Peak, Aubrey Peak, Upper Burro Creek, Arrastra Mountain and Rawhide Mountains. In two areas, the Rawhide Mountains and Arrastra Mountain, portions of the wilderness areas lie outside the planning area.

The Arrastra Mountain Wilderness is the largest of the BLM-managed wilderness areas in Arizona. Its size, diversity of plant and animal life and riparian environment make this area a truly exceptional natural area. This wilderness contains a unique blend of Sonoran and Mohave desert vegetation and provides habitat for nearly 300 species of wildlife. Topography is varied, with the Poachie Range rising to nearly 5,000 feet elevation. The western and southern portions of the wilderness contain more than 20 miles of the Big Sandy and Santa Maria rivers which, with their lush vegetation, provide sharp contrast to the surrounding desert vegetation.

The Aubrey Peak Wilderness contains a splendid variety of landforms and features. This volcanic area contains buttes, dikes, plugs, natural windows, caves, spires, overhangs and slickrock terraces. With elevations ranging from 1,800 feet to 3,221 feet, the wilderness offers a challenge to experienced

hikers, as well as less strenuous stretches of desert washes and interior basins.

The Mount Nutt Wilderness, just west of Kingman, is an area of complex and fascinating terrain. Prominent buttes and mesas are cut by deep canyons and washes that provide excellent opportunities for solitude. The craggy peaks and canyons are awash in colors ranging from deep pink to brown. The area is also rich in archaeological resources, most notably Bighorn Cave, and provides important habitat for desert bighorn sheep.

The Mount Tipton Wilderness, within the Cerbat Mountain Range, has an elevation rising to 7,148 feet at the summit of Mount Tipton. The Cerbat Pinnacles are a major geologic attraction in the area, and hiking to the peak of Mount Tipton is becoming increasingly popular.

The Mount Wilson Wilderness borders the Lake Mead National Recreation Area southeast of Hoover Dam. Its isolation, ruggedness and lack of human development make this area one of the most pristine in the resource area. With a vertical relief of over 3,000 feet, visitors can experience breathtaking views of the Grand Canyon, Lake Mead and distant mountains in Nevada.

The Rawhide Mountains Wilderness is bisected by the Bill Williams River. The portion north of the river is in the Kingman Resource Area and the southern portion is in the Lower Gila Resource Area. Elevations range from 1,730 feet to 2,430 feet. The Rawhide Mountains contain many rugged outcroppings and canyons, creating a wide variety of landscapes. The 600-foot gorge of the Bill Williams River is a favorite of hikers.

The Upper Burro Creek Wilderness is considered by many to be the "crown jewel" of wilderness areas in Arizona. Few other areas combine the scenic, recreational and wildlife resources found in this wilderness. Burro Creek is a perennial stream that often runs deep, creating beautiful waterfalls and pools. The creek has cut a steep and rocky canyon through the landscape that provides striking colors and interest to the area.

The Warm Springs Wilderness, in the southern portion of the Black Mountains, provides important habitat for desert bighorn sheep. The area is quite large (over 113,000 acres), so opportunities for solitude are outstanding.

The Wabayuma Peak Wilderness, within the Hualapai Mountains, provides opportunities for year-round recreation use. Elevations of up to 7,160 feet provide cooler summertime temperatures than most other BLM-managed wilderness. Vegetation in this area ranges from a mixture of Sonoran and Mohave desert vegetation at the lower elevations to chaparral and ponderosa pine at the higher elevations. Its ruggedness and vegetative diversity provide major attractions to wilderness visitors.

A wilderness management plan will be prepared for each wilderness area. Implementing these plans will begin immediately upon their final approval and will be ongoing throughout the life on this RMP, regardless of the alternative selected. Wilderness study areas not designated as wilderness have been returned to multiple use and each individual activity will be managed in accordance with specific provisions of the Plan and Record of Decision signed by the BLM Arizona State Director.

WILD AND SCENIC RIVERS

Eligible River Segments

Rivers within the resource area were analyzed in accordance with the Wild and Scenic Rivers Act, December 23, 1980 and Information Memorandum numbers 87-615 (July 23, 1987) and 88-670 (September 8, 1988) to determine their eligibility to be studied for inclusion in the National Wild and Scenic Rivers System (see Table 2). The Bill Williams, Big Sandy and Santa Maria rivers and Burro, Francis and Wright creeks (as shown on Map 8)were determined to meet the eligibility requirements of being "free-flowing" and to have one or more "outstandingly remarkable" values.

The outstandingly remarkable values for each eligible river segment are described below.

Burro Creek (Segment A)

Outstandingly remarkable values: This portion of Burro Creek contains outstanding scenic qualities, including riparian vegetation, cliffs and undeveloped shorelines uncluttered by human development. The scenic quality of this portion is rated as Class A (see BLM Manual 8400). The narrow canyon and clear, deep pools of Burro Creek offer exceptional scenery. Rugged landforms, riparian vegetation and water combine to provide a variety of scenery unmatched within the resource area.

Outstanding opportunities for recreation also exist along this portion. This part of Burro Creek, within the Upper Burro Creek Wilderness, attracts visitors seeking outstanding opportunities for hiking, backpacking, photography, hunting, wildlife observation and sightseeing within the river corridor.

The entire stretch of Burro Creek, including this segment, provides habitat for a wide variety of unique wildlife. Species include 14 federal-, state- and BLM-sensitive species such as the bald eagle, Mexican black-hawk, zone-tailed hawk and the round-tailed chub. The riparian habitat associated with this area supports a great diversity of birds of prey.

The westernmost known occurrence of multi-storied, stone masonry pueblos constructed by the Prescott Culture in A.D. 1200 is along this segment of Burro Creek. Several historic and prehistoric peoples used this area together. It was a major source of obsidian for construction of tools, and many petroglyphs can be found within the river corridor.

Burro Creek (Segment B)

Outstandingly remarkable values: This portion of Burro Creek contains outstanding scenic qualities, including riparian vegetation, cliffs, and shorelines essentially natural in appearance. The canyon walls and the pools and riffles of Burro Creek provide a contrast in color and landform to make this stretch highly scenic.

The scenic quality of this portion is rated as Class A (see BLM Manual 8400).

The entire stretch of Burro Creek, including this segment, provides habitat for a wide variety of unique wildlife. Species include 14 federal-, state- and BLM-sensitive species such as the bald eagle, Mexican black-hawk, zone-tailed hawk and round-tailed chub. The riparian habitat associated with this area supports a great diversity of birds of prey.

Burro Creek (Segment C)

Outstandingly remarkable values: This portion of Burro Creek contains outstanding scenic qualities, including riparian vegetation, cliffs and shorelines uncluttered by human development. Numerous volcanic features, including basalt and rhyolite cliffs and canyons, are within this area. The scenic quality of this portion is rated as Class A (see BLM Manual 8400).

Outstanding opportunities for recreation exist within this stream corridor. The ruggedness of the canyon and the presence of perennial water provide outstanding backpacking and hiking opportunities. The corridor also provides outstanding wildlife viewing and photography opportunities.

The entire stretch of Burro Creek, including this segment, provides habitat for a wide variety of unique wildlife. Species include 14 federal-, state- and BLM-sensitive species such as the bald eagle, Mexican black-hawk, zone-tailed hawk and round-tailed chub. The riparian habitat associated with this area supports a great diversity of birds of prey.

Burro Creek (Segment D)

Outstandingly remarkable values: This portion of Burro Creek contains outstanding scenic qualities, including riparian vegetation, cliffs and undeveloped shorelines. The color of the various rock formations combines with the riparian vegetation and the appeal of the creek itself to provide a most interesting and diverse landscape. The scenic quality of this portion is rated as Class A (see BLM Manual 8400).

The entire stretch of Burro Creek, including this segment, provides habitat for a wide variety of unique wildlife. Species include 14 federal-, state- and BLM-sensitive species such as the bald eagle, Mexican black-hawk, zone-tailed hawk and round-tailed chub. The riparian habitat associated with this area supports a great diversity of birds of prey.

Burro Creek (Segment E)

Outstandingly remarkable values: This portion of Burro Creek contains outstanding scenic qualities, including riparian vegetation, cliffs and undeveloped shorelines uncluttered by human development. The scenic quality of this portion is rated as Class A (see BLM Manual 8400). Rugged landforms, riparian vegetation and water combine to provide a variety of scenery.

Outstanding opportunities for recreation exist within this stream corridor. The ruggedness of the canyon and the presence of perennial water provide outstanding backpacking and hiking opportunities. The corridor also provides outstanding wildlife viewing and photography opportunities.

The entire stretch of Burro Creek, including this segment, provides habitat for a wide variety of unique wildlife. Species include 14 federal-, state- and BLM-sensitive species such as the bald eagle, Mexican black-hawk, zone-tailed hawk and round-tailed chub. The riparian habitat associated with this area supports a great diversity of birds of prey.

Francis Creek

Outstandingly remarkable values: Francis Creek contains outstanding scenic qualities, including riparian vegetation, cliffs and undeveloped shorelines. The scenic quality of this portion is rated as Class A (see BLM Manual 8400). Rugged landforms, riparian vegetation and water combine to provide a exceptional scenery.

Francis Creek provides habitat for a wide variety of unique wildlife. Species include 14 federal-, state- and BLM-sensitive species such as the bald eagle, Mexican black-hawk, zone-tailed hawk and round-tailed chub. Francis Creek supports a predominantly native fishery, a rare and important occurrence in southwestern streams. Francis Creek it is a tributary to Burro Creek and maintains a significant source of perennial water flow into Burro Creek.

Big Sandy River (Segment A)

Outstandingly remarkable values: This segment of the Big Sandy River is an important desert riparian ecosystem. The segment provides important habitat for non-game birds, fish, other wildlife and insect populations. This river is an important stopover area for migrating non-game birds. The riparian area provides winter habitat for bald eagles, a federally listed endangered species, and could significantly contribute to a nucleus of bald eagles capable of recolonizing the Colorado River.

Big Sandy River (Segment B)

Outstandingly remarkable values: This segment of the Big Sandy River contains outstanding scenic qualities. Landforms of broad river channels, high banks and rolling hills combine with dense riparian vegetation and the appeal of moving water to provide a most interesting scenic resource. The scenic quality of this portion is rated as Class A (see BLM Manual 8400).

Outstanding opportunities for primitive recreation also exist within this segment. Most of this segment is within the Arrastra Mountains Wilderness and has the potential to be one of the main

backpacking travel routes within the wilderness. Other exceptional opportunities include wildlife observation, nature study and photography.

This segment of the Big Sandy River is an important desert riparian ecosystem. The segment provides significant habitat for bird, fish, other wildlife and insect populations. This segment is an important stopover area for migrating non-game birds and waterfowl. The riparian area provides winter and breeding habitat for bald eagles, a federally listed endangered species, and could significantly contribute to a nucleus of bald eagles capable of recolonizing the Colorado River.

Santa Maria River (Segment A)

Outstandingly remarkable values: This segment of the Santa Maria River contains outstanding scenic qualities. The narrow river gorge with numerous deep side canyons and escarpments provides a striking contrast to the surrounding mountains. The presence of perennial water and riparian vegetation creates a dramatic green belt which enhances the overall scenic quality of the area, rated as Class A (see BLM Manual 8400).

Outstanding recreation opportunities exist along this river segment. Backpacking and hiking opportunities are superb along the river and its many side canyons. This portion of the river is in the Arrastra Mountain Wilderness and has the potential to be the major destination point for most visitors to the wilderness area.

This segment of the Santa Maria River is an important desert riparian ecosystem. The segment provides significant habitat for bird, fish, other wildlife and insect populations. The riparian area provides wintering and breeding habitat for bald eagles and potential habitat for breeding peregrine falcons. This particular area could significantly contribute to bald eagles recolonizing the Colorado River.

Santa Maria River (Segment B)

Outstandingly remarkable values: This desert riparian ecosystems provides important habitat for bird, fish, other wildlife and insect populations. The riparian area provides wintering habitat for bald eagles. This particular area could significantly contribute to bald eagles recolonizing the Colorado River.

Bill Williams River (Segment A)

Outstandingly remarkable values: This segment of the Bill Williams River contains outstanding scenic qualities. The river gorge is narrow with numerous deep side canyons. Perennial water and riparian vegetation create a dramatic oasis which enhances the overall scenic quality of the area. The scenic quality of this portion is rated as Class A (see BLM Manual 8400).

Outstanding recreation opportunities exist along this river segment. Backpacking and hiking opportunities are superb along the river and its many side canyons. This portion of the river is in the Rawhide Mountain Wilderness and has the potential to be a major destination point for visitors to the wilderness area.

This segment of the river is part of one of the most important desert riparian ecosystems in the state of Arizona. The segment provides important habitat for numerous species of wildlife and fish. High primary productivity has produced an abundance of non-game birds, amphibians, reptiles and mammals. The riparian area provides wintering and breeding habitat for bald eagles and potential habitat for breeding peregrine falcons. This particular area could significantly contribute to bald eagles recolonizing the Colorado River.

Bill Williams River (Segment B)

Outstandingly remarkable values: This segment of the river is part of an important desert riparian ecosystem. The segment provides crucial habitat for bird, fish, other wildlife and insect populations. The riparian area provides wintering and breeding habitat for bald eagles and potential habitat for breeding peregrine falcons. This particular area could significantly contribute to bald eagles recolonizing the Colorado River.

Wright Creek

Outstandingly remarkable values: This is a perennial stream providing habitat for an atypical strain of the longfin dace *(Agosia chrysogaster)*. This stream is isolated from other watercourses within the resource area which support fish populations.

The area contains a diverse and unique blend of prehistoric and historic resources. The first ranching homesteads south of the Colorado River in Mohave County were established in the general area in the 1870s. In contrast, the area contains numerous sites of the Cohonina Culture dating from about A.D. 700 to 1500. The western Cohonina sites have never been studied. The area is also near the present-day Hualapai Reservation and probably contains historic Pai sites, which might help answer questions concerning their origin and development.

Ineligible River Segments

The following segments of rivers were considered for inclusion in the National Wild and Scenic Rivers system but were considered ineligible.

Big Sandy River

Segment Description: The Big Sandy River segment from its headwaters at the confluence of Trout and Knight creeks downstream to Highway 93 at the Big Sandy bridge was determined to be ineligible because of the lack of outstandingly remarkable values.

Cottonwood Creek

Segment Description: This segment from its headwaters in the Cottonwood Cliffs downstream to where it empties into Truxton Wash was determined to be ineligible because it is not free-flowing.

WILDLIFE HABITAT MANAGEMENT

The Kingman Resource Area's wildlife habitat management program is guided by the objectives and goals of a bureauwide policy document entitled Fish and Wildlife 2000. The accomplishment of such goals and objectives is achieved principally by the development of wildlife activity plans known as habitat management plans. Five plans have been developed covering the entire resource area. These documents include detailed descriptions of wildlife resources, resource conflicts and proposed projects, goals and objectives.

Five major components of the wildlife habitat management program are unique wildlife habitats, general wildlife habitat, big game, resource conflicts with wildlife and wildlife habitat improvement projects.

Unique Wildlife Habitats

Wildlife inventories have found 20 standard habitat sites. These habitats are specified and discussed in the Hualapai-Aquarius Grazing Environmental Impact Statement and associated documents. Similar standard habitat sites occur in the Cerbat/Black Mountain Environmental Impact Statement area.

The predominant vegetative types in the Cerbat and Black Mountains planning units are described in their respective habitat management plans. The standard habitat site methodology used in the Hualapai-Aquarius Grazing Environmental Impact Statement had not been developed when planning for these areas was undertaken.

Habitat types especially important to wildlife are ponderosa pine-Gambel's oak, ponderosa pine-mixed conifer and cottonwood-willow riparian.

Common standard habitat types are important in sustaining wildlife resources such as small and big game populations and common birds and reptiles.

The extremely limited riparian and "mountain island" habitats provide habitat for a wealth of wildlife species, including rare, threatened and endangered species, as well as big game and other common wildlife.

Because of their rarity in the resource area and their critical importance to wildlife, management attention is often focused on these unique wildlife habitat areas, concentrating on conservation and preservation of these resources.

General Wildlife Habitat

The BLM administers general habitat for wildlife management on a day-to-day basis by focusing on ecosystem management, seeking to maintain and enhance existing wildlife resources. The BLM manages for a diversity of plant and animal resources, assuring long-term viability of otherwise fragile desert ecosystems.

Although management attention often spotlights rare species and their habitats, continuous efforts are made to ensure the health and productivity of all wildlife habitats, including widespread habitat types such as chaparral, saguaro-paloverde and creosote-bursage.

Big Game

Big game species are an important aesthetic and economic resource. Key big game species are listed in **Table 26.** The management of big game habitat is a cooperative effort between the BLM and the Arizona Game and Fish Department. Information on quality and amount of big game habitats, existing and future population targets and population trends is presented in existing management framework plans, habitat management plans and the Arizona Game and Fish Department Big Game Strategic Plan and annual big game surveys. Herd management plans are periodically revised to incorporate new information, including updates in the status of big game populations, habitat improvement projects, transplant proposals and habitat monitoring efforts.

The Black Mountains contain one of Arizona's outstanding herds of desert bighorn sheep. These animals have been used in studies and to reestablish sheep herds in regions where they have been extirpated. They also provide some of Arizona's best bighorn sheep hunting. Bighorn also inhabit the extreme southern part of the Hualapai Planning Unit near Aubrey Peak, the Casteneda Hills and the McCracken and Rawhide mountains. This isolated herd has recently been bolstered by supplemental transplants from the Black Mountain herd (see **Map 33**). Bighorn have been extirpated from portions of the Aquarius Planning Unit, especially the upper Bill Williams drainage.

Pronghorn antelope also occur in the resource area. The herds in the Truxton area and on Goodwin Mesa have viable numbers, and herd management plans have proposed projects to further improve their habitat.

Mule deer are found throughout the resource area, but are concentrated in the Hualapai, Cerbat and Music mountains. These and other areas provide ample opportunities for hunters, photographers and sightseers.

Javelina have been introduced into several locations, primarily in the Hualapai Mountains and the Burro Creek drainage. These transplants have been successful and javelina are now common throughout the Hualapai Mountains and along the upper Bill Williams watershed, including Burro Creek, Alamo Lake and the Big Sandy River.

In the future, to achieve an ecological balance in areas used by wildlife and other ungulates, forage would be allocated to all ungulates in an equitable ratio.

Resource Conflicts

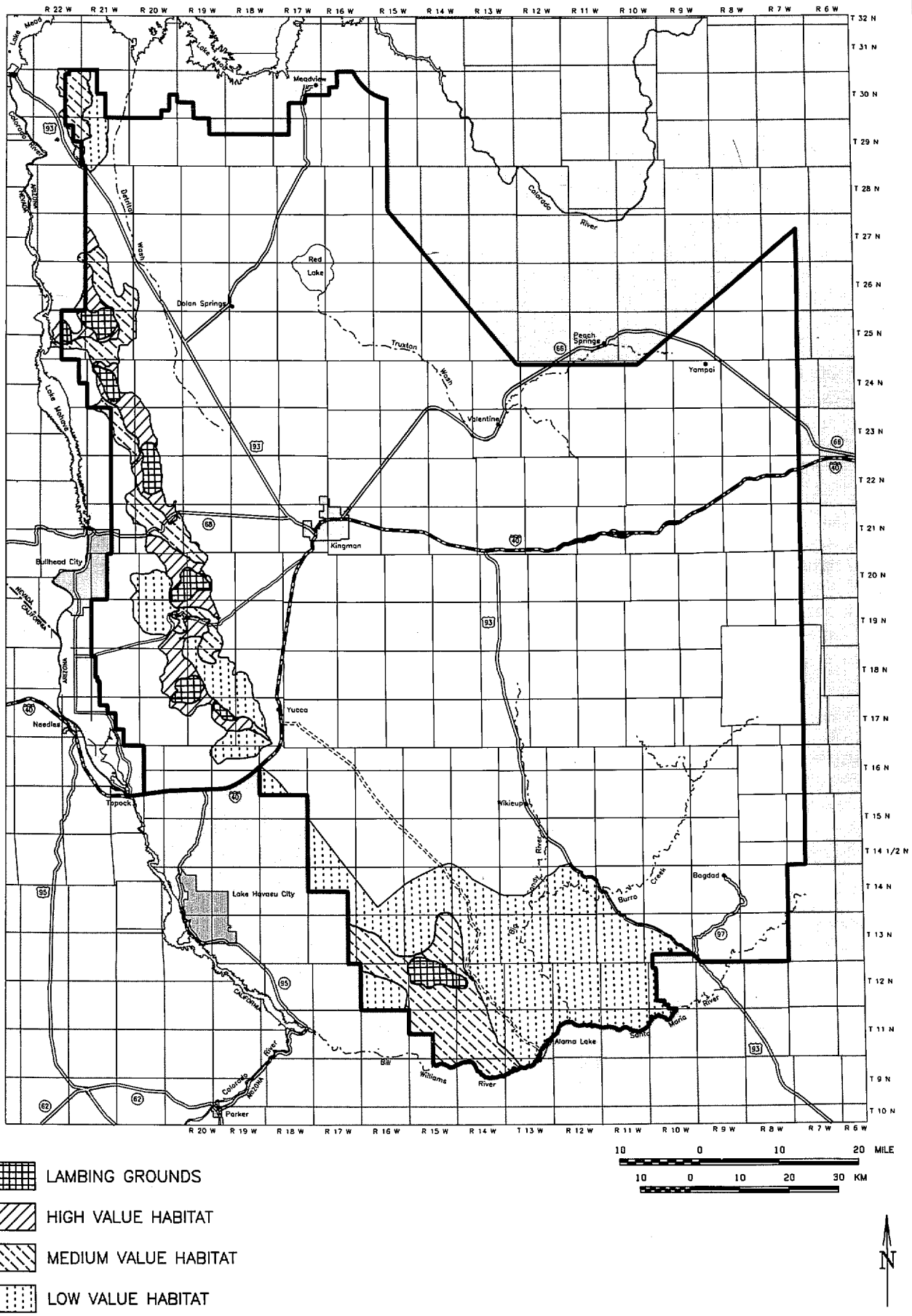
Plant and animal resource conservation efforts conflict with some

Table 26
BIG GAME SPECIES

COMMON NAME (Scientific Name)	General Distribution in Arizona	Suitable Habitat on Public Lands	Remarks
Desert bighorn sheep (*Ovis canadensis nelsoni*)	Southern and northwestern Arizona	Black Mountains	One of Arizona's premier naturally occurring bighorn sheep herds. Extensive investment of and money by resource agencies and concerned public.
		Mount Wilson	Primarily a ram area next to good sheep habitat on the Lake Mead National Recreational Area.
		Aubrey Peak Complex	Southern Mohave County complex of several "mountain islands" used by bighorn sheep. Recently, sheep have been transplanted into this population to try to boost the region's low densities.
Pronghorn (*Antilocapra americana*)	Temperate grasslands of southeastern and northern Arizona, the Great Basin desertscrub of northern Arizona and the Sonoran desertscrub on the Cabeza Prieta Game Range	Grassland communities on Goodwin Mesa, in Hualapai Valley, Truxton and Dutch Flat	Goodwin Mesa and Truxton areas provided the Kingman Resource Area's most important habitat. Private and state lands in Round Valley provide important habitat next to public lands.
Mule deer (*Odocoileus hemionus*)	Boreal forests of Kaibab Plateau, San Francisco Peaks and White Mountains to creosote-bursage communities of the Sonoran Desert	All plant communities throughout the Basin and Range portion of the Kingman Resource Area provide habitat; densities range from sparse to high	Areas of blocked lands contribute significantly, sustaining local populations (medium to high densities) in the Hualapai, Cerbat, Music and Aquarius mountains.
Elk (*Cervus canadensis*)	Introduced into Arizona, now throughout much of the Mogollon Rim and the Hualapai Mountains	Remnant herd persists in the Hualapai Mountains; occasional dispersal into the Cerbat and Peacock mountains	Hualapai herd is nonnative, introduced in the 1920s.
Javelina (*Dicotyles tajacu*)	Throughout central, south-central and southeast Arizona, especially in riparian desert-scrub habitats	All plant communities in the Basin and Range portion of the resource area provide habitat: densities vary from sparse to high	The present javelina population is the result of introductions which were especially successful in the Hualapai Mountains and Burro Creek.

Source: Arizona Game and Fish Commission, Arizona Game and Fish Department. "Big Game Strategic Plans 1980-83" 1980. Phoenix, Arizona

BIGHORN SHEEP HABITAT



LAMBING GROUNDS

HIGH VALUE HABITAT

MEDIUM VALUE HABITAT

LOW VALUE HABITAT

Map 33

uses but are in harmony with others. Wilderness and cultural resource values and prescribed burning are generally harmonious with wildlife conservation.

Other resource uses (mineral exploration and development, grazing and off-highway vehicles) usually require intensive evaluation and coordination to avoid adverse impacts to wildlife. Frequently, adverse impacts are unavoidable and can only be partly offset by mitigation.

There is concern over fragmentation of wildlife habitats and the perpetuation of wildlife habitat islands surrounded by human development and encroachment. Such fragmentation of wildlife habitats restricts necessary wildlife movements, diminishing the potential for long-term maintenance of biodiversity, viable populations and interactions among species. The loss of movement corridors leads to isolation, which can result in inbreeding, loss of reproductive ability and ultimately extinction.

The rapid growth of human populations often precludes consideration of wildlife and their movement needs. Highway 68 is known to have already eliminated movement of bighorn sheep between the northern and southern Black Mountains. Road development, increased traffic and urban encroachment block natural movement corridors, may result in "death traps" for wildlife and more importantly lead to the ultimate genetic isolation of wildlife populations.

Wildlife Habitat Improvement Projects

A major part of the Kingman Resource Area's wildlife program involves the development of wildlife habitat improvement projects. These include spring developments, rainwater catchments, exclosures, fence modifications, prescribed burns and tree plantings.

SPECIAL STATUS SPECIES MANAGEMENT

Special status species include federally listed and proposed species, federal candidate species, state-listed threatened species **and sensitive species. Eighteen** plant and 33 animal special status species may occur in the Kingman Resource Area, as listed in Appendix 6. Of the animals, 22 species are either historic, unverified, only transient on public land or are known to occur only on nonfederal land. The BLM manages significant habitat for bald eagle, peregrine falcon, Hualapai Mexican vole, desert tortoise, ferruginous hawk, black-hawk, roundtail chub, spotted owl, leopard frog, northern goshawk, Arizona cliffrose, white-margined penstemon, Cerbat beard-tongue, Welsh phacelia and **Aquarius milkvetch.**

The resource area contains both Mohave and Sonoran desert habitat for the desert tortoise. Habitat classifications are shown in **Map 34.** The Mohave Desert habitat is limited to extensive mesas and steep talus slopes of the Black Mountains. Vegetation is predominantly Mohave desert shrub, represented by several plant communities, including creosote and yucca associations. Tortoises most typically use the washes in the foothill regions and the bajadas. Washes are crucial to tortoise survival in the Black Mountains because of a lack of suitable cover elsewhere.

Tortoise populations in the Sonoran Desert occupy boulder-strewn hillsides and Sonoran desert scrub vegetation with scattered interior chaparral biotic communities. South-facing slopes are typically occupied by saguaro, paloverde, teddybear cholla, ocotillo, nolina, canotia, beavertail cactus and narrowleaf yucca.

Seven federally listed, proposed and candidate plant species are either known to occur or could occur in the resource area. These species are shown in Appendix 6.

The state of Arizona's Natural Heritage Program also maintains a list of plant species which have been recommended for sensitive designation to the BLM (see Appendix 6).

RIPARIAN AREA MANAGEMENT

Among the most productive and important ecosystems, riparian areas make up less than one percent of the public lands. Characteristically, riparian areas display a greater diversity of plant, fish, wildlife and other animal species and vegetative structure than adjoining ecosystems. Healthy riparian systems filter and purify water as it moves through the riparian zone, reduce sediment loads and enhance stream bank stability, provide microclimate moderation when contrasted to extremes in adjacent areas and contribute to groundwater recharge and base flow.

At least 465 miles of potential riparian habitat have been identified. Appendix 7 shows riparian areas, mileages and associated reference maps. The mileages include public, private and state lands. Of the 225 miles inventoried, 60 percent is in unsatisfactory condition and 40 percent is in satisfactory condition.

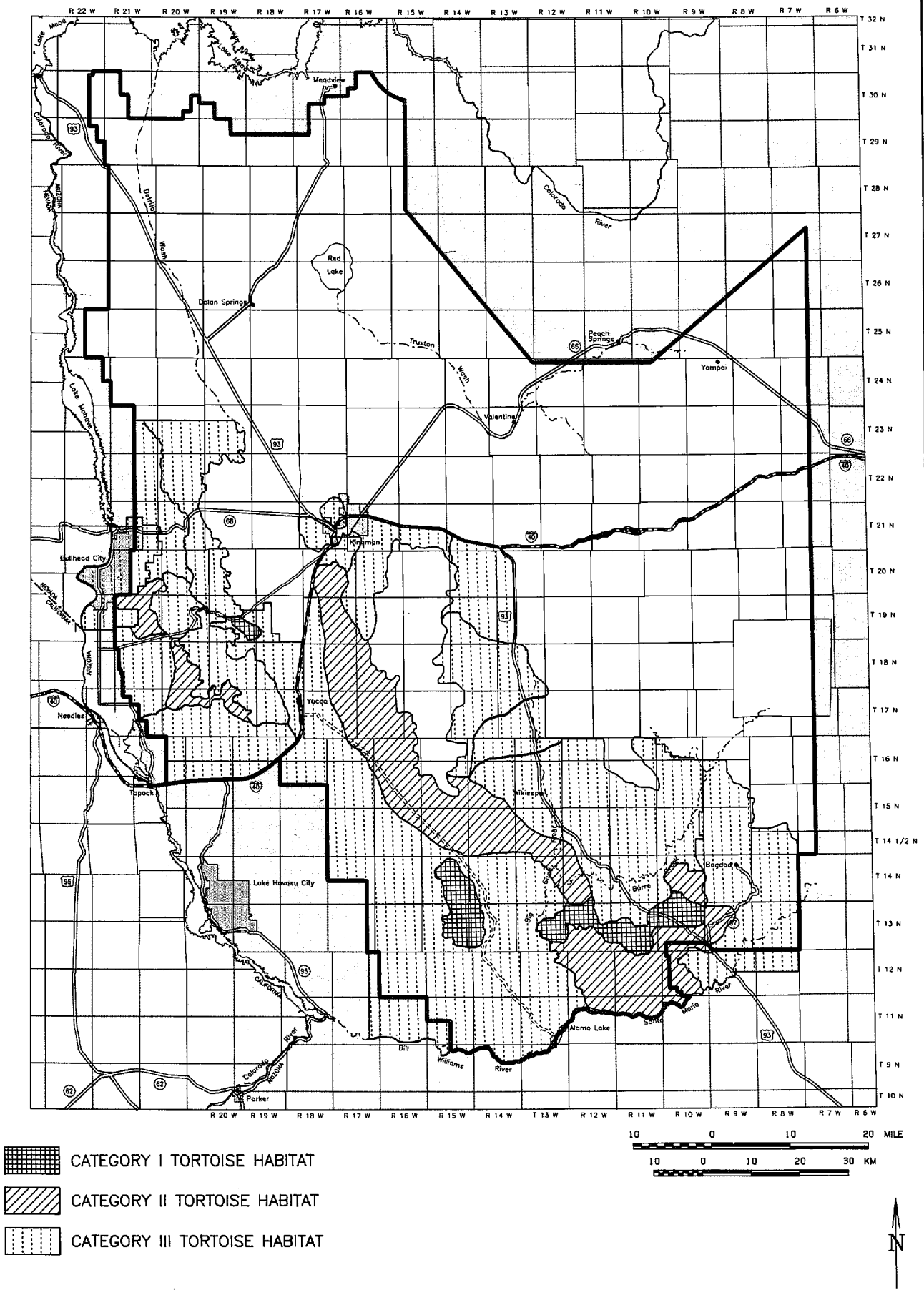
The best developed and most extensive riparian deciduous forest communities on public lands occur along the upper Bill Williams watershed (Burro Creek, Francis Creek, Big Sandy River, Santa Maria River), the Bill Williams River, **Sycamore Creek,** Wright Creek and smaller creeks in the Hualapai Mountains. Perennial surface flows are most commonly found along these drainages, making them the most valuable and highest potential riparian areas. They make up 165 miles of the total of 502 miles of riparian areas. Elsewhere in riparian deciduous, trees grow most often in small clusters or as scattered individuals interspersed with riparian scrub vegetation.

Dominant trees in these riparian deciduous forest communities are cottonwood, willow, sycamore, ash, alder, walnut and netleaf hackberry. Dominant trees and shrubs found in riparian scrub communities include salt cedar, seep willow and squaw baccharis.

WILD AND FREE-ROAMING HORSE AND BURRO MANAGEMENT

The Wild and Free-Roaming Horse and Burro Act became law on December 15, 1971, authorizing the BLM's management of wild horses and burros on public land. This provided that wild and free-roaming horses and burros be protected from unauthorized capture, branding, harassment or death, and considered wild horses and burros an integral part of the natural system based upon their 1971 distribution. The resource area has three wild horse and burro herd management areas (see **Map 10).**

DESERT TORTOISE HABITAT CATEGORIES



CATEGORY I TORTOISE HABITAT

CATEGORY II TORTOISE HABITAT

CATEGORY III TORTOISE HABITAT

Map 34

Black Mountains Herd Management Area

The Black Mountains Herd Management Area is in the Black Mountains and the associated valleys to the east and west. **The Black Mountains wild burro herd is the largest wild burro herd on public lands.** The herd management area is nearly 20 miles wide at its widest point and extends nearly 100 miles from Interstate 40 on the south to Hoover Dam on the north (see Table 27). **To achieve a thriving ecological balance in joint use areas, forage would be allocated to all ungulates in an equitable ratio.**

A viable population limit for wild burros is presently unknown. The Black Mountains Herd Management Area Plan became effective in 1981. The Black Mountains Herd Management Area contains an estimated 890 burros.

Big Sandy Herd Management Area

South of Wikieup, the Big Sandy Herd Management Area includes lands along the Big Sandy River and Burro Creek. The herd management area is bordered by the Alamo Herd Management Area to the south and extends east to the confluence of Copper Creek and Burro Creek and from one to ten miles west of the Big Sandy River **in a Sonoran Desert habitat (see Table 27). The Big Sandy Herd Management Area Plan had initially set a population of 139 wild burros as the population level in an ecological balance with their habitat.**

The Big Sandy Herd Management Area Plan was implemented in 1983. **A population inventory is planned for the fall of 1993 to determine an accurate population estimate.**

Cerbat Herd Management Area

The Cerbat Herd Management Area is north of Kingman in the Cerbat Mountains. The herd management area is roughly 20 miles long and 16 miles wide. Horses occur on both sides of the main ridge line of the Cerbat Mountains. Cherum Peak is the focal point for the horse population.

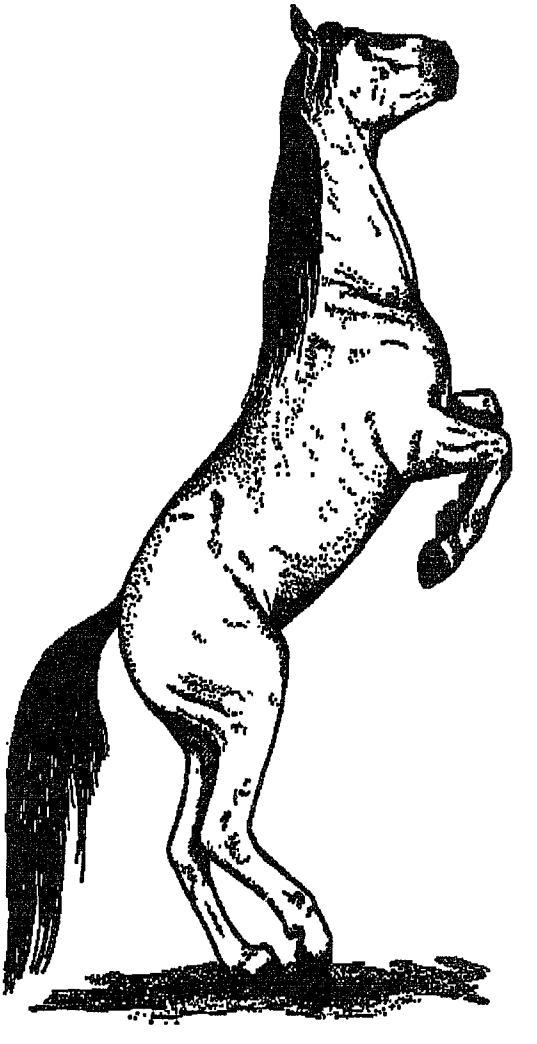
The Cerbat/Black Mountain Environmental Impact Statement proposed forage for 14 wild horses. **An inventory of the wild horse population is scheduled for the fall of 1994 to determine an accurate population estimate.**

Early genetic tests on a small sample of the horse population in the Cerbat Mountains found these animals to be unique. To preserve this uniqueness, a viable population level must be determined and maintained. To maintain a viable population, the BLM's Wild Horse and Burro Guidance (1983) suggests a minimum effective breeding population of 50 animals. **A viable population could be maintained in an ecological balance by** allowing for 50 effective breeding animals.

Table 27
Acres Within Herd Management Areas

Herd Management Area	Public	Private	State	Total
Black Mtn.	586,533	225,554	25,296	837,383
Big Sandy	192,030	31,822	20,410	244,262
Cerbat	57,879	21,462	4,160	83,501
Total	836,442	278,838	49,866	1,165,146

Source: Kingman Resource Area Files



SOCIOECONOMIC FACTORS

Data from Mohave and Yavapai counties provide the basis for the descriptive material in this section. However, because the Kingman Resource Area covers only portions of these counties, much of the available socioeconomic data, aggregated on a county-wide range, is inappropriate. To adjust for this, the data, wherever possible, focus specifically on those portions of the counties included in the Kingman Resource Area.

Population

Population growth has been strong in Mohave and Yavapai counties through the decade of the 1980s. In 1980 the Mohave County population was 55,865; Yavapai County had a total of 68,145 people. By 1990 the Mohave County population had increased by 67 percent to a total of 93,497. Yavapai County gained 58 percent, totalling 107,714 by 1990. In comparison, the State growth rate from 1980 to 1990 was about 35 percent.

As Table 29 shows, the population of Mohave and Yavapai counties is measurably older than the state average. Yavapai residents are somewhat older than their Mohave neighbors. The proportion of persons under 18 years of age in Yavapai County also is smaller than in Mohave County.

Table 29
AGE AND SEX DISTRIBUTION, 1990

	Male	Female	Under 18 Yrs	Over 65 Yrs	Mean Age
Mohave	49.7%	50.3	22.6	20.6	40.7 yrs
Yavapai	48.9	51.1	21.5	23.8	42.4 yrs
State	49.4	50.6	26.8	13.1	32.2 yrs

Source: Selected Population and Housing Characteristics: Arizona, 1990, Bureau of the Census

Data on the characteristics of households reflect the population distribution statistics. As Table 30 indicates, nearly 13 percent of Yavapai County residents in households are persons over 65 years who live alone.

Table 30
HOUSEHOLD CHARACTERISTICS, 1990

	Married Couple Household	Other Couple Household	Non-Family Household	Over 65 Householder Living Alone
Mohave	61.6%	10.8	27.6	10.1
Yavapai	60.4	9.4	30.2	12.8
State	54.6	14.0	31.4	8.7

Source: Selected Population and Housing Characteristics: Arizona, 1990 Bureau of the Census

Information on birthrates per 1,000 population in 1988 shows the state average was 18.2 and the Mohave County average was 15.0. The Yavapai County birthrate was the lowest with 13.1 births per 1,000 residents. (Data source: Planning and Health Status Monitoring, Arizona Department of Health Services, January 1988).

Population and housing data for Arizona compiled in the 1990 census contain the following information.

1. Owners occupy about 71 percent of the housing units in Mohave and Yavapai counties. The state average, in contrast, is 64 percent.

2. The median value of the owner-occupied units varies from $75,600 in Mohave County to $84,500 in Yavapai County, while the state median value is reported to be $80,400.

3. Median rental costs are higher in Mohave County ($375) than in Yavapai County ($342). The median rental cost in the state is $370.

4. Forty-three percent of the housing units in Mohave County are mobile homes. In Yavapai County, 28 percent of the housing units are mobile homes. On a statewide basis, mobile homes constitute 17 percent of the housing units.

As shown in Table 31, there are distinct population centers in the two counties. Mohave County contains three: the Bullhead City, Kingman and Lake Havasu City areas. In Yavapai County, the Prescott area represents the major population center.

Table 31
SELECTED AREAS: POPULATION

	1980	1990
MOHAVE COUNTY		
Bullhead City	10,719	21,951
Chloride	250	500*
Desert Hills		1,700
Dolan Springs	800	1,090
Golden Valley		2,619
Kingman	9,257	12,722
Mohave Valley		6,962
New Kingman-Butler		11,627
Peach Springs	988	787
Willow Valley		355
Remainder of county	33,345	33,184
Total	55,359	93,497
YAVAPAI COUNTY		
Ash Fork	446	540
Bagdad	2,349	1,858
Seligman	510	670
Remainder of county	63,212	104,646
Total	66,517	107,71

*1989 Data

Source: Arizona State Data Center, Department of Employment Security Population Statistics Unit, Phoenix (1990 Census Data).

Population Projection

Estimates at both the county and community levels show a continuation of strong growth for the next half-century. Data shown in Table 32 for the state, counties and selected communities indicate the Arizona population will double by 2040. Mohave and Yavapai counties, and each of the communities tracked in the projections, will equal or better the statewide percentage increase.

Table 32
COUNTY/COMMUNITY POPULATION PROJECTIONS
(State and County Populations shown in Thousands)

	2000	2010	2020	2030	2040
ARIZONA	4,800.7	5,940.3	7,181.9	8,262.7	9,230.5
Mohave	126.6	167.3	212.4	256.0	298.8
Yavapai	138.9	180.9	227.0	270.8	312.6
Ash Fork	670	875	1,095	1,305	1,510
Bagdad	2,100	2,735	3,430	4,095	4,725
Bullhead City	34,905	46,125	58,560	70,580	82,380
Chino Valley	7,485	9,750	12,235	14,595	16,845
Jerome	620	805	1,015	1,210	1,395
Kingman	18,175	24,015	30,490	36,750	42,890
Seligman	800	1,040	1,305	1,560	1,800

Place is rounded to the nearest five.
State total is derived by addition of rounded county totals.

Source: Arizona Department of Economic Security, Office of the Director, June 1989. Table prepared by: Arizona Department of Economic Security, Population Statistics Unit.

Economic and Financial Factors

Information compiled by the Arizona Department of Economic Security indicates a relatively healthy employment pattern in Mohave and Yavapai counties.

Data in Table 33 show the percentages of employed persons in non-agricultural positions in Arizona, Mohave and Yavapai counties and three communities. Employment in the trade and service industries dominates the display.

The strong population growth in the two counties is reflected in the relatively high percentage of construction employment. On a statewide basis, some six percent of the employees are engaged in construction. But in Yavapai County construction involves about nine percent of the workers; in Mohave County almost ten percent of the employees are in construction.

The variance is highlighted by the data from the communities. Nearly 14 percent of the employees in Bullhead City are associated with construction. Much of this is related to casino and related activities in Laughlin, Nevada.

Table 34 displays average employment figures for 1990. Generally, unemployment in the population centers was lower than the county average. Bullhead City is the exception. Unemployment there, at 6.4 percent, was somewhat higher than the county average of 5.9 percent.

Data on personal income, shown in Table 35, show that transfer payments were a major source of income in both Mohave and Yavapai counties. Transfer payments are closely associated with retirees and consist primarily of income from Social Security and pensions. In Mohave County, transfer payments were the single largest source of income; in Yavapai County, only the dividends, interest and rent category exceeded transfer payments as a single income source. Transfer payments also constituted 25 percent of the total personal income in Mohave County. Yavapai County, in comparison, was 23 percent.

Table 33
EMPLOYMENT STRUCTURE: 1989 PERCENTAGES

	Bullhead City (80)	Kingman (88)	Mohave County (89)	Ashfork (88)	Yavapai County (89)	State (89)
Manufacturing	5.5	13.4	10.5	9.6	8.7	12.3
Mining/Quarry	.9	1.5	.2	3.6	3.3	.8
Construction	13.8	7.3	9.7	7.5	8.7	5.6
Transportation, communication, public utilities	12.0	5.4	4.8	3.8	3.9	4.7
Trade	21.9	27.8	31.5	26.8	27.6	25.1
Finance, Insurance, Real Estate	5.5	4.5	4.7	4.2	3.8	6.2
Services/Miscellaneous	38.6	22.6	23.5	21.3	23.9	25.0
Government	1.4	17.5	13.9	22.7	19.1	17.7

Source: Community Profiles, Arizona Department of Commerce, 1990

Table 34
AVERAGE EMPLOYMENT

	Labor Force	Employment	Unemployment 1990	Unemployment 1989	Rate (%) 1990
MOHAVE COUNTY	37,511	35,286	2,225		5.9
Bullhead City					
Riviera	6,426	6,016	410	5.2	6.4
Kingman	6,734	6,347	387	4.7	5.7
Peach Springs (1989 data)	641	217	424	66.1	
Rest of county	23,710	22,706	1,004		
YAVAPAI COUNTY	40,429	38,552	1,940		4.8
Ash Fork/Seligman (1989 data)	792	770	22	2.8	
Bagdad	1,302	1,297	5		0.4
Rest of county	38,335	36,485	1,913		

Source: Arizona Department of Economic Security, Labor Force Information, January 1991

Wage and salary income constitutes a larger proportion of the Mohave County income than in Yavapai. In Mohave County, the wage and salary category represents 77 percent of the total income. In Yavapai County, this category amounts to about 72 percent. In contrast, the proprietor income category is larger in Yavapai County (22 percent) compared with 16 percent in Mohave County.

Approximately one million acres (12 percent) of the land in Mohave County is in private ownership. There are about 1,350,500 acres of privately owned lands in Yavapai County (26 percent).

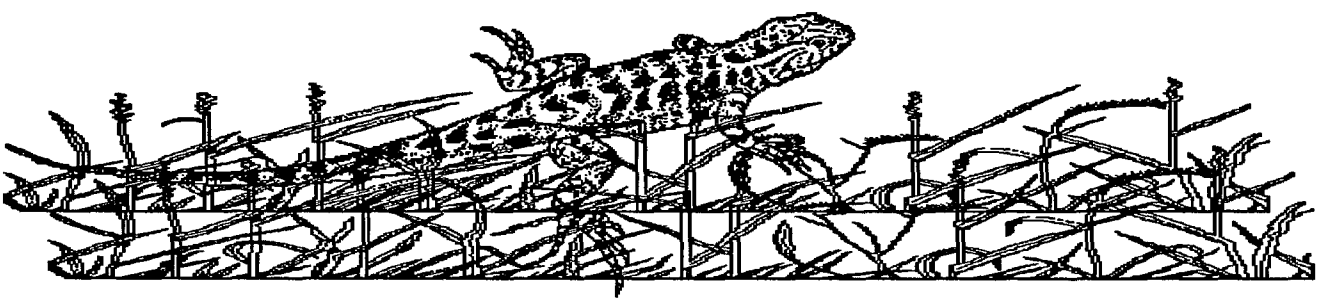


Table 35
PERSONAL INCOME BY MAJOR SOURCE: 1987

	MOHAVE COUNTY	YAVAPAI COUNTY
	(Data Shown in Thousands)	
Total Personal Income	872,731	1,156,410
Non-Farm Personal Income	869,437 (99.7)	1,139,522 (98.5)
Farm Income	3,294 (0.3)	16,888 (1.5)
Earnings by Place of Work	442,187	543,910
Social Security payments	-28,966	-34,572
Adjustment for Residence	44,073	29,468
Net Earnings by Place of Residence	457,294 (52.4)	538,806 (46.6)
Dividends, Interest, Rent	196,015 (22.5)	352,052 (30.4)
Transfer Payments	219,422 (25.1)	265,552 (23.0)
Earnings by Place of Work	442,187	543,910
Wage and Salary	341,108 (77.2)	392,132 (72.1)
Other Labor Income	31,539 (7.1)	34,584 (6.4)
Proprietor's Income	69,540 (15.7)	117,194 (21.5)
Farm	2,296	15,884
Non-Farm	67,244	101,310
Farm	3,294	16,888
Non-Farm	438,893	527,022
Private	364,517	418,363
Agricultural Services	1,679 (0.1)	2,401 (0.1)
Mining	9,874 (2.7)	26,474 (6.3)
Construction	54,454 (14.9)	68,827 (16.5)
Manufacturing	61,470 (16.9)	50,278 (12.0)
Transportation, Communications, Public Utilities	33,271 (9.1)	30,029 (7.2)
Wholesale Trade	13,185 (3.6)	10,531 (2.5)
Retail Trade	67,923 (18.6)	78,663 (18.8)
Finance, Insurance, Real Estate	20,696 (5.7)	21,241 (5.1)
Services	101,965 (28.0)	121,919 (29.1)
Government and Government Enterprises	74,376	108,659
Federal, Civilian	9,024	25,945
Military	1,741	2,249
State and Local	63,611	80,465

Per Capita Personal Income:	Mohave County	$ 10,819
	Yavapai County	$ 12,475
	State	$ 13,680

Source: U.S. Department of Commerce, Bureau of Economic Analysis, April 1988 (Unpublished Data)

County and Community Revenue Sources

Actions by the BLM affect county and community revenue sources directly (wages, salaries, operations) and indirectly (payments in lieu of taxes, land exchanges).

The data in Tables 36 through 40 display revenue sources for the counties and Bullhead City and Kingman. The total payment in lieu of taxes represented about seven percent of the 1987 revenues in Mohave County and approximately four percent in Yavapai County.

Table 36

ARIZONA COUNTY INTERGOVERNMENTAL REVENUE: 1987 MOHAVE AND YAVAPAI COUNTIES

	MOHAVE COUNTY	YAVAPAI COUNTY
REVENUE FROM THE FEDERAL GOVERNMENT		
Payment In Lieu of Taxes	960,400	605,339
Housing Development Grants		11,561
Health and Hospital Reimbursement		440,783
Highway Aid Reimbursements	3,510	465,322
Other Highway Aid Reimbursement		35,688
General Revenue Sharing Grants	307,974	325,873
Manpower Training Grants	837,212	
Flood Control Aid		
All Other Federal Grants	124,340	600,991
TOTAL	2,233,436	2,485,557
REVENUE FROM THE STATE GOVERNMENT		
State Shared Sales Tax	4,166,108	5,439,756
State Liquor Tax	27,803	32,450
Lottery	550,035	550,035
State Highway Distributions	4,570,670	4,124,616
Health and Hospital Reimbursement	346,500	310,761
Law Enforcement Grants	609,436	453,029
Flood Control Aid		
Library Grants	42,450	
Park and Recreation Grants	89,495	
All Other State Grants	338,546	
TOTAL	10,741,043	10,910,647
REVENUE FROM LOCAL GOVERNMENTS		
Payments In Lieu	100,000	32,694
Highway Reimbursements		
Health Reimbursements	124,029	80,973
Other Payments From Government	4,620	192,902
TOTAL	228,649	310,569
GRAND TOTAL	13,203,128	*13,706,773

Source: This information was collected by the School of Public Affairs and the U.S. Census Bureau as a part of the Arizona State University School of Public Affairs annual survey of municipal finances in Arizona. Data for these tables were adjusted and verified by the staff of the Fiscal 2000 Project and used for that project's analysis of intergovernmental finance trends in Arizona.

*Note: Original data from source is $4,000 less than the total of 13,706,773.

Table 37
ARIZONA COUNTY OTHER REVENUES: 1987 MOHAVE AND YAVAPAI COUNTIES

	MOHAVE COUNTY	YAVAPAI COUNTY
A. Sewer System Charges		88,547
B. Sanitation Charges	423,755	
C. Airport Charges		
D. Parks and Recreation Charges	234,913	
E. Ambulance Charges		
F. Hospital Charges		
G. Housing Development Charges		
H. Receipts of Equipment		
I. Other Charges	1,433,544	735,599
J. Special Assessment		1,788,525
K. Fines and Forfeits	1,142,762	874,064
L. Receipt From Sale of Property	13,750	
M. Rents and Royalties	35,686	18,408
N. Interest Earnings	862,737	482,824
O. Miscellaneous Other Revenue	403,493	1,485,832
TOTAL	4,550,640	5,473,799

Source: See Table 36

Table 38
ARIZONA TAX REVENUES: 1986 AND 1987

	BULLHEAD CITY	KINGMAN
PROPERTY TAXES		
Property Taxes		450,511
Auto In Lieu	282,287	181,413
Total Property Taxes	282,287	631,924
LOCAL SALES TAXES		
Municipal Sales and Use Tax	1,243,914	2,520,991
Public Utility Franchise	43,467	171,209
Hotel/Motel Transient Taxes	181,344	147,265
Total Local Sales Taxes	1,468,725	2,839,465
LICENSES, PERMITS AND OTHER TAXES		
Business Licenses	35,746	46,188
Occupational Registrations		
Building Permits	179,876	81,244
Cable TV Licenses		15,484
Amusement Licenses		
Other Municipal Inspection Fees		
Total Licenses and Permits	215,622	142,916
GRAND TOTAL	1,966,634	3,614,305

Source: See Table 36

Table 39
ARIZONA INTERGOVERNMENTAL REVENUE 1986 AND 1987

	BULLHEAD CITY	KINGMAN
REVENUE FROM THE FEDERAL GOVERNMENT		
Housing and Urban Renewal		
Community Development Block		17,313
General Revenue Sharing Grants	29,107	47,556
All Other Federal Grants	328,241	
Total Revenue From The Federal Government	357,348	64,869
REVENUE FROM THE STATE GOVERNMENT		
State Shared Sales Tax	917,840	560,016
State Shared Income Tax	880,681	539,536
Highway User Revenues	1,691,759	1,179,578
Local Transportation Assistance Fund	162,057	98,878
Housing and Community Development		
Water and Sewer Grants		
Law Enforcement		4,700
Fire Insurance Premium Tax		
Disaster Aid		
Job Partnership Training Act		2,066
Library Grants		
Park and Recreation Grants		
All Other State Grants	255,516	19,305
Total Revenue from The State Government	3,907,853	2,404,079
REVENUE FROM LOCAL GOVERNMENTS		
Payments In Lieu		
Highway Reimbursements		
Other Payments From Local Governments		128,180
Total Revenue from Local Governments		128,180
GRAND TOTAL	4,265,201	2,597,128

Source: See Table 35

Table 40
ARIZONA CITIES OTHER REVENUES: 1986 AND 1987

	BULLHEAD CITY	KINGMAN
A. Water Utility Charges	0	2,478,625
B. Electric Utility Charges	0	0
C. Gas Utility System Charges	0	0
D. Transit or Bus System Charges	0	0
E. Sewer System Charges	0	130,177
F. Garbage Collection Charges	0	517,557
G. Parking Charges	0	0
H. Airport Charges	0	0
I. Parks and Recreation Charges	0	221,890
J. Ambulance Charges	0	0
K. Housing and Urban Renewal	0	0
L. Receipts from Sale of Equipment	0	0
M. Other Charges	95,721	3,243
N. Special Assessments	0	173,712
O. Receipts from Sale of Property	0	0
P. Rents and Royalties	0	0
Q. Interest Earnings	302,363	53,524
R. Fines and Forfeits	274,511	119,122
S. Miscellaneous Other Revenue	17,691	40,026
TOTAL	690,286	3,737,876

Source: See Table 36

CHAPTER IV ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

Chapter IV discusses the environmental consequences of the alternatives described in Chapter II. Implementation of the alternatives will create impacts of varying degrees. The purpose of this chapter is to estimate and analyze significant impacts and identify appropriate mitigations to reduce or eliminate adverse impacts. The interdisciplinary team analyzed expected impacts normally associated with oil and gas exploration and development. Impacts were found to be insignificant except in areas of critical environmental concern. In these areas, management prescriptions would reduce impacts to an insignificant level. Impacts are summarized in **Table 18.**

ANALYSIS GUIDELINES

The environmental base line is *Alternative 1* (Current Management); it represents no change from current management. The change to each environmental component that would occur by the year 2011 is described under each alternative. Cumulative impacts are addressed at the end of Chapter IV. All proposed plan actions are analyzed.

GENERAL ASSUMPTIONS

In order to analyze the impacts of each alternative it was necessary to make general assumptions. These assumptions are as follows.

1. The BLM will have the funding and work force to implement the selected alternative.
2. Impacts are direct unless otherwise noted.
3. Short-term impacts would occur within five years and long-term impacts would occur from 5 to 20 years after the plan is implemented.
4. All impacts are long-term unless otherwise noted.
5. Environmental assessments will be conducted before any activity plans are implemented.
6. All disposal land is free of encumbrances and can be disposed of.
7. Land identified for disposal would go into private ownership unless otherwise noted.
8. The rangeland management program will be as described in the range program summaries for the Final Cerbat/Black Mountain (BLM 1978) and Hualapai-Aquarius Grazing (BLM 1981) environmental impact statements.

IMPACT ANALYSIS BY ALTERNATIVES

ALTERNATIVE 1 - CURRENT MANAGEMENT

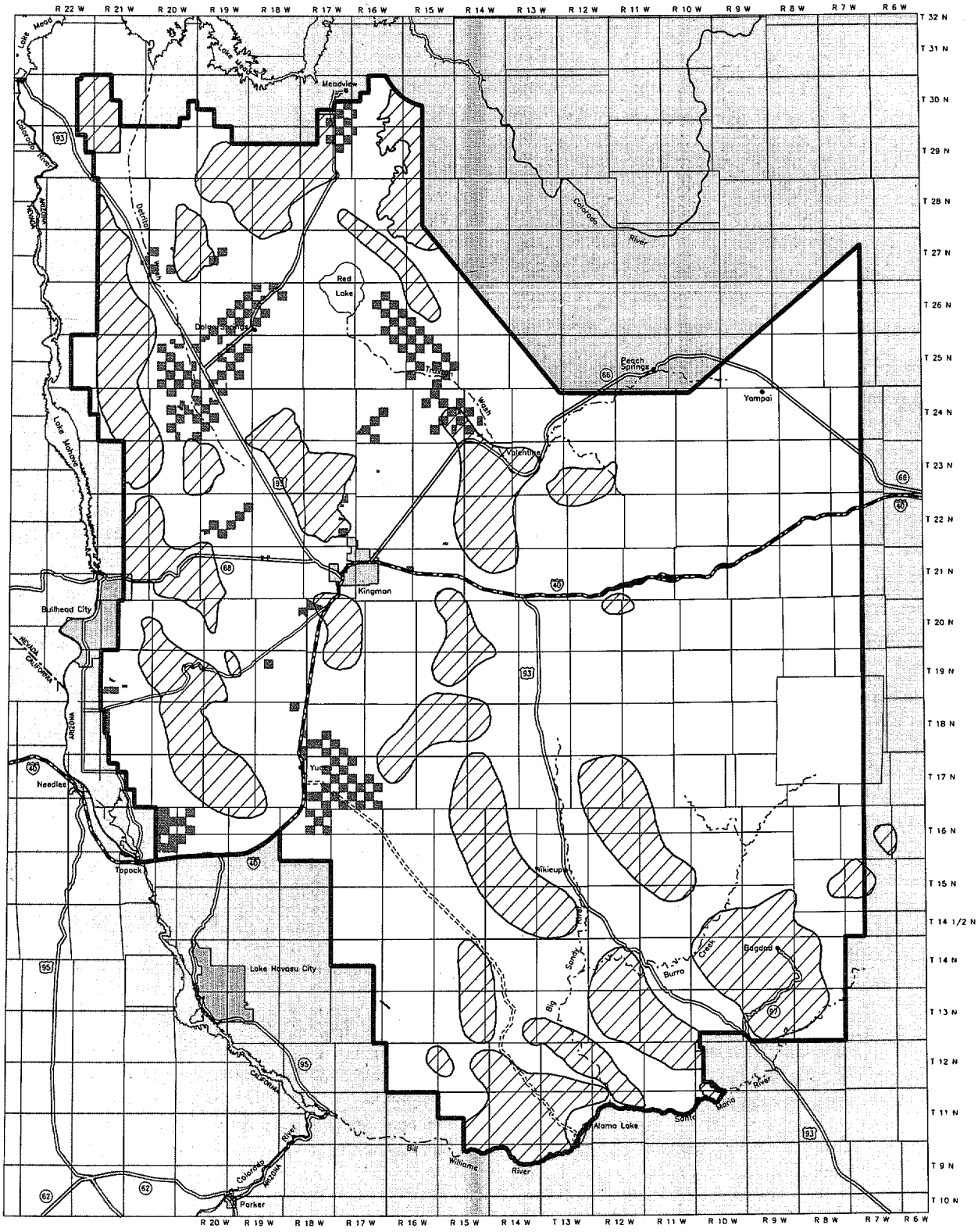
IMPACTS TO MINERAL DEVELOPMENT

From Lands Actions

Ownership Adjustments

The transfer of roughly **102,547** acres of public land identified as disposal blocks (see Appendix 3) in the Black, Cerbat and Hualapai/Aquarius mountains management framework plans would negatively impact the exploration and development of minerals on these lands. Most of these lands have a low potential for occurrence of locatable minerals, and a low or unknown potential for oil and gas development. **There is a high potential for the occurrence of leasable sodium and evaporite deposits in the northern portions of Hualapai and Detrital valleys. Some of the lands identified for disposal are on the fringes of known occurrences of these deposits, and their exchange would result in a loss of revenue to the government which would have to be considered in any valuation of the lands for exchange purposes (see Map 35).**

HIGH POTENTIAL LOCATABLE MINERALS AND DISPOSALS – ALTERNATIVE 1



LANDS PROPOSED FOR DISPOSAL – ALT 1

AREA OF HIGH MINERAL POTENTIAL

Map 35

The acquisition of private and state lands would have a positive impact on the development of mineral resources beneath these lands, **except in wilderness areas. Outside wilderness,** significant portions of these lands are in areas which have a moderate to high potential for minerals including gold, silver, copper and lead. Low potential for other resources such as uranium and oil and gas was also found in some areas within the Kingman Resource Area.

The blocking of landownership patterns has simplified the approval process for mineral exploration and development activities by reducing the number of parties with whom mining operators must work.

From Special Status Species and other Wildlife Resources

Based on the existing Oil and Gas Leasing in Bighorn Sheep Habitat Environmental Assessment, roughly 327,000 acres of public minerals are currently in the no surface occupancy leasing category. This was for protection of bighorn sheep habitat in the Black Mountains, Mount Wilson and Aubrey Peak areas. The no surface occupancy has an impact on the exploration and development of oil and gas resources. The size of the no surface occupancy area makes it prohibitive to directional drill from many areas of the outer boundaries. Little is known about the potential for any oil and gas accumulations in this region of the state but it is thought to be low. Exploration to increase knowledge would be curtailed if these lands were leased for oil and gas encumbered by the no surface occupancy leasing category.

Locatable mineral development would be impacted in areas where threatened or endangered species were encountered under a mining notice or plan of operations. Under a notice, the operator may proceed **within 15 days. The operator must be notified of the conflicts with threatened or endangered species within the 15 days and of the consequences of violating the provisions of the Endangered Species Act. The BLM should provide assistance in developing mitigation measures to avoid conflicts with threatened or endangered species. Development of the mitigation measures may cause the operator to delay the operations beyond the 15-day timeframe.**

When proceeding under a plan of operations, if a potential conflict exists with a threatened and endangered species or its habitat, the plan cannot be approved until the BLM complies with Section 7 of the Endangered Species Act. An operator who wishes to develop mitigation measures to eliminate the conflict must do so in conjunction with the BLM and the U.S. Fish and Wildlife Service. If the conflict cannot be resolved, the plan must be rejected. The mitigation measures developed may be so restrictive as to be economically unfeasible for the operator to make a profit and rejection of the plan would totally preclude any development of the mining property.

From Wild and Scenic Rivers

Interim protective measures for eligible river segments would constrain surface-disturbing activities associated with mineral development. Less than 18 percent of the eligible river segments intersect moderate to high potential locatable mineral deposits.

Conclusions

With the exception of land disposals planned in existing management framework plans, the continued management as prescribed in this alternative would encourage mineral resource development on the public lands. Lands would generally remain open to mineral resource development with the exception of the no surface occupancy leasing status. **Interim protective measures for eligible rivers would constrain mineral development along these river segments.**

IMPACTS TO LANDS ACTIONS

From Mineral Development

Increased oil and gas development would increase the lands program's workload to authorize associated facilities such as roads, pipelines, etc., and could hinder accomplishment of the already heavy workload. Lands identified for disposal through exchange or recreation and public purposes generally have low locatable mineral and oil and gas potential. Disposal of public lands will not occur until mineral conflicts are resolved. Some lands actions may have to be reconsidered and rerouted due to mineral development. Hazardous materials present as a result of mineral development can severely impact disposal and acquisition actions.

From Lands Actions

Ownership Adjustments

The disposal areas identified are all checkerboard lands that are uneconomical to manage, have low resource values and are near communities and developing areas. These lands, more desirable for development, allow for acquisition of high resource value lands that are more inaccessible. Disposal would also eliminate some situations of inadvertent trespass occurring on these lands in association with development. Lands to be acquired will be managed for multiple use unless they are within special areas, i.e., wilderness. The additional private land would provide an increase to the county tax base, based not on acreage, but on improvements that may be made. A predicted two to four exchanges per year will be processed by the resource area.

From Lands Withdrawals and Classification

Review and termination of withdrawals and classifications no longer needed would open public land for multiple uses.

From Recreation and Public Purposes

The lands for recreation and public purpose uses have been identified for disposal. If these lands are disposed of through exchange, recreation and public purpose actions in remaining

retention areas would result in impacts to high value resources and may scatter development in many different areas. An average of two recreation and public purpose leases and one patent are issued per year; however, there is increasing demand for these actions.

From Rights-of-Way, Leases and Permits

These actions are issued on a case-by-case basis in designated corridors, where practical, after National Environmental Policy Act compliance and subject to stipulations protecting resources.

From Communication Site Rights-of-Way

Only two sites were designated in the management framework plans, restricting communication development in the Black Mountains. The Cerbat Management Framework Plan allows no sites in retention areas without a site plan. The Hualapai/Aquarius Management Framework Plan allows sites wherever they are not restricted by wilderness. Mountaintop sites would be issued subject to stipulations to protect resources.

Nonmountaintop sites for single use would continue to be issued on a case-by-case basis after National Environmental Policy Act compliance with required stipulations. Mountaintops are of most concern visually and commonly have higher wildlife values. Not having restricted areas for development would allow use of more mountaintops. The Oatman site has considerable development space outside the existing developed area, but this site is visually sensitive and contains valuable bighorn sheep habitat. New rights-of-way may be considered on a case-by-case basis after a determination is made as to site boundaries, identifying the area of allowable development without a significant impact to resources.

From Watershed (Soils, Vegetation, Water, Air)

Surface disturbance from lands actions can impact soil erosion, vegetation destruction, air quality, floodplains and other water issues and require stipulations for mitigation. In order to protect the BLM's right to water, well sites on public lands will require a tap trough and perhaps storage to provide water for wildlife, livestock, etc. This will increase costs to the proponent.

From Vegetative Products Management

Salvage is preferred to destruction from lands actions.

From Rangeland Management

Most lands actions, i.e., rights-of-way, permits, etc., are compatible with grazing. Actions involving water commonly allow for occasional use to aid rangeland management. Disposal actions can cause reduction in animal unit months and require lease adjustment. Grazing can continue for two years after disposal unless a waiver is obtained.

From Cultural Resources

Impacts on lands actions involving known cultural properties can be mitigated through avoidance or data recovery. Impact on cultural properties discovered during construction will be mitigated when found. Mitigation can increase project costs. Disposal of cultural resources is not done unless they can be afforded the same or better protection. Important cultural areas have been identified for acquisition.

From Recreation Management

Lands actions occasionally impact visual resources and may require painting or other measures as mitigation. This can slightly increase project costs. Important recreation areas have been identified for acquisition.

From Wild and Scenic Rivers

Lands actions would be discouraged within the 1/4-mile corridors identified. Actions necessary would be required to comply with stipulations necessary to protect eligibility, and potential classification. Important areas have been identified for acquisition.

From Wildlife Habitat Management

Lands actions in important wildlife habitats may be restricted during certain times of the year. Actions involving water commonly allow for occasional use to aid in wildlife management. In categories I and II desert tortoise habitat, actions would be discouraged. Actions necessary would require compensation of lost habitat.

Other stipulations may be imposed such as preconstruction surveys, monitoring, fencing, etc. These requirements would substantially increase the cost of proposed projects. Important habitat has been identified for acquisition.

From Special Status Species

Lands actions in areas where special status, i.e., endangered, candidate, etc., species require mandatory field trips by wildlife specialists. Applications may be rejected or modified to avoid or stipulations may be employed to protect special status species. This can increase project costs. Important habitat has been identified for acquisition.

From Riparian Area Management

Lands actions in riparian areas would be discouraged. Actions necessary would require stipulations to reduce impacts. This can increase costs of a project. Important areas have been identified for acquisition.

From Wild and Free-Roaming Horse and Burro Management

Lands actions are generally compatible with horses and burros except where surface disturbance would eliminate substantial amounts of feed which may require revegetation. Actions involving water commonly allow for occasional use to aid in herd management. Required stipulations may increase project costs. Important areas have been identified for acquisition.

From Support Services

Access identified for acquisition may eliminate the need for some right-of-way actions and would be of service to the public. Lands identified for acquisition may be exchanged for lands identified for disposal, thereby eliminating some checkerboard land and blocking up public land high in resource values.

Conclusions

Many lands actions involve surface-disturbing activities, the impacts of which may be reduced if actions are authorized in previously disturbed areas or mitigated through stipulations that protect resources. Disposal actions are beneficial to reduce the amount of lands that are uneconomical to manage; acquisitions increase the amount of lands high in resource values and promote multiple use.

IMPACTS TO SOCIOECONOMIC FACTORS

Implementation of the Current Management Alternative would not cause significant impacts to any of the Kingman Resource Area socioeconomic data reviewed in this document. Population trends would not be affected. The direct economic benefits Mohave and Yavapai counties currently receive from BLM employment and operations would remain constant.

From Lands

Ownership Adjustments

A decision to dispose of 102,547 acres of public land through exchange could increase the amount of private lands in the resource area. The exchange of more developable public lands to state or private could increase the county tax base and provide jobs.

From Resource Actions

There would be no significant impacts to socioeconomic factors in the resource area from minerals, special status species, wildlife habitat, recreation or rangeland management.

IMPACTS TO WATERSHED (Soil, Water and Air) MANAGEMENT

From Mineral Development

Surface-disturbing activities associated with exploration and development of oil, gas and locatable minerals, i.e., road and pad construction, stockpiling of topsoil, pit construction, etc., have the potential to increase soil erosion and loss of soil productivity and decrease both groundwater and surface water quality and quantity.

From Lands Actions

Ownership Adjustments

Acquiring lands in a watershed would allow treatment of a watershed as a whole, instead of treating isolated problem areas. The lands identified for disposal are primarily in the lower basins; therefore, disposal of these lands would minimally impact the watershed.

Withdrawals, Recreation and Public Purposes, Rights-of-Way, Leases and Permits

Surface-disturbing activities associated with **land use authorizations** would adversely affect soil, water and air resources through increased erosion and by restricting watershed improvement or treatment options. **These activities generally do not occur on withdrawn lands.**

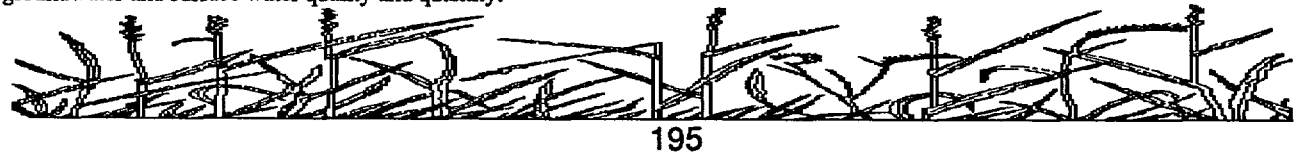
From Vegetative Products Management

Travel off existing roads and harvesting by permit holders would result in reduced vegetative cover which would lead to increased soil erosion. This impact becomes greater when travel occurs on fragile soils during wet periods. Seeding of clear-cut areas in the commercial firewood-cutting areas would result in increased vegetative cover.

From Rangeland Management

Twenty-three allotments are in satisfactory condition, but are highly vulnerable to surface disturbance. These allotments include Big Sandy, Cane Springs Wash, Canyon Ranch, Cedar Canyon, Cerbat, Chicken Springs, Diamond Joe, Diamond Bar A, Francis Creek, Gold Basin, Hackberry, Hualapai Peak, Hibernia Peak A, La Cienega, Los Molinos, Mud Springs, Music Mountain, Quail Springs, Upper Music Mountain, Walapai Ranch, Yellow Pine, Cane Springs and Walnut Creek. Allotment management plan development and implementation on these allotments would assure maintenance of existing satisfactory watershed conditions. **The Gray Wash allotment is in unsatisfactory condition, but has a low responsiveness to treatment.**

Thirteen allotments in satisfactory condition contain local areas in unsatisfactory condition. These allotments include Big Ranch A, Cane Springs Wash, Cedar Canyon, Cerbat, Diamond Bar A, Gold Basin, Hackberry, La Cienega, Mud Springs, Music Mountains, Pine Springs, Upper Music Mountain and Walapai Ranch. Allotment management plan development and implementation on these allotments would ensure maintenance of existing satisfactory conditions and would improve the identified local watershed problems through improvement of vegetative cover. The Crozier Canyon **and Fort Mac Ewen** allotments are in unsatisfactory condition but would improve under a new allotment management plan, thus reducing runoff and soil loss.



From Cultural Resource Management

Impacts would be limited to constraints placed on design and construction of watershed projects where cultural resources are located.

From Recreation Management

Intensive recreation activities would impact watershed condition by increasing erosion and reducing soil productivity. The most susceptible watershed areas are those in condition classes II and IV (see Chapter II and **Appendix 19**).

Construction of watershed improvement projects would continue to be constrained by the guidelines of the Visual Resource Management system.

From Wild and Scenic Rivers

Interim protective measures for eligible river segments would improve soil stability and water quality.

From Wildlife Habitat Management

Controlling animal use and maintaining wildlife habitats would benefit overall watershed conditions. Water quality and quantity would benefit from the development and protection of water sources for wildlife.

From Special Status Species Management

Habitat improvement projects such as exclosures and spring developments would improve the general condition of the watershed by increasing vegetative cover and reducing erosion. Construction of watershed improvements and land treatments would require consideration of special status species.

From Riparian Area Management

Surface water quality and quantity would benefit from the management of riparian areas. Increased vegetation would decrease water temperatures, stabilize base flow regimes, reduce high flow energies, reduce sedimentation and stabilize streambanks. Shifting livestock from riparian areas to upland watershed areas would increase short- term erosion and surface disturbance.

From Wild and Free-Roaming Horse and Burro Management

If ungulate populations, including wild equides, are unchecked, the vegetative cover will decrease with overuse and watershed conditions will be locked into a downward trend. When the wild horse population is brought into ecological balance within their habitat, trend will stabilize and then begin to improve. Wild horses in ecological balance will allow watershed conditions to improve. At a low stocking rate and dispersed use, wild burro grazing would result in improved or maintained watershed condition.

Conclusions

Surface-disturbing activities such as mineral exploration and development, vegetative harvest, recreational use, realty actions and cattle and wild horse grazing would all cause increased runoff and erosion problems, reduced vegetative cover, reduced soil productivity and dust production affecting air quality. Development of allotment management plans, habitat improvement projects such as exclosures and spring developments, seeding of firewood clearcuts, **burro grazing at current management levels and interim protective measures on eligible rivers** would maintain or improve vegetative cover, reduce runoff and erosion and increase soil productivity. Land acquisition would create opportunities for better watershed management. Watershed improvement projects would be constrained by the presence of sensitive resources.

IMPACTS TO VEGETATIVE PRODUCTS MANAGEMENT

From Mineral Development

Surface disturbance of mineral exploration and development would continue to **provide for** the salvage of desert plants for landscaping.

From Lands Actions

Ownership Adjustments

The BLM generally acquires land with higher resource values than those exchanged, so the public would gain from an increase in vegetative resources.

Withdrawals, Recreation and Public Purposes, Rights-of-Way, Leases and Permits

The permitting of rights-of-way and leases would increase the number of desert plants that could be salvaged for landscaping.

From Watershed Management

Protection of watershed values would constrain the harvesting of affected vegetative products, season of use, access routes, amounts of harvest allowed, areas suitable for harvest and amount and type of rehabilitation required.

From Cultural Resource Management

The BLM would evaluate the suitability of an area for harvest of vegetative products for compatibility with cultural resources objectives. Where conflicts could not be mitigated, harvesting would not be permitted. Constraints would be placed on harvest operations where mitigation is needed.

From Recreation Management

Vegetative products would not be harvested in areas of intensive recreational use.

Harvest of vegetative products would be subject to evaluation of compatibility with visual class ratings. Where incompatibility exists, harvesting would not be permitted.

From Wildlife Habitat Management

Where conflicts exist and no mitigation is possible, harvesting would not be permitted. Constraints would be placed on harvesting where mitigation is needed.

From Special Status Species Management

Harvesting vegetative products would be constrained by the presence of special status plant or animal species. Where special status plants grow, harvesting would be restricted or not allowed. Season of use restrictions on harvest would be imposed during periods when a special status species would be damaged by harvesting. Salvage operations for protected plant species would have to comply with state laws.

From Riparian Area Management

Suitability of an area for harvesting vegetative products would be evaluated for compatibility with riparian area management objectives. Where conflicts could not be mitigated, harvesting would not be permitted. Constraints would be placed on harvest operations where mitigation is needed.

Conclusions

Surface-disturbing activities would provide opportunities for salvage of desert vegetation. Land exchanges would cause both losses and gains in vegetative products available for harvest. Suitability of areas for vegetative harvest would be subject to review of compatibility with other sensitive resource values on each site.

IMPACTS TO RANGELAND MANAGEMENT

From Mineral Development

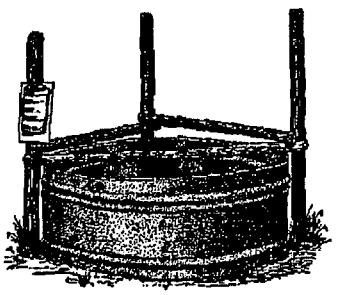
Well drilling and pumping for the purpose of water use in mining activity might harm nearby springs or wells by breaching or draining aquifers on which livestock grazing depends. In some areas, exploration and mining would result in the availability of additional stock water, which would assist in improving distribution of grazing animals. New or upgraded mineral exploration roads would improve access. Throughout the life of the plan, **an insignificant number of** acres of grazing lands would be temporarily disturbed as a result of locatable mineral exploration and development. Reclamation of disturbed areas would restore vegetation production, and no long-term impacts are expected.

From Land Actions

Ownership Adjustments

Transferring public lands to private ownership would disrupt ranch operations through loss of range improvements and grazing privileges. Where development does not occur, grazing could continue, but grazing fees might be much higher. Consolidation of public lands would increase management efficiency by eliminating the need for coordination with other land holders and by reducing conflicts between livestock grazing and private property owners within an allotment. The livestock operator would also benefit from lower grazing fees on private lands transferred to public ownership.

From Watershed Management



Completion of soil surveys and vegetation inventory would provide baseline data for future rangeland management. Maintenance of a water source inventory would assist future planning of range water improvement projects. Successful BLM claim to water rights on public lands would assure availability of water for livestock.

From Rangeland Management

Implementation of scientific principles of livestock grazing and associated rangeland improvement projects would result in improved forage conditions, which could be reflected in higher calf crops, higher calf weight gains and reduced death loss. These benefits would be offset to a certain degree by increased costs of operation to permittees.

From Special Status Species Management

Habitat improvement projects such as exclosures and spring developments would improve the general condition of the watershed by increasing vegetative cover and reducing erosion. Construction of watershed improvements and land treatments would require consideration of special status species.

From Vegetative Products Management

Off-highway travel would increase soil compaction and erosion, reducing forage productivity. This impact would intensify when off-highway vehicles cross fragile soils during wet periods. Seeding of clearcuts in commercial firewood cutting areas would result in more forage for livestock.

From Cultural Resource Management

Impacts would be limited to constraints placed on design and construction of range improvements near cultural resources.

From Recreation Management

Intensive recreation would disrupt livestock. Gates may be left open, making it hard to keep livestock confined to proper pastures.

The building of range improvements would continue to be constrained by Visual Resource Management guidelines.

From Wild and Scenic Rivers

Livestock grazing would occur under objectives compatible with interim protection of eligible river segments. Rangeland conditions would improve.

From Wildlife Habitat Management

Wildlife habitat considerations would affect the design and construction of range improvements, stocking rates, class and/or kind of livestock permitted, forage utilization, season of use and the use of grazing rotation techniques. Prohibiting domestic sheep and goat grazing within 20 miles of bighorn sheep habitat would reduce the ability of affected ranches to respond to future changes in market demand. This action would affect the following grazing allotments.

Gold Basin
Big Ranch A and B
Dolan Springs
Mt. Tipton
Cane Springs
Cedar Canyon
Canyon Ranch
Stockton Hill
Mineral Park
Cerbat
Quail Springs
Turkey Track
Fort Mac Ewen A and B
Portland Springs
Thumb Butte
Gediondia
Mud Springs
Curtain
Cook Canyon
Pine Springs
Castle Rock
Feldspar
Hualapai Peak
Lazy YU A
Black Mountain
Boriana B
Walnut Creek
Arrastra Mountain
West Peacock
Chino Springs
Crozier Canyon
Sandy
Diamond Bar Unit B
Yellow Pine
Hibernia Peak
Boriana A
Happy Jack Wash
Diamond Joe
Big Sandy
La Cienega
Chicken Springs
Bateman Springs
Los Molinos
Wikieup
Hot Springs
Francis Creek
Burro Creek
Bagdad
Yolo Ranch
Byner Cattle
Kellis Lease
Gibson
Black Mesa A and B
Gray Wash
Groom Peak
Greenwood Peak Community
Greenwood Community
Artillery Range
D.O.R.
Burro Creek Ranch
Alamo Crossing
Alamo
Little Cane
Palmerita
Primrose
Santa Maria Community

From Special Status Species Management

Protection of certain plants and animal species would constrain the building of range improvements, season of grazing use, forage utilization, stocking rates and livestock management, including limiting, precluding or deferring livestock use.

From Riparian Area Management

Restricting livestock grazing within riparian areas could result in less access to water for livestock. Implementing intensive grazing management systems on allotments with riparian areas would require more movement of livestock, more work for grazing permittees in moving cattle, and increase expenditures for range improvements to control grazing. Proper riparian management would result in dramatic improvement of riparian vegetation, which consequently would cause increased forage and water and improved water quality.

From Wild and Free-Roaming Horse and Burro Management

Where demand for forage by livestock and wild equids exceeds supply, livestock would **take a proportionate reduction with other ungulates**, resulting in some economic loss for affected permittees. **As forage conditions improve, livestock performance would also improve, off-setting initial losses.**

From Support Services Management

Forage on lands identified for acquisition in Appendix 9 would be available for grazing if grazing is found to be compatible with other resources.

Conclusions

Surface-disturbing activities such as mineral exploration and development, realty actions, recreational uses and vegetative products harvest would **cause short-term loss of forage but long-term benefits would be greater.** These uses would also cause disruption to grazing livestock and cause management problems. Land exchanges would cause changes in grazing preference and ownership of range improvements, and would increase management efficiency where public lands are consolidated.

Implementation of grazing management principles would improve forage and livestock gains and increase costs of operation for permittees. Grazing management and construction of range improvements would be constrained by the presence of sensitive resources. **Allotment management plans and interim protective measures on eligible rivers would result in improved rangeland resources.**

IMPACTS TO CULTURAL RESOURCES

From Minerals Development

Most of the resource area would remain open for mineral entry and development. Current laws and regulations provide for mitigation of adverse impacts to cultural resources.

From Lands Action

The land exchange program would benefit cultural resources in that more lands would be inventoried before being exchanged, and adverse impacts would be mitigated or significant cultural properties would be retained. In addition, more cultural resources would come under BLM protection after being acquired from private or state ownership.

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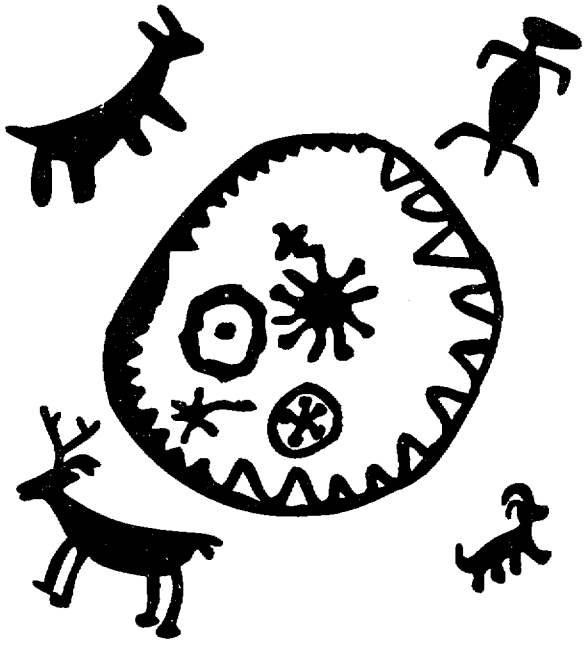
From Recreation Management

Cross-country vehicle use would harm cultural resources. Vehicles would directly damage artifacts, historic trails and most site types. Increased erosion from off-highway vehicle use would further disturb cultural resource sites.

Artifact collection, pothunting and the damaging, altering and defacing of cultural resources are most likely to increase, especially on the western slopes of the Black Mountains, due to increased recreation use. The Arizona Site Stewardship Program would continue, but priority cultural areas would not benefit from aggressive protective measures.

From Vegetative Products Management

Although the BLM inventories cultural resources and takes site avoidance measures on all private and commercial woodcutting areas, impacts could result from a variety of activities. Trees marked for avoidance could be cut, off-highway driving could cause erosion, trees could be cut outside of marked areas and artifacts, within and outside of the areas, could be illegally collected.



Conclusions

Continuation of current management would harm priority cultural areas with moderate to high losses of cultural properties over the life of the Resource Management Plan **(see Table 41).**

Table 41
IMPACTS TO PRIORITY CULTURAL RESOURCE AREAS BY ALTERNATIVE

Cultural Area	Deterioration Type	Alternative 1	1	3
Joshua Tree/Grand Wash Cliffs	I	Low	Low	Low
	II	Mod	Low	Mod
	III	Mod	Low	Mod
	IV	Low	Low	Low
Wright Creek	I	Mod	Low	Mod
	II	Mod	Low	Mod
	III	Mod	Low	Low
	IV	Low	Low	Low
Black Mountains	I	High	Mod	Mod
	II	Mod	Low	Low
	III	Mod	Low	Low
	IV	Mod	Low	Low
Bullhead City/ Western Bajada	I	High	High	Mod
	II	High	High	Mod
	III	Mod	Mod	Low
	IV	Mod	Mod	Low
Burro Creek	I	Mod	Low	Low
	II	Low	Low	Low
	III	Mod	Low	Low
	IV	Low	Low	Low
Carrow-Stephens Ranches	I	Mod	Low	Low
	II	Low	Low	Low
	III	Mod	Low	Low
	IV	High	Low	Low

Impacts represented are estimates and do not reflect a higher negative impact that may affect cultural resources in certain areas, categories or in areas outside the areas of critical environmental concern.

Deterioration Type I = Vandalism, II = Off-highway vehicles, III = BLM (permits and projects), IV = Natural Processes.

IMPACTS TO RECREATION MANAGEMENT

From Mineral Development

No significant loss of recreation opportunities or reduction of visitor days would occur as a result of mineral development under *Alternative 1*. Some small-scale and localized disruption of traditional recreation use may occur as a result of development activities, but the recreation use can be easily accommodated in undeveloped public land throughout the planning area.

Mineral development would affect visual quality through the disturbance of the landscape's natural character. However, only a minor portion of the area identified as having high mineral potential is located in sensitive visual resource management classes outside of designated wilderness. Therefore, the potential

for impacts to visual resources from mineral development activities is slight.

From Lands Actions

Recreation resources would not be significantly affected by lands actions. Disposal areas identified in *Alternative 1* generally do not contain significant recreation resources, and those few activities that occur there would be absorbed with no consequence on surrounding public land.

Right-of-way corridors and expansion of communication facilities at existing sites would have only a slight impact on visual resources. Right-of-way corridors do not cross areas of high visual sensitivity and communication sites already have towers and buildings to the extent that additional facilities would not increase the impacts to visual resources.

From Watershed Management

Watershed management activities would have no effect on recreation resources.

From Vegetative Products Management

A minor amount of recreational visitor days can be attributed to the personal use firewood-cutting areas. By maintaining these areas as open for personal use firewood cutting, this recreational activity would be maintained. No significant change is anticipated.

From Rangeland Management

Livestock grazing management actions under *Alternative 1* would not significantly affect recreation resources. Some degradation of visual resources could occur in localized areas of concentrated or prolonged grazing, especially in riparian areas important for their recreation values.

From Cultural Resource Management

Development of the Carrow-Stephens historic ranches as an interpretive and recreation site would significantly enhance opportunities for the public to enjoy important historic resources. Identifying cultural properties for public use would also enhance the opportunities for the public.

From Recreation Management

Maintaining the resource area's four existing developed recreation sites and implementing the Burro Creek Overlook Interpretive Site Project Plan would provide the public with basic facilities, but would fall far short of satisfying the increasing demand for outdoor recreation opportunities. Implementing two back country byways would help satisfy this demand, but again does not totally satisfy projected demand.

The lack of off-highway vehicle designations would maximize recreational off-highway vehicle opportunities, but would adversely impact opportunities for nonmotorized recreation activities.

From Wild and Scenic Rivers

Protective management prescriptions for eligible river segments would enhance opportunities for primitive recreation and would maintain existing scenic values by constraining mineral development and location and construction of right-of-way facilities, improving watershed and riparian values, rangeland and wildlife habitat.

From Wildlife Habitat Management

Improved condition of wildlife habitat would increase wildlife numbers, increase opportunities for hunting and viewing of wildlife and improve overall aesthetics.

From Wild and Free-Roaming Horse and Burro Management

Improved condition of wild equine habitat would improve the health and vigor of the wild equine populations. The demand for viewing wild equines would increase as the healthy populations become more well known. Oatman's wild burro population would continue to draw visitors into the area for viewing opportunities of burros in the wild. As knowledge of wild equines increases through public relations, public education and word of mouth about personal experiences, the demand for viewing opportunities will increase.

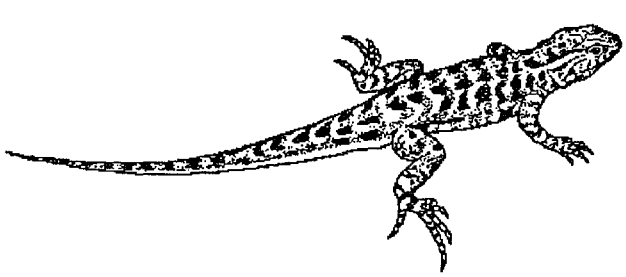
Conclusions

Under *Alternative 1,* recreation opportunities would be maintained at existing levels. No significant impacts would occur, but increased public demand for outdoor recreation opportunities would not be satisfied.

IMPACTS TO WILD AND SCENIC RIVERS

From Minerals Development

Impacts from large mining operations would be mitigated through cooperation between the BLM and the operators during the processing of mining plans required on disturbance exceeding five acres. Small operations of less than five acres do not required mining plans of operation. These operations may result in minor impacts to the stream corridor in terms of introducing man-made intrusions into an otherwise natural landscape. However, it is unlikely that a stream's free-flowing nature or outstandingly remarkable values would be significantly affected by these small operations.



From Lands Actions

Planning location of rights-of-way along the least environmentally sensitive or scenic routes would reduce impacts to outstandingly remarkable values.

From Watershed Management

Watershed management actions within a half-mile corridor along potential wild and scenic rivers would have to comply with the Protective Management Prescriptions outlined in Chapter II. These prescriptions preserve streams' free-flowing nature and outstandingly remarkable values. As a result, no significant impact is anticipated from watershed management activities.

From Vegetative Products Management

Impacts from firewood cutting would not affect potential wild and scenic rivers since the BLM would not designate cutting areas within river segments found to be eligible for inclusion into the National Wild and Scenic Rivers System.

From Rangeland Management

The range management provisions of the current management alternative would improve soil stability, watershed conditions and riparian vegetation along eligible streams and thus benefit scenic values. Protective Management Prescriptions outlined in Chapter II detail how an eligible stream's free-flowing nature and outstandingly remarkable values would be protected. Livestock management practices would have to comply with these prescriptions. No range improvement projects would be allowed that would affect a stream's free-flowing nature or outstandingly remarkable values. No significant impacts are anticipated.

From Recreation Management

Scenic values on eligible stream segments would be protected by requiring new recreation facilities in the river corridor to be compatible with outstandingly remarkable values.

From Wildlife Habitat Management

Scenic values on eligible stream segments would benefit from current management practices on wildlife habitat.

From Riparian Area Management

The current priority for implementation of management practices on riparian areas (see Table 4) places the six eligible streams in the top seven priorities. Improvement in riparian soils and vegetation would enhance the protection of the outstandingly remarkable values on the eligible streams.

From Wild and Free-Roaming Horse and Burro Management

Management of burros on the Big Sandy Herd Management Area at levels described in the herd management area plan would have no noticeable impact on riparian vegetation and soils and, subsequently, no impact on eligible streams' outstandingly remarkable values. The free-flowing nature and outstandingly remarkable values of six streams found to be eligible for inclusion into the National Wild and Scenic Rivers System will be adequately protected under *Alternative 1*. No significant impacts are expected.

IMPACTS TO WILDLIFE HABITAT

From Minerals Development

During the past 10 years, 864 acres of public land have been disturbed by mining activities. Approximately half of these acres have been reclaimed. Most of these areas are small and scattered over the entire resource area. Over the life of the plan, it is projected that an additional 1,700 acres **(or less than 0.1 percent of the resource area)** would be disturbed by mining activities.

Long-term disturbance from mining activities under 43 CFR 3809.1-A (b)(3) would occur to wildlife, especially desert bighorn sheep. Although the disturbed acreage is relatively small, the impacts of the mining operations and access may be significant to bighorn sheep, pronghorn, mule deer and wildlife in general.

The cumulative loss of critical habitat and movement corridors and disturbance to breeding animals in critical times of the year may be significant. Roads bring people into closer contact with wildlife; impacts from these roads include malicious or accidental harassment, collection and direct killing of wildlife species. Interruptions of natural movements and therefore reduced productivity and possible elimination of local populations may also be a direct result of increased mineral development.

For casual use where a notice or plan of operation is not required, minor surface disturbance would occur. **If the notice requires new or upgraded roads, the same impacts as described above for locatable minerals apply.**

Policies concerning the protection of special status species would be applied to notices of intent to conduct geophysical operations, applications for permit to drill and sundry notices that amend applications. Through these, no long-term impacts would result from leasable mineral activities. In the short term, brief but intense human activity would harm special status species.

Currently imposed restrictions on oil and gas leases in bighorn sheep habitat would protect known resources from surface disturbance.

Impacts from salable mineral activities are generally low; however, if new or upgraded roads are required, the same impacts as described above for locatable minerals apply.

In conclusion, mining-caused road construction or road upgrading may have significant long-term impacts to wildlife habitat. Mines in desert bighorn lambing grounds also have significant long-term impacts.

Impacts from casual use, leasable mineral activities and salable mineral activities are generally low as long as new or upgraded roads are not needed.

From Lands Actions

Ownership Adjustments

Areas planned for disposal include important wildlife habitat in the Yucca area and along Truxton Wash. Disposal of these lands would remove this habitat from public ownership.

The exchange program between the state of Arizona and the BLM has resulted in consolidation of important wildlife habitats into public ownership. Acquiring important wildlife habitat provides better long-term protection.

Right-of-Way Corridors

The issuing of rights-of-way, leases and permits results in surface disturbance, road building and soil erosion. The use of existing roads or other disturbed areas for rights-of-way lessens alteration or destruction of wildlife habitat.

Communication Sites

Many of the existing communication sites are on mountain peaks, which also serve as "mountain islands." These islands typically have more vegetation and water and are inhabited by an often diverse array of unusual plant and animal species. Development of communication sites on mountain islands results in increased human access and presence, direct loss of habitat, soil erosion and displacement of some species. **Long-term impacts are moderate as cumulative impacts on certain peaks precludes use of those areas by wildlife.**

From Watershed Management

The ongoing soil survey and ecological site inventory would provide baseline data leading to the protection of fragile soils and vegetation important for wildlife habitat.

Maintaining an optimum water infiltration rate in areas of saline soils would result in less soil erosion and better water quality and quantity. Keeping forage utilization to less than 50 percent of key species would result in better habitat conditions for wildlife.

BLM acquisition of water rights would ensure adequate protection of critical riparian areas and water sources, important for fish and wildlife habitat.

The maintenance of water quality would benefit wildlife and improve riparian habitat.

From Vegetative Products Management

Of the total acres of pinyon-juniper woodland habitat available for harvest, 50 percent has been cut since about 1980. Many more acres (80 percent of pinyon/juniper habitat) are unavailable to cutting because of access problems and resource protection needs. It is anticipated that without cutting on a sustained yield basis, woodlands available for harvest will be gone by the year 2010. Impacts to wildlife habitat from woodcutting, not conducted on a sustained yield basis, are significant. Loss of woodlands means a loss of habitat for forest- dwelling species, especially non-game birds. Neotropical migratory birds and resident forest birds are dependent upon these woodland areas for all or part of their life cycle. A decrease in woodlands means a decrease in the abundance of these species.

The continuation of harvest of Mohave yucca without knowledge of the sustained yield level of harvest will significantly impact wildlife and wildlife habitat. The Mohave yucca typically occurs as a co-dominant with creosotebush and provides the only large structure within the habitat area. Mohave yucca provides important habitat for raptors, non-game birds, reptiles and small mammals and cover for game species. Without this structural component within these habitat areas, biodiversity will be significantly reduced. It is anticipated that animals such as the desert night lizard, cavity-nesting birds and nesting raptors will be less abundant in these areas or cease to occupy these areas.

Short-term seasonal disturbance to wildlife habitat would occur through soil disturbance and human presence (cross-country vehicle traffic, tree skidding and chain saw noise). This is more significant on personal woodcutting areas, because the presence of people is spread over a longer time with people occupying an area in larger numbers.

Long-term enhancement of wildlife habitat through vegetative products management is of moderate importance considering the type of habitat involved. This enhancement would occur in areas identified as suitable for vegetative manipulation to improve habitat condition (decreased competition between overstory and understory plants for water, sunlight, and soil nutrients; seeding of grasses, forbs and browse; edge-effect, e.g., forage and escape cover diversity).

Long-term protection would be given to wildlife habitat identified as unsuitable for manipulation. This long-term protection is significant considering the amount of acreage and habitat for neotropical migratory birds and several special-status species that is involved. These species include the endangered American peregrine falcon and Hualapai Mexican vole.

Allowing the public to salvage plants that would otherwise be destroyed builds rapport and understanding between the public and the BLM and allows plants to continue living.

From Rangeland Management

Implementation of grazing management practices through allotment management plans would improve and/or maintain important wildlife habitat.

Prohibiting domestic sheep and goat grazing within 20 miles of bighorn sheep habitat has significantly lessened the bighorn sheep susceptibility to disease.

From Recreation Management

The Hualapai Mountain hiking trail would concentrate humans in previously undisturbed wildlife habitat, including historic habitat for the endangered Hualapai Mexican vole. Using this trail would result in loss of vegetation and increased soil erosion.

From Wild and Scenic Rivers

Riparian zones form the most productive habitat in the resource area. Many wildlife species, including neotropical birds, are dependent upon riparian areas for all or part of their lifecycle.

Interim protective measures for eligible river segments would improve and protect riparian habitat for wildlife, thus helping to maintain biodiversity within the resource area. This is a significant benefit to wildlife habitat management.

From Riparian Management

Management emphasis on riparian areas would lead to long-term improvement of this habitat. More riparian acreage in better condition would support larger and healthier wildlife populations. **This is a significant benefit to wildlife habitat management.**

From Wild and Free-Roaming Horse and Burro Management

Implementation of the herd management area plans included in the Current Management Alternative would result in a dispersed population at a light stocking rate. This, and the implementation of the wild horse management provisions of the Current Management Alternative, would achieve a thriving natural ecological balance in wild horse, burro and wildlife populations which the BLM considers to be a significant benefit.

From Support Services Management

Under the land acquisition program, consolidation of important wildlife habitats would enhance management capabilities and effectiveness.

Conclusions

Mining activities significantly affect wildlife, especially desert bighorn sheep and desert tortoise. This impact is primarily a result of cumulative impacts of mining disturbance (especially roads) that fragment habitat.

The existing vegetative products program significantly affects wildlife habitat, particularly personal woodcutting **and yucca harvest,** neither of which is managed on a sustained yield basis.

Surface disturbance, soil erosion and increased human presence all contribute to a decline in wildlife habitat quality.

Range programs seek to incorporate wildlife needs and objectives **into** allotment management plans. **Their implementation would lead to improved wildlife habitat.**

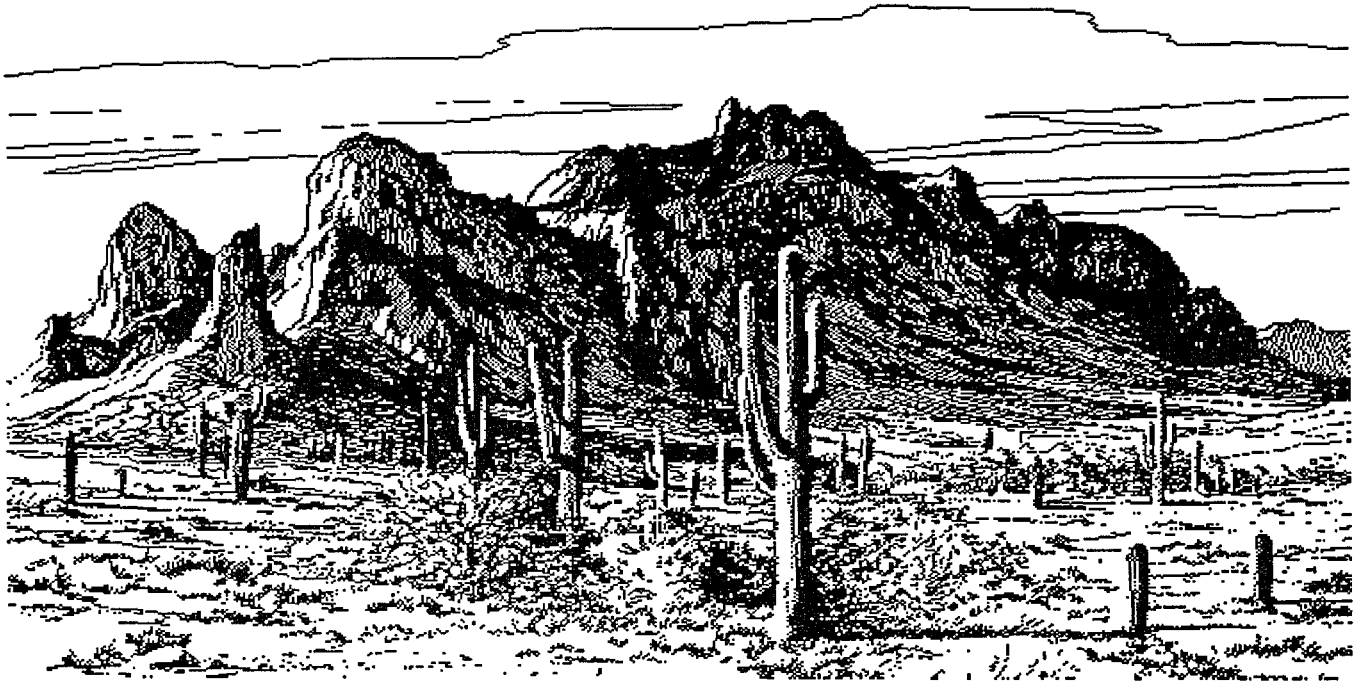
Hiking trails would increase the presence of humans in traditionally low use areas, disturbing wildlife and lessening the quality of habitat.

Intensive recreation use would not be routed away from sensitive species habitat and off-highway vehicle use would not be controlled.

Interim protective measures for eligible rivers help maintain biodiversity and significantly improve wildlife habitat.

Existing riparian management would allow **significant improvement in riparian habitat and** benefit wildlife habitat **and biodiversity** in the long-term.

Burros would be managed at maintenance levels **and would be** expected to affect wildlife habitat slightly to moderately, depending on climatic conditions. Follow-up monitoring will be needed for several years to determine actual impacts.



IMPACTS TO SPECIAL STATUS SPECIES

From Mineral Development

During the past 10 years, 864 acres of public land have been disturbed by mining activities. Approximately half of these acres have been reclaimed. Most of these areas are small and scattered over the entire resource area. Over the life of the plan, it is projected that an additional 1,700 acres would be disturbed by mining activities.

Review and possible modification of mining plans of operation would minimize the likelihood of any action (or cumulative impact of a series of actions) causing a plant species or animal to be listed as threatened or endangered.

Development of mining claims within the habitat of the Arizona cliffrose could exterminate the population.

For casual use where a notice or plan of operation is not required, minor surface disturbance would occur. If the notice requires new or upgraded roads, the same impacts as described above for locatable minerals under Impacts to Wildlife Habitat apply.

Policies concerning the protection of special status species would be applied to notices of intent to conduct geophysical operations, applications for permit to drill and sundry notices that amend applications. Through these, no long-term impacts would result from leasable mineral activities. In the short term, brief but intense human activity would harm special status species.

Oil and gas exploration and development would have minor impacts on BLM-sensitive and federal candidate plant species. Impacts from salable mineral activities are generally low; however, if new or upgraded roads are required, the same impacts as described above for locatable minerals under Impacts to Wildlife Habitat apply.

In conclusion, mining-caused road construction or road upgrading may have significant long-term impacts to wildlife habitat. Impacts from casual use, leasable mineral activities and salable mineral activities are generally low as long as new or upgraded roads are not needed.

Locatable mineral development would have minor impacts on most federal candidate and BLM-sensitive plant species. **Long-term cumulative impacts could occur on small areas. These impacts could be mitigated.**

From Lands Actions

Ownership Adjustment

BLM's acquisition of lands with special status species habitats would promote the recovery of listed and candidate species.

Disposal of public lands would eliminate BLM control of approximately 8,300 acres of the northwest portion of the habitat of the white-margined penstemon (a threatened and endangered candidate) and one small population of the Arizona prickly poppy (a threatened and endangered candidate).

Withdrawals, Recreation and Public Purposes, Rights-of-Way, Leases and Permits

Surface disturbance could impact federal candidate and BLM-sensitive plant species. Review and possible modification of individual project proposals would minimize impacts.

From Watershed Management

During soil and vegetation inventory, previously undiscovered populations of special status plants may be located.

Management of soil and vegetation resources to create healthy watersheds would result in better habitat conditions for special status plants with subsequent healthier and more vigorous populations of some plants over the long-term.

From Vegetative Products Management

Permitting of firewood cutting on the east side of the planning area could impact the freckled milk-vetch (a threatened and endangered candidate). Because this species is reported to occur at the same elevation as juniper trees, off-highway vehicle use associated with wood gathering could destroy some plants of these species.

The permitted harvesting of other plant products could have similar impacts on other special status plants.

From Rangeland Management

Implementation of grazing management practices through allotment management plans would improve habitat for special status animals such as desert tortoise, raptors and threatened and endangered plants.

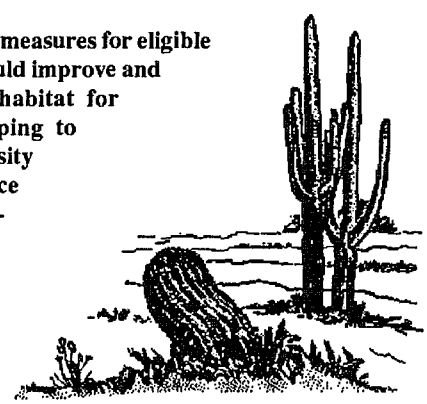
From Recreation Management

Off-highway vehicle use would continue to cause impacts to federal candidate and BLM-sensitive plant species over the long term. Impacts to the Cerbat beard-tongue (a federal candidate) and the white-margined penstemon, particularly from off-highway vehicle use in wash habitat, **would degrade habitat and reduce numbers of plants.**

From Wild and Scenic Rivers

Riparian zones are the most productive habitat areas within the resource area. Many wildlife species, including neotropical birds, are dependent upon riparian areas for all or part of their lifecycle.

Interim protective measures for eligible river segments would improve and protect riparian habitat for wildlife, thus helping to maintain biodiversity within the resource area. This is a significant benefit to wildlife habitat management.



From Wildlife Habitat Management

Implementation of the Desert Tortoise Rangewide Plan would help improve habitat conditions. The Southwestern Bald Eagle Management Committee has been successful in promoting and preserving southern bald eagles and their habitats. This population has expanded significantly. Peregrine falcons would continue their ongoing recovery. Monitoring and inventory participation with the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service will be critical for the continued recovery of this species.

Implementation of the Hualapai Mexican Vole Recovery Plan will improve the habitat and management of this species. Initiating the intensive annual inventory of black-hawks would provide a good indicator of the overall health of riparian ecosystems, especially Burro Creek. **Starting the monitoring of the** roundtail chubs would provide information for managers and biologists on the status of this species and its management needs.

From Riparian Area Management

Management emphasis on riparian areas would lead to long-term improvement of this habitat. More riparian acreage in better condition would support larger and healthier wildlife populations. This is a significant benefit to wildlife habitat management.

From Wild and Free-Roaming Horse and Burro Management

Wild horses and burros managed within an ecological balance should have no impact on special status species.

From Support Services Management

Acquiring lands listed in Appendix 9 would place habitat of certain special status plants under BLM management, allowing further management possibilities for perpetuating these species.

Conclusions

Surface-disturbing activities such as mining may significantly affect special status species, especially desert tortoise. This impact is primarily a result of cumulative impacts of mining disturbances (especially roads) that fragment habitats.

Surface-disturbing activities such as recreational uses, grazing by livestock, wild horses and burros would have minimal impact on special status species and/or their habitat and would be minimized through National Environmental Policy Act review.

IMPACTS TO RIPARIAN AREAS

From Mineral Development

Mineral exploration and development would result in short-term surface disturbance, destroying vegetation, increasing soil erosion, reducing streambank stability and lowering water quality.

From Lands Actions

The BLM exchange program consolidates landownership resulting in acquisition of important riparian areas and more effective management of areas already in public ownership. Improved management would allow greater control of surface-disturbing activities such as livestock grazing, mineral exploration and development and off-highway vehicle use.

From Watershed Management

The ongoing soil survey and ecological site inventory would provide baseline data for the protection of fragile soils and vegetation in riparian areas.

BLM acquisition of instream flow water rights would ensure adequate water supplies to maintain critical riparian areas.

The maintenance of water quality under current management promotes improved riparian habitat conditions by controlling activities that could harm these areas.

From Rangeland Management

Development or revision of 56 allotment management plans would maintain or improve riparian vegetation along 704 miles of streams and washes in the planning area. Allotment management plans would provide prescriptions for periodic rest and grazing timed to meet the physiological needs of key riparian plants. As small riparian areas are fenced, vegetation in these areas would greatly improve.

From Recreation Management

Restricting cross-country vehicle traffic would benefit riparian areas. Some use in washes may cause deterioration of riparian vegetation.

From Wild and Scenic Rivers

Interim protective measures for eligible river segments would improve riparian values.

From Wildlife Management

Under normal climatic conditions, wildlife program activities complement the management of riparian areas. During drought conditions, there may be some minor impacts from wildlife feeding, watering and resting near water. However, this seldom results in serious loss of soil or forage because of the small hooves and light weight of game animals and their intrinsic characteristic of dispersed grazing. Under current management, riparian areas would be recognized as high priority and actions benefiting both wildlife and riparian values would be implemented.

From Special Status Species Management

The preservation of habitat for the southern bald eagle, common black-hawk, Hualapai Mexican vole and roundtail chubs would supplement management efforts to promote riparian habitat.

From Wild and Free-Roaming Horse and Burro Management

Wild horses and burros within an ecological balance would have no impact on riparian areas.

Conclusions

Mineral development would have short-term impacts on riparian areas. Rights-of-way would be restricted in sensitive riparian areas. Riparian habitat would improve in areas where allotment management plans are implemented. Restricting cross-country vehicle traffic would benefit riparian areas. Interim protective measures for eligible rivers would improve riparian resources.

Wildlife habitat management goals and objectives are compatible with riparian area management. Allowing wild horse populations to fluctuate would result in a downward trend in condition of riparian areas within wild horse range by destroying vegetation, trampling streambanks and reducing water quality and quantity.

IMPACTS TO WILD AND FREE-ROAMING HORSE AND BURRO MANAGEMENT

From Mineral Development

Impacts to wild horse and burro habitat from mining activities would be minimal. Human disturbance associated with mining would cause wild horses to be displaced from around mines and access roads.

From Lands Actions

Exchanges would help to block up important wild horse and burro habitat. Rights-of-way for pipelines and powerlines would cause short-term loss of forage and disturbance of animals during construction. Increased access associated with rights-of-way would impact wild animals' need for solitude.

From Watershed Management

Wild horse and burro habitat would improve as a result of proposed watershed management actions.

From Vegetative Products Management

Wild horse and burros would not be impacted by harvest of desert plants or woodcutting.

From Rangeland Management

Implementation of sound rangeland management practices would improve habitat for wild horses and burros. Associated water development would be used by wild horse and burros. Fences could impede free roaming unless impacts were mitigated.

From Wildlife Habitat Management

Management of wildlife habitat would improve forage conditions for wild horses and burros, helping to achieve a thriving ecological balance. Some competition for water would exist, especially during periods of prolonged drought.

From Recreation Management

Wild horses and burros would benefit from management of public recreation with the goal of being in harmony with the environment and other uses. Campgrounds tend to concentrate people away from horse and burro use areas. Prohibiting cross-country vehicle traffic by limiting off-highway vehicle use to existing roads, trails and navigable washes would reduce conflicts between humans and wild horses and burros.

From Special Status Species Management

Protection of special status species habitat could place some restrictions on movement and grazing of wild horses and burros. If problems occur, special status species habitat may need to be fenced from grazing.

From Riparian Area Management

The need to protect and enhance riparian habitat could require restrictions to be placed on the free-roaming of wild horses and burros. If riparian areas deteriorate or efforts to improve riparian condition are impeded by concentrated grazing of wild horses and burros along streams, canyon bottoms and around springs, their ability to be free-roaming may need to be curtailed in these critical areas. Riparian areas would then be fenced and water piped outside for use by wild horses and burros.

From Wild and Free-Roaming Horse and Burro Management

Management of wild burros at a light stocking rate and animals dispersed over the entire area would result in improved habitat conditions and help burros maintain good body condition during periods of drought and over the summer. Implementation of a herd management area plan would lead to improved conditions of the wild horse habitat in the Cerbat Mountains. Improvement in condition of animals and their habitat would accelerate as horse numbers can be brought closer to an equilibrium with forage availability, as evidenced by results of utilization and trend data.

Conclusions

Impacts on wild horses and burros from mineral development would not be significant. Land exchanges would block up important habitat. Rights-of-way would not significantly impact animals. Wild horse and burro habitat would benefit from watershed, rangeland, and wildlife habitat management practices.

The goal of dispersed recreation use and prohibiting cross-country vehicle traffic would reduce conflicts between people and wild horse and burros. Special status species and riparian area management could place some restrictions on where wild horses and burros can graze. Implementation of herd management area plans would result in improved habitat for wild horses and burros.

ALTERNATIVE 2 - PREFERRED ALTERNATIVE

IMPACTS TO ALL RESOURCES

From Law Enforcement

The increased presence of BLM rangers in the resource area would enhance public safety, awareness and appreciation of natural resources by the public, and orderly use and protection of natural resources. BLM rangers would add to the overall protection and safety of the public using the resource area by their presence and the cooperation of other federal, state and local law enforcement agencies.

Increased BLM ranger presence would enhance public contact, interpretation of BLM resource management programs, and education of the public in low impact use and enjoyment of natural resources. Ranger presence would also deter vandalism, unauthorized surface-disturbing activities, occupancy trespass and illegal dumping.

IMPACTS TO MINERAL DEVELOPMENT

From Lands Actions

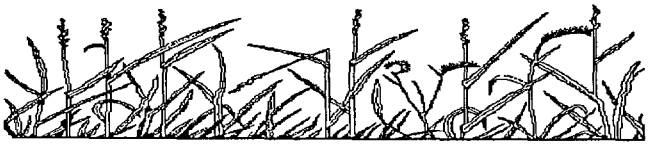
Ownership Adjustments

Disposal of roughly **181,553** acres of public land would prevent exploration and development of minerals **on these lands.** Most lands proposed for disposal, however, have a low to moderate potential for occurrence of locatable minerals and a low to unknown potential for oil and gas. **Some of the lands identified for disposal encroach on known leasable sodium deposits in the northern portions of Detrital and Hualapai valleys. Disposal of these lands would have to consider the value of the deposits contained therein, as well as the impact on any existing sodium leases which may exist at the time (see Map 36).**

The acquisition of roughly 365,000 acres of nonfederal mineral estate would affect the development of mineral resources by consolidating land into well-blocked areas and reducing potential conflicts between mining operators and landowners. Some of these lands have a moderate to high potential for the occurrence of locatable minerals and a low potential for oil and gas.

From Wild and Scenic Rivers

Same as under *Alternative 1.*



From Special Management Areas

The designation of 12 areas of critical environmental concern would **leave nearly 99 percent of the federal locatable minerals open to mineral entry. Of the approximately 23,800 acres closed to mineral entry, less than 19 percent contain high potential minerals. Nearly 99 percent of leasable minerals are open to mineral leasing with standard lease stipulations. Less than one percent of the federal minerals are open to mineral leasing with a no surface occupancy stipulation. These areas are in one-half-mile wide strips along stream channels which could allow slant drilling to occur. Only 1,114 acres are closed to mineral leasing. Nearly 99 percent of the federal mineral materials are open to mineral material disposals. Only a small percentage of the closed area contains significant deposits of sand or gravel and other valuable sources are closer to the major population centers in the resource area.**

The Joshua Tree Forest Area of Critical Environmental Concern has a moderate potential for gold, the Clay Hills Area of Critical Environmental Concern has a high potential for bentonite and the remaining areas proposed for withdrawal have a low or unknown mineral potential. Withdrawals would preclude any future exploration except on valid existing claims. Designating areas of critical environmental concern not proposed to be withdrawn from mineral entry would require submitting a plan of operations for any activities exceeding casual use. All or portions of the Joshua Tree Forest Area of Critical Environmental Concern have a high potential for the occurrence of salable minerals near areas of substantial population growth. **Sales of mineral materials within the areas of critical environmental concern would be allowed only where no reasonable alternative exists.**

From Special Status Species and other Wildlife Resources

Imposing special stipulations, no surface occupancy, and withdrawals would cause delays in exploration and developing making leasable mineral resources less available. **Same as under *Alternative 1.***

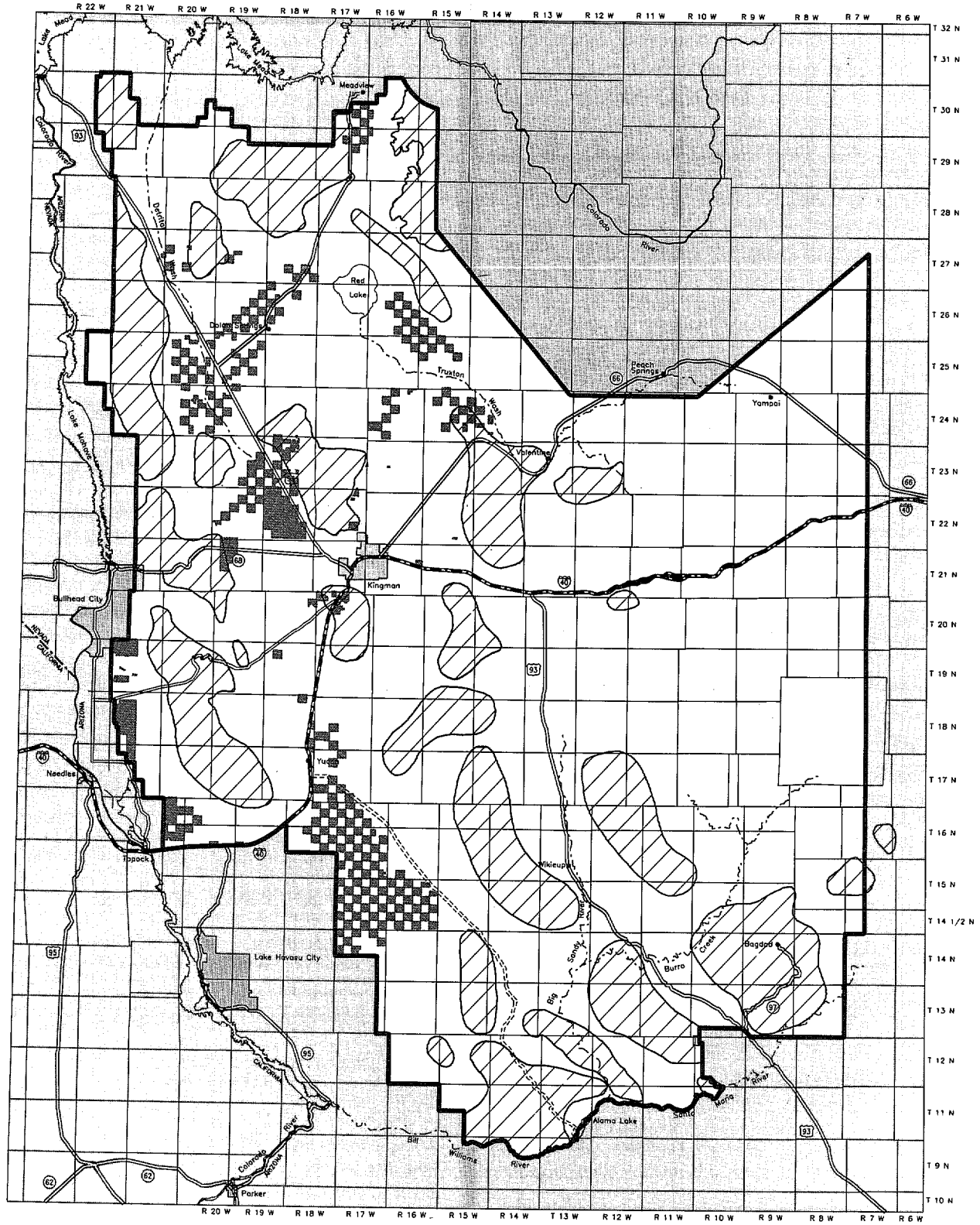
From Hazardous Materials Management

Mining operators may expect increased operating costs to adequately mitigate impacts from using hazardous materials. Operations will be monitored, at a minimum, according to the schedule contained in the BLM's Inspections Enforcement Policy. Those operations which are causing unnecessary or undue degradation will be served a notice of noncompliance as described in 43 CFR 3809.3-1.

Conclusions

The *Preferred Alternative* would restrict or preclude mineral resources exploration and development in certain areas to protect or accommodate other resources and uses. Land disposals would discourage mineral resource exploration in some areas, while land acquisitions would encourage exploration in others.

HIGH POTENTIAL LOCATABLE MINERALS AND DISPOSALS – ALTERNATIVE 2



LANDS PROPOSED FOR DISPOSAL – ALT 2

AREA OF HIGH MINERAL POTENTIAL

Designated areas of critical environmental concern would encumber locatable mineral resource exploration and development through delays for plan approvals. Portions or all of six areas of critical environmental concern would be withdrawn from mineral entry, all or portions of six areas of critical environmental concern are no surface occupancy and six areas of critical environmental concern are closed or partially closed to mineral material disposals.

IMPACTS TO LANDS ACTIONS

Impacts would be the same as those described under *Alternative 1* except as noted below.

From Landownership Adjustments - Exchange

An additional 79,000-plus acres are identified for disposal. The majority of the land is checkerboarded and uneconomical to manage except north and west of Golden Valley and near Mohave Valley.

These lands were identified for disposal due to their considered high potential for development and the need for this type of trade base. The availability of these lands for disposal will make exchanges with the BLM more desirable and provide incentive to proponents, state and private, to offer lands identified for acquisition which are high in resource values.

From Withdrawals and Classifications

Recommendation to revoke certain withdrawals would make the land available for lands actions including disposal if uneconomical to manage. Other lands actions would be permitted after National Environmental Policy Act compliance subject to stipulations to protect resources.

From Recreation and Public Purposes

Reserving identified lands for recreation and public purpose uses would assure these types of actions are provided for. It will keep these actions in a specific area rather than scattering them, thereby minimizing impacts. In some cases, the lands identified for recreation and public purposes are identified for disposal by exchange.

From Linear Rights-of-Way

The designation of three additional corridors in areas already disturbed and which have the potential for development provides additional areas where rights-of-way may be directed to minimize impacts.

From Communication Site Rights-of-Way

Designation of 11 communication sites will restrict development to, for the most part, previously disturbed areas, thereby minimizing impacts.

From Wildlife Movement Corridors

Lands actions may require special stipulations such as overpasses, underpasses, fencing, culvert modification, etc., that could increase the cost of a project.

From Special Management Areas

Certain lands actions, i.e., communication sites, may be prohibited by prescription in certain areas. Actions allowed would be subject to National Environmental Policy Act compliance stipulations to protect resources. This may increase project costs. There will be an increased workload to implement withdrawals, acquisitions, etc., that may be limited by the existing realty staff.

From Hazardous Material Management

Lands actions may require stipulations regarding release of hazardous substances and responsibility for cleanup. This may increase project costs. Some landownership adjustments may not occur due to the presence of hazardous materials.

Conclusions

Reserving public lands for recreation and public purposes allows qualified entities at reduced rates to provide services they may not otherwise be able to afford. Designation of utility corridors and communication sites restricts development to certain areas and minimizes impacts. Disposing of lands that are checkerboarded and uneconomical to manage provides a base to acquire lands with higher resource values and services a public benefit.

IMPACTS TO SOCIOECONOMIC FACTORS

Implementation of the Preferred Alternative would not cause significant impacts to any of the Kingman Resource Area socioeconomic data reviewed in this document. Population trends would not be affected. The direct economic benefits Mohave and Yavapai counties currently receive from BLM employment and operations would remain constant.

From Lands

A decision to dispose of 181,553 acres of public land through exchange could increase the amount of private lands in the resource area, thereby increasing the county tax base.

From Resource Actions

There would be no significant impacts to socioeconomic factors in the resource area from minerals, special status species, wildlife habitat, recreation or rangeland management.

IMPACTS TO WATERSHED (Soil, Water and Air) MANAGEMENT

From Mineral Development

Impacts to watershed management would be similar to those under *Alternative 1* except the withdrawing of land from mineral entry, **mining plans of operation for all mineral exploration and development activities and mandatory bonding** would protect and maintain water quality and quantity, air quality and soil productivity. Surface disturbance and hazardous material introductions **would also be reduced.**

From Lands Actions

Ownership Adjustments

Same as under *Alternative 1.*

Withdrawals, Recreation and Public Purposes, Rights-of-Way, Leases and Permits

Same as under *Alternative 1.*

From Vegetative Products Management

An inventory and management plan would give greater consideration to resource protection and minimize damage to soil and vegetation.

From Rangeland Management

Impacts would be the same as *Alternative 1* except that implementing allotment management plans and grazing systems in special management areas would **be given higher priority.**

From Cultural Resource Management

Same as under *Alternative 1.*

From Recreation Management

Same as under *Alternative 1.* In addition, the limiting of off-highway vehicle use would lower the rate of soil and vegetation loss, salt yield and fugitive dust.

From Wild and Scenic Rivers

Same as under *Alternative 1.*

From Wildlife Habitat Management

Same as under *Alternative 1.*

From Special Status Species Management

Same as under *Alternative 1* (see also Special Management Areas in *Alternative 1).*

From Riparian Area Management

Same as under *Alternative 1* (see also Special Management Areas in *Alternative 1).*

From Wild and Free-Roaming Horse and Burro Management

Same as under *Alternative 1* **for burro management. Wild horse numbers within an ecological balance would be a significant beneficial impact.**

From Special Management Areas

Special management areas which limit surface-disturbing activities (off-highway vehicle, mining road and facility construction) would protect and maintain water quality and quantity.

From Visual Resource Management

Same as under *Alternative 1.*

From Hazardous Material Management

Implementation of a hazardous material management program would minimize incidents of discharges of hazardous materials from contained sites and therefore reduce pollution of surface and groundwater.

Conclusions

Impacts would be similar to *Alternative 1* except that a greater degree of protection would be provided for watershed components. Limitations on surface-disturbing activities for mineral exploration and development and off-highway vehicle uses would reduce runoff and soil losses, degradation of water quality and air quality, reduce vegetative losses and increase soil productivity. Development of management plans for vegetative harvest would provide greater consideration of watershed values.

IMPACTS TO VEGETATIVE PRODUCTS MANAGEMENT

From Mineral Development Management

Same as under *Alternative 1.*

From Landownership Adjustments

Same as under *Alternative 1.*

From Land Withdrawals, Recreation and Public Purposes, Rights-of-Ways, Leases and Permits

Impacts would be similar to those under *Alternative 1,* but might be more intense because of more identified corridors.

From Watershed Management

Same as under *Alternative 1*.

From Vegetative Products Management

Proposed actions would improve management of the harvest of vegetative products.

From Cultural Resource Management

Same as under *Alternative 1*.

From Recreation Management

Impacts would be the same as under *Alternative 1* in areas of intensive recreational use. Off-highway vehicle use designations would limit vegetation harvesting where travel off **designated** roads, trails and washes would not be allowed.

From Wildlife Habitat Management

Impacts would be the same as under *Alternative 1* except on special management areas identified for high priority wildlife habitat where vegetative product harvesting might be limited or prohibited if it would conflict with wildlife resources.

From Special Status Species Management

Impacts would be the same as under *Alternative 1*. In addition, area of critical environmental concern designation to protect Arizona cliffrose, white-margined penstemon, bald eagles, desert tortoise and black-hawks would close those areas to any harvesting of vegetative products.

From Riparian Area Management

Impacts would be the same as under *Alternative 1*. On areas of critical environmental concern identified for high priority riparian values, vegetative products could not be harvested.

From Special Management Areas

Designations would remove areas of critical environmental concern from the harvest of vegetative products, other than salvage. Fewer vegetative products should be harvested because of areas withdrawn from mineral entry and closed to mineral material disposals.

From Support Services Management

Implementing of law enforcement patrolling of the public lands would reduce the amount of theft of vegetative products and result in better compliance with permit stipulations. Patrolling would also reduce the amount of environmental damage caused by driving off designated roads, driving on muddy roads or removing vegetative products from outside designated areas.

Conclusions

Impacts would be similar to those under *Alternative 1* except special management areas identified would reduce the areas where harvests may occur. Limitations on off-highway vehicle use and greater consideration of sensitive resources would impose greater limitations on suitability of harvest activities. Law enforcement patrolling would provide better control of harvest activities and lessen environmental damage.

IMPACTS TO RANGELAND MANAGEMENT

From Mineral Development

Impacts would be similar to those under *Alternative 1*, but less disturbance would occur because of areas withdrawn from mineral entry and closed to mineral material disposals.

From Landownership Adjustments

Impacts to livestock grazing would be similar to those under *Alternative 1*, but would be more intense because of more acreage designated as suitable for disposal, **except east and southeast of Bullhead City where no grazing occurs. The Mud Springs and Curtain allotments and portions of the Pine Springs allotment could be transferred to state ownership and removed from public grazing. The state would continue to lease the land for grazing until the lands are exchanged. There is no guarantee the Curtain Holistic Resource Management system, which has resulted in substantial improvement in rangeland habitat, would continue under state or private ownership. This area would be unavailable to the BLM as a public demonstration area of the benefits of holistic resource management.**

From Watershed Management

Same as under *Alternative 1*.

From Vegetative Products Management

An inventory and management plan would give greater consideration to resource values and result in increased forage production and less soil disturbance and erosion.

From Rangeland Management

Same as under *Alternative 1* except goals and objectives of areas of critical environmental concern would shift emphasis for development of allotment management plans from other areas to areas of critical environmental concern because of increased funding which could result from these plans. This would result in improved rangeland condition in riparian areas, around

cultural resources, wildlife habitat and special status species habitat.

From Cultural Resource Management

Cultural resource management would have similar impacts to those described under *Alternative 1*. Designation of an area of critical environmental concern/special recreation management area at the Carrow-Stephens Ranches would exclude 542 acres from grazing on the Big Sandy Grazing Allotment, requiring a reduction of active grazing preference in this allotment.

From Recreation Management

Same as under *Alternative 1*.

From Wild and Scenic Rivers

Same as under Alternative 1.

From Wildlife Habitat Management

Impacts would be similar to those described under *Alternative 1*. The degree of impact would be greatly increased in areas designated as areas of critical environmental concern because of unique or high values. Where categories I and II desert tortoise habitat are found, constraints on construction of range improvements would be imposed where unresolvable conflicts occur with tortoise needs.

Limitations on grazing use would be possible to assure adequate forage for tortoise. Presence of categories I and II tortoise habitat would give priority to affected allotments for allotment management plan development.

From Special Status Species Management

Impacts would be similar to those described under *Alternative 1* except:

- Designating the white-margined penstemon habitat as an area of critical environmental concern would constrain construction of range improvements and limit livestock grazing within this area, affecting portions of the Happy Jack Wash, La Cienega and Boriana A grazing allotments.

- Designating a special management area within the Black Mountain Area of Critical Environmental Concern for Cerbat beardtongue habitat would constrain the building of range improvements and limit livestock grazing within this area, affecting portions of the Gediondia, Fort MacEwen A and Fort MacEwen B grazing allotments.

- Designating the McCracken and Poachie Desert Tortoise areas of critical environmental concern would constrain construction of range improvements and limit grazing within these areas, affecting the Chicken Springs, Bateman Springs, Artillery Range, Greenwood Community, Burro Creek Ranch and Arrastra Mountain grazing allotments.

- Designating the Hualapai Mountain Research Natural Area/Area of Critical Environmental Concern would constrain construction of range improvements and limit livestock grazing within these areas, affecting portions of the La Cienega, Yellow Pine and Hualapai Peak grazing allotments.

- Designating the Wright and Cottonwood creeks riparian and cultural, Burro Creek riparian and cultural and Three Rivers Riparian areas of critical environmental concern would protect riparian habitat by constraining construction of range improvements and limiting livestock grazing, affecting portions of the following allotments.

  Crozier
  Valentine
  7L (McElhaney)
  JJJ
  Burro Creek
  Bagdad
  Greenwood Peak Community
  Greenwood Community
  Burro Creek Ranch
  Artillery Range
  D.O.R.
  Chicken Springs
  Santa Maria (Lower Gila Resource Area)
  Van Keuren (Lower Gila Resource Area)
  Primrose (Lower Gila Resource Area)

From Riparian Area Management

Impacts would be similar to those described under *Alternative 1* except designating three riparian areas of critical environmental concern (Burro Creek, Three Rivers and Wright and Cottonwood creeks) would affect grazing allotments as described under Special Status Species management. Affected allotments would be given priority for intensive management.

From Special Management Areas

Impacts resulting from designation of the 12 areas of critical environmental concerns are discussed under the originating resource: cultural resources, recreation, wildlife and special status species.

From Wild and Free-Roaming Horse and Burro Management

Same as under *Alternative 1* except that if proper utilization levels on key forage species within the Cerbat Herd Management Area are exceeded, **and horses are above the minimum viable level, numbers of all grazing ungulates would be reduced on an equitable basis. If the wild horse population is below a minimum viable level, livestock and wildlife would be reduced accordingly in order to maintain a viable population of wild horses within an ecological balance in their habitat. This would have a slight negative impact on the livestock industry.**

Conclusions

Impacts would be similar to *Alternative 1* except that limitations on surface-disturbing activities for mineral exploration and development and vegetative harvest would result in smaller losses of vegetative productivity and disruption to grazing livestock. There would be

a greater degree of change in grazing preference, ownership of range improvements and management efficiency because of additional acreage designated for disposal.

Designation of special management areas for unique resource values throughout the resource area would place constraints on construction of range improvements and impose limitations on grazing use on affected allotments. Similar constraints and limitations would occur where categories I and II desert tortoise habitat occurs. Grazing allotments in the Cerbat Wild Horse Herd Management Area would be subject to grazing use adjustments where over-obligation of available forage exists.

IMPACTS TO CULTURAL RESOURCES

From Mineral Development

Portions of the **Wright and Cottonwood creeks, Carrow-Stephens and Burro Creek** areas of critical environmental concern would be withdrawn from mineral entry, subject to valid existing rights, resulting in greater protection for cultural resources. Mining would require approved plans of operations, allowing adequate time for mitigation and cultural resource inventories.

From Lands Actions

Impacts under the *Preferred Alternative* would be the same as under *Alternative 1* with the benefit of adding certain cultural properties to the BLM's priority list for acquisition. These sites include the Neal petroglyphs, the Barth Bighorn Cave access and the X-Bar-One petroglyphs.

One of the additional disposal areas south of Bullhead City probably has a large number of cultural resources. Nearby areas have a large number of cultural resources and isolated artifacts.

New resources and data would be recorded and adverse impacts would be mitigation on any significant areas. Although mitigation measures would be beneficial, public use and conservation values would be lost.

From Recreation Management

Prehistoric and historic trails and other sensitive cultural resources would be protected by closing or limiting off-highway vehicle use in areas of critical environmental concern. One open off-highway vehicle area would reduce the level of indiscriminate use throughout the resource area.

From Vegetative Products Management

Cultural resources would benefit from the curtailment or reduction of woodcutting while a fuelwood management plan was being developed. The subsequent plan would also consider protection of sensitive sites.

From Special Management Areas

Long-term beneficial impacts would result from management prescriptions in the Joshua Tree Forest-Grand Wash Cliffs, Black Mountains, Wright and Cottonwood creeks riparian and cultural, Carrow-Stephens and Burro Creek riparian and cultural areas of critical environmental concerns designed to help the BLM protect, preserve and enhance cultural resources.

Some degree of vandalism could increase because of the attention brought to previously unknown areas. Increased protective measures outlined in areas of critical environmental concern plans, however, would more than balance adverse impacts.

Conclusions

Alternative 2 would benefit the most significant cultural resources but would result in some losses to vandalism, off-highway vehicle activity and natural processes. Negative impacts would be lower in areas designated as areas of critical environmental concern due to increased management emphasis.

IMPACTS TO RECREATION MANAGEMENT

From Mineral Development

Impacts to recreation would be the same as under *Alternative 1* but management prescriptions and mineral withdrawals under area of critical environmental concern designations would minimize adverse impacts to visual resources.

A 40-acre mineral withdrawal around each recreation site would reduce the potential for surface disturbance, soil erosion and habitat disturbance from mining.

From Lands Actions

Impacts would be similar to those under *Alternative 1*. The exchange program would benefit recreation by bringing into public ownership high-value scenic lands and wildlands suitable for outdoor recreation.

Rights-of-way development would impact the natural character of the landscape, but utilizing proper visual resource management techniques for pole placement and materials, corridor rehabilitation, etc., would minimize adverse effects. No significant impact is anticipated.

From Watershed Management

Enhancement of soil and vegetative conditions through watershed management activities would benefit visual resources by restoring or maintaining natural-appearing landscapes. Opportunities for hunting and wildlife viewing would increase as habitat for wildlife is improved.

From Vegetative Products Management

Impacts would be similar to those described under *Alternative 1*.

From Rangeland Management

Impacts would be the same as under *Alternative 1* except elimination of livestock grazing on portions of the Chino Springs, Silver Creek and Alamo allotments would improve vegetative cover and result in increased scenic- and recreation-related wildlife habitat values.

From Cultural Resources Management

Impacts would be similar to those described under *Alternative 1*, plus designating six special management areas with significant cultural values and developing interpretive sites would enhance the recreation program by giving the public more opportunities to learn about and experience historic values.

From Recreation Management

Developing more **facilities** such as campgrounds, picnic areas, interpretive pullout sites, trails and expansion of existing recreation sites **would satisfy increased demand for recreation opportunities. In addition, the proposed trails and back country byways would provide a wide variety of primitive recreation experiences that are in public demand.**

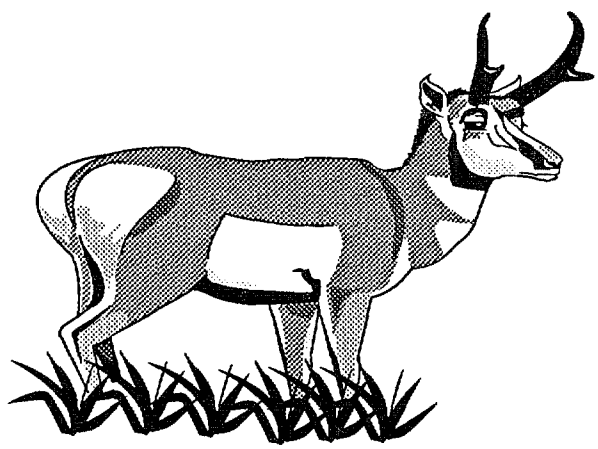
Visual Resource Management **classes** would **protect scenic quality** and reduce negative impacts on visual resources.

From Off-Highway Vehicle Designation

Limited off-highway vehicle use on **more than 1,100,000** acres (see **Table 9**) would reduce damage to vegetative cover and soils on upland areas, control erosion and result in improved scenic values. This designation would still allow extensive off-highway vehicle use on an established network of roads, trails and washes over much of the resource area. Unrestricted off-highway vehicle use on **1,311** acres would allow cross-country activities by all-terrain vehicles to occur.

From Wild and Scenic Rivers

Same as under *Alternative 1*.



From Wildlife Habitat Management

Impacts would be similar to those described under *Alternative 1* except improved wildlife habitat resulting from area of critical environmental concern designation, grazing management and removal of grazing would result in increased wildlife populations and benefit hunting, photography and opportunities to view wild animals.

From Wild and Free-Roaming Horse and Burro Management

The establishment of a wild burro interpretive site in the Black Mountains Herd Management Area would greatly enhance the public's opportunities for viewing wild burros in their natural habitat and provide for a growing interest in observing these animals, along with other wild animals.

From Special Status Species Management

Protection of special status plant and animal species would improve recreation opportunities to learn about and view these important aspects of our environment. An informed and educated public would benefit from a greater diversity of plant and animal life on wildlands.

From Special Management Areas

Designation of **12** areas of critical environmental concern would constrain or eliminate surface-disturbing activities associated with mineral exploration and development on important riparian areas, threatened and endangered species habitat and cultural sites. Grazing would also be managed according to area of critical environmental concern objectives and other surface-disturbing activities such as communication sites, powerlines, pipelines and roads would be confined to corridors.

These actions would result in protection of/or improvement in existing scenic values and recreation-related wildlife habitat values.

From Support Services

Access

Acquiring legal access to **proposed** recreation sites would allow for the development and building of new recreation sites.

Acquisition

Acquiring private and state lands through exchange, in areas planned for new or improved recreation sites, would increase recreational opportunities.

Fire Management

The suppression of wildfires would protect developed recreation sites and retain scenic values.

Conclusions

Development of new facilities, designation of two additional back country byways, trail development and providing interpretive displays would significantly enhance outdoor recreation opportunities. Designation of areas of critical environmental concern, establishment of off-highway vehicle designations and management of visual resources would provide quality natural settings for visitors. These combine to create significant beneficial impacts to recreation resources.

IMPACTS TO WILD AND SCENIC RIVERS

From Mineral Development

Same as under *Alternative 1.*

From Lands Actions

Same as under *Alternative 1.*

From Watershed Management

Same as under *Alternative 1.*

From Vegetative Products Management

Same as under *Alternative 1.*

From Rangeland Management

Same as under *Alternative 1.*

From Recreation Management

Same as under *Alternative 1.*

From Wildlife Habitat Management

Same as under *Alternative 1.*

From Special Status Species Management

Same as under *Alternative 1.*

From Riparian Area Management

Same as under *Alternative 1.*

From Wild and Free-Roaming Horse and Burro Management

Same as under *Alternative 1.*

Conclusion

The free-flowing nature and outstandingly remarkable values of six streams found to be eligible for inclusion into the National Wild and Scenic Rivers System will be adequately protected under *Alternative 1.* No significant impacts are expected.

IMPACTS TO WILDLIFE HABITAT

From Mineral Development

Impacts to wildlife would be similar to those under *Alternative 1* except the withdrawal of **23,800** acres from mineral entry, requirements for mining plans of operations, mandatory bonding, no surface occupancy stipulations on **23,186** acres and seasonal restrictions would protect these areas from destruction or alteration of habitat and the increased presence of people. Mandatory bonding would ensure that damaged areas are reclaimed. **Habitat fragmentation would be less under this alternative. Some short-term disturbances may still occur to bighorn sheep especially during lambing, but impacts would be the same as *under Alternative 1.***

Special stipulations on mineral leasing would prevent undue surface disturbance from occurring. The cumulative impact of up to 10 wells drilled during the life of the plan would not be significant.

From Lands Actions

Impacts would be the same as under *Alternative 1* **except a long-term grazing research study area on the Curtain Allotment, which has benefited wildlife, would be removed from federal ownership. Desirable vegetation has been reestablished and overall range condition is improving dramatically. These benefits may not necessarily be continued under state or private ownership.**

Identifying and conveying lands within disposal areas for recreation and public purposes would put less pressure on surrounding wildlands, which are proposed for retention to protect natural resource values. **Under this alternative, wildlife habitat would receive additional protection by restricting habitat fragmentation, rights-of-way and communication sites within areas of critical environmental concern.**

From Watershed Management

Same as under *Alternative 1.*

From Vegetative Products Management

This alternative will have minimal impacts to wildlife habitat as the woodland and Mohave yucca harvest will occur on a sustained yield basis. Harvest on a sustained yield basis is an insignificant impact to wildlife. Neotropical and resident forest birds are among those animals expected to remain in abundance in the woodlands within the planning area.

Careful planning of woodland harvests will minimize impacts to wildlife and in some instances improve habitat for wildlife. Animals within the yucca habitats such as the desert night lizard, cavity-nesting species and nesting raptors are expected to continue to occupy habitats harvested on a sustained yield basis. Biodiversity will be maintained under this alternative.

Impacts from long-term enhancement of wildlife habitat in areas identified as suitable for vegetative manipulation to improve habitat condition are the same as under *Alternative 1*.

Long-term enhancement of wildlife habitat through vegetative products management is of moderate importance considering the type of habitat involved. This enhancement would occur in areas identified as suitable for vegetative manipulation to improve habitat condition (decreased competition between overstory and understory plants for water, sunlight and soil nutrients; seeding of grasses, forbs and browse; edge-effect, e.g., forage and escape cover diversity).

Long-term protection given to wildlife habitat identified as unsuitable for manipulation is significant, considering the amount of acreage and habitat involved for neotropical migratory birds and several special-status species including the endangered American peregrine falcon and Hualapai Mexican vole.

From Rangeland Management

Impacts would be the same as under *Alternative 1* except the review and revision of allotment management plans affecting areas of critical environmental concern would address the impacts of livestock grazing on sensitive areas. Better grazing management would lead to improved wildlife habitat conditions.

A more accurate ephemeral boundary would result in more appropriate range management practices leading to improved wildlife habitat conditions such as improved vegetative cover, vigor and frequency of desirable species.

The elimination of grazing on Chino Springs, Silver Creek and Alamo allotments would improve habitat conditions for dependent wildlife species in riparian and upland areas.

From Recreation Management

Increased use of proposed recreation developments would disturb individual animals in the immediate area around each site. Impacts would be greatest around Boundary Cone, Moss Wash, Pine Flat, Antelope Spring, Six-Mile Crossing, Black Mountains, Hualapai Mountains and Aubrey Peak.

However, managing unrestricted recreation activities already occurring in these areas by encouraging use in developed recreation sites would concentrate visitor use in smaller areas, reducing impacts to the overall species habitat.

A 40-acre mineral withdrawal around each recreation site would reduce the potential for surface disturbance, soil erosion and habitat disturbance from mining.

The proposal for a regional park near Kingman would give a significant measure of protection to wildlife habitat in this area. This park will protect wildlife habitat from urbanization and **subsequent habitat fragmentation.** A wildlife movement corridor proposed in this area would give the public a place near Kingman to experience nature.

Limiting off-highway vehicles in areas of critical environmental concern and throughout the Kingman Resource Area would protect sensitive wildlife habitat from surface disturbance. Cross-country travel would not be allowed. **This would reduce human disturbance, habitat destruction, incidental taking, vandalism and harassment of wildlife.** Limiting off-highway vehicle use in the planning area to existing trails and washes would allow reasonable access to hunters and other recreationists.

From Wild and Scenic Rivers

Same as under *Alternative 1*.

From Special Status Species Management

The protection of special status species through area of critical environmental concern designation, fencing, mineral withdrawal and land retention and acquisition will also protect wildlife associated with these areas.

From Wildlife Management

A significant problem facing wildlife populations today and in the future is their ability to move freely from one habitat area to another. This may be in response to environmental change, species population changes or seasonal population movements.

An inability to move freely through natural habitats will eventually isolate and fragment wildlife populations, resulting in eventual localized extinctions or reduced viability of wildlife populations. The establishment of wildlife movement corridors under this alternative is an essential element of wildlife management for now and in the future.

Maintenance of populations through movement is a significant benefit and will help ensure viability of wildlife populations and maintain and enhance biodiversity both in the Kingman Resource Area and on a global basis.

Allocation of forage and stratification of habitats under this alternative is the basis for equitable distribution of resources among all ungulates in the resource area. This is a significant improvement over current management. Imposing seasonal restrictions on activities that disturb lambing and rearing of newborn desert bighorn sheep will significantly reduce disturbances to this species and subsequently help to maintain their productivity.

A no surface occupancy stipulation for mineral leasing activities in riparian zones will give significant protection to these rare and valuable wildlife habitats.

Management focus on pronghorn antelope habitat at Cherokee Point and Goodwin Mesa will help assure maintenance and enhancement of these populations, thus helping to ensure that biological diversity of the resource area is protected.

Focusing attention on potential conflicts between elk and the endangered Hualapai Mexican vole will further our understanding on the interactions of these two species. Quality information gathered on this subject will help the effort to make informed decisions and to further recovery efforts of this endangered species.

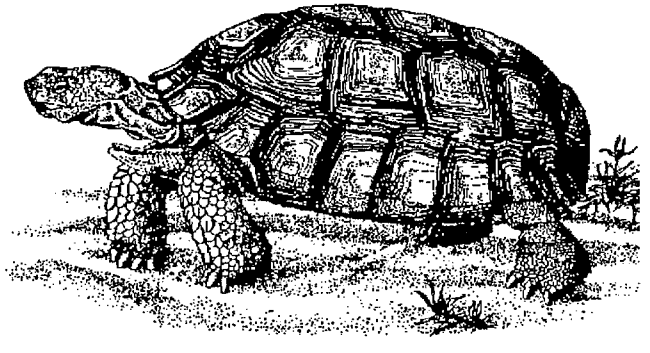
From Riparian Management

The increased management emphasis in riparian areas would result in better habitat conditions and improved reproduction for wildlife, including reduced erosion, improved vegetative cover and composition, increased forage, cooler air and water, improved water quality and expanded riparian acreage.

From Special Management Areas

Under this alternative, significant protection of riparian resources and special status species habitat is realized. Placing emphasis on enhancement and protection of unique habitat areas and highly productive areas such as riparian zones will further advance wildlife management toward the goal of maintaining and promoting biological diversity in the Kingman Resource Area.

The establishment of the Black Mountains Ecosystem Management Area of Critical Environmental Concern brings to the forefront the management of one of the outstanding desert bighorn sheep herds on public land. This bighorn population is thriving because of the quality of habitat available to this species and because the integrity of the habitat is relatively intact. As urbanization continues to squeeze to the base and into the Black Mountains, this sheep population will experience ever greater pressure from the effects of an expanding human population. Effects such as habitat fragmentation, harassment and intense utilization of these habitats for recreational activities can cause a decline in productivity for this sensitive species. By focusing management attention we will be able to protect crucial use areas, stratify habitat and prevent undue disturbance to this species and its habitat. Such an intensity of management is needed to perpetuate this species in the Black Mountains.



The establishment of the Aubrey Peak Bighorn Habitat Area of Critical Environmental Concern helps assure the continued existence of bighorn sheep in southern Mohave County. Because the Aubrey Peak area contains the only known lambing grounds for the area, this area of critical environmental concern becomes pivotal to the survival of this species in this area.

The establishment of the Wright and Cottonwood creeks riparian and cultural areas of critical environmental concern, the Burro Creek Riparian and Cultural Area of Critical Environmental Concern and the Three Rivers Riparian Area of Critical Environmental Concern focuses significant management attention on one of the most rare, threatened, diverse and productive habitats in the Southwest. The protection afforded by the management prescriptions will assure continued productivity of these areas. The investment in riparian habitats for wildlife will be repaid manyfold in the maintenance of biodiversity, water yields, recreational activities and watershed health.

From Hazardous Material Management

Implementation of a hazardous material management program would minimize incidents of discharges of hazardous materials from contained sites and therefore reduce pollution of fisheries.

From Wild and Free-Roaming Horse and Burro Management

Allocation of forage and stratification of habitats under this alternative is the basis for equitable distribution of resources among all ungulates in the resource area. This is a significant improvement over current management.

In the Cerbat mountain island, competition for available forage among grazing animals would be reduced.

From Support Services Management

Acquiring access across certain state and private roads would improve the BLM's ability to build and maintain wildlife habitat improvement projects and benefit recreational wildlife users.

Reserving public access on Putnam Road would also benefit recreationists and the building and maintenance of wildlife projects.

Acquiring lands to establish wildlife movement corridors would reduce the possibilities of habitat fragmentation and the loss of important species. Deterioration in genetic diversity would be avoided. Movement corridors would lessen the need for listing candidate species and aid in the recovery of listed species. Under federal ownership, movement corridors can be maintained, developed or reestablished.

More law enforcement personnel would provide better protection for wildlife resources.

Conclusions

Mineral withdrawals requiring mining plans of operation and mandatory bonding of mining operations, livestock grazing to meet **allotment management plan and** area of critical environmental concern objectives, **the land exchange program,** restrictions on location of communication sites, restricting rights-of-way to corridors or keeping rights-of-way out of some areas of critical environmental concern and management prescriptions would greatly improve and **block-up** wildlife habitat. Establishing wildlife movement corridors would ensure genetic diversity of species.

Long-term enhancement and protection of wildlife habitat would result from vegetative products management. Frequent recreation use would increase people/wildlife interactions, but developed recreation sites would serve to mitigate impacts. **Wildlife species would be protected by restricting cross-country vehicle travel. Management of the wild** horse **herd** in the Cerbats would **reduce** impacts **to wildlife** habitat.

IMPACTS TO SPECIAL STATUS SPECIES

From Mineral Development

Impacts of mineral development would be the same as under *Alternative 1* except for the following:

It is anticipated that the number of surface-disturbing mining activities would be reduced through the requirements of filing **mining** plans of operation and mandatory bonding.

Withdrawal of the Arizona cliffrose habitat from mineral entry would reduce the potential for destroying the habitat. Successful BLM acquisition of mineral rights on existing mining claims on the Clay Hills Area of Critical Environmental Concern would further ensure a viable population of Arizona cliffrose.

Withdrawal of areas of critical environmental concern from mineral entry would protect special species habitat. The requirement for mining plans of operations in areas of critical environmental concern would reduce the amount and degree of surface disturbance.

Restricting surface disturbance in peregrine falcon breeding areas along the Grand Wash Cliffs would give the birds a chance to carry out their breeding cycle without human interference.

Not allowing mineral material disposals would promote habitat recovery and provide habitat protection for the Arizona cliffrose, bald eagle and black-hawk special status species.

From Lands Actions

Impacts would be the same as under *Alternative 1* except **habitat for the bald eagle, peregrine falcon, Hualapai Mexican vole, desert tortoise, black-hawk and roundtail chub would benefit from a more aggressive land exchange program, which would consolidate special status species habitat in public ownership and allow the BLM to more effectively meet the specific needs of these species. Important desert tortoise habitat would be removed from public ownership in the area just southeast of Bullhead City; residents would increase their recreational use of the area and disturb the tortoise in this Category II habitat.**

The proposed disposal area south of Yucca would be made available only in exchange for lands in Dutch Flat and the Hualapai and McCracken mountains, which contain high value natural resources. Category III and some Category II desert tortoise habitat would be taken out of public ownership in Dutch Flat, west of Alamo Road. But this impact would be more than offset by acquisition of private lands east of Alamo Road, creating Category I desert tortoise habitat out of existing Category II habitat. **As this area becomes developed, residents would increase their use of the bajadas east of the disposal area and disturb the tortoise in this Category III area.**

Enlarging the land disposal area near the town of Chloride would impact BLM control of three square miles of potential habitat for the freckled milk-vetch. **Under this alternative, special status species habitat would receive additional protection by restricting rights-of-way and communication sites within areas of critical environmental concern.**

From Watershed Management

Impacts would be similar to those described for under *Alternative 1*.

From Vegetative Products Management

Impacts would be similar to those described under **Impacts to Wildlife Habitat,** ***Alternative 2.***

From Rangeland Management

Same as under *Alternative 1*.

From Recreation Management

Impacts would be the same as under *Alternative 1* except that restricting off-highway vehicle use to designated roads and trails inside the Cerbat beard-tongue and white-margined penstemon areas of critical environmental concern would protect and stabilize fragile wash and floodplain habitat for these two species. Likewise, area of critical environmental concern restrictions on off-highway vehicles would reduce the incidental destruction of Arizona cliffrose by off-highway vehicles. **Restricting cross-country vehicle travel would benefit special status species by reducing human disturbance, habitat destruction, incidental taking, vandalism and harassment of species.**

An **additional** developed campground at Burro Creek may increase recreation use within the Clay Hills Area of Critical Environmental Concern. A possible result may be increased soil disturbance and trampling of Arizona cliffrose seedlings by foot traffic. Education of the public through interpretive sites and increased ranger presence could mitigate impacts.

From Wild and Scenic Rivers

Same as under *Alternative 1*.

From Wildlife Habitat Management

Same as under *Alternative 1* except habitat for the bald eagle, peregrine falcon, Hualapai Mexican vole, desert tortoise, black-hawk and roundtail chub would receive additional management attention in the management prescriptions outlined in the areas of critical environmental concern.

From Riparian Area Management

Impacts would be similar to those described for under *Alternative 1* except additional provisions in areas of critical environmental concern would improve habitat quality and quantity for several special status species, especially bald eagle, peregrine falcon, roundtail chub and Hualapai Mexican vole. Water would become more available, supporting a greater area of streamside vegetation, food and cover for these and other wildlife species.

From Special Management Areas

Special management attention will be provided with the establishment of areas of critical environmental concern for certain special status species. The American peregrine falcon will receive greater habitat protection within the Joshua Tree Forest-Grand Wash Cliffs Area of Critical Environmental Concern. The Cerbat beard-tongue will receive significant protection through specific management prescriptions found in the Black Mountains Area of Critical Environmental Concern. Hualapai Mexican vole habitat will be intensely managed in an effort to recover this endangered mammal. The Hualapai Mountain Research Natural Area/Area of Critical Environmental Concern contains management prescriptions designed to help achieve this goal. The establishment of the White-margined Penstemon Reserve Area of Critical Environmental Concern protects crucial habitat for this rare plant species. This is significant in the light that other than one very small population known from California, this is the largest and most extensive population known. This protection may very well keep this species off the federal threatened and endangered plant species list.

Significant management attention will be focused on the desert tortoise with establishment of the McCracken Desert Tortoise Habitat Area of Critical Environmental Concern and the Poachie Desert Tortoise Habitat Area of Critical Environmental Concern. Management prescriptions are designed to eliminate or reduce impacts to these animals and to keep the habitats in such a condition as to maintain viable populations of desert tortoise.

Fourteen rare species including the bald eagle, Mexican black-hawk, zone-tailed hawk and round-tailed chub will receive habitat protection and intensive management focus with establishment of the Burro Creek Riparian and Cultural Area of Critical Environmental Concern, the Three Rivers Riparian Area of Critical Environmental Concern and the Wright and Cottonwood Creeks Riparian and Cultural Area of Critical Environmental Concern. Such attention will further the recovery of listed species and help to keep other species populations healthy, preventing the need to list them as federally threatened or endangered. These actions will further the goal of maintaining or enhancing biodiversity within the resource area.

The Clay Hills Research Natural Area, Area of Critical Environmental Concern significantly increases protection of the endangered Arizona cliffrose and its habitat. This will further recovery efforts for this species.

Designating areas of critical environmental concern establishes the management priority and direction to implement land exchange proposals, off-highway vehicle restrictions and mineral withdrawals. Through these actions, the BLM could implement recovery plans, which could stabilize endangered species and help their recovery.

From Wild and Free-Roaming Horse and Burro Management

Impacts would be similar to those described under *Alternative 1*.

From Support Services Management

Acquisition of lands listed in **Appendix 20** would place habitat of certain special status plant species into BLM management control, allowing further protection of these species.

The increase in ranger patrols on public lands would ensure greater public compliance with off-highway vehicle regulations, reducing the amount of habitat damage caused by off-highway vehicles.

Conclusions

Impacts would be similar to those under *Alternative 1* except that a greater degree of protection would be provided for special status plant and animal habitat. This protection includes withdrawals from mineral entry in area of critical environmental concern proposals, closure of areas to mineral material disposals, off-highway vehicle limitations, restrictions on major new rights-of-way and law enforcement patrols. Land exchanges would cause similar impacts to *Alternative 1*, but would be greater in degree. Increased recreational activity may occur within the Clay Hills Area of Critical Environmental Concern when the additional Burro Creek campground is developed.

IMPACTS TO RIPARIAN AREAS

From Mineral Development

Mineral development would affect riparian areas under the *Preferred Alternative* the same as under *Alternative 1* except withdrawal of approximately 23,800 acres from mineral entry in areas of critical environmental concern and the requirements for mining plans of operations, mandatory bonding and seasonal restrictions outside the withdrawals would protect riparian areas from unnecessary destruction or alteration of habitat and increased human presence. Mandatory bonding would ensure the reclaiming of disturbed areas.

From Lands Actions

Same as under *Alternative 1* except identifying lands within disposal areas for Recreation and Public Purposes Act leases or grants would put less pressure on surrounding wildlands which are proposed for retention to protect natural resource values.

From Watershed Management

Same as under *Alternative 1*.

From Vegetative Products Management

Same as under *Alternative 1* except riparian habitats would receive higher priority for long-term protection.

From Rangeland Management

Same as under *Alternative 1*; **additionally,** the review and revision of allotment management plans within areas of critical environmental concern would **result in improved management of** the impacts of livestock grazing on key riparian areas. Better grazing management would lead to increased soil stability and improved plant cover and species composition.

The elimination of livestock grazing in the Chino Springs, Silver Creek and Alamo allotments would improve conditions for riparian habitat and wildlife-dependent species.

From Recreation Management

The proposed recreation developments would increase surface disturbance and degrade water quality around the sites. Impacts would be greatest in Moss Wash, Antelope Spring, Pine Flat, Six Mile Crossing and the Hualapai Mountains. Developed sites would concentrate use in small areas and reduce impacts to the rest of the riparian zone.

The proposal for a regional park **adjacent to** Kingman would offer the public an opportunity to see and experience riparian habitat. Riparian habitat in this area is unmanaged and has tremendous potential for recovery and public education.

Limiting off-highway vehicles in areas of critical environmental concern and throughout the Kingman Resource Area would protect sensitive riparian areas from surface disturbance. Less surface disturbance would mean less disturbance to wildlife.

From Wild and Scenic Rivers

Same as under *Alternative 1*.

From Wildlife Habitat Management

Excellent riparian conditions are synonymous with excellent wildlife habitat. Improving wildlife habitat in riparian areas results in improved riparian conditions.

An intensive annual inventory of black-hawks would provide an excellent indication of the overall health of the Burro Creek riparian ecosystem.

From Special Management Areas

Management prescriptions outlined in area of critical environmental concern plans would assist the BLM in protecting and improving the Kingman Resource Area's most significant riparian ecosystems.

From Wild and Free-Roaming Horse and Burro Management

Cerbat Herd Management Area

Management of wild horses on the Cerbat Herd Management Area at a population level within the constraints of the habitat should reduce impacts to riparian areas and lead to overall improvement in vegetation and soils.

Big Sandy Herd Management Area

Same as under *Alternative 1*.

Black Mountains Herd Management Area

Same as under *Alternative 1*.

From Support Services Management

Proposed acquisitions would benefit riparian management by consolidating ownership and making land management more efficient. These actions would also protect riparian ecosystems supporting rare plant and wildlife communities.

More law enforcement personnel would better protect riparian resources.

Conclusions

Greatly improved riparian conditions would result from withdrawal from mineral entry requiring mining plans of operations and mandatory bonding of mining operations. Grazing to meet **allotment management plan and** area of critical environmental concern objectives would also improve riparian conditions. **Managing wild horses and burros,** restricting rights-of-way to corridors and area of critical environmental concern management prescriptions would further improved riparian conditions. Recreation activities would impact riparian-wetland areas.

IMPACTS TO SPECIAL MANAGEMENT AREAS

Impacts are outlined in each of the affected resource activities.

IMPACTS TO WILD AND FREE-ROAMING HORSE AND BURRO MANAGEMENT

From Mineral Development

Same as under *Alternative 1.*

From Lands Actions

Same as under *Alternative 1* except benefits would be increased as the acreage of public lands increases. Acquisition of lands to expand the Cerbat Herd Management Area would help develop a viable horse herd.

From Watershed Management

Same as under Alternative 1 except additional emphasis would be placed on plans which would funnel increased funding into watershed management programs of benefit to forage for wild burros in the Black Mountains. This would accelerate the rate of habitat management.

From Rangeland Management

Same as under *Alternative 1* except habitat conditions would improve more rapidly as a direct result of more intensive management.

From Wildlife Habitat Management

Same as under *Alternative 1.*

From Recreation Management

Same as under *Alternative 1* except the additional emphasis on dispersed recreation would further reduce conflicts between wild horses and burros and humans. Additional campgrounds and picnic areas would further concentrate people away from herd management areas.

From Special Status Species Management

Same as under *Alternative 1.*

From Riparian Area Management

Same as under *Alternative 1.*

From Special Management Areas

Management prescriptions in the Black Mountains Ecosystem Management Area of Critical Environmental Concern would have a significant beneficial impact on wild burro management. The area will be stratified; vegetation will be allocated for each species.

Establishing interpretive sites to promote wild burros as a part of the environment will, through public education, may gain public support and understanding of the wild burro as a natural resource. The long-term protection of crucial wild burro habitat from human encroachment will also be a positive impact.

The Burro Creek and Three Rivers areas of critical environmental concern could have a slight negative impact on wild burro populations by restricting use in riparian areas and impeding free-roaming movement around and within riparian areas with the development of exclusionary fences.

From Wild and Free-Roaming Horse and Burro Management

Allocation of forage and stratification of habitats under this alternative is the basis for equitable distribution of resources among all ungulates in the resource area. This is a significant improvement over current management. The Marble Canyon use area may be closed to wild horses if private water sources cannot be acquired.

Conclusions

Coordinated resource management and interdisciplinary monitoring may identify and reduce conflicts among ungulates in herd management areas. Benefits from land exchanges would increase as the acreage of public lands increases.

ALTERNATIVE 3

IMPACTS TO MINERAL DEVELOPMENT

From Lands Actions

Ownership Adjustments

The transfer of 175,271 acres of public lands would impede mineral development on these lands because these lands would leave federal ownership and would not be open to mineral exploration and development. Most disposal lands have a low potential for the occurrence of locatable minerals and a low to unknown potential for oil and gas resources. On the other hand, BLM acquisition of 231,000 acres of combined surface and subsurface estate and 26,000 acres of nonfederal subsurface estate would open these lands to mineral exploration and development.

From Recreation Management

Same as under *Alternative 2* except additional recreation facilities would add a small acreage to withdrawals from mineral entry.

From Wild and Scenic Rivers

Same as under *Alternative 1.*

From Special Status Species and other Wildlife Resources

Impacts to mineral resources development would be the same as under *Alternative 2*.

From Special Management Areas

Designation of **20** areas of critical environmental concern would:

- Leave **1,545,381** acres of federal minerals open to entry, close **31,326** acres of federal minerals to entry (24,403 acres of high mineral potential) and propose acquiring 24,940 acres of nonfederal minerals to be closed to entry (see **appendices 27 and 28).**

- Leave **1,551,001** acres of federal minerals open to leasing with standard lease terms, **16,893** acres open to leasing with no surface occupancy and **10,016** acres closed to leasing.

- Close **148,993** acres of federal minerals to mineral materials disposal.

The Joshua Tree Forest Area of Critical Environmental Concern has a moderate potential for gold, the Clay Hills Area of Critical Environmental Concern has a high potential for bentonite, and the remaining areas proposed for withdrawal have a low or unknown mineral potential. Withdrawals would preclude any future exploration except on valid existing claims. Designating areas of critical environmental concern not proposed to be withdrawn from mineral entry would require submitting a plan of operations for any activities exceeding casual use. An environmental assessment would be required before approval of any operation, causing time delays.

All or portions of the Joshua Tree Forest Area of Critical Environmental Concern has a high potential for the occurrence of salable minerals in or near an area of increasing population growth.

Sales of mineral materials within the areas of critical environmental concern would be allowed only where no reasonable alternative exists. Other sources are available nearby.

Conclusions

Most high value mineral potential lands are open to mineral entry, mineral lease and mineral material disposals. Mining plans of operations and mandatory bonding in areas of critical environmental concern would constrain developers but would also lead to orderly development.

IMPACTS TO LANDS ACTIONS

From Lands Actions

Ownership Adjustments

Impacts would be the same as *Alternative 2* except additions and **deletions of several areas would reduce the disposal areas by 6,282 acres for a total of 175,271 acres.**

From Withdrawals

Unnecessary acreage may be withdrawn from lands actions.

Conclusions

Impacts are similar to *Alternative 2* except **6,282 fewer acres of** land would be made available for exchange and 3,488.62 acres would be added to the Alamo Dam withdrawal.

IMPACTS TO SOCIOECONOMIC FACTORS

Implementation of *Alternative 3* would not cause significant impacts on any of the Kingman Resource Area socioeconomic data reviewed in this document. Population trends would not be affected. The direct economic benefits Mohave and Yavapai counties currently receive from BLM employment and operations would remain constant.

From Lands

A decision to dispose of a total of 175,271 acres of public land through exchange could increase the amount of private lands in the resource area. This disposal would have no significant impact on the county tax base.

From Resource Actions

There would be no significant impacts to socioeconomic factors in the resource area from minerals, special status species, wildlife habitat, recreation or rangeland management

From Vegetative Products Management

Elimination of firewood cutting and yucca harvest throughout the Kingman Resource Area would force the general public to go outside the resource area or to seek sources from willing private landowners to obtain firewood. Commercial woodcutters and yucca harvesters would also be forced to find other sources of supply. Marginal operators may be forced out of business.

IMPACTS TO WATERSHED (Soil, Water and Air) MANAGEMENT

From Mineral Development

Same as under *Alternative 2.*

From Lands Actions

Same as under *Alternative 2.*

From Rangeland Management

Same as under *Alternative 2.*

From Special Status Species Management

Same as under *Alternative 2.*

From Wild and Scenic Rivers

Same as under *Alternative 1.*

From Vegetative Products Management

The elimination of firewood cutting and yucca harvest would eliminate any impacts to soil and vegetation.

From Cultural Resource Management

Same as under *Alternative 1.*

From Recreation Management

Same as under *Alternative 2.*

From Wildlife Habitat Management

Same as under *Alternative 1.*

From Riparian Area Management

Same as under *Alternative 2.*

From Hazardous Materials Management

Same as under *Alternative 2.*

From Wild and Free-Roaming Horse and Burro Management

Same as under *Alternative 2.*

From Special Management Areas

Same as under *Alternative 2* except smaller areas of critical environmental concern would result in less protection for watersheds.

IMPACTS TO VEGETATIVE PRODUCTS MANAGEMENT

From Mineral Development Management

Same as under *Alternative 2.*

From Landownership Adjustments

Impacts would be similar to those under *Alternative 2,* but to a greater degree because of additional acreage slated for disposal, except for woodcutting and yucca harvesting, which would be eliminated.

From Watershed Management

Same as under *Alternative 2* except for woodcutting and yucca harvesting, which would be eliminated.

From Vegetative Products Management

There would be no harvest of firewood and yucca.

From Cultural Resources Management

Same as under *Alternative 2* except for woodcutting and yucca harvesting, which would be eliminated.

From Recreation Management

Impacts would be similar to those under *Alternative 2,* but to a greater degree because of three special recreation management areas and numerous campground/interpretive sites planned for development.

From Wild and Scenic Rivers

Same as under *Alternative 1.*

From Wildlife Habitat Management

Same as under *Alternative 2* except for woodcutting and yucca harvesting, which would be eliminated.

From Special Status Species Management

Same as under *Alternative 2* except for woodcutting and yucca harvesting, which would be eliminated.

From Riparian Area Management

Same as under *Alternative 2* except for woodcutting and yucca harvesting, which would be eliminated.

From Special Management Areas

Impacts would be the same as under *Alternative 2* except a reduction of the total acreage in the Black Mountains Ecosystem Management Area of Critical Environmental Concern would result in fewer restrictions on harvesting of vegetative products.

Breaking up the Wright and Cottonwood Creeks Riparian and Cultural Area of Critical Environmental Concern and reducing the total acreage on the Joshua Tree Forest, Black Mountains and

Burro Creek areas of critical environmental concern would result in fewer restrictions on the harvesting of vegetative product, **except for woodcutting and yucca harvesting, which would be eliminated.**

From Support Services Management

Same as under *Alternative 2*.

Conclusions

Impacts are similar to *Alternative 2* except **woodcutting and yucca harvest would not be affected, because these activities would be eliminated.** The addition of further intensive recreational facilities would create more areas where incompatibility with vegetative harvest will exist. Acreage reductions on **four** areas of critical environmental concern would result in fewer restrictions on harvests.

IMPACTS TO RANGELAND MANAGEMENT

From Mineral Development Management

Same as under *Alternative 2*.

From Landownership Adjustments

Impacts would be similar to those under *Alternative 2* except **587 acres in the Castle Rock Allotment could be lost through disposal.**

From Watershed Management

Same as under *Alternative 2*.

From Vegetative Products Management

Eliminating firewood and yucca harvesting throughout the resource area would lessen the potential for impacts to soils and vegetation caused by such harvesting.

From Rangeland Management

Same as under *Alternative 2* except that closing of the Poachie and McCracken desert tortoise habitat areas of critical environmental concern to livestock grazing would **eliminate livestock use of** the Chicken Springs, Greenwood Community, Bateman Springs, Burro Creek Ranch, Artillery Range and Arrastra Mountain grazing allotments.

From Cultural Resource Management

Same as under *Alternative 2*.

From Recreation Management

Same as under *Alternative 2*, except further development of intensive use campgrounds, interpretive sites and special recreation management areas could further increase livestock-public interactions and related problems.

From Wild and Scenic Rivers

Same as under *Alternative 1*.

From Wildlife Habitat Management

Impacts would be similar to those under *Alternative 2* except that reducing the size of the Black Mountains Ecosystem Management Area of Critical Environmental Concern would reduce the degree of impacts to rangeland management described for *Alternative 2*.

From Special Status Species Management

Impacts would be similar to those under *Alternative 2* except that closing the Poachie and McCracken Desert tortoise habitat areas of critical environmental concern to livestock grazing would **improve habitat for special status plants.**

From Riparian Area Management

Impacts would be similar to those described for *Alternative 2* except that a decrease in acreage within the Wright and Cottonwood creeks riparian and cultural and Burro Creek riparian and cultural areas of critical environmental concern might reduce the degree of impact to rangeland management on the affected allotments.

From Special Management Areas

Impacts would be similar to those described for *Alternative 2* except that a reduction in the acreage of the Joshua Tree Forest-**Grand Wash Cliffs** Area of Critical Environmental Concern would reduce the degree of impact to rangeland management as described in *Alternative 2* on the Diamond Bar A Allotment.

A reduction in acreage for the Black Mountains Ecosystem Managment Area of Critical Environmental Concern is discussed under Impacts to Rangeland Management from Wildlife Habitat Management.

A reduction in acreage for the Wright and Cottonwood creeks riparian and cultural areas of critical environmental concern is described under Riparian Area Management above.

A reduction in acreage for the Burro Creek Riparian and Cultural Area of Critical Environmental Concern is discussed under Riparian Area Management above.

From Wild and Free-Roaming Horse and Burro Management

Same as under *Alternative 2* except the size of the wild horse use area would be reduced, excluding use of habitat supporting approximately 25 horses in Marble Canyon.

From Support Services Management

Same as under *Alternative 2*.

Conclusions

Impacts would be similar to *Alternative 2* except that the additional acreage slated for disposal would further affect grazing preference and ownership of range improvements on one additional grazing allotment. The elimination of yucca and firewood harvesting would lessen impacts to vegetative productivity. Closing the Poachie and McCracken desert tortoise areas of critical environmental concern to livestock grazing would affect grazing operations on six grazing allotments.

Additional intensive recreational areas proposed would increase livestock/public interaction and associated problems. Decreases in acreages for several special management areas would reduce the degree of limitations and constraints pertaining to grazing practices.

IMPACTS TO CULTURAL RESOURCES

From Minerals

The Western Bajada Tortoise and Cultural Areas of Critical Environmental Concern would be withdrawn from mineral entry, subject to valid existing rights, resulting in greater protection for cultural resources.

From Lands Actions

Same as *Alternative 2*.

From Vegetative Products Management

Cultural resources would benefit from the elimination of both commercial and private firewood cutting by eliminating the adverse impacts of these activities.

From Special Management Areas

The main impacts would be a loss of increased management for the preservation and enhancement of significant cultural resources that probably exist near the relatively small areas of critical environmental concern. Most of the known major cultural resources would receive more protection and management under the proposed areas of critical environmental concern except for the reduced Joshua Tree Forest Area of Critical Environmental Concern, which would not include the Grand Wash Cliffs and adjacent lands to the east. These excluded lands contain large and unique prehistoric roasting pits.

Conclusions

Reducing the size of the area of critical environmental concern proposed for *Alternative 2* would probably be less beneficial, especially for the reduced Joshua Tree Forest Area of Critical Environmental Concern.

IMPACTS TO RECREATION MANAGEMENT

From Minerals Management

Same as under *Alternative 2*.

From Lands Actions

Same as under *Alternative 2*.

From Watershed Management

Impacts would be similar to those under *Alternative 2*.

From Vegetative Products Management

Same as under *Alternative 2* except eliminating private and commercial firewood cutting yucca harvesting would slightly enhance esthetics for recreational users, but remove private use woodcutting as a source of local family recreation. **No significant impact.**

From Rangeland Management

Same as under *Alternative 2* except discontinuing livestock grazing on certain allotments within the McCracken and Poachie desert tortoise areas of critical environmental concern would improve the availability of primitive recreation opportunities in these allotments.

From Cultural Resources Management

Same as under *Alternative 2*.

From Recreation Management

Same as under *Alternative 2*, and additional development and implementation of special recreation management areas would increase recreational uses and opportunities. In addition, intensive campground/interpretive site development would benefit other resources by providing additional facilities for a growing population and increased visitor use in the resource area.

From Wild and Scenic Rivers

Same as under *Alternative 1*.

From Wildlife Habitat Management

Same as under *Alternative 2*.

From Special Management Areas

Same as under *Alternative 2* except the smaller areas of critical environmental concern may reduce protection to the environment and thus affect scenic values.

From Support Services Management

Same as *Alternative 2*.

Conclusions

Same as under *Alternative 2* but additional recreation facilities would be offered to the public. Less protection of natural values in areas of critical environmental concern would slightly reduce the quality of recreational settings.

IMPACTS TO WILD AND SCENIC RIVERS

From Mineral Development

Same as under *Alternative 1*.

From Lands Actions

Same as under *Alternative 1*.

From Watershed Management

Same as under *Alternative 1*.

From Vegetative Products Management

Same as under *Alternative 1*.

From Rangeland Management

Same as under *Alternative 1*.

From Recreation Management

Same as under *Alternative 1*.

From Wildlife Habitat Management

Same as under *Alternative 1*.

From Special Status Species Management

Same as under *Alternative 1*.

From Riparian Area Management

Same as under *Alternative 1*.

From Wild and Free-Roaming Horse and Burro Management

Same as under *Alternative 1*.

IMPACTS TO WILDLIFE HABITAT

From Mineral Management

Same as under *Alternative 1*.

From Lands Actions

Same as under *Alternative 1*.

From Vegetative Products Management

Prohibiting woodcutting and Mohave yucca harvest would benefit wildlife by eliminating any potential damage to wildlife habitat from erosion, human disturbance or any other unforeseen impacts.

From Recreation Management

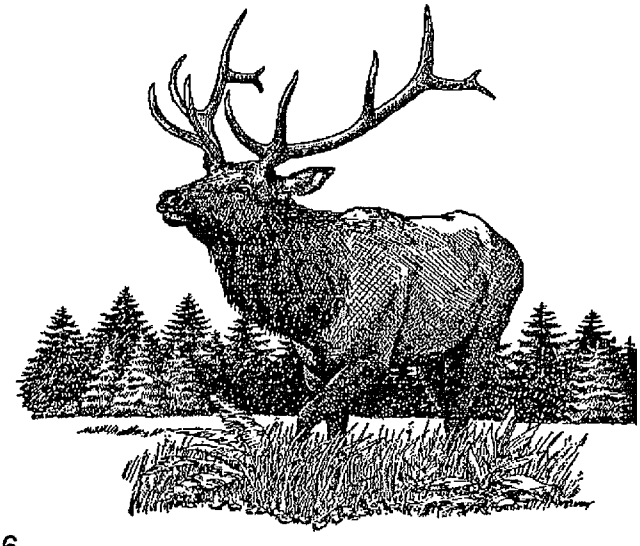
Same as under *Alternative 1* except additional campgrounds would increase both the harmful and beneficial impacts to wildlife.

From Wild and Scenic Rivers

Same as under *Alternative 1*.

From Special Status Species Management

Same as under *Alternative 1*.



From Special Management Areas

The smaller Joshua Tree Forest Area of Critical Environmental Concern would protect less wildlife habitat from surface disturbance than the larger area of critical environmental concern proposed for *Alternative 1*.

The modified Black Mountains Ecosystem Management Area of Critical Environmental Concern proposal would protect only the most critical portions of bighorn sheep habitat. Lambing grounds and high value areas would receive maximum protection, but other areas also providing open space, forage, water and cover would not be protected. It would not protect important medium and low value bighorn sheep habitat. The proposal would further fragment habitat and increase human encroachment into bighorn range. Impacts in medium and low value habitat would be similar to those under *Alternative 1*. Restrictions on other uses within the area of critical environmental concern would adequately protect these areas from alteration. Less habitat would be protected under *Alternative 3* than *Alternative 1*.

From Wild and Free-Roaming Horse and Burro Management

Same as under *Alternative 1* except phasing out wild horses in **Marble Canyon** would eliminate **potential** competition **between wild horses and** native wildlife.

Conclusions

Elimination of woodcutting and yucca harvest would maintain wildlife habitat in a stable condition. Reducing wild horses in the Cerbats would **eliminate potential competition between wild horses and native wildlife.**

The size of special management areas would be reduced, resulting in less protection of wildlife habitat. Important adjacent habitats eliminated from area of critical environmental concern proposals under *Alternative 1* would not have additional protection.

IMPACTS TO SPECIAL STATUS SPECIES

From Mineral Development Management

Same as under *Alternative 1*.

From Landownership Adjustments

Same as under *Alternative 1*.

From Watershed Management

Same as under *Alternative 1*.

From Vegetative Products Management

Eliminating commercial and private firewood collecting would end the threat of damage to freckled milk-vetch plants and their habitat. Ending yucca harvest would eliminate potential damage to other special status species and their habitats.

From Rangeland Management

Same as under *Alternative 1*.

From Cultural Resource Management

Same as under *Alternative 1*.

From Recreation Management

Impacts are similar to those under *Alternative 1* **except the increase in recreation sites would increase interactions between sensitive wildlife species and humans around developed campgrounds. If the concentration of people at campgrounds reduced movement of people over the rest of the resource area, total interactions could be reduced.**

From Wild and Scenic Rivers

Same as under *Alternative 1*.

From Wildlife Management

Same as under *Alternative 1*.

From Riparian Area Management

Same as under *Alternative 1*.

From Special Management Areas

A reduction in the size of the Black Mountains Area of Critical Environmental Concern to include only areas of high value habitat and lambing grounds would reduce by roughly four and one-half sections the acreage protecting Cerbat beard-tongue habitat.

A reduction in acreage for the Burro Creek Riparian and Cultural Area of Critical Environmental Concern would reduce the area protected from surface disturbance by minerals, lands and recreation activities and increase the potential for damage to special status species habitat.

From Wild and Free-Roaming Horse and Burro Management

Same as under *Alternative 2*.

From Support Services Management

Same as under *Alternative 1*.

Conclusions

Impacts would be similar to *Alternative 1* except that elimination of firewood cutting would eliminate the impacts to freckled milkvetch habitat. Reduction of acreage in two areas of critical environmental concern would reduce the amount of acreage providing protection for habitat of special status species.

IMPACTS TO RIPARIAN AREAS

From Lands Actions

Same as under *Alternative 1.*

From Recreation Management

The development of campgrounds and interpretive sites in riparian habitats would increase **pressure on riparian vegetation, soils and streambanks and impact water quality around the sites.** However, developed sites would tend to concentrate recreation activities in smaller areas and reduce use over larger expanses of **riparian zones.**

From Wild and Scenic Rivers

Same as under *Alternative 1.*

From Special Management Areas

The Wright and Cottonwood creeks areas of critical environmental concern proposal would prescribe special management solely on the riparian ecosystems. Surrounding uplands would not be managed as a related habitat contributing to the development of the riparian ecosystems.

The reduced Burro Creek Riparian and Cultural Area of Critical Environmental Concern proposal would not protect or recognize the role of the upstream or headwaters in the downstream system. This proposal would lessen total management emphasis on the entire riparian ecosystem and focus on smaller, fragmented portions.

From Wild and Free-Roaming Horse and Burro Management

Same as under *Alternative 2.*

Conclusions

Impacts would be similar to *Alternative 1* except the smaller riparian areas of critical environmental concern would afford less protection for riparian areas.

IMPACTS TO WILD AND FREE-ROAMING HORSE AND BURRO MANAGEMENT

From Mineral Management

Same as under *Alternative 1.*

From Lands Actions

Same as under *Alternative 1.*

From Watershed Management

Same as under *Alternative 1.*

From Rangeland Management

Same as under *Alternative 1.*

From Wildlife Habitat Management

Same as under *Alternative 2.*

From Recreation Management

Same as under *Alternative 1* except additional campgrounds would further concentrate people using the public lands away from herd management areas.

From Special Status Species Management

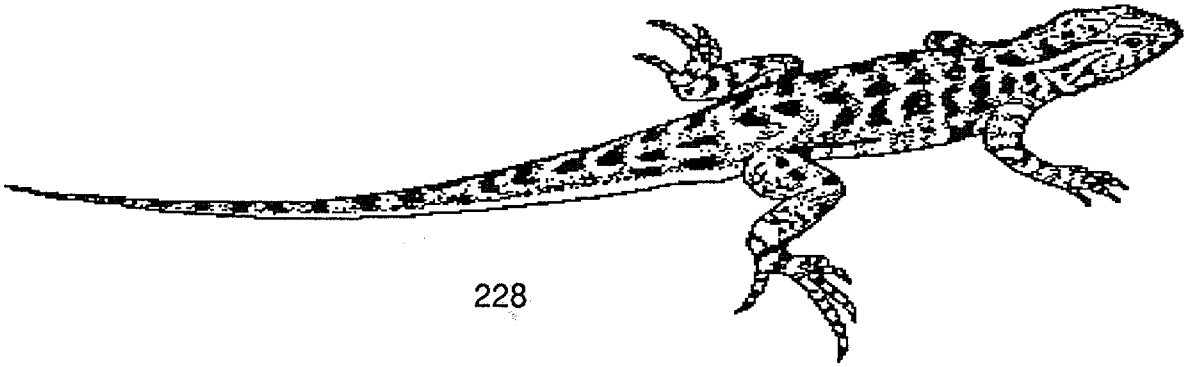
Same as under *Alternative 1.*

From Riparian Area Management

Same as under *Alternative 1.*

From Special Management Areas

Same as under *Alternative 1* except the likelihood for restrictions to be placed on animals would be reduced with the reduced size of several areas of critical environmental concern.



From Wild and Free-Roaming Horse and Burro Management

Same as under *Alternative 2* except wild horses would be restricted from the Marble Canyon use area.

Conclusions

Same as under *Alternative 1 and Alternative 2* except keeping wild horse numbers to the figure identified in the Cerbat-Black Mountains Grazing Environmental Impact Statement would eliminate the herd.

Socioeconomic Component

The disposal of 175,271 acres of public lands by private exchange would increase the tax base for Mohave County. The proposed acquisition of 250,740 acres of nonfederal land would improve the management of rangelands, wildlife habitat, riparian areas, minerals and recreation use in the planning area by consolidating ownership.

The designation of three new rights-of-way corridors would provide the utility companies with sufficient space in corridors for the life of the plan.

The development of additional campgrounds throughout the planning area would provide the estimated increase in population with developed recreation areas to prevent overcrowding of existing sites.

Cumulative Impacts

Cumulative impacts include those which result from the incremental changes from all planned actions when added to other past, present and reasonably foreseeable changes. Cumulative impacts can also result from individually minor, but collectively significant, actions taking place over time.

Reasonably Foreseeable Cumulative Impacts (1992 to 2012)

Since 1974, the administration of public lands in the Kingman Resource Area has been governed by three management framework plans and two grazing management plans. Each of these was completed in compliance with the Council on Environmental Quality Regulations.

Thus, BLM public land management has fully conformed to the spirit and intent of the National Environmental Policy Act. The public has participated in identification of issues and alternatives and review of draft plans. The environmental consequences of general, as well as site-specific, proposals and reasonable alternatives to those proposals have been considered early in the planning process. Direct and indirect impacts have been analyzed. Monitoring has been used to check mitigation and plans have been revised as appropriate and necessary.

In accordance with the National Environmental Policy Act and the Council on Environmental Quality regulations, BLM plans were developed and monitored in cooperation with the activities and plans of all other appropriate federal, state and local agencies. Each of the plans, with its impact analysis and monitoring program, has been submitted to the Arizona Governor for a state consistency review.

In light of this, no significant cumulative adverse impacts are anticipated from adding the preferred alternative to the existing plans of other agencies. Similarly, because of the continuation of intergovernmental consultation and coordination in compliance with the Council on Environmental Quality Regulations (40 CFR 1501.1) and BLM Planning Regulations (43 CFR 1610.1 and 1610.1), no significant cumulative adverse effects on or from this or other plans are anticipated in the foreseeable future.

Irreversible and Irretrievable Commitments of Resources

Implementation of the proposed alternative would require certain irreversible and irretrievable commitments of resources. For example, disposals would make some lands unavailable for public use; any disturbance to cultural or paleontological resources would be irreversible; any loss of those resources would be irretrievable; ores extracted in mineral operations would be irretrievable.

Potential adverse environmental effects of any actions that would result in an irreversible and irretrievable commitment of resources will be carefully assessed. The Kingman Resource Area, in compliance with the National Environmental Policy Act and Council on Environmental Quality Regulations, would prepare a site-specific environmental review before actions specified in the proposed Resource Management Plan are implemented. These will identify "means to mitigate adverse environmental impacts" of the proposed action per 40 CFR 1502.16(h). The environmental reviews provide site-specific assessments of the impacts of implementing these actions.

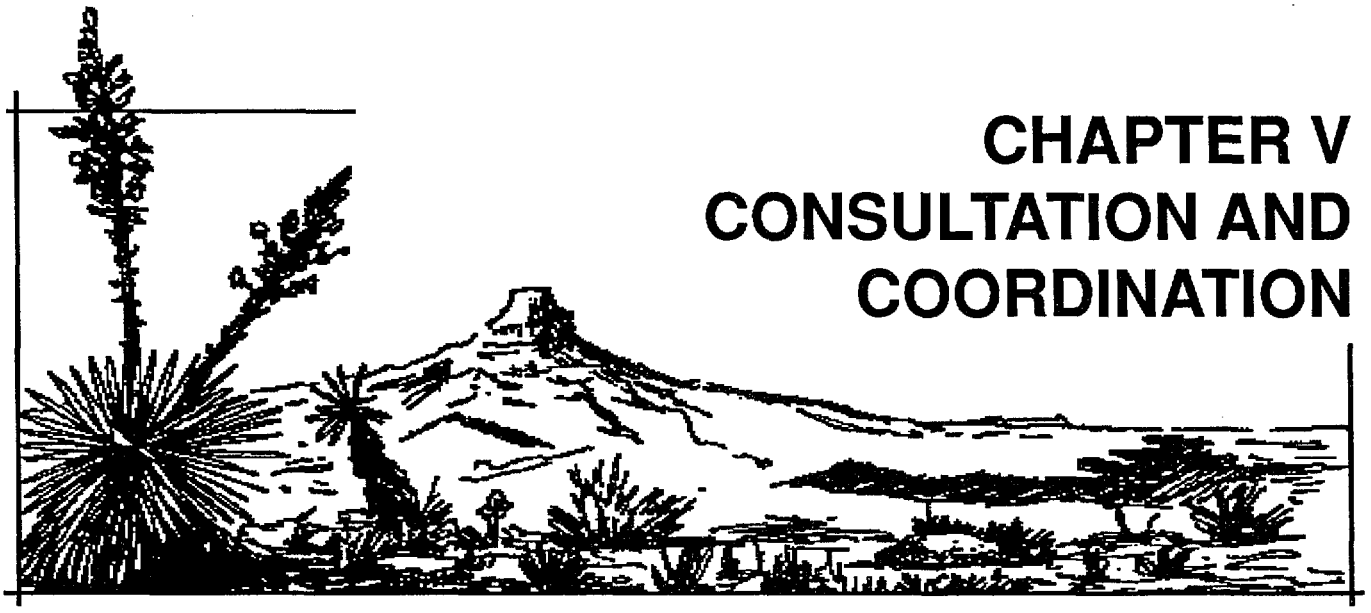
Short-Term Use versus Long-Term Productivity

The approved Kingman Resource Management Plan/Environmental Impact Statement will guide the Kingman Resource Area in managing 1.4 million acres of public land surface and 1.0 million acres of federal minerals for the next 20 years.

The Resource Management Plan team examined the adverse and beneficial impacts to the environment of implementing the proposed plan on a short-term and long-term basis.

Short-term impacts would occur within five years and long-term impacts would occur from 5 to 20 years after the plan is implemented.

No significant adverse impacts were identified. The net effect is that implementation of the proposed plan would be beneficial for the environment.



CHAPTER V
CONSULTATION AND COORDINATION

INTRODUCTION

Resource specialists in the Kingman Resource Area prepared the Kingman Resource Management Plan/Environmental Impact Statement. The Phoenix District Office and the Arizona State Office resource specialists provided technical and policy reviews and suggestions. Preparation of this Resource Management Plan/Environmental Impact Statement began in September 1988.

SCOPING (Issue Identification)

Scoping identified the significant issues to be analyzed in the Resource Management Plan/Environmental Impact Statement and de-emphasized or eliminated from detailed study insignificant issues or issues addressed in earlier environmental reviews.

The Kingman Resource Area held public scoping meetings to help determine public concerns about issues. Using professional judgment, BLM resource specialists also identified issues. As part of the scoping process, resource managers and an interdisciplinary team reviewed all issues.

The scoping process for the Resource Management Plan/Environmental Impact Statement area involved several phases, extending from September 1988 to June 1990.

The significant environmental issues were incorporated into a range of alternatives, and the effects of implementing the alternatives were analyzed in this draft Resource Management Plan/Environmental Impact Statement.

PUBLIC INVOLVEMENT AND CONSULTATION DURING DEVELOPMENT OF THE DRAFT RESOURCE MANAGEMENT PLAN/ ENVIRONMENTAL IMPACT STATEMENT

From the start this Resource Management Plan/Environmental Impact Statement has had an active public participation program. The following section lists the public meetings, Resource Management Plan updates issued and Resource Management Plan team member/ BLM management meetings with individuals and groups.

September 1988

The Notice of Intent to prepare a Resource Management Plan/ Environmental Impact Statement for the Kingman Resource Area was published in the Federal Register on September 27, 1988.

October 1988

Letters were sent October 24, 1988 to people on the Kingman Resource Area mailing list informing them that the Kingman Resource Area was starting the Resource Management Plan/Environmental Impact Statement and asking if they wished to be on a mailing list for the planning effort. The letter identified the time and location of the first public scoping meetings to be held in November 1988

November 1988

On November 2, 1988, a presentation was given at a Phoenix District Advisory Council meeting outlining the planning process and asking for participation in developing planning issues.

On November 3, 1988, a presentation was given at a Kingman Resource Area Grazing Advisory Board meeting outlining the planning process and asking for their participation in developing planning issues.

In November 1988, public meetings were held in Bullhead City, Kingman, Dolan Springs, Lake Havasu City, Wikieup, Phoenix and Bagdad. A slide program was shown to orient the public to the Kingman Resource Area resources, management concerns and planning issues. The public was invited to participate in the planning process.

December 1988

On December 1, a meeting was held with 21 members of the Mohave Lions Club of Kingman to discuss the planning process, preliminary planning issues and management concerns. Lions Club participation was requested in developing planning issues.

On December 22, 1988, a meeting was held with the Kingman City Council to discuss planning issues and to request the Council's participation in developing planning issues.

January 1989
Kingman Resource Area representatives attended the Bullhead City Council meeting on January 3, 1989 to request the Council's involvement in developing planning issues.

February 1989
From February 6 through 14, 1989, the Kingman Resource Area representatives visited with the Colorado River, Fort Mohave, Yavapai-Prescott and Hualapai Indian tribes to discuss the planning process and invite them to participate in a February 17 meeting.

On February 17, 1989, 40 people attended a workshop to discuss issues and concerns and provide the BLM with ideas and information to include in the Resource Management Plan. Attendees represented agencies, interest groups and clubs who use the public lands. All information generated by four work groups was compiled and distributed to the 100 individuals and groups invited to the meeting.

In February 1989, the first issue of the *Kingman Resource Management Plan Update* was sent to more than 600 interested individuals and groups. The update explained the planning process, outlined preliminary planning issues and management concerns and asked for public involvement in developing issues.

March 1989
On March 7, 1989, a presentation at the Kingman Resource Area Grazing Advisory Board meeting discussed progress in developing the Resource Management Plan.

April 1989
In April 1989, the second issue of the *Kingman Resource Management Plan Update* was used to provide the public with the list of approved planning issues and management concerns and the planning criteria to guide the development of the Kingman Resource Management Plan.

May 1989
On May 15, 1989, BLM representatives met with park rangers from the four affected districts of the Lake Mead National Recreation Area, which borders the Kingman Resource Area, to discuss mutual concerns, including off-highway vehicle use.

On June 18, 1989, progress toward completing the draft Resource Management Plan was discussed at the Phoenix District Advisory Council Meeting.

October 1989
On October 1989, the third issue of the *Kingman Resource Management Plan Update* explained important information in the Management Situation Analysis, discussed possible alternative plans and introduced several proposed areas of critical environmental concern.

November-December 1989
A series of public workshops was held from November 27 through December 1, 1989 where interested public land users met to discuss proposed actions affecting cultural resources, recreation, wildlife, mineral development, riparian management, off-highway vehicle use, land tenure and special area designations. One night meeting was held for those who could not make the daytime sessions. The meetings were well publicized by radio, television and newspaper.

On November 9, 1989, progress toward completing the draft Resource Management Plan was a topic of discussion at the Kingman Resource Area Advisory Board meeting.

On December 7, 1989, the Phoenix District Advisory Council toured several key areas representing the diversity of resource issues facing BLM land managers.

On December 12, 1989, BLM realty specialists met with users of BLM communication sites to discuss present and future communication site needs.

On December 18, 1989, BLM representatives met with Arizona State Land Department representatives to discuss disposal areas and issues that would affect future land exchanges.

January 1990
On January 12, 1990, a meeting with the President of the International Society for the Protection of Mustangs and Burros discussed issues affecting the Kingman Resource Area's future management of horses and burros.

February 1990
On February 8, 1990, Kingman Resource Area representatives met with Arizona Game and Fish Department managers to discuss areas of critical environmental concern and wildlife management issues. Again on February 22, 1990, important wildlife issues were discussed at the annual coordination meeting between the BLM and the Arizona Game and Fish Department.

March 1990
On March 8, 1990, Kingman Resource Area representatives met with the citizens of Meadview, Arizona to discuss areas of critical environmental concern and recreation planning in the Resource Management Plan.

On March 13, 1990, important items included in the alternatives of the draft Resource Management Plan were discussed at the Kingman Resource Area Grazing Advisory Board meeting.

On March 28, 1990, there was a meeting with representatives from the Corps of Engineers to discuss issues relating to Alamo Lake.

On March 28, 1990, BLM Arizona recreation specialists met to discuss recreation plans.

On March 30, 1990, important items included in the alternatives of the draft Resource Management Plan were discussed at the Phoenix District Advisory Council meeting.

November 1990
On November 15, 1990, important items included in the alternatives of the draft Resource Management Plan were discussed at the Kingman Resource Area Grazing Advisory Board meeting.

PUBLIC INVOLVEMENT AND CONSULTATION DURING DEVELOPMENT OF THE PROPOSED PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT

November 1990 through March 1991

Presentations were made to the following organizations and requests were made for their review of the draft Resource Management Plan. Comments were solicited to assist in the development of the proposed Plan and final Environmental Impact Statement.

November 1, 1990	-	Bullhead City Planning and Zoning Department
November 6, 1990	-	Kingman Community Development Staff
November 7, 1990	-	Hualapai Indian Tribe
November 14, 1990	-	Colorado River Indian Tribe
November 14, 1990	-	Fort Mojave Indian Tribe
November 20, 1990	-	Yavapai - Prescott Indian Tribe
January 30, 1991	-	Arizona State Land Department
January 30, 1991	-	Arizona Cattle Growers Association
January 31, 1991	-	Mohave County Parks Department
February 5, 1991	-	Mohave County Parks Department
March 1, 1991	-	Mohave County Planning and Zoning Department

Public hearings were held in Phoenix on January 15, 1991 and in Kingman on January 17, 1991. The public was encouraged to attend and comment on the draft Resource Management Plan, either verbally or in writing. A court recorder prepared a transcript of the hearing.

Public meetings were held in Bullhead City on January 22, 1991, in Bagdad on January 23, 1991, in Dolan Springs on January 24, 1991 and in Golden Valley on January 30, 1991. The public was encouraged to attend and comment on the draft Resource Management Plan, especially in writing. The Cyprus Bagdad Copper Corporation furnished a court recorder to prepare a transcript of the meeting.

The Kingman Resource Area Grazing Advisory Board requested a meeting specifically to allow permittees grazing livestock on the public land an opportunity to comment on the draft Resource Management Plan. The meeting was held on March 5, 1991. The BLM furnished a court recorder to prepare a transcript of the meeting.

On March 6, 1991, a meeting was held with the Cyprus Bagdad Copper Corporation and the Byner Cattle Company. Company representatives commented on a number of proposed decisions in the draft Resource Management Plan which were of concern to them.

On March 14, 1991, a meeting was held with the Lake Mead National Recreation Area. A Park Service representative discussed subjects requiring cooperation with the BLM and offered comments for the proposed Plan and final Environmental Impact Statement.

On March 20, 1991, a meeting was held with members of the Mohave Livestock Association. A variety of topics covered in the draft Resource Management Plan was discussed and comments were given to the BLM.

On March 20, 1991, a meeting was held with a number of individuals representing mining interests in Mohave County. Proposed decisions in the draft Resource Management Plan affecting mining operations were discussed and comments were given to the BLM.

On March 27, 1991, a meeting was held with the Cyprus Bagdad Copper Corporation and Byner Cattle Company to discuss changes in the draft Resource Management Plan. Additional comments were given to the BLM.

May-June 1991

On May 9, 1991, a meeting was held with representatives from the Arizona Department of Environmental Quality. Water quality issues were discussed and a further meeting was scheduled to prepare changes requested by the Environmental Protection Agency.

On June 6, 1991, a meeting was held with the Cyprus Bagdad Copper Corporation and Byner Cattle Company. Changes in the draft Resource Management Plan were discussed.

On June 11, 1991, a meeting of the Phoenix District Advisory Council was held to discuss proposed changes in the draft Resource Management Plan, to be included in the proposed Plan and final Environmental Impact Statement.

On June 18, 1991, a meeting of the Phoenix District Advisory Council was held to discuss proposed changes in the draft Resource Management Plan, to be included in the proposed Plan and final Environmental Impact Statement.

On June 18, 1991, a meeting was held at which areas of concern were discussed. Representatives of the Arizona Department of Environmental Quality were committed to help prepare important sections for the proposed Plan and final Environmental Impact Statement. The BLM received information which would help the federal land manager comply with state water quality standards.

July-November 1991

On July 19 and August 22, 1991, meetings were held with the Mohave Livestock Association to discuss proposed changes in the draft Resource Management Plan to be included in the proposed Plan and final Environmental Impact Statement.

On September 5 and 6, 1991 during a field tour and meeting, the Phoenix District Advisory Council discussed proposed changes to the draft Resource Management Plan.

On November 19, 1991, information was discussed with the Kingman Resource Area Grazing Advisory Board to be included in the proposed Resource Management Plan and final Environmental Impact Statement.

LIST OF PREPARERS

Bruce Asbjorn, Outdoor Recreation Planner
B.S. in Range/Forest Management, Colorado State University. Member of the core team and prepared the rangeland management, vegetative products, soils and watershed and special status species (plants) sections. Has worked 14 years with the BLM.

Joyce Bailey, Realty Specialist
Joyce has 19 years of service with the BLM in Arizona, the last four years in Realty. She is a member of the core team and prepared the lands and realty sections of the final document.

Josey Behl, Geographic Information System Coordinator
Has 14 years federal service, nine years with the BLM. In May 1990, Josey became Geographic Information System Coordinator. She digitized resource information and produced maps and graphics for the Resource Management Plan/Environmental Impact Statement.

R. Gordon Bentley, Team Leader
B.S. in Forest Management, Northern Arizona University, M.S. in Range Management, University of Arizona. Gordon has 29 years experience as a resource specialist and manager with the BLM. He assisted in preparing the special management areas, wildlife, minerals and recreation sections and acted as writer-editor for the document.

Bill Carter, Hazardous Material Coordinator
B.S. in Agronomy, Kansas State University. Bill wrote Chapters 1 and 5 and assisted in preparing the Resource Management Plan/ Environmental Impact Statement. He has worked 26 years for the BLM.

Rick Colvin, Outdoor Recreation Planner
B.S. in Resource Recreation Management, M.A. in Interdisciplinary Studies, Oregon State University. Rick has worked 13 years for the BLM. Member of the core team for final Resource Management Plan/Environmental Impact Statement and prepared recreation, off-highway vehicle, Visual Resources, Wilderness and Wild and Scenic Rivers sections.

Larry Davis, Computer Specialist
Larry worked 37 years as a visual information specialist and graphics designer, 16 of these with the BLM. He prepared all illustrations.

Grant Drennen, Supervisory Range Conservationist
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Floyd Gray, Research Geologist
M.S. in Geology, University of Massachusetts. Floyd has worked 17 years with the U.S. Geological Survey, Geologic Division, Office of Mineral Resources in Menlo Park, California. He prepared the geology portions of the Management Situation Analysis and Chapter 3 of the Resource Management Plan.

Kelly Grissom, Wild Horse and Burro Specialist
B.S. in Range Management, Oklahoma State University. Kelly has 15 years with the BLM, 13 of them working with wild burros and horses. Kelly is a member of the core team and prepared the wild horse and burro section.

Bob Hall, Wildlife Biologist
B.S. in Wildlife Management, minors in Range Management and Natural Resource Conservation from Humboldt State University. Bob is a member of the core team and helped to prepare the wildlife, special status species (animals) and riparian sections of the Resource Management Plan/Environmental Impact Statement. Bob has 15 years with the BLM.

Bob Harrison, Geologist
Bob compiled the mineral data for geology maps.

Mary Harrison, Geographic Information System Coordinator
B.S. in Geology, four years private industry, 14 years federal service of which five have been with the BLM. Mary was in charge of digitizing and entering resource information in the Geographic Information System.

Chris Horyza, District LIS/ARD Coordinator
B.S. in Range Management, Washington State University. Chris has worked 14 years with the BLM. He assisted in map preparation and coordinated work done by the Arizona State Office cartographic staff.

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Janna R. Paronto, Public Contact
Janna has four years with the BLM and is a charter member of the core team and served as the primary typist-computer operator for the draft and final.

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B.S. in Wildlife Management, Humboldt State University, California. She worked a year for the Soil Conservation Service and has worked for the BLM a total of 13 years. She is a member of the core team and assisted in preparing the wildlife, riparian and scenic river sections.

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A.A.S. in Computer Information Systems from Mohave Community College. She worked three years at the college, two years with the BLM. Diane assisted with word processing.

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M.A. in Anthropology, Arizona State University. Don is a member of the core team and prepared the cultural section. He has worked 13 years for the BLM.

John Thompson, Geologist

B.S. in Engineering Geology from Northern Arizona University. John worked two and one-half years with the Bureau of Reclamation and has worked one and one-half years with the BLM. He is a member of the core team and helped to prepare the minerals section.

Phoenix District Office Special Assistance

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B.S. in Secondary Education from University of Maryland. Lin has worked 10 years with the BLM. She assisted in developing the water rights portion.

Russ Krapf, Soil Scientist

B.S. in Chemistry from California Western University, M.S. in Agricultural Chemistry and Soils from University of Arizona and Ph.D. in Soil Science from University of Idaho. Russ assisted in developing the soils and watershed portion.

Barry Long, Hydrologist

B.S. in Watershed Science from Colorado University and M.S. in Forest Hydrology from Oregon State University. Barry assisted in developing the watershed water quality and water quantity portions.

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Duane Ferneau, Civil Engineering Technician
Don McClure, Resource Statistician

Phoenix District Office Assistance

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Gordon L. Cheniae, District Manager
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Bill Childress, Assistant District Manager, Land and Renewable Resources
Eugene Dahlem, Wildlife Management Biologist
Glenn Joki, Fire Management Officer
Jack Ragsdale, Outdoor Recreation Planner

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Beaumont C. McClure, Deputy State Director, Lands and Renewable Resources
Larry P. Bauer, Deputy State Director, Mineral Resources
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Phil Moreland, Chief, Branch of Planning Environment, Lands and Recreation
Ted Cordery, Threatened and Endangered Species Specialist
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Jerry Coolidge, Planning Coordinator
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Gary D. Stumpf, Archaeologist
Bruce B. Talbot, Natural Resource Specialist (Hazardous Materials)
Marvin E. Weiss, Wild Horse and Burro Specialist
Robert E. Archibald, Jr., Reality Specialist
Sue E. Richardson, Outdoor Recreation Planner (Wilderness)
Jim Renthal, Soil, Water and Air Specialist
Terry O'Sullivan, Outdoor Recreation Planner
Ron Hooper, Riparian Coordinator

Agencies, Organizations and Persons Who Receive the Draft and Final Resource Management Plan/Environmental Impact Statement

Because of the size of the mailing list (more then 700), only a partial list of those who will receive the document follows.

Federal Agencies

- Advisory Council on Historic Preservation
- Council on Environmental Quality
- Department of Agriculture
  - Forest Service
  - Soil Conservation Service
- Department of Defense
  - Army Corps of Engineers
  - U.S. Air Force
- Department of Energy
- Department of the Interior
  - Bureau of Indian Affairs
  - Bureau of Mines
  - Bureau of Reclamation
  - Fish and Wildlife Service
  - Geological Survey
  - Minerals Management Service
  - National Park Service
- Environmental Protection Agency

Arizona State Agencies

Arizona Commission of Agriculture and Horticulture
Arizona Department of Environmental Quality
Arizona Department of Health Services
Arizona Department of Library, Archives and Public Records
Arizona Department of Mines and Mineral Resources
Arizona Department of Transportation
Arizona Department of Water Resources
Arizona Game and Fish Department
Arizona Geological Survey
Arizona Office of Economic Planning and Development
Arizona Oil and Gas Commission
Arizona Outdoor Recreation Coordinating Commission
Arizona State Clearinghouse
Arizona State Historic Preservation Officer
Arizona State Land Commissioner
Arizona State Land Department
Arizona State Mine Inspector
Arizona State Parks Board
Arizona Water Resources Department
Bureau of Geology and Mineral Technology
Governor's Commission on Arizona Environment
Mineral Resource Department

Local Agencies

Bullhead City
City of Kingman
Coconino County Board of Supervisors
Mohave County Board of Supervisors
Mohave County Parks Department
Mohave County Planning and Zoning Commission
Northern Arizona Council of Governments
Yavapai County Board of Supervisors
Yavapai County Planning and Zoning Department

Indian Tribes and Councils

Ak-Chin Indian Community
Colorado River Indian Tribes
Fort McDowell Mohave-Apache Community Council
Gila River Indian Community
Hualapai Indian Tribe
Havasupai Tribal Council
Hopi Tribal Council
Mohave Tribal Council
Navajo Tribal Council
Pascua Yaqui Tribal Council
Salt River Pima-Maricopa Community Council
Tohono O'Odham Council
Truxton Canyon Agency
Yavapai-Apache Community Council
Yavapai-Prescott Tribe

Interest Groups

American Horse Breeders
American Horse Protection Association
American Mustang and Burro Association
Animal Protection Institute
Arizona Archaeological Society
Arizona Humane Society
Arizona State Horsemen Association
Arizona State Association of Four-Wheel-Drive Clubs, Incorporated
Arizona Cattle Growers Association
Arizona Desert Bighorn Sheep Society
Arizona Desert Racing Association
Arizona Mining Association
Arizona Mining and Prospecting Association
Arizona Mountaineering Club
Arizona Nature Conservancy
Arizona Native Plant Society
Arizona Outdoor Coalition
Arizona Prospectors and Small Mine Operators Association
Arizona Public Service
Arizona Wildlife Federation
Audubon Society
Bureau of Land Management Advisory Board
Cyprus-Bagdad Copper Company
Defenders of Wildlife
Desert Donkey and Mule Club
Desert Tortoise Council
El Paso Natural Gas Company
Foundation for North American Wild Sheep
International Society for the Protection of Mustangs and Burros
Kingman Grazing Advisory Board
League of Women Voters
Maricopa Audubon Society
National Audubon Society
National Wildlife Federation
Natural Resources Defense Council, Incorporated
New Mexico and Arizona Land and Cattle Company
News Media
Oil and Gas Companies
OHV Clubs
Phoenix District Advisory Council
Public Lands Council
Rockhound Clubs
Spanish Mustang Association
Santa Fe Railroad Company
Sierra Club, Grand Canyon Chapter
Sierra Club, Plateau Group
Sierra Club, Southwest Office
The Nature Conservancy
United Four-Wheel-Drive Association
Walapai Four-Wheelers, Incorporated
Wild Horse Organized Assistance
Wild Burro Protection Association
The Wilderness Society
Union Pacific Resources
Wildlife Society
Yavapai Cattle Growers
Yuma Audubon Society

Elected Representatives

Federal

Senator Dennis DeConcini
Senator Karan English
Senator John McCain
Representative Sam Coppersmith
Representative Jim Kolbe
Representative Jon Kyl
Representative Bob Stump
Representative Ed Pastor
Representative John J. Rhodes III

State

Governor Fife Symington
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Senator Carol Springer
Representative Donald Aldridge
Representative Ben Benton
Representative Dave Carson
Representative Herb Guenther
Representative Kyle Hindman
Representative Robert J. McLendon
Representative John Wettaw

A

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
3616 W. Thomas, Suite 6
Phoenix, Arizona 85019

2-21-91-F-089

March 8, 1991

MEMORANDUM

TO: District Manager, Phoenix District Office, Bureau of Land Management, Phoenix, Arizona

FROM: Acting Field Supervisor

SUBJECT: Biological Opinion for Kingman Resource Area Resource Management Plan

This responds to your request of December 13, 1990, for formal consultation with the Fish and Wildlife Service (FWS) pursuant to Section 7 of the Endangered Species Act (Act) of 1973, as amended, on the subject Resource Management Plan (RMP) for Bureau of Land Management (BLM) lands in the Kingman Resource Area in Coconino, Mohave and Yavapai Counties, Arizona.

The endangered Hualapai Mexican vole (Microtus mexicanus hualpaiensis), peregrine falcon (Falco peregrinus anatum), bald eagle (Haliaeetus leucocephalus), and Arizona cliffrose (Purshia subintegra) are the listed species of concern within the proposed RMP area. The BLM has also provided an assessment of effects to the desert tortoise (Gopherus agassizii), a species under petition to be listed as endangered or threatened. The 90-day consultation period began on December 14, 1990, the date your request was received in our office.

The following biological opinion is based on information contained in the biological assessment for the RMP dated December 13, 1990 and the draft Environmental Impact Statement (EIS) and RMP description dated November 27, 1990, data in our files and other sources of information.

BIOLOGICAL OPINION

It is my biological opinion that the proposed RMP is not likely to jeopardize the continued existence of the Hualapai Mexican vole, peregrine falcon, bald eagle or Arizona cliffrose. Specific actions implemented under the RMP will require analysis of effects to threatened or endangered species and may require separate formal consultation under the Endangered Species Act.

BACKGROUND INFORMATION

Species Descriptions

The Hualapai Mexican vole (Hualapai vole) was listed as an endangered species on November 2, 1987. The known range of the subspecies is confined the riparian associated areas of the Hualapai Mountains in Mohave County. Only one population of the Hualapai vole was located in a survey of known and recent historic habitats in the fall of 1990. That population was on private land in Pine Peak Canyon. Drought over the past two to three years may have reduced habitat quality, and thus populations at the other three known locales.

Threats to the Hualapai vole come largely from the destruction of its riparian and historic upland habitats by grazing of livestock and introduced wildlife, recreation use and human developments within the habitat areas. These threats are continuing and some are likely to increase.

The peregrine falcon was listed as endangered on October 3, 1970. This species is widespread in the northern hemisphere with the anatum subspecies found in North America. Populations of the peregrine falcon in Arizona have been increasing in recent years with birds occupying more and more of the suitable habitats available. On the project area, the known eyries are in the northern portions near the Grand Canyon.

Largely a predator on other birds, the peregrine falcon was endangered by pesticide bioaccumulation and loss of breeding habitats due to disturbances. Disturbance of eyrie sites remains a significant threat to the species in Arizona.

The bald eagle was listed as endangered on March 11, 1967. In Arizona, breeding pairs of bald eagles are found along most of the major river and reservoir systems in the state, with exception of the Colorado River below Lake Mead. Wintering bald eagles utilize the same river systems and may also be found around small lakes and ponds. Arizona's breeding bald eagles nest earlier than bald eagles from more northern climates, probably to avoid effects of the intense summer heat on eggs or young eaglets.

Threats to this species include bioaccumulation of pesticides from its diet of fish, loss of nesting areas due to reservoir construction, depletion or alteration of riverine flows, loss of nest trees and human disturbances.

The Arizona cliffrose was listed as endangered on May 29, 1984. Four isolated populations are known, all located on Tertiary limestone lakebed soils. These white soils are very distinctive and may occur in other areas of Arizona below the Mogollon Rim.

Threats to this species include loss of habitat due to mining operations, overgrazing by livestock, feral burros and wildlife, off-highway vehicle (OHV) use and other human developments such as recreation areas, roads, and powerline and gas line corridors.

Project Description

The proposed RMP will guide management directions and programs on the Kingman Resource Area (KRA) for the next 20 years. The RMP is not a stand-alone management document. Grazing management will remain as described under the existing EIS's (Cerbat/Black Mountain and Hualapai-Aquarius) and the wilderness management will be tied to the plan described in the appropriate EIS (Upper Sonoran, Phoenix and Arizona Mohave) as well as final legislation passed by the Congress to designate such areas. The RMP does provide for some integration of the different documents that will guide multiple-use management on the KRA. Portions of previous management documents (Management Framework Plans and others) are incorporated into the RMP as common to all alternatives under examination.

The RMP analyzes three alternatives. Alternative 1 represents the current management emphasis and is the "No Action" alternative. Alternative 2 is the BLM proposed action and emphasizes allowing for multiple use while protecting the environment. Alternative 3 is very similar to Alternative 2, except it has more of an emphasis on recreation, closes more areas to livestock and has more cultural resource protection. Each of the alternatives is very complex and a full exploration of their features is not possible in this opinion. We have therefore appended to this opinion a table from the draft EIS that compares the important points of each (Appendix 1). More complete information on the alternatives is available in the draft EIS.

EFFECTS OF THE ACTION

Direct and Indirect Effects

Although the BLM has selected a proposed action in its draft EIS, we will briefly examine the other two alternatives as well, in the event that some of the features of those alternatives are incorporated into the final

proposed action. For clarity, each listed species will be discussed separately. Only the major points of each alternative are mentioned below. For more complete information, please refer to the biological assessment and the draft EIS and RMP.

Hualapai Mexican Vole

Alternative 1 would continue present risks to Hualapai vole populations from mineral activities, grazing management, recreation and utility corridors. Under present emphases on riparian and watershed management, some benefits to the Hualapai vole could be realized as physical habitat conditions improve under these programs. No special management emphasis in Hualapai vole habitats would occur beyond what could be accommodated under the existing MFP guidance. This alternative does contain the intent to acquire no-federal lands that currently support Hualapai voles and this would likely benefit the species. However there is a large and significant level of impacts to this species that will continue and increase over time from recreation, grazing and wildlife management decisions.

Alternative 2 would provide for a mineral withdrawal (entry and material disposal) in Hualapai vole habitat areas (2180 acres), development of or revisions to Allotment Management Plans (AMPs) to reduce or eliminate effects of livestock grazing, confining utility corridors to existing rights of way and creating an Area of Critical Environmental Concern (ACEC) on 3000 acres of Hualapai vole habitat. Designation of this ACEC would provide more directed management emphasis, especially in riparian and watershed issues, as well as other identified needs of the species and thus is likely to assist in recovery implementation. The alternative also restricts the use of OHVs from washes, which would protect Hualapai vole habitat. But the intent to construct an organized camping area at Pine Flat is not likely to protect Hualapai vole habitat in that location and the Moss Wash campground may influence development of habitat there. Significant effects to existing and recoverable Hualapai vole habitats from human use, especially recreation, grazing and wildlife management decisions will continue at some level. Because the status of the Hualapai vole is so precarious, the BLM may wish to be especially protective of vole habitats and evaluate all management actions and human use pressures that may have an effect on this species.

The effects of Alternative 3 for Hualapai voles is the same as for Alternative 2.

Peregrine Falcon

Alternative 1 would continue potential effects to peregrines from mineral activity, new linear rights of way, grazing, and recreation management. Watershed and riparian programs may improve overall habitat conditions which could improve the prey base. Federal acquisition of land near eyrie

locations would likely help to protect those sites from some adverse effects of human activity, but actual benefit would depend upon the management of those lands. No special management areas would be designated.

Alternative 2 would provide for both overall habitat enhancement by the proposed ACECs in riparian and watershed areas which would influence minerals, grazing and lands acquisition and management. None of the eyries sites are in these ACECs, but areas may be used by resident as well as wintering peregrines during the year. A proposed recreation development at Antelope Spring may increase the opportunity for human disturbance near that eyrie.

Alternative 3 would differ from Alternative 2 in the reduced level of protection given to riparian and watershed areas under ACEC designations.

Bald Eagle

Alternative 1 would continue potential effects due to mineral activity, grazing, recreation and rights of way establishment. Since the bald eagle is associated with the riparian corridors, efforts to improve conditions there under watershed and riparian initiatives may be of benefit, as would acquisition of non-federal lands in bald eagle habitats, again subject to management emphasis.

Alternative 2, with the ACECs for riparian and watershed, would provide opportunity to improve bald eagle habitats in these important areas. Restrictions on minerals, grazing, and recreation, especially OHV use may enable enhancement of these habitats, although new recreation developments, like that at Six Mile Crossing and proposed recreation trails in Burro Creek, may have an adverse impact on breeding sites. Land acquisition and confining rights of way to existing corridors also have potential for beneficial effects.

Alternative 3 would differ from Alternative 2 in the reduced level of protection given to riparian and watershed areas under ACEC designations.

Arizona Cliffrose

Alternative 1 would continue the considerable threats to this species from minerals development, grazing, recreation, and rights of way. No special management efforts would be made for Arizona cliffrose habitat.

Alternative 2 would provide protection for Arizona cliffrose habitat by creation of an ACEC with a mineral withdrawal of unclaimed lands. Mineral exploration on claimed lands within the ACEC would be subject to tighter regulations under this alternative. The ACEC designation would also allow greater management of grazing, rights of way and recreation activities in the

habitat, although the Six Mile Crossing recreation site could increase visitation to the Arizona cliffrose habitat and thus increase the potential for habitat damages.

The effects of Alternative 3 for Arizona cliffrose would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects are those effects of private and State funded non-Federally regulated activities that are reasonably certain to occur within the area of the Federal action subject to consultation that may have an effect on the listed threatened or endangered species.

Development of private lands in the KRA would put greater stress on the public lands for recreation, sale of harvestable commodities and minerals and, identification of lands for disposal to the private sector. Management of the public land resource to protect endangered species values from these increased demands would, therefore, become more intensive over the life of the RMP. As specific portions of the RMP are implemented, there would have to be an assessment of the identifiable cumulative effects.

CANDIDATE SPECIES

Of the category 1 and 2 candidate species that may be found on the KRA, only one is described in any detail in the biological assessment. The Sonoran population of the desert tortoise, (Gopherus agassizii), is a candidate category 2 species under evaluation for listing. Significant steps have been taken within the range of the Sonoran tortoise in Arizona to address the impacts of human activities and provide for management of the species. The RMP alternatives would provide for implementing the management guidelines developed for Arizona and Alternatives 2 and 3 would contain ACECs to protect important Sonoran tortoise habitats.

Incidental Take

Section 9 of the Act, as amended, prohibits any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed animal species without a special exemption. Harm is further defined to include significant habitat modification or degradation that results in injury to listed species by significantly impairing behavioral patterns such as breeding, feeding or sheltering. Amendments to the Act in 1988 extended protection under Section 9 to plant species on Federal lands in cases of malicious damage or destruction or when removed and reduced to possession. Under the terms of section 7(b)(4) and 7(o)(2), taking that is incidental to, and not intended as part of the agency action is not considered taking within the bound of the Act provided that such

taking is in compliance with the incidental take statement. The measures below are not discretionary and must be undertaken by the agency or made a binding condition of any grant or permit issued to the applicant, as appropriate.

The FWS does not anticipate any incidental take to occur as a result of the administrative action of finalizing the RMP, thus, no incidental take level is set for any of the listed species in the KRA. As specific actions are implemented, they will each have to go through Section 7 consultation and if a formal consultation is required, an incidental take for that action would be set in the biological opinion for that specific action.

Taking that is not incidental, and therefore likely to be in violation of the Act is, and has occurred for the Arizona cliffrose and Hualapai vole. These takings must be resolved by the BLM through appropriate Section 7 consultation and implementation of biological opinions.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. The term conservation recommendations has been defined as suggestions of the FWS regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information.

Specific conservation recommendations for each of the programs described in the RMP are not contained in this biological opinion. As the RMP programs are implemented, conservation recommendations will be incorporated into the biological opinions developed for those actions as appropriate.

We do have one general conservation recommendation to make on the RMP. The implementation of the RMP will be complex and require careful scheduling to prepare the management plans of the new ACECs, write or revise AMPs and other environmental documents within a timely and effective manner. Many of the RMP actions are designed to protect endangered and threatened species and in order to provide the maximum protection possible, should be implemented as quickly as possible. We recommend that the BLM set up a priority system to identify the most critical endangered species issues and proceed with their resolution as quickly as possible.

CONCLUSION

This concludes formal consultation on this action. As required by 50 CFR 402.16, reinitiation of formal consultation is required if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may impact listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action.

If we can be of further assistance, please contact Ms. Lesley Fitzpatrick or me (Telephone: 602/379-4720; FTS 216-4720).

Gilbert D. Metz

cc: Director, Arizona Game and Fish Department, Phoenix, Arizona
Regional Director, Fish and Wildlife Service, Albuquerque, New Mexico (FWE/HC)
Director, Fish and Wildlife Service, Washington, DC (HC)

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3	12-10-90	Maricopa County Department of Planning and Development
4	12-12-90	Arizona Commission of Agriculture and Horticulture
5	12-14-90	Rudy K. Walter
6	12-20-90	Frances Benigar and Connie Childers
7	12-26-90	Arizona State Parks/State Historic Preservation Officer
8	01-07-90	U.S. Bureau of Mines, Intermountain Field Operations Center
9	01-14-91	Maricopa Audubon Society
10	01-16-91	TranAm Energy Inc.
11	01-17-91	Department of the Air Force
12	01-18-91	Department of Energy, Western Area Power Administration
13	01-25-91	Animal Protection Institute of America
14	01-25-91	Mary McBee
15	01-28-91	Donald L. McBee
16	02-01-91	Arizona Department of Commerce - Arizona State Clearinghouse
17	02-01-91	Arizona State University, Center for Environmental Studies
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19	02-14-91	John D. Pettit
20	02-15-91	Carson Water Company
21	02-19-91	Yavapai-Prescott Indian Tribe
22	02-25-91	Arizona State Land Department
23	03-05-91	Arizona Cattle Growers' Association
24	03-11-91	Elliott E. Bernshaw
25	03-11-91	Grapevine Springs Ranch, Inc.
26	03-11-91	The Desert Tortoise Council
27	03-14-91	Lois J. Hubbard, Mohave County Board of Supervisors
28	03-18-91	Arizona Farm Bureau Federation
29	03-19-91	Robert L. Harrison
30	03-19-91	Frank L. Hunt
31	03-19-91	W. J. Robinson
32	03-19-91	Amy A. Kirk
33	03-19-91	John Gallagher
34	03-19-91	Rick Alexander
35	03-20-91	Kathleen Mitchell
36	03-20-91	Peter J. Galvin, Friends of the Owls
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38	03-20-91	Ted H. Hyde, GSA Resources, Inc.
39	03-21-91	Arizona Desert Bighorn Sheep Society, Inc.
40	03-21-91	Thomas W. Crosslin
41	03-22-91	Howard Grounds
42	03-25-91	Karen Dismukes
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45	03-27-91	Charles Earle, Laughlin Land and Cattle Company
46	03-28-91	Dave Knisely
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57	04-02-91	Prescott Audubon Society
58	04-04-91	Glenn and Jane Franklin
59	04-04-91	Vera M. Walters, Southwestern Field Studies
60	04-05-91	Jean Linn
61	04-08-91	Rebecca Davis
62	04-08-91	National Park Service, Western Region
63	04-09-91	Kingman Chamber of Commerce
64	04-01-91	Sue Baughman
65	04-10-91	Andy Groseta, Headquarters West, Ltd.
66	04-10-91	Liquinox Company
67	04-11-91	Arizona Public Service Company
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69	04-12-91	Marvin Hunt
70	04-12-91	Frank L. Hunt
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73	04-12-91	Klein S. Bartmus
74	04-12-91	Mohave County Parks Department
75	04-12-91	Georgia McCrory
76	04-12-91	Citizens Utilities Rural Company, Inc., Bruce Mitchell
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78	04-12-91	Mike Gross and Norma Gross
79	04-12-91	International Society for the Protection of Mustangs and Burros
80	04-12-91	Elno Roundy
81	04-12-91	Elno Roundy
82	04-12-91	Richard L. Leibold, Sierra Club, Ramparts Chapter
83	04-12-91	U.S. Environmental Protection Agency, Region IX
84	04-15-91	Arizona Game and Fish Department, Director Duane L. Shroufe
85	04-15-91	American Rivers
86	04-15-91	The Arizona Nature Conservancy
87	04-15-91	Friends of Arizona Rivers
88	04-15-91	The Wildlife Society, Arizona Chapter
89	04-15-91	Arizona Riparian Council
90	04-15-91	The Arizona Native Plant Society
91	04-15-91	Sierra Club - Grand Canyon Chapter
92	04-15-91	Mohave Sportsman Club
93	04-15-91	Ruth Brimhall
94	04-15-91	Art Rogers
95	04-15-91	Frank Allen Hunt
96	04-15-91	U.S. Fish and Wildlife Service, Ecological Services
97	04-15-91	The Keith Companies - Arizona
98	04-15-91	Signe A. Hurd
99	04-15-91	Joseph M. Feller
100	04-15-91	Robert S. Lynch
101	04-25-91	Santa Fe Pacific Railroad Company
102	04-26-91	Arizona Department of Mines and Mineral Resources
103	04-26-91	Arizona Department of Environmental Quality

1

United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
TRUXTON CANON AGENCY
VALENTINE, ARIZONA 86437

IN REPLY REFER TO:

Land Resources
(602) 769-2279

Elaine F. Marquis, Area Manager
U.S. Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401

Dear Elaine:

We appreciate the opportunity you gave our Agency to review the land management plan for your Area on November 7, 1990.

As those present in the meeting brought up, we have concerns in the following areas:

1) We want to see the plan recognize the need for realigning and upgrading the Grapevine Canyon Road from Meadview Road to the Hualapai Reservation boundary. We hope to see that road be paved two lanes in the next 4-7 years and widened to three lanes in the next 7-15 years.

2) We want to plan for the trading of sections in the Clay Springs area to block up those checkerboard sections. Our staff will be submitting a proposal for your consideration in the next 2-3 months.

3) We want to plan for the legislative transfer of ten acres from BLM to the Hualapai Tribe for the tribal cemetery at Valentine.

4) We would like to pursue a cooperative agreement with your agency to reconstruct the fence between BLM and the Hualapai Reservation. We propose a 50/50 sharing of the costs.

1-1 5) We are concerned that your plan does not recognize the Mexican vole habitat in the Music Mountains just west of the Reservation.

Again, thank you and bill for taking the time to meet with us. We are looking forward to working more closely with you.

Sincerely,

Acting Superintendent
Truxton Canon Agency

2

Joe McGloin
2716 W. 25th Ave.
Denver, CO 80211
11/29/90

Bill Carter
BLM
Kingman Resource Area Office
2475 Beverly Ave.
Kingman, AZ 86401

Good Day:

The following are my comments regarding the draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for Kingman Resource Area. I appreciate the opportunity to make comments and commend the BLM for the amount of work that has been put into the draft RMP/EIS. I also applaud the BLM for the foresight that has been put into the RMP/EIS. The nature and makeup of the multiple use of our public lands has been changing and will continue to evolve over the foreseeable future. It is indeed refreshing to see a public lands manager address these changing needs and plan for those demands.

I generally agree with the preferred alternative (Alternative 2). There are several areas of concern to me which I will address.

I agree with the need to cut back or eliminate livestock grazing in certain areas, especially riparian zones. Whenever I have visited the area I have been struck by the amount of damage that has been done by the livestock to the native vegetation. As you know, the resulting erosion and changes in the flora caused by over-grazing will take decades, if not centuries, to undo. It only makes sense that ranchers (and consumers) should pay the full price for the consequences of grazing on public land. By this I mean not just the cost of land management services that they currently use but, additionally, the estimated costs of repairing the land and restoring it to its original condition. For too long the general public has subsidized ranching by footing the cost of land reparations, or even worst, land that is just discarded. I urge you to eliminate grazing in all ACEC's and in all riparian zones. And I urge you to charge grazing rates that will cover the full cost of the grazing and restoration of the grazed land.

I support the BLM plan to preserve historical sites. Pot hunters and vandals have already damaged the majority of sites in the Southwest and we need to preserve the few remaining ones even if that means prohibiting public access.

I have grave concerns about the use of OHV's in several areas. While any wilderness areas would be off-limits to OHV's, all ACEC's would remain open. This would include riparian zones and habitat for some endangered species. I've seen too much damage to riparian zones, vegetation and animal habitat from OHV's. I think it prudent to limit all OHV use in ACEC's to roads only. They must be kept out of riparian zones and critical habitat areas. Given the total amount of BLM land that OHV's can use, prohibiting their use from a very small percentage of the land would help preserve endangered animals, endangered habitat and historical sites.

I heartily endorse limitations on timber sales. Many once great stands have simply been destroyed over the last one hundred and fifty years and we need to preserve what's left. Restricting grazing will do much to help the forest regenerate.

In sum, my opinion is that the BLM needs to do as much as it can the preserve the land and, in many cases, to improve its condition after years of abuse. One of the best ways to accomplish this is to reduce the use of the land, especially from activities that take a great toll, such as OHV use and livestock grazing. Even the RMP/EIS recognizes that the use of the land will very likely increase from 200 to 300% over the next 10 to 15 years (p. 59). The land needs to be protected from this onslaught. This is your charge.

Sincerely,

3

MARICOPA COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT

111 S. 3rd. Avenue, Room 300, Phoenix, Arizona 85003

December 6, 1990

Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

RE: KINGMAN RESOURCE AREA RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Carter:

This Department appreciates the opportunity to review and comment on the Resource Management Plan and Environmental Impact Statement for the Kingman Resource Area.

We support the Bureau's continuing efforts toward the management and protection of public lands.

Maricopa County is currently revising our Comprehensive Plan and would like to coordinate with the Bureau of Land Management regarding many issues discussed in the Management Plan. Of particular interest to us are comments addressing management and protection of riparian lands and policies for off-highway vehicles.

If we may be of further assistance, please telephone our office at 262-3403.
Sincerely,

JILL HERBERG-KUSY
PRINCIPAL PLANNER
PLANNING DIVISION

Douglas A. Williams
Planner III
Advance Planning Section
(602) 262-3403
JKM/mlc

xc: Dennis W. Zwagerman, Director

4

Arizona Commission of Agriculture and Horticulture

RECEIVED DEC 12 1990 KINGMAN AZ - FIELD

1688 WEST ADAMS • PHOENIX, ARIZONA 85007 • (602) 542-4373

FIELD SERVICES

District Offices
Fruit & Vegetable Standardization
Market News

Office of the State Chemist
State Agricultural Laboratory
Agricultural Chemicals and
Environmental Services Division

OFFICE OF THE DIRECTOR

December 11, 1990

Mr. Bill Carter
BLM
Kingman Resource Area Office
2475 Beverly Ave.
Kingman, AZ 86401

Dear Mr. Carter:

The Arizona Department of Agriculture has the following concerns about the Kingman Resource Area RMP and EIS Draft dated November, 1990:

1. Recreation and Public Purposes Act - Periodic outbreaks of insect pests (caddis fly, grasshoppers, etc.) in this area may require an eradication program by federal, state, or local government personnel. Because any eradication project involving pesticides will be seriously affected by such things as schools, parks, and recreational areas, any land use authorizations which could adversely impact on eradication projects should be carefully considered with regards to what effect a grasshopper infestation which can not be controlled with pesticides because of the proximity of schools, parks, or other areas of sensitive or concentrated populations will have on the people using the facilities.

2. Vegetative projects - The Department supports Alternative #1.

Sincerely,

Ivan J. Shields
Director

IJS/me

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Sir,
Thank you for sending me your "Kingman Resource Area Management Plan Environmental Impact Statement." You've really done your homework and I support your findings and recommendations.
I was especially encouraged to note that you addressed the desert tortoise, burro and wild horse habitat issue noting not only areas of habitation but healthy size limits.
Thomas Kwalter

6

Dec. 19, 1990

Bill Carter
Bureau of Land Management
Kingman Resouce Area Office
2475 Beverly Avenue
Kingman, Az. 86401

Mr. Carter:

In reviewing your draft for Management Plan/Environment Impact Statement, we took notice of no proposed horse trails for Mohave County.

A couple of months ago we approached Mike Kileman with a proposed plan for horse trails using Canyon Station Spring area as head point for the old Stockton Hill Road from Canyon Station to Lake Mead. Also from Canyon Station it is possible to ride in several different directions into the Cerbat Mountains. In your plans we see you are going to make a day use area at Canyon Station. There is no reason this couldn't be made into a mulite use area, as there is plenty of room.

Several people and groups have expressed interest in helping make this a reality, with donation of time and materials.

We realize that these trails would not be used just for horses, which is fine with us. We want everyone to enjoy them.

6-1 We ask that these plans be put up for consideration in the final draft.

Thank You.

Sincerely,

Frances Benigar

Frances Benigar, P.O.Box 6456, Kingman, Az. 86402, 565-4280

Connie Childers

Connie Childers, 4435 N. Willow, Kingman, Az. 86401, 757-4728

7

ARIZONA STATE PARKS

800 W. WASHINGTON
SUITE 415
PHOENIX, ARIZONA 85007
TELEPHONE 602-542-4174

December 20, 1990

Bill Carter
Technical Coordinator
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

RE: Kingman Resource Area, DOI-BLM

Dear Mr. Carter:

We have received the draft report entitled "Kingman Resource Area: Resource Management Plan and Environmental Impact Statement". I have reviewed the document and am commenting pursuant to Section 110 of the National Historic Preservation Act.

Of the three alternatives proposed, I prefer Alternative 2 because it may result in the lowest impacts to cultural resources in priority cultural areas (as indicated by Table IV-1 of the Draft Plan/EIS). I realize that Table IV-1 does not reflect predicted impacts to cultural resources outside the priority areas, but it is my understanding that the agency's proposed continuation of existing CRM policies will provide such resources with adequate consideration and protection in the face of federal undertakings.

Thank you for providing this office with the opportunity to comment. We look forward to receiving a copy of the final RMP/EIS.

Sincerely,

Pat H. Stein
Preservation Planner

for Shereen Lerner, Ph.D.
State Historic Preservation Officer

8

United States Department of the Interior
BUREAU OF MINES
INTERMOUNTAIN FIELD OPERATIONS CENTER
P.O. BOX 25086
BUILDING 20, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

January 4, 1991

Memorandum

To: Bill Carter, Bureau of Land Management, Kingman Resource Area Office, 2475 Beverly Avenue, Kingman, Arizona 86401

From: Chief, Intermountain Field Operations Center

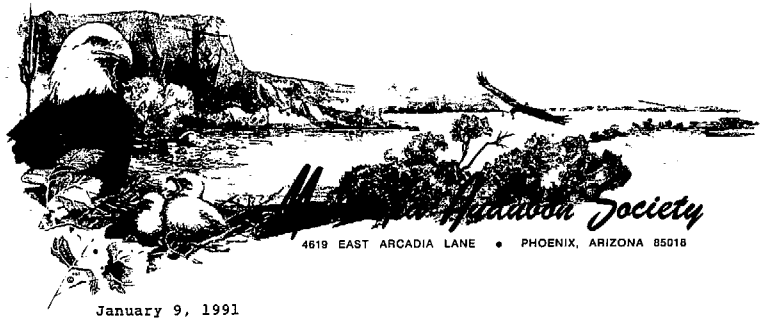
Subject: Review of Draft Resource Management Plan and Environmental Impact Statement, Kingman Resource Area, Arizona

Personnel of the Bureau of Mines reviewed the subject document as requested by Elaine Marquis, Area Manager, Kingman Resource Area Office, Bureau of Land Management, to determine whether mineral resources in the resource area were adequately discussed in the document.

The discussions of mineral resources present in, explored for, and produced from the resource area (pp. 7, 17-18, 95-99, 267-269) and of impacts to and from mineral development for the three alternatives (pp. 119-147) appear quite thorough. However, in the discussion of sodium and gypsum (p. 96) it appears as though the discussion of gypsum has been omitted. If the reference to "more than 4,000 feet of evaporitic horizons" refers to gypsum, then that should be specified. Except for the omission of the gypsum discussion, we believe that minerals have been adequately discussed in the document. 8-1

for William Cochran

jez/bde



4619 EAST ARCADIA LANE • PHOENIX, ARIZONA 85018

January 9, 1991

Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

Dear Mr. Carter,

On behalf of the Maricopa Audubon Society, I am submitting the following comments concerning the Kingman Resource Area's November 1990 RMP/EIS draft.

First, we support the implementation of Alternative II, the "preferred" plan, primarily because it places more area under special management than does Alternative III. We cannot support Alternative I, the "no action" plan.

The ACEC's which would be established by Alternative II, especially those which would be formed to protect the endangered Hualapai Mexican Vole and KRA's riparian resources, are a step in the right direction. The plan's call for the establishment of wildlife movement corridors is also applauded.

However, we must be critical of the priority given to improved range management in the KRA. We realize that your RMP/EIS draft refers the discussion of your grazing practices to previously completed EIS's. But the fact that these other documents outline plans for improved range management is irrelevant to our criticism.

The point we're trying to make is that the implementation of better range management needs to be a higher agency priority. Overgrazing is probably THE greatest cause of rural environmental degradation in Arizona. The extent of the problem is illustrated by the fact that at least seven of the 14 management concerns identified in your draft deal with issues associated with grazing.

Of course, we understand that you must operate under Federal statutes which, due to the powerful livestock lobby, mandate the continuation of inequitable grazing privileges on public lands. But there is room within the regulatory framework to implement immediate range improvements.

Your draft report clearly outlines the current sad situation on your range. Of the 83 grazing allotments in the KRA, you categorized 57 of them as M or I, meaning their conditions could be improved with better management. That's 69%! In addition, only 25, or 30%, of the 83 allotments have signed AMPs. While it's true that all of these AMP's were recently completed, and it appears you're concentrating your efforts on the allotments with the greatest potential for improvement, the overall situation is still unacceptable.

Another example of your low priority for improved range management is seen in your forage allocation policies for newly acquired lands. They specify that lands acquired from the state would continue to be grazed at the level set by the state prior to exchange. The problem with this is that the Arizona State Land Department is required by state law to manage its real estate holdings for the sole purpose of generating revenues. Consequently, they aren't much concerned with improved range management. By extending the conditions of their leases you may be continuing the range abuses they've allowed.

9-1 It seems you've tried to deal with this problem by stating that grazing on all allotments will be monitored to adjust livestock numbers to achieve proper use of forage resources. But how long will that take? Hopefully, not as long as it's taking to complete signed AMP's for all of your allotments.

To summarize, we support the adoption of Alternative II and suggest that you accelerate the implementation of improved range management practices.

Sincerely,

Jeff Burgess
Conservation Committee Member
Maricopa Audubon Society

10

TranAm Energy Inc.

5770 EAST SKELLY DRIVE
TULSA, OKLAHOMA 74135
918-622-0555

MAILING: P.O. BOX 35523
TULSA, OKLAHOMA 74153
FAX: 918-627-0644

HALITE PROCESSING CO.
7100A FLIGHTLINE DR.
KINGMAN AIRPORT
KINGMAN, AZ 86401

Bureau of Land Management
Kingman Resource Area
Elaine Marquis, Area Manager
2475 Beverly Avenue
Kingman, Arizona 86401

January 15, 1991

Subject: RMP ROW corridor omissions

Dear Elaine:

While reviewing the Kingman Resource Area, Draft RMP we noticed an omission of an existing, and proposed utilitity corridor on the Alternative 2, Special Management Areas Map.

10-1 It would appear that omissions have also occurred on the Alternative 1 (Current Management), Special Management Map. Without checking the MTP, I believe that both the Williams Brothers, coal slurry pipeline corridor and the Four Corners Crude Oil/Trans Western Natural Gas corridor are missing.

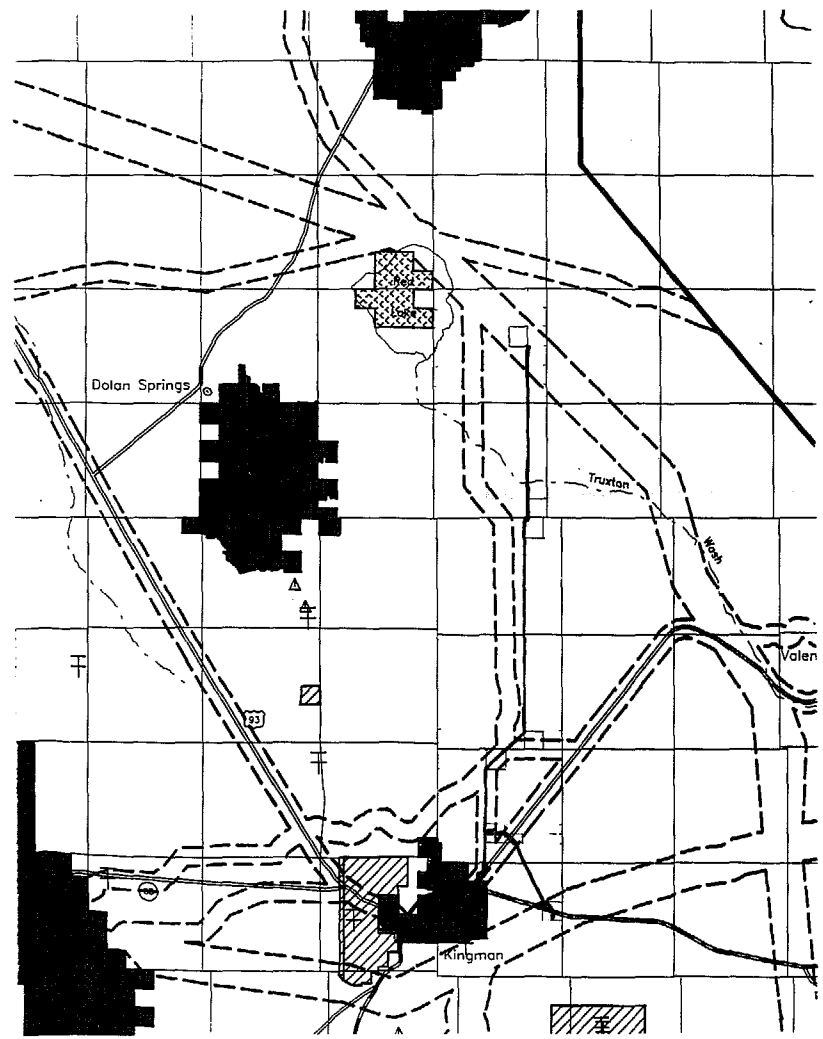
I have submitted a map indicting our Alternative 1 from SE¼SE¼ section 14, T. 26 N., R. 16 W. to near the east quarter corner, section 13, T. 21 N., R. 16 W., G&SRM. That portion of the route from the SW corner section 3, T. 25 N., R. 16 W. southward, follows rights-of-ways belonging to Southern Union or El Paso Natural Gas Companies, neither of which appear on Alterative 1 or 2 maps.

We will continue our review of the RMP, but felt these comments should be made now to allow you time to correct these discrepancies.

Sincerely,

Robert L. Harrison
Oliver M. Lusk

Oliver M. Lusk



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
REGIONAL ENVIRONMENTAL OFFICE, WESTERN REGION
630 SANSOME STREET — ROOM 1316
SAN FRANCISCO, CALIFORNIA 94111-2278

REPLY TO ATTN OF: LEEV-WR (Tye/705-1668)

JAN 15 1991

SUBJECT: Kingman Resource Area Resource Management Plan and Draft Environmental Impact Statement (DEIS)

TO: Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401

1. We appreciate the opportunity to review the subject DEIS and offer the following comments:

a. As shown on the attached map, the Kingman Resource Area evaluated in your DEIS is subject to numerous military overflights in the form of high-altitude and low-altitude training missions. Inasmuch as low-altitude overflights do have the potential to disrupt the solitude and naturalness of areas directly under their flight paths, we recommend you include consideration of such activities (location, altitude, and frequency) in your discussion and decision-making process.

b. Areas which are appropriate for military overflights, specifically low-altitude training routes, are becoming increasingly rare. In selecting overflight training routes, the Air Force must consider mission requirements and fuel costs as well as environmental constraints. Ideally, training routes are located within areas which are relatively isolated, have diverse topography and minimal commercial activity, maintain sparse human populations, and contain lands under federal jurisdiction. It is obvious that these characteristics are also compatible to a large degree with land uses being proposed in the subject plan. Therefore, even though the area being studied is subject to air training activities, the Air Force generally supports low intensity uses in these lands if no degradation of our ability to use the airspace occurs.

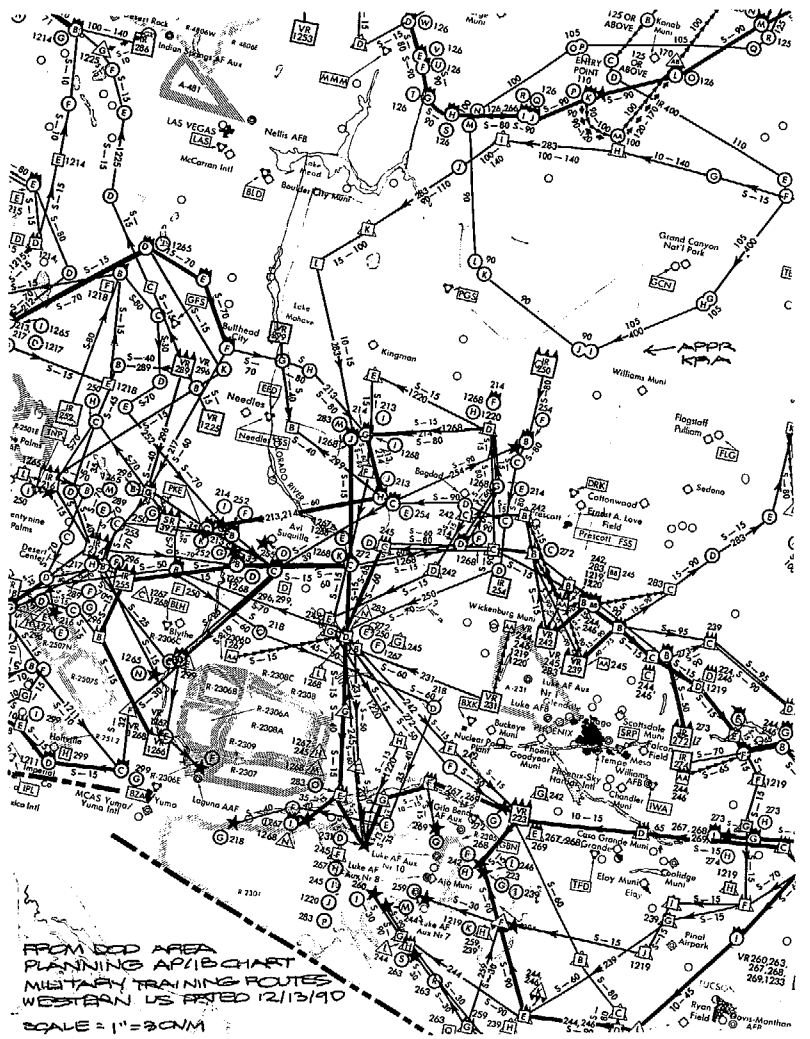
2. We hope these comments are useful in your planning process. In the future, any NEPA documents from your location should be forwarded to our Western Region office, and not the Central Region office. If we can be of assistance in any manner, please contact the undersigned or Mr. Michael Tye at (415) 705-1668.

Phillip E. Lammi

PHILLIP E. LAMMI, Director
Regional Environmental Office
Western Region

1 Atch
Training Routes Map

cc: HQ USAF/LEEDX w/Atch
FAA/AFREP w/Atch



12

Department of Energy
Western Area Power Administration
Phoenix Area Office
P.O. Box 6457
Phoenix, AZ 85005

JAN 16 1991

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

Dear Mr. Carter:

The Western Area Power Administration (Western) has reviewed the draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for the Kingman Resource Area. The RMP/EIS appears to limit the construction of new transmission lines and communications facilities to existing corridors and a few existing communications sites. A couple of exceptions were noted.

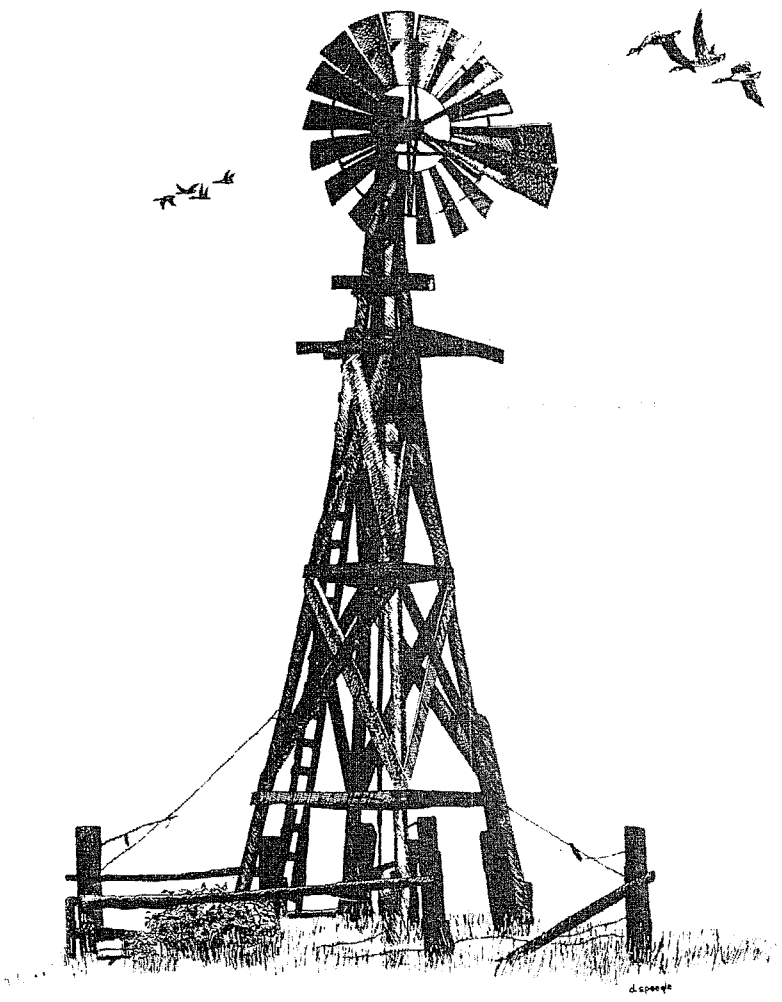
Western operates a network of communications facilities in support of the marketing and transmission of electrical power generated at Hoover Dam and several other sites along the Colorado River. Certain of the communications facilities and several transmission lines are located within and across the Kingman Resource Area.

12-1 Western has identified Cherum Peak, Mt. Perkins and Groom Peak as potential sites for the installation of microwave repeaters and/or VHF Repeaters. These additions may be needed to operate our system in the foreseeable future.

Western would like to see the final RMP/EIS recognize our needs as stated above and have the flexibility to provide for future growth without requiring overhaul or amendment of the RMP to justify a new project or facility that may be identified and needed in the future.

Sincerely,

John D. Harrington
Deputy Area Manager



ANIMAL PROTECTION INSTITUTE OF AMERICA
2831 Fruitridge Road, P.O. Box 22505, Sacramento, CA 95822 (916) 731-5521 FAX (916) 731-4467

January 23, 1991

Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

DRAFT RESOURCE AREA PLAN/EIS
Kingman Resource Area

Dear Mr. Carter:

We appreciate the opportunity to respond in behalf of our members to the draft RMP/EIS for the Kingman Resource Area. We found it difficult to track the impacts from one alternative to the next for the fourteen considerations being analyzed on the different resources of specific concern to us. Of concern to us are nongame wildlife habitat and wild horses and burros protection.

With the exception of wild horses/burros, the ongoing management constraints, commitments, and directives that underlie current management along with recommendations carried over from the MFP, appear to us to be sound. We could not find how or where the fourteen concerns required changing the overall management directions or that any of the concerns could not be adequately, properly, and safely addressed under current management directives and policies. However, 13-1 the description of management directives and constraints for wild horses/burros found on Page 24 is factually wrong.

With regard to wild horse and burro management constraints, API reviewed the draft Cerbat Herd Management Area Plan and is in substantial agreement with it under existing management goals, policies, directives, etc. The HMAP details the method for determining an effective breeding population. It also estimates a viable herd as needing at least 120 animals in order to provide the gene pool in this terrain under current conditions to prevent inbreeding

continued . .

and degeneration of the population. This, to us, would be a least feasible number. The law requires BLM to manage for optimum not least feasible or least sustainable--although there may be times when they are the same. When that occurs, the existing objectives to enhance or improve the habitat would allow BLM the management options to do so if possible. We disagree that dietary overlap studies are needed. The Congressionally-mandated National Academy of Sciences study recommended that determining spatial overlap, not dietary overlap, is the most critical factor for sound management. This determination would show if, where, and when competition actually occurs. This information is needed to properly ascertain what animal species is the cause of damage associated with overgrazing in order to meet the statutory restrictions on removing 13-2 wild horses/burros from the public lands. The draft HMAP can be changed to list these as objectives to be monitored. In fact, that is current policy.

13-3 We believe this EIS should have considered the Cerbat HMAP information that estimated 120 animals needed for a viable population as a tolerance level for analysis purposes. We think also the mandate to the Secretary to provide habitat needs (shelter, water, forage, cover, space) for the optimum number should have been stated as a management constraint.

We can't agree with either Alternative 2 or 3. Both arbitrarily list the acceptable utilization level for wild horses as 30 percent when livestock are off the land and at 50 percent when livestock are on the land. This formula is 13-4 geared for reducing horses. One might even suspect the purpose of it is to reduce horses--or at least protect livestock numbers when adjustments are needed due to overutilization. Also we are unable to agree with the management recommendation that any increases of forage in a wild horse/burro herd management area should be granted to re-introduced Big Horn sheep. An introduction of Big Horn 13-5 sheep into an area designated as wild horse/burro habitat under the Wild, Free-Roaming Horse and Burro Protection Act, introduces a potential conflict into these areas. Granting all forage increases to Big Horn, rather than distributing it equally between current users, guarantees conflict.

The consequences of proper riparian management on livestock grazing is described, on page 125, as requiring permittees to herd their livestock or put up miles of fencing to create pastures for proper management by means of rotational grazing systems. That either/or description doesn't give adequate recognition to multiple use.

continued . . .

13-6 The obvious consequence that should be considered would be to switch from cow/calf operations to cattle which can be herded, which are more mobile grazers; and which, because of both of these characteristics, are better fitted to the principles of multiple use/sustained yield. In our opinion, the intensity of herding required in wholistic grazing systems with the "on/off" movement of livestock, timed to estimated root recovery, requires keen coordination with the seasonal movement of wild horses/burros and other wildlife on and off their summer/winter ranges, not just more and more fences and not just livestock movement. Public land adaptations of wholistic grazing need to be initiated and driven by the biological needs and habitat requirements of wildlife (including wild horses and burros), whose movements may not be manipulated, rather than by the needs of domestic livestock whose movements can be manipulated. This needs to be spelled out so that the biological needs and habitat requirements of all wildlife (but particularly nongame) and wild horses/burros are provided for.

Alternative 2 (Page 43), that includes monitoring studies to be implemented when a need arises, AMPs in ACECs to be reviewed and revised, grazing systems developed in ACECs, and the continued development of grazing systems, appears to be a move away from the "I-C-M" categories, the current objective/monitoring schedule, and the schedule for trend-studyreviews under existing management goals. Reviewing

13-7 AMPs in ACECs would automatically arise in the periodic review and adjustment of grazing permits required by Taylor Grazing so would be part of existing mangement. The creation of an ACEC would automatically be subjected to the EA/FONSI process under existing policies. But changes to the criteria of I-C-M is a major action.

API often criticizes the fact the criteria for I-C-M categorization is geared for increasing forage production while failing completely to address the state of the natural system in terms of damage and degradation. We have also criticized the "issue driven" management approach, which is based on the amount of social conflict raised rather than the amount of damage being done. In fact, we see "issue driven management" as relieving BLM, who are the managers and caretakers of the public's land (e.g., the hired professional experts), of all responsibility to initiate sound range management for correcting resource damage and all obligation to fully implement the protections in the laws related to the public lands. Amending the I-C-M criteria is the one management prescription we agree with in the preferred alternative.

continued . . .

If management guidance already includes expanding, improving, and maintaining habitat for both consumptive and nonconsumptive use and also for meeting the commitments of Fish and Wildlife Plan 2000, Strategy for the Future, and Raptor Habitat Management plus implementation of the Wild, Free Roaming Horse and Burro Protection Act and other federal wildlife laws, it is difficult to figure out the differences in each alternative in Chapter II.

13-8 For instance, we don't understand why the watershed management provisions (categorizations) listed in Alternative 2 require an EIS rather than being an EA/FONSI action under Alternative 1. Since the classifications listed in No. 2 cannot be determined without the surveys already underway in the current management schedule we're

13-9 not sure if the Alternative 2 approach will result in putting aside several years of surveys and monitoring by introducing a new schedule that delays ever classifying land in a way to make an effective decision based on a degraded condition of the land. We don't understand how

13-10 Riparian or Wildlife Habitat protection is better under Alternative 2 than Alternative 1. This potential delay of decisions is a real stumbling block for us as it relates to both wildlife and wild horse/burro habitat. If those above commitments to the public (e.g., Watchable Wildlife, America the Beautiful, Plan 2000, etc.) are to be implemented in the current permit reviews and allotment evaluations, we hesitate to endorse what might be simply a delay of making those decisions.

One further comment we have with regard to wild horse/burro management refers to page 135 of the draft document. Here, it says "...if proper utilization levels on key forage species within the Cerbat Herd Management Area are exceeded, grazing preference would have to be adjusted or grazing management changed on...[six allotments within the HMA]." Taylor Grazing requires that! The document makes it sound as if this is some new revelation. The law very succinctly states that livestock grazing permits are to be reviewed periodically and adjustments made to bring the AUMs assigned to the permit into alignment with carrying capacity under multiple use considerations. Congress also wrote very clear constraints on removing wild horses into the law in order to prevent wild horses being used as

13-11 scapegoats for damage by livestock. These two management directives are in need of clarification. The quote on page 135 clouds and confuses these two Congressional mandates when perhaps the Number One issue for the public is the fact the AUMs attached to livestock grazing permits have been adjusted only once since the Taylor Grazing Act was passed sixty years ago.

continued . . .

13-12 We find it hard to accept Alternative Two yet agree that the criteria for I-C-M categorization is badly in need of amendment and the categorization of watershed for prioritizing management actions is critical. In terms of wild horse/burro management, they've been given such short shrift in all three alternatives that none fully implement the law and all may very likely violate it. We do not see where problems related to acquisitions and withdrawals (e.g. the creation of ACECs or designation of lands for recreation purposes) cannot be acted-on under existing policy, site specifically, or that this blanket EIS adequately covers these issues. Since our experience has been with RMPs arising from grazing EISs, we feel something essential is being overlooked or that we have missed the critical and salient point in this issue-driven EIS.

FOR THE ANIMAL PROTECTION INSTITUTE OF AMERICA

Sincerely,

Nancy Whitaker

Nancy Whitaker
Assistant Director of Public Land Issues,
Specializing in Wild Horses

NW:np

14

Jan. 24, 1991
Box 186
Meadview, Az. 86444

Bill Carter
Bureau of Land Management
Kingman Resource Area
2475 Beverly
Kingman, Az. 86401

Dear Mr. Carter,

I'm writing to comment on the Nov., 1990 draft of the Resource Management Plan and Environmental Impact Study...#1792 (026).

I would like to go on record as being strongly supportive of Alternative #2. Although none of the options give as much protection as I would prefer to the Grand Wash Cliffs and Joshua Tree area up here, alternative #2 is surely the best of the three.

However, my concerns are more than just for the Joshua Tree area alone. I wish we could feel more assured that mining will never gouge or scar any of our scenic areas.....specifically the twenty mile stretch of Grand Wash Cliffs and bench below, which are highly valued vistas that both visitors and residents treasure greatly. I would also hope that no mining will ever be allowed that will cause visual intrusions from any scenic viewe or overlook points.

More and more, the 'highest and greatest use' of lands up here, for the largest number of people, will indeed be that of enjoying its unusual and striking scenic beauty. And, a short twenty years from now, I'm sure residents will also appreciate having some areas preserved where one will still be able to enjoy quiet and solitude when this, too, is desired.

Walk in peace,

Mary McBee

Mary McBee

15

Box 186
Meadview, Az. 86444
Jan. 25, 91

Bill Carter
Bureau of Land Management
Kingman Resource Area
2475 Beverly
Kingman, Az. 86401

Dear Mr. Carter,

At the Jan. 24 meeting in Dolan Springs, one rancher requested that your agency should fill in, in red, the privately-owned sections of land on your display map, so this would be available and visible for audiences at following meetings.

I would suggest that if this is done, it would only be appropriate to also outline distinctly in red, the boundary lines to all grazing allotments so these are plainly visible. Some attendees may not realize that ranchers also utilize and graze these public lands.

I would like to go on record as being in support of Alternative #2.

Respectfully,

Donald L. McBee

Donald L. McBee

cc: Elaine Marquis

16

ARIZONA DEPARTMENT OF COMMERCE
3800 NORTH CENTRAL AVENUE, SUITE 1400
PHOENIX, ARIZONA 85012
(602) 280-1300
FAX: (602) 280-1305

ROSE MOFFORD
GOVERNOR

DONALD E. CLINE
DIRECTOR

MEMORANDUM

TO : DOI BLM

FROM : ARIZONA STATE CLEARINGHOUSE

DATE : January 25, 1991

RE : BUREAU OF LAND MANAGEMENT
DRAFT RMP EIS KINGMAN RESOURCE AREA 15.999
AZ901207800036

This memorandum is in response to the above project submitted to the Arizona State Clearinghouse for review.

The project has been reviewed pursuant to the Executive Order 12372 by certain Arizona State officials and Regional Councils of Government.

If the standard form 424 was submitted with the application it is attached for your information.

The project was supported as written. If further comments come in we will forward them to you for your consideration.

Attachment

cc: Arizona State Clearinghouse
Applicant

TO: DATE: 12-07-90 AZ 90-81-0036
State Application Identifier (SAI)

SHPO
Arizona State Parks Board
1688 W. Adams, Rm. 109
Phoenix, AZ 85007

FROM: Arizona State Clearinghouse
3800 N. Central, 14th Floor
Phoenix, AZ 85012

- AZ Environ. Qlty Rm 304
- AZ Environ. Qlty Rm 400-B
- AZ Environ. Qlty Rm 603A
- Economic Sec.
- Indian Affairs
- Transportation
- Public Safety
- Mineral Res.
- Att'y General
- Corrections
- Civil Rights
- Education
- Gov's Office for Children
- Administration - 424 Form
- JLBC
- DDD-DES
- Game & Fish
- Salt Rv Indian Clearinghouse
- Navajo Indian Clearinghouse
- Bur. Land Mineral Tech.
- Ag. & Hort.
- Tourism
- Health
- Water
- Parks
- Land
- Commerce
- Region I, II
- III, IV, V, VI

This project is referred to you for review and comment. Please evaluate as to the following questions. After completion, return THIS FORM ONLY, AND ONE XEROX COPY to the Clearinghouse within 20 WORKING DAYS from the date received. Please contact the Clearinghouse at 280-1315 if you need further information or additional time for review.

_____ No comment on this project ____✓____ Proposal is supported as written _____ Comments as indicated below

1. Is project consistent with your agency goals and objectives? _____ Yes _____ No _____ Not Relative to this agency
2. Does project contribute to statewide and/or areawide goals and objectives of which you are familiar? _____ Yes _____ No
3. Is there overlap or duplication with other state agency or local responsibilities and/or goals and objectives? _____ Yes _____ No
4. Will project have an adverse effect on existing programs in your agency or within project impact area? _____ Yes _____ No
5. Does project violate any rules or regulations of your agency? _____ Yes _____ No
6. Does project adequately address the intended effects on target population? _____ Yes _____ No
7. Is project in accord with existing applicable laws, rules or regulations with which you are familiar? _____ Yes _____ No

Additional Comments (Use back of sheet, if necessary):

Reviewers Signature _____ Date 12/7/90

Title Co-ordinator coordination Telephone 542-4009

17

ARIZONA STATE
UNIVERSITY TEMPE, ARIZONA 85287
CENTER FOR ENVIRONMENTAL STUDIES

TO: Bill Carter, Bureau of Land Management
FROM: Julie Stromberg, Asst. Research Professor
DATE: January 29, 1991
SUBJECT: Comments on draft Resource Management Plan/Environmental Impact Statement for the Kingman Resource Area

After reading the Kingman Resource Area draft RMP/EIS, I find Alternative 1 to be unacceptable. Alternatives 2 and 3 each have some merit but some limitations as well. Alternatives 2 and 3 both represent positive approaches to managing for many resources and activities. The BLM is to be commended for recognizing the importance of riparian habitat and rare and endangered species habitat, and for proposing establishment of ACECs to protect these valuable and long-abused resources.

However, the associated management plans allow for uses that are incompatible with the management goals for the ACECs. Specifically, all cattle grazing and off-highway vehicle use should be discontinued within ACECs. There are many studies demonstrating the incompatibility of exotic animals (i.e., cows) with riparian resources and native species, while I know of no studies that show that livestock grazing or vehicle use enhances riparian systems or rare and endangered species.

Alternative 2 has merit over Alternative 3 in that it calls for ACECs of larger size. However, Alternative 3 has merit in that it: (1) calls for the reduction and eventual elimination of the ecologically destructive wild horse herd; (2) reduces levels of yucca harvesting and firewood cutting; and (3) eliminates grazing in two of the ACECs. There seems to be a need for a forth alternative that combines the best aspects of Alternatives 2 and 3.

Multiple use management calls for the presence of many different uses within a given region, for example, grazing in one location, recreation in another. The multiple use policy should not be interpreted so as to allow simultaneous uses on the same piece of land. Too often, this type of management favors only one use to the exclusion of others.

18

Office of
Arizona State Mine Inspector
1616 West Adams, Suite 411
Phoenix, Arizona 85007-2627
(602) 542-5971

February 5, 1991

Mr. Gordon Bentley
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, Arizona 86401

Re: RMP Comment

Dear Mr. Bentley:

The State Mine Inspector has reviewed the KRA-RMP and we extend thanks for the opportunity to do so.

18-1 We find the RMP lacking an effort to locate abandoned mines and eliminate the hazards associated with them. Recreational use of Federal lands is increasing and most recreationalists have no knowledge of the dangers in and around abandoned or inactive mines. Therefore, in the interest of public safety, your plan should include elimination of such hazards.

Thanks again for the opportunity to comment.

Sincerely,

William C. Vanderwall
Assistant State Mine Inspector

WCV:krb

19

January 23, 1991

Bureau of Land Management
Kingman District
2475 Beverly
Kingman, Az. 86401

To whom it may concern:

I am thoroughly appalled at the underhanded attempts of the BLM to hamper current and long term operation of the Bagdad Copper Mine. It frustrates me to witness the political ploys that have become such an essential part of our democratic bargaining process. Was it not enough that Congress, by way of our citizens, voted as they did on Arizona Wilderness bills #2570 and 1080? In my opinion the people have decided.

19-1

I have always been under the impression that the Bureau of Land Managements mission was to promote multiple use land management! It is my opinion that the BLM is being swayed by special interest groups. These special interest groups are striking at the very heart of Arizona's highly mineralized mining sectors. Media coverage and the well planned strategies of wilderness activists are effectively turning the tide and shifting the advantage to the side of preservation. If special interest groups, who are surely behind these management proposals, are successful at converting high potential, highly mineralized lands into Areas of Critical Environmental Concern, Desert Tortoise Habitat or Wild and Scenic designated areas, the mining industry, specifically Bagdad, would be forced to compete in world markets while incurring greatly increased production costs or worse yet forced out of business entirely.

What this entire issue really boils down to are two separate factions attempting to prioritize economy and ecology. True resolution can only be achieved through balance. It is ludicrous to think that a Government agency would attempt to place such severe restrictions on a well established, profitable and significant tax contributing company and community. This is actually a much bigger issue than one of ecology. We must continue to maintain our country's economic superiority if we are to continue to provide a balance in world peace. Granted we are one copper producer among many but we must set a precedent.

Though preservation is needed and appropriate in some circumstances, Multiple Land Use properly administered can provide the balance needed to succeed and survive.

My thoughts are summed up by a quote from Aldo Leopold, a pioneer in the preservation movement. This particular quote comes from his writings titled " A Sand County Almanac".

"The bulk of all land relations hinges on investments of time, forethought, skill and faith rather than on the investment of cash. As a land-user thinketh, so is he."

Here at Cyprus Bagdad we are governed and abide by very strict Environmental Federal Code of Regulations. Compliance with these regulations coupled by efficient multiple land use management on the BLM's part is in my opinion sufficient to guarantee absolute minimal disruption of the surrounding ecology.

I strongly urge the BLM to remove from consideration the various proposed designations located within the Upper and Lower Burro Creek areas.

Sincerely,

John D. Pettit

xc: Dennis DeConcini
Jon Kyle
John McCain
Bob Stump

20

Carson Water Company
P. O. Box 98510
Las Vegas, NV 89193-8510

February 14, 1991

Mr. Bill Carter
United States Department of the Interior
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman AZ 86401

Re: November 1990 Draft Resource Management Plan/Environmental Impact Statement for Kingman Resource Area

Dear Mr. Carter:

Carson Water Company (Carson Water), a wholly-owned subsidiary of Southwest Gas Corporation, has reviewed the November 1990 Draft of the Resource Management Plan/Environmental Impact Statement (RMP/EIS) prepared by the United States Department of the Interior, Bureau of Land Management (BLM) for the Kingman Resource Area and respectfully submits the following comments and recommendations for consideration by the BLM.

Carson Water is the owner and operator of the Cane Springs working ranch located in the heart of the Red Lake area in Mohave County, Arizona, some 30 miles northwest of the city of Kingman. Carson Water has owned and operated the Cane Springs Ranch on which it grazes livestock and operates a number of water wells since 1979.

Under the Draft RMP/EIS for the Kingman Resource Area a significant portion of Carson Water's Cane Springs Ranch in the Red Lake area would be designated for the use by off-highway vehicles. For many reasons, including environmental and safety concerns, Carson Water strongly opposes and objects to the BLM's proposed plan to designate and set aside a substantial portion of the Red Lake Area, which encompasses Carson Water's Cane Springs Ranch, for the operation of off-highway vehicles.

20-1 The designation of such area as an off-highway vehicle area would not only greatly interfere with and impede Carson Water's livestock grazing operation at its ranch, but it would also create serious environmental, safety and public liability problems for Carson Water. The increased traffic to and from the off-highway vehicle area would unquestionably create significant safety hazards for people and livestock alike as a result of open range livestock traveling access roads in the Red Lake area. Furthermore, the operation of off-highway vehicles in such area over the next twenty years

would, in Carson Water's opinion, cause irreparable injury and damage to the environment including soil erosion, visual scars to the landscape and the possibility of damaging cultural artifacts and disturbing wildlife habitat. Additionally, what assurance would Carson Water have that the operators of such vehicles would remain on BLM property and not trespass upon its property and in so doing disrupt its grazing operations and otherwise interfere with its use and enjoyment of the property?

It should also be noted that Carson Water did not protest or voice any opposition to the BLM's recent designation of fourteen (14) sections of its Cane Springs Ranch property as a wilderness area. While Carson Water favors the continuing development of public lands for public recreational purposes, Carson Water feels that it has more than met its civic/community responsibility as a corporate citizen. How much more land should Carson Water be expected to donate or devote for public recreational purposes?

In conclusion, for all of the above reasons, Carson Water respectfully requests the BLM to adopt Alternative 1 with respect to the Red Lake area and to remove the Red Lake area from consideration for use as an off-highway vehicle recreational area.

Sincerely,

Charles R. Neely
Director

jla

cc Elaine Marquis, Area Manager

21

YAVAPAI
PRESCOTT♦INDIAN♦TRIBE

February 12, 1991

Ms. Elaine F. Marquis
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Ave.
Kingman, AZ 86401

Dear Ms. Marquis:

Thank you for sending copies of the draft Kingman Resource Area Resource Management Plan and Environmental Impact Statement as well as sending representatives from your office to personally explain them to us.

While the Yavapai-Prescott Indian Tribe is concerned with all aspects of the document since we desire to preserve the natural environment as much as possible, we have immediate interests in the cultural resources sections (pages 110 and 159-160). As you no doubt are aware, the area of the Juniper Mountains (Map 1, North Half Planning Area) and much of the region east of the Aquarius Mountains and south of Bill Williams Fork (Map 2, South Half Planning Area) were within the aboriginal territory of the Yavapai.

We know that the Kingman Resource Area is large and that at present you have but one cultural resource specialist to cover the area. It is clear that as funding and personnel become available--a critical need--much of the portions described above will need to have intensive cultural resource surveys done. Ideally, before your Environmental Impact Statement is complete, these surveys should be accomplished in a state-of-the-art professional manner as required by the National Historic Preservation Act as amended.

We wish to emphasize that this should be done to document and preserve all historic and prehistoric Native American sites, not only those of the Yavapai but also of all other significant archaeological remains.

21-1 The cultural resource paragraph on page 110 needs to be expanded and elaborated, especially in terms of the Cultural Resource Management guidelines on pages 159 and 160.

We shall support these expanded efforts in any manner feasible to the Yavapai-Prescott Tribe.

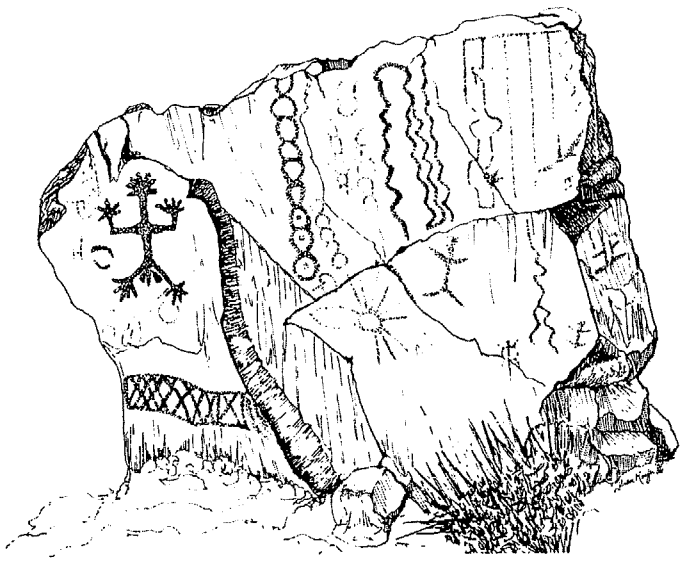
Sincerely,

Robert C. Euler

Dr. Robert Euler
Tribal Anthropologist

RE:nq:L01

530 E. MERRITT PRESCOTT, AZ 86301-2038 (602) 445-8790



22

Arizona
State Land Department
1616 WEST ADAMS
PHOENIX, ARIZONA 85007

ROSE MOFFORD
GOVERNOR

M.J. HASSELL
STATE LAND COMMISSIONER

February 25, 1991

Mr. Henri Bisson
District Manager, Phoenix District
U.S. Bureau of Land Management
2015 West Deer Valley Road
Phoenix, Arizona 85027

Dear Mr. Bisson:

This is in regard to the Kingman Resource Area Plan draft and Environmental Impact Statement report that you sent to us for review and comment.

We have reviewed the report, have been briefed on the plan by Jesse Juan and Gordon Bentley of your Kingman Resource Area Office, and have discussed the plan with you on several occasions.

Your staff has done an excellent job of evaluating the resource potential, obtaining public input, and preparing a resource management plan. As you know, the State Land Department has worked closely with the BLM in making land exchanges to move Trust lands out of environmentally sensitive areas that should be managed as public lands, and in coordinating management of intermingled Trust and public lands. We therefore endorse, with two minor exceptions, the Resource Management Plan and want to continue to work with the Bureau of Land Management to help implement the plan.

22-1 There are two areas which the plan designates lands for retention by the Bureau of Land Management which we believe should be made available instead for transfer to the State Land Department as part of our on-going Federal/State land tenure adjustment program. These areas are:

1) The block of Federal lands in the Golden Valley area on the west side of State Highway 93 in T22N, R18W and the east tier of sections in T22N, R19W, and

2) The Federal lands south of Bullhead City in Sections 4, 5, 6, 7, 8 and 9, T19N, R21W.

These two blocks of land are adjacent to developing areas and, in our view, are more suitable for use for the mission of the State Trust than for Federal land management. For example it would be much more advantageous for the State to have the Bullhead City or Golden Valley lands than to retain the Trust holdings in such areas as the upper Burro Creek riparian area which your plan designs for special management.

Our goal will be to complete our program of State/Federal land ownership adjustments in the Kingman Resource areas when it is possible to do so. We would like to have these two areas designated for disposal and to have you hold these lands for eventual transfer to the state.

Sincerely,

M. Jean Hassell
State Land Commissioner

MJH:GEC:rmp

cc: [redacted], Manager, Kingman Resource Area
Glendon E. Collins, Deputy State Land Commissioner
Robert Yount, Director, Natural Resources Division
Pat Boles, Prescott Office, State Land Department

23

Arizona Cattle Growers' Association
1401 North 24th Street, Suite #4 • Phoenix, Arizona 85008 • Telephone (602) 267-1129

February 26, 1991

Mr. Henry Bisson
District Manager
Bureau of Land Management
Phoenix District
2015 W Deer Valley Rd.
Phoenix, AZ 85027

Dear Mr. Bisson:

The Arizona Cattle Growers' Association has reviewed a copy of the Draft Resource Management Plan for the Kingman Resource area. After reviewing the draft plan we have been unable to determine what changes would be in store for the permittees in the Kingman Resource Area.

23-1 Could you please send us a summary of changes which would occur if the proposals in the draft plan are implemented into the final plan. We are concerned with changes in preference numbers, livestock management, access, range improvements construction and maintenance, and all other changes which will occur that will impact permittees in the Kingman Resource Area.

After receiving a written response to this letter we plan to send comments on the Draft R.M.P.

Thank you for helping us determine what changes will occur to the permittees in the Kingman Resource Area when a final plan is implemented.

Yours Truly,

Sandy Naughton
Executive Vice President

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401

SN:km

24

Elliott E. Bernshaw
P.O. Box 526235, Salt Lake City, Utah 84152 (801) 278-5358

March 7, 1991

Bill Carter, Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Ave., Kingman, Ariz. 86401

Dear Bill Carter:

COMMENTS ON KINGMAN R.A. DRAFT MANAGEMENT PLAN

Please accept these comments on your Kingman R.A. Draft Management Plan and E.I.S.:

1) Joshua Tree Forest area. I urge you to do everything possible to secure for the long-term future the preservation of the natural values of the Joshua Tree Forest-Grand Wash Cliffs ACEC. From my travels throughout most of the western U.S., I speak from experience when I say that it is a very special area that deserves special attention and any and all means of protection, even increased or full-time ranger patrols for management enforcement.

2) The desert tortoise. This key indicator species must be protected by any and all means. For a first step, consider removing entirely commercial livestock grazing from all major tortoise areas.

3) Livestock grazing. In view of the increasing general scientific consensus that the commercial grazing of alien livestock species is detrimental to indigenous natural values of much of the arid American West, I urge you not to allow for any overall increases of grazing AUM's in your R.A. Instead, as any rangeland improvements allow for increased AUM's in certain allotments, consider transferring livestock permanently out of other allotments that have high natural values (like desert tortoise habitat, etc.).

To go further, however, I would support the growing view that commercial livestock operations, whether traditional or not, are generally out of place on public land and are better suited on private land, especially such private and moister land back East. You may also consider auctioning AUM's to the highest bidder so that environmental and recreational groups could bid against ranchers and thereby "buy-out" controversial grazing uses. Amen.

Yours truly,

Elliott Bernshaw

25

GRAPEVINE SPRINGS RANCH, INC.
P. O. Box 1016
Wickenburg, Arizona 85358

March 8, 1991

Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, Arizona 86401

Attn: Mr. Bill Carter

Dear Sir:

This is to inform you that the Grapevine Springs Ranch, Inc. of the Santa Maria Community Allotment - Phoenix Resource Area is in support of Alternative #1 of the Kingman Resource Area/Resource Management Plan and Environmental Impact Statement #1792 (026) November 1990.

25-1 We are opposed to Alternatives #2 and #3 on the basis that the acquisitions of private lands by the Federal Government, the closing of public lands to mining and livestock grazing and the designation of private lands as an Area of Critical Environmental Concern will greatly reduce the tax base of already poor counties of the State of Arizona and will greatly decrease the value of private property.

The 480 acres of deeded property (S½ of the S½ of Section 15 and the S½ of Section 16 all in Township 11 North, Range 11 West) of the Grapevine Springs Ranch, Inc. located in Lapaz County Arizona on the Southside of the Santa Maria River are not for sale and have never been for sale. We are strongly opposed to the acquisition of our property by the Bureau of Land Management or any other governmental agency by any means.

25-2 We are strongly opposed to the extension of the boundary of the Kingman Resource Area to include our private land and the eight (8) springs known as the Grapevine Springs, of which we have the water rights to and are on or adjacent to our private land, as an ACEC (Area of Critical Environmental Concern) as it will adversely affect our use of our land and therefore have a great adverse economic impact on our family corporation.

The Springs are in a pristine condition because we have

Cont.

GRAPEVINE SPRINGS RANCH, INC.
P. O. Box 1016
Wickenburg, Arizona 85358

protected and kept them that way in effect, since 1905 and have every intention of continuing to do so. Only three (3) springs have received any damage at all and they were damaged by miners who gained access to them thru public land even though, we complained to the Bureau of Land Management in at least one case that the damage was occurring. It seems to us that if you were truly interested in protecting the springs, you would have them deeded to us as private property.

Thank you for your consideration.

Sincerely,

James L. Nelson

James L. Nelson
Secretary-Treasurer
Grapevine Springs Ranch, Inc.

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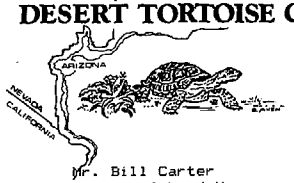
THE DESERT TORTOISE COUNCIL



March 7, 1991

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401

Dear Mr. Carter:

The Desert Tortoise Council has reviewed the draft Resource Management Plan/Environmental Impact Statement for the Kingman Resource Area. We provide the following comments.

We are in favor of the proposed desert tortoise ACECs and those that harbor tortoises but without mention of tortoises. We strongly feel, however, that tortoise habitat outside these areas is in dire need of attention for the population to remain viable into the future. All the ACECs do not contain in themselves viable tortoise populations, but seem to make up cores of populations. As very careful and conservative management as possible is needed in these other habitats.

26-1 Page 47. Where are the proposed corridors geographically? The several maps provided in the document are useful, but something like this should have been mapped. Which are intended for desert tortoise movement? We can not tell whether BLM's analysis is accurate otherwise. Two miles seems very narrow if the majority of vertebrates are to benefit from these corridors. We advocate a 3-4 mile width and request BLM retain as wide an area as possible, particularly for the longer corridors.

26-2 Page. 50, Animal Species. Were not candidate species habitats considered for ACEC designation? All tortoise habitats greater than category III should have been considered, and the tortoise is a candidate species. Why is this section not described as it is for special status plants?

26-3 Page 51. The Black Mountains ACEC on Table II-5 does not mention the desert tortoise habitat, its category, or necessary prescriptions for the Black Mountains. Why is the tortoise ignored in this area? The area inhabited by desert tortoises should be closed to vehicle use in washes.

26-4 Page 52. The Western Bajada ACEC is best managed as withdrawn from mineral entry, as impacts can not be fully mitigated and recovery from mining is essentially nonexistent in terms of value to the desert tortoise. We agree that vehicles should not be driven in washes in this ACEC. Wild burro numbers should be kept to a minimum here to avoid conflicts for forage and cover, and to avoid killing young tortoises through trampling or destruction of coversites.

Page 53. White margined Penstemon Reserve ACEC. This area contains significant desert tortoise values. Why are they ignored? We agree that OHV's should not be driven in washes in this ACEC so that conflicts with tortoises are minimized. A recovery plan is not needed as this plant is not federally listed.

26-5 The Eastern Bajada area of the Black Mountains desert tortoise habitat should be an ACEC. With the scale of tortoise map and ACEC maps, we can not tell what BLM has done with this area. Since BLM has a study plot here, and not at other sites, we believe this must be very significant habitat, however, it appears summarily ignored in this plan in terms of tortoise recognition and prescriptions. We strongly suggest this be rectified in the final.

Page 54. McCracken ACEC. Some significant washes used by desert tortoises should be closed to OHV use. We feel that this is an area where withdrawal from mineral entry would be very prudent as it is a distinct threat to this population.

Poachie ACEC. We agree with limiting OHVs to existing roads and trails and no washes. At a minimum, mandatory bonding and Mining Plans with careful attention to tortoise compensation should be vigorously pursued for all these desert tortoise-related ACECs.

26-6 Aubrey Peak ACEC. The desert tortoise is not mentioned here. We are sure this is significant tortoise habitat. How does it fit into the greater picture of tortoise distribution and habitat categories and proposed habitat management?

Page 78. We advocate the conservative approach for all desert tortoise ACEC of closure to livestock grazing. Alternative 3 should go this extra step and should be selected in the final plan.

The plan should also prohibit boulder "coversite" disposals or sales from Sonoran desert tortoise habitat as these are the homes of desert tortoises and cannot be replaced.

26-7 Page 87. Change in habitat category is <u>wholly inadequate</u> threshold for monitoring. Categories are full of non-biological criteria. BLM should instead say that downward population trends, increases in mortality, reductions in forage, and other habitat-related biological factors will trigger review of decisions or activity plans.

26-8 Page 128. Tortoises and their habitat would suffer long term cumulative impacts from mineral development scenarios projected for the area. These are not mentioned in the Impacts to wildlife habitat section.

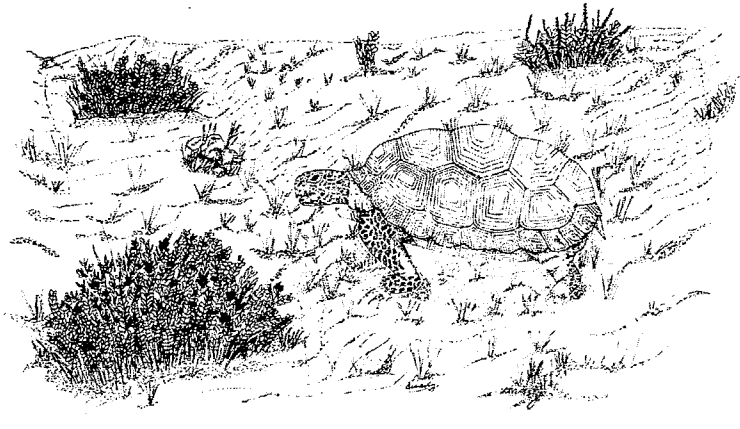
Page 137. Slightly less long term impact to the desert tortoise from mineral development would occur when compared to Alternative 1. This is not discussed or analyzed in the document.

26-9 The RMP draft is vague in describing how the desert tortoise rangewide plan of BLM will be implemented. Since RMPs are the guidance document for how public lands will be managed in an area, we expect specificity with respect to management schemes and BLM's analysis of what these will do for the desert tortoise. For instance, we can not discern, in most cases, what grazing regimes are planned in desert tortoise habitat to ensure livestock impacts are minimized or eliminated.

We appreciate the opportunity to comment on this draft and we will continue to be involved in this area as we have in the earlier stages of your planning effort.

Sincerely,

Dan Pearson
Senior Co-chairman



27

MOHAVE COUNTY BOARD of SUPERVISORS

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County Manager David J. Grisez | Clerk of the Board Pat Chastain

March 12, 1991

Ms. Elaine F. Marquis
Area Manager
Kingman Resource Area Office
Bureau of Land Management
2475 Beverly Avenue
Kingman, AZ 86401

Dear Ms. Marquis:

Proper utilization and management of our area resources is vital to Mohave County. Of course, the Bureau of Land Management is extensively involved in that management. After reviewing the recent Kingman Resource Area Resource Management Plan and Environmental Impact Statements, I encourage you to consider some pertinent information.

27-1 Livestock grazing needs to be addressed in the final RMP (Resource Management Plan). Grazing is one of the most long standing uses of public land and is the most widespread use of the land.

The selection of simply alternative 1, alternative 2, or alternative 3 is not the best solution for the final RMP. Alternative 1 has the best overall guidelines for livestock grazing, but needs to have portion of alternative 2 and 3 incorporated as well. Most of the shortcomings of alternatives 2 and 3 deal with the ACECs (Area of Critical Environmental Concern) proposed. Many of the proposals and commentary seem to deal with areas that are not now and probably will not suffer from "irreparable damage".

Perhaps if BLM would contact ranchers and livestock owners in the area to obtain more of their input many of these shortcomings of the RMP could be alleviated. It is my hope that BLM will ensure proper consideration of all those using our public lands.

Sincerely,

Lois J Hubbard

Lois J. Hubbard
Supervisor, District 4
Chairman, Board of Supervisors

cf

28

Arizona Farm Bureau Federation

March 11, 1991

Mr. Henry Bisson, District Manager
Bureau of Land Management, Phoenix District
2015 West Deer Valley Road
Phoenix, AZ 85027

Dear Mr. Bisson,

28-1 We oppose the Kingman Resource Area/Resource Management Plan and Environmental Impact Statement as currently proposed.

We oppose the plan based on the following policy from the 1991 American Farm Bureau Federation Policy Book passed in Phoenix in January, 1991.

Management of federal rangelands

We support multiple-use management of federal lands with full consideration given to scientific range management methods which would consider weather trends (long- and short-term), use patterns, plant numbers, plant size and other applicable factors.

We favor legislation to permit prescribed and controlled burning and other means of vegetative control on federal lands including wilderness areas.

We believe permittees on federal lands should be encouraged to improve range conditions through cooperative contracts with the appropriate agencies. Permittees should be provided security of investment. We support adequate federal funding for an expanded cooperative range improvement program. We strongly support and encourage the continuation and expansion of the Experimental Stewardship Program and the coordinated resource management process. The Bureau of Land Management (BLM) and the U.S. Forest Service (FS) are urged to work toward the establishment of at least one stewardship ranch on each national forest and on each grazing district.

We believe that federal agencies should be required to participate 50-50 with private landowners in building and maintaining line fences between federal land and adjacent land. We oppose BLM and FS fencing standards that are impractical for stockmen. Livestock owners should be compensated for losses which result from livestock entering restricted areas on federal lands.

Public land management agencies should take a more active role in defending livestock grazing as an integral part of the multiple use concept.

We urge FS and BLM to review their recent road closures to ensure access to remove deadfall and for multiple uses.

We oppose the provision of the Federal Land Policy and Management Act of 1976 which granted police powers to the BLM and any BLM attempt to exercise such powers. Police power must be retained by established local law enforcement authorities. Federal agencies should keep accurate records of time and money spent on the management of grazing lands apart and separate from their other duties.

3401 EAST ELWOOD STREET, PHOENIX, AZ 85040-1625 602 - 470-0088

Overgrazing and damage to rangelands by wild horses, burros or game animals should be managed by control of wildlife populations. Federal land management agencies should acknowledge the adjudication of available feed and consider range conditions in granting permission to state and federal departments of wildlife for introductions or augmentations of wildlife species on public lands. If it becomes necessary to reduce livestock numbers on public ranges because of drought, big game, wild horse and burro, numbers should be proportionately reduced to protect range from long-term damage.

We favor repeal of the Wild Free-Roaming Horses and Burros Act of 1971. Ownership and management of such animals should revert to the respective state in which they reside in order to provide effective control methods and disposal to prevent damages by these animals to ranges and unacceptable competition with livestock grazing. Domestic livestock grazing permit rights should not be reduced or eliminated as a result of misuse of public lands by wild horses, burros or game animals. Therefore, any plan calling for an introduction or expansion in the number of wildlife in any area must be preceded by a complete impact statement by independent professional range managers. Responsibility for trespass and compensation should be clearly established.

We believe permittees on federal lands should be compensated for economic losses experienced when grazing permit rights are reduced or terminated to allow the lands involved to be used for another public purpose or when the reduction or termination is due to no mismanagement by the permittee.

We favor allowing supplemental feeding on federal ranges. There is no need for BLM intensive management of isolated tracts where these tracts are a small part of operating ranch units.

Grazing advisory boards should be restored permanently and their procedures revised to provide effective input from livestock grazing permittees.

We believe the allotment management planning process should be streamlined to ensure that a fair settlement can be achieved in a timely manner. Once agreement has been reached with all interested parties, the matter should stand as resolved.

We recommend federal land agencies make available to the public a map of specific roads for recreational use.

Congress should establish land use principles for the grazing of federal lands. These should include:

(1) Long-term contracts stipulating terms and conditions of grazing use;
(2) Adequate incentives for optimum investment in private and public lands range improvement;
(3) Conditions relative to multiple use including watershed protection, hunting, fishing and recreation;
(4) An appeal procedure;
(5) Severance damages;
(6) Trespass regulations;
(7) A requirement that the permittee be granted the increased grazing capability which accrues from improved range management. Range condition terminology should be consistent with current range potential. U.S. government grazing land should be sold to private citizens or managed so that it will bring about a fair return for its current value;
(8) Grazing rights defined by animal unit months (AUM) are bought and sold as personal property and therefore should be considered as such by all government agencies;

(9) Grazing fees equitably established within the basic principles of the current grazing fee formula for federal lands; and
(10) A broad-based public relations effort to improve the public image of public land grazing.

We support a voluntary assessment of livestock operators with public land permits for a campaign to inform and educate the American public on the benefits by continued multiple use of public lands' renewable resources."

28-2 We also would request a clear delineation of BLM allotments and co-mingled allotments. This is important for clear public understanding. If all of the land in the allotment is BLM land, it should be called a BLM allotment. If, however, private land is co-mingled in the allotment, it should be called a co-mingled allotment.

We would appreciate an executive summary of changes facing permittees in the Kingman Resource Management Area if this plan is approved.

We appreciate the opportunity to comment on this plan.

Sincerely,
ARIZONA FARM BUREAU FEDERATION

Cecil H. Miller Jr.

Cecil H. Miller Jr.
President

BW/bmt

29

ROBERT L. HARRISON
Registered Professional Geologist
P. O. Box 7228
Brookings, Oregon 97415
Telephone: (503) 469-1966

Bureau of Land Management
Kingman Resource Area
Bill Carter
2475 Beverly Avenue
Kingman, Arizona 86401

January 16, 1991

Subject: RMP Comments

Dear Bill:

I read the Kingman Resource Area, Draft RMP, with interest due to my early involvement in its development. I am sorry to say that after reading, I felt it had been written with personal agenda's as the driving force rather than the need to identify sound resource management policies.

I would like to quote from several sections in the RMP and discuss inconsistencies and other problems I believe have been written into the plan.

Chapter I
Purpose and Need
Page 7
Issue 6

"The minerals industry has had a long and profitable relationship with communities and citizens of these portions of Mohave, Yavapai, and Coconino counties with in KRA boundaries. Mountain ranges and intervening valleys throughout the area contain a wealth of minerals...

The Mining and Minerals Policy Act of 1970, FLPMA, Research and Development Act of 1980, and National Materials and Minerals Policy all direct BLM to actively encourage and facilitate the development of public land mineral resources by private industry to satisfy *local and national needs and provide for economically and environmentally sound exploration, extraction, and reclamation".*

Support of the development of the mineral resources on public lands is further encouraged by the BLM's Multiple Resource Use Concept and the BLM Mineral Resources Policy of May 29, 1984.

These statements from the RMP are straight forward and define a policy compatible with the needs of the minerals industry; local, state, and national requirements; and allows for the protection of all other resources under the existing umbrella of the National Environmental Protection Act (NEPA).

29-1 Rather than complying with existing Federal laws and policy and BLM policy statements, KRA has chosen to remove lands from mineral entry by defacto withdrawals under the guise of protecting a species or potential species that presently are so endangered that the Arizona Game and Fish sells licenses and tags annually to hunters for their harvest.

It is stated in Appendix 18, page 203, that bighorn sheep is not on the Arizona (or any other) Threatened and Endangered list and that the species is *"extremely valuable economically, as well as providing revenue to Mohave County. Hunters annually contribute over $125,000 for one auctioned and one raffled hunt alone".*

29-2 In what way are bighorn sheep valuable to Mohave County? What revenue does it provide? It certainly doesn't provide the $125,000 annually because those funds and all funds derived from tags, licenses, permits, fees, and fines stay in the coffers of the Arizona Game and Fish. A handful of hunters stay in the county during the limited bighorn hunts and they spend a few dollars here, but probably more across the river in the casino's of Laughlin, Nevada. I am sorry, but based on the reasons offered, I can not see where bighorn are economically valuable to the county.

I do; however, see that they are valuable to the Arizona Game and Fish and through the special interests of individuals within the BLM Kingman office they are blocking out approximately 122,832 acres of high mineral potential Federal lands to protect their bankbook. In fact the recent passage of the Arizona Wilderness Bill withdrew and protected approximately 196,573 acres of desert bighorn habitat in Mohave County. Much of the lands removed for Wilderness contained high mineral potential also.

What is the real value of an operating mine located inside of the boundaries of jurisdiction of the Kingman office of the BLM? Cyprus Bagdad Copper has been mining from the Bagdad pit for a number of years. Their total State tax is approximately $10,000,000 per year. Approximately 60% of this very sizeable tax payment returns to Yavapai County.[1] Keep in mind that the amount stated does not include personal taxes paid by the employees, moneys paid by these same employees and the company to local and other state merchants for supplies or other expenses. The projected mine life, for the Cyprus Bagdad Mine, is 30 years from this date resulting in taxes paid amounting to approximately $300,000,000. These are real dollars paid to the State and used for schools, road maintenance, State and Municipal community projects, etc.

[1] Information supplied by Phil Blacet, Cyprus Bagdad Copper.

29-3 How much does the Game and Fish give to the State, County, or local political entities for the maintenance or construction, or improvement of community services? Are the people of Yavapai, Coconino, and Mohave counties really getting a fair shake from the BLM by the recommendations of a few wildlife biologists representing their own personal to close off more areas containing the highest mineral potential in the region?

29-4 Arguments will be that the lands are not withdrawn from mineral entry, but rather managed to protect a species not to inhibit the development of minerals resources. Under the preferred alternative certain lands have been list as no surface occupancy. Mining requires surface occupancy. In other areas occupancy is allowed between June 1 and November 30. How many companies can operate their business 6 months of the year and be closed down for 6 months?

The proposals as written represent an injustice to the people of the respective counties and the State as a whole. They further represent a serious abuse of the meaning and intent defined in FLPMA which authorized the "Policy and Procedure Guidelines" used to establish Areas of Critical Environmental Concern.

Are bighorn sheep endangered? No. Are they significantly disturbed by mans activities. It would appear not if you ever worked around a mine in the Black Mountains or visited the park in Boulder City, Nevada.

Speaking of the sheep in and around Hoover Dam and Boulder City, I asked the wildlife personnel in Kingman about the lack of disturbance of these sheep by man and the response was a laugh and comment that those aren't sheep. They have four legs, curly horns, smell like sheep, and act like sheep so somebody must be mistaken.

A study conducted by Southern California Edison and Arizona Public Services during the construction of the Palo Verde to Devers Power line through bighorn sheep habitat concluded that sheep were impacted by mans activity to various degrees, but not uniformly nor necessarily adversely.

I questioned another BLM wildlife specialist about bighorn sheep studies and was informed that the real problem is that no long term studies exist that document the relationship between man and bighorn sheep. When I brought up the sheep at Boulder City, Nevada the comment was "yes they do live around man, but these sheep have been born around man and through time have become adapted to man". Here the lack of a baseline study of the bighorn sheep before the construction of the dam negates the obvious that the sheep live with the occupation of man. Not having hard numbers in front of me I can not state herd size, viability, etc. All I can go by is the obvious this is an example of man and sheep living in very close association and the sheep seem to be proliferating.

I have carried on for a few pages now about your RMP and the miss use of the ACEC to withdraw lands that should be managed under the multiple use policy. I have little basis to say that you are wrong in your assumptions, but on the other hand I see nothing being offered to say that you are correct. To the contrary what I have seen seems to say that you are wrong or at least terribly premature in your decisions.

We just fought a war over oil. Oil that is imported. Imported oil that we as a consumptive society require to maintain our lifestyles. Today we import 50% of all the oil we consume and 100% of other raw minerals that is of utmost importance to our current and future existence. When mining is mentioned the first thing that comes to mind with many is gold. We have enough gold for all the jewelry we could ever want.

I conceed, we may have enough gold to make into jewelry, but for those of you that don't known, gold doesn't just go into jewelry. It provides the contact for virtually all of the electrical components used in our every day life. It protects all of our astronauts and satellites and, used as a salt, is a medicine in the treatment of arthritis. Gold has many uses, but its utility is only a fraction of a fraction of the essential uses of other minerals contained in those areas proposed to be "protected" under the umbrella of ACEC. Every facet of modern society has been cut on the back of minerals and societies entire existence depends on a healthy and dependable minerals industry. The efforts to do away with mining in the US are taking their toll, but the ones who will be surprised the most and cry the loudest when the dust settles will be the victors. Mining is doomed if we continue along the path that we are currently on and the RMP proposed by the Kingman Resource Area is just one step along this road.

Enough eulogizing. I have offered my comments based on the facts as I understand them. I hope your decisions are based on fact and not on the personal agendas of a few individuals.

Thank you and your staff for this opportunity to express my concerns. I am sorry that the RMP procedure was not farther along when I left the Bureau, perhaps I could have presented some arguments that could not been blown by as easily as those offered by others.

Thank you once again.

Sincerely,

Robert L. Harrison

30

March 18, 1991

Elaine Marquis
Area Manager, Kingman Resource
2475 Beverly Avenue
Kingman, Az. 86401

Dear Elaine,

As you know I am very concerned about the Draft Resource Management Plan and if implemented what it will do to my operation on the Music Mountain allotment.

30-1 The document is confusing to read and understand its impacts. Would you give me your summarization on the following topics: Access, Range improvements and management, wood cutting and vegetative manipulation, grazing preferences and water quality?

I will have further input.

Thank you for your help.

Sincerely,

Frank

Frank L. Hunt
P. O. Box 58
Peach Springs, Az.
86434

31

February 26, 1991

Mr. Henry Bisson
District Manager
Bureau of Land Management
Phoenix District
2015 W. Deer Valley Rd.
Phoenix, AZ 85027

Dear Mr. Bisson:

As a permittee on the Crozier Canyon Allotment allotment in the Kingman Resource Area I have some concerns about the Draft Resource Management Plan for the Kingman Resource Area.

I find the draft plan lengthy and difficult to understand. I am confused as to what impacts the proposals in the draft plan such as ACEC designations, wildlife habitat, riparian management, access, water quality, endangered species management, and many other of the proposals will have on my ranching operation, if implemented into a final plan.

31-1 Could you please summarize any changes which would occur with regards to my ranching operation (i.e. grazing preferences, livestock management, range improvement construction and maintenance, access etc.) if the proposals in the Draft RMP are implemented into the Final RMP.

Upon receipt of your written response to this letter I plan to send comments on the draft plan.

Thank you for your help in clarifying the impacts these proposals will have on my ranching operation.

Very Truly Yours,

W. J. Robinson

Sandy Naughton
Executive Vice President
Arizona Cattle Growers' Association

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401

SN:km

32

MARCH 15, 1991
1158 South Alarcon
Prescott AZ 86301

Bill Carter
BLM
Kingman Resource Area office
2475 Beverly Ave
Kingman AZ 86401

Dear Mr. Carter:

I am writing about the draft RMP/EIS for the Kingman Resource Area. I feel that protecting the remaining riparian ecosystems is crucial, for not only water, but also because of the unique plant and animal species in the region.

I would also like to see Burro Creek protected under the NEPA, EPA, Endangered Species Act, and Clean Water Act guidelines.

I thank you for the time you and your staff have put into recommendations for ACEC. I support preservation and public awareness strongly, especially concerning conflicts with the Cypress Bagdad mining.

Thank you again.

Sincerely,
Amy A. Kirk
Amy A. Kirk

33

John Gallegher
341 S. Pleasant St.
Prescott, Az 86303
MARCH 15, 1991

Bill Carter
BLM
Kingmen Resource Area office.
2475 Beverly Ave.
Kingman, Az 86401

Dear Mr. Carter,

I am writting to show my support for your recommendations for Areas of Critical Environmentel Concern. I am specifically concerned about protecting our remaining riperian ecosystems. I fel it is tragic that we here lost 90% of Arizonas riparian areas. The remaining riparian areas in this state are home to 80% of our states wildlife. So, it is not surprising, for example, that Burro Creek has the most T+E listings in the state.

Basically, I think our riperian habitats are important, and should be a public concern. Therefore I applaud your recommendations. Keep up the good work.

Sincerley,
John Gallagher

34

Rick Alexander
934 Blue Jay Dr.
Prescott, Arizona 86303

March 17, 1991

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area Office
Kingman Arizona 86401

Dear Mr. Carter.

I am writing to support the Kingman Draft Resource Area Management Plan. I am especially impressed by your emphasis to protect critical riparian habitat within your area of jurisdiction. The wildlife that is dependent on these stream environments cannot survive without adequate protection of this habitat. The main reason so many listed species of threatened and endangered species occur in riparian ecosystems is because the habitat is endangered as well as the animals that depend on it. With less than 10% of Arizona's riparian ecosystems still in tact, it is essential that every effort be made to protect what remaining. Your plan gives adequate protection through your recommendations pertaining to ACEC's. The designation will help protect some of the last remaining riparian ecosystems left in Arizona. I commend your position.

Yours Truly,
Rick Alexander

35

Kathleen Mitchell
701 Zuni
Prescott, AZ 86303
March 15, 1991

Bill Carter
Kingman Resource Area Office
Bureau of Land Management
Kingman, AZ 86401

Dear Mr. Carter,

I am writing in regards to the Resource Management Plan for the Kingman Resource Area. I support your recommendations for Areas of Critical Environmental Concern; specifically, Burro Creek, the Big Sandy, Bill Williams, and Santa Maria Rivers.

I feel it is especially important to give the riparian ecosystems of Arizona special protection. With 90% of the state's riparian areas having already been impacted or altered to some degree, it is essential that the remaining vestiges of relatively pristine rivers be preserved. Burro Creek is an exceptionally rich and diverse riparian ecosystem with a number of rare and endangered plant and animal species. I feel strongly that this areas unique biological resources should be given a high degree of protection.

Designating these rivers as ACEC would also be in compliance with the Arizona State mandate, Executive Order 89-16, to protect existing riparian habitat. This mandate should be of special concern to federal agencies and hopefully, influence riparian management policies of public lands within the state.

I support your recommendations for ACEC on the Kingman Resource Area and very much hope that these recommendations will be implemented.

Sincerely,

Kathleen Mitchell

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FRIENDS OF THE OWLS

P.O. Box 11152 • Prescott, Arizona 86304

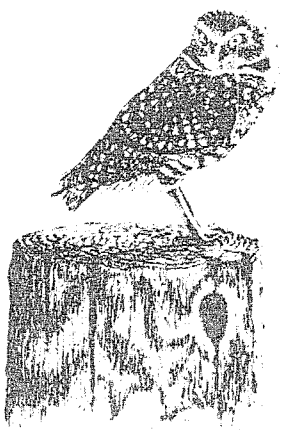
Bill Carter
BLM
Kingman Resource Area Office
2475 Beverly Ave.
Kingman, AZ. 86401

Dear Mr. Carter, March 15, 1991

Our group applauds the efforts of the BLM to protect some of the important riparian areas in the Kingman Resource Area. By proposing to designate some of these areas Areas of Critical Environmental Concern, your agency has recognized the vital need to protect what little riparian habitiat remains in Arizona.

Keep up the good work.

Cordially, Peter J. Galvin
Peter J. Galvin
Director,
Friends of the Owls



37

Douglas Hulmes
Professor of Env. Studies
Prescott College
220 Grove Ave.
Prescott, Az. 86301
March 13, 1991

Bill Carter
BLM
Kingman Resource Area Office
2475 Beverly Ave.
Kingman, Az. 86401

Dear Mr. Carter:

I am writing to provide comments on the draft RMP/EIS for the Kingman Resource Area. I was very impressed by the quality and detail of the document. Specifically I would like to support your recommendations for Areas of Critical Environmental Concern. I have spent a considerable amount of time studying several areas that were recommended and have been designated as wilderness on the Kingman Resource Area. I wrote several reports that were submitted to the Arizona Wilderness Coalition for the Arizona BLM/Wildlife Refuge Wilderness Bill, including: Upper and Lower Burro Creek, the Arrastras, Black Mtn. Ive's Peak and Tres Alamos, and the Hassayampa River Canyon. Most of these areas were on the Kingman Resource Area. I am specifically concerned about protecting the last remaining vestiges of riparian ecosystems, and the areas I studied for Wilderness included some of the most significant remaining areas in Western Arizona. This is not only because of the availability of water, but also because of the unique and varied associations of vegetation communities that occur in this region. It is not surprising, for example, that Burro Creek has the most T. & E. listings in the state. This is not only because of the scarcity and loss of riparian ecosystems in Arizona, but because of the unique associations of plants and animals that are found in this area.

The loss of Lower Burro Creek to Protection under the Wilderness Act was truly unfortunate. The arguments expresses by Cypress Bagdad regarding the effects of Wilderness designation, ACEC, or designation of Wild and Scenic status for the Santa Maria River and Burro Creek are very misleading with respect to potential impact on the mine. Cypress Bagdad will have to maintain environmental standards regardless of designated protection for these areas under the guidelines of NEPA, EPA, the Endangered Species Act, and the Clean Water Act. The recommendations that you have made in the draft Resource Management Plan will not in any way constrain Cypress Bagdad's plans for expansion except for what is already insured by the legislation I have referred to above.

I would also like to point out that your recommendations for ACEC designation of **all** significant streams within the Kingman Resource Management Area is in compliance with the Governor's Riparian Habitat Task Force; Executive Order 89-16.

"Section 1. In recognition of the critical nature of riparian areas to the State, it is hereby determined that the policy of the State of Arizona shall be:
(a) To recognize that the protection and restoration of riparian areas are of critical importance to the State;
(b) To actively encourage and develop management practices that will result in maintenance of existing riparian areas and restoration of degraded riparian areas;
(c) To promote public awareness through the development of educational programs of the benefits and values of riparian areas and the need for their protection and careful management;
(d) To seek and support cooperative efforts and local group and citizen involvement in the protection, maintenance and restoration of riparian areas;
(e) To actively encourage the preservation, maintenance and restoration of instream flows throughout the State;
(f) That any loss or degradation of riparian areas will be balance by restoration or enhancement of other riparian areas of equal values and functions; and all state agencies shall rigorously enforce their existing authorities to assure riparian protection, maintenance and restoration."

The detail and clarity of your recommendations for ACEC on the Kingman Resource Area is excellent. I applaud you and your staff for your time and expertise, and the willingness to make these very significant recommendations.

Sincerely,

Douglas Hulmes

38

GSA Resources Inc.
P.O. Box 509 Cortaro, Arizona 85652
(602) 297-4330 Telex 5106001432
Fax (602) 297-1361

March 20, 1991

Elaine F. Marquis
Area Manager
Bureau of Land Management
Kingman Resource Area
Kingman, Arizona
FAX (602) 757-3161

Dear Elaine:

I will be unable to attend the RMP Minerals Meeting at 7:00 P.M in Kingman. I left this morning and a few miles out of Tucson a spring shackle bolt in the rear spring broke, probably as a result of a long trip over the back roads in northern Sonora, Mexico. It only took five minutes to replace the bolt, but it took over two hours to find the high strength grade eight shackle bolt. By then I could not even under the best circumstances get to Kingman in time for the meeting.

I have put together a proposal for mining the saponite deposit in the Arizona Cliff Rose area. It appears to me that creating an ACEC which encompasses the Arizona Cliff area may result in the extinction of the species. In my judgement setting up a cooperative management program with the BLM in which the Arizona Cliff Rose would be planted on the spoil piles from the mining operation could expand its habitat and increase the population.

Next month we will be doing the low level air photography that will be used to prepare a 1 in. = 100 ft. scale map with 5 ft. contours. In addition a rectified sensitized mylar overlay will be prepared on which individual Arizona Cliff Rose plants will be visible. Based on this it will be possible to determine the distribution and density of the population.

And finally, the drilling results will be available in April. This will allow us to determine the extent and quality of the saponite. Until we have this data I believe it is premature to establish the Clay Hills ACEC.

I strongly support the proposal made by Cyprus Bagdad Copper Company to eliminate consideration of the Wild and Scenic River Designation up stream from a north-south line drawn through the mid point of section 13. Designations of that portion of Burro Creek upstream from this line would adversely affect mining the East Burro Creek Saponite Deposit which is on State Mineral Leases.

Best regards,

Ted H. Eyde

THE/mce

39

ARIZONA DESERT BIGHORN SHEEP SOCIETY, INC.

P.O. Drawer 7545 • Phoenix, Arizona 85011

(602) 957-0773

March 19, 1991

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

Re: Draft Kingman Resource Area Resource Management Plan/Environmental Impact Statement

Dear Mr. Carter:

The Arizona Desert Bighorn Sheep Society, Inc. (ADBSS) has reviewed the above referenced document and would like to offer the following comments. Please accept our comments as part of the official record.

ADBSS is an organization dedicated to the conservation of desert bighorn sheep. The goals of our organization are as follows:

1. Development of water resources for desert bighorn sheep.
2. Reintroduction of desert bighorn sheep into suitable historic ranges.
3. Prevention of encroachment on vital desert bighorn sheep habitat.
4. Promotion of research necessary to understand the needs of desert bighorn sheep.
5. Control of feral burro populations, competition with domestic livestock, and predators where necessary.
6. Assistance to government agencies in desert bighorn sheep population surveys.
7. Promote public awareness of desert bighorn sheep and their problems.

The Draft Kingman Resource Area RMP/EIS addresses most of the items covered by our goal statement. ADBSS will address the Wildlife Habitat Management and Wild and Free Roaming Horse and Burro Management portions of the draft plan.

WILDLIFE HABITAT MANAGEMENT

In general, ADBSS supports the Preferred Alternative for wildlife habitat management.

39-1 The Preferred Alternative states bighorn sheep habitat would be improved and maintained at its optimum potential. It goes on to state monitoring studies would be conducted to determine optimum numbers consistent with habitat potential and other resources. ADBSS questions the terms optimum habitat potential and optimum numbers in reference to bighorn sheep. These terms are not defined anywhere in the document. We do not know what they mean and what implications there are for bighorn sheep management if managers strive for optimum numbers.

We note the BLM's Rangewide Plan for Managing Habitat of Desert Bighorn Sheep on Public Lands, dated 1989, estimates a current population of 1200 bighorn sheep in the Black Mountains. It estimates the potential population at 1500.

Table II-1, Page 33 in the draft plan, shows the bighorn sheep numbers for each habitat area in existing Habitat Management Plans. The Black Mountain and Mount Wilson habitat areas show bighorn population of 600 and 100 respectively. Arizona Game and Fish Department census data for both 1980 and 1989 show a higher number of bighorn in both areas than the numbers proposed by BLM for each habitat area.

There is a wide discrepancy between the potential bighorn population for the Black Mountains in the Rangewide Plan and the proposed population for the Black Mountain HMP area. Although ADBSS supports use of the higher number, we are realistic enough to know wildlife numbers must be managed within habitat potential. We will defer to the judgement of the Arizona Game and Fish Department in determining the best bighorn sheep population level for use in this plan and to guide future management.

ADBSS is pleased to see new waterhole construction, waterhole maintenance and waterhole monitoring emphasized in the RMP/EIS. We agree with limiting detrimental activities in bighorn sheep lambing and rearing grounds during the dates listed.

ADBSS supports the designation of priority desert bighorn habitat as Areas of Critical Environmental Concern (ACECs). We have specific comments about the two ACECs covered by HMPs.

BLACK MOUNTAIN ACEC

1. Objective 6 regarding minimizing conflict between bighorn sheep and other grazing or browsing animals should be elevated to the number 2 ranking to emphasize its importance.
2. Objective 12 discusses developing plant community descriptions for bighorn sheep habitat and including these in AMP and HMP objectives. It further states livestock grazing will be managed to prevent excess utilization. ADBSS feels wild burro grazing should be managed to prevent excess utilization, as well as livestock grazing, and noted accordingly. Desired plant community descriptions for important bighorn sheep habitat should be included in HMAPs, as well as AMPs and HMPs.

39-2

3. Objective 13 discusses keeping burro numbers at the management level of 400 specified within the Black Mountain HMAP. ADBSS feels this level should be the absolute maximum upper limit.

39-3

4. Objective 14 discusses managing bighorn sheep habitat at its optimum potential. Optimum potential is a term which should be defined. We do not know if this term pertains to desired plant community species composition or to pounds per acre of forage produced by plant species.

39-1

AUBREY PEAK BIGHORN SHEEP HABITAT ACEC

1. Objective 5 regarding minimizing conflict between bighorn sheep and other grazing or browsing animals should be elevated to the number 2 ranking to emphasize its importance.
2. Objective 13 discusses developing desired plant community descriptions for bighorn sheep habitat, including them in AMP and HMP objectives, and managing habitat for its optimum bighorn sheep potential. ADBSS feels HMAPs should list desert bighorn sheep habitat desired plant community descriptions also. The term optimum habitat potential for bighorn sheep is not defined in the draft plan. It should be defined in the document.

39-4

WILD AND FREE ROAMING HORSE AND BURRO MANAGEMENT

ADBSS feels the RMP/EIS process is an important step in the future management direction of wild burros in the Kingman Resource Area. Up to now, Herd Management Area Plans (HMAPs) and Management Framework Plans (MFPs) have been the guidance documents. With the RMP/EIS process you are obligated to consider the environmental consequences of your burro management actions. We feel there has not been an adequate evaluation of these consequences in the past.

Table III-10, Page 117, lists the present wild burro population in the Black Mountain Herd Management Area at 500. This is suppose to be 100 head above the management level of 400. ADBSS disagrees with the BLM's population estimate. Based upon yearly Arizona Game and Fish Department bighorn sheep helicopter surveys, and the burro observations made during those surveys, we feel a more accurate burro population estimate is in the range of 884 to 1,100 animals. Because the BLM drastically underestimates the burro population, we do not feel its removal efforts are successful in maintaining the Black Mountain herd at 400 animals.

39-5

Burro population monitoring consisting of the helicopter mark-recount method conducted every five years (Table 11-13, Page 89) does not appear adequate. Methodology and frequency of burro surveys needs to be changed to provide a more accurate population estimate. ADBSS recommends concurrent helicopter surveys with the Game and Fish Department and for National Park Service. Since BLM relies on the Arizona Game and Fish Department for desert bighorn sheep total population estimates on an annual basis, we see no reason why the BLM cannot accept the same quality of information on burros.

Even though the Wild Horse and Burro Act passed Congress by an overwhelming margin that does not necessarily mean it is good legislation. ADBSS questions if there is a legitimate place for wild burros on western rangeland, and more importantly, in desert bighorn sheep habitat. We are realistic enough to know the law may never be significantly amended or even repealed. If wild burros must persist in the Kingman Resource Area we are adamant they be reduced to the management levels specified in BLM planning documents and maintained at those levels.

39-6

ADBSS supports the Preferred Alternative for Wild Horse and Burro Management which reserves increased forage resulting from improved habitat conditions for bighorn sheep and other wildlife.

ADBSS does not feel the impacts of wild burros as grazing and browsing animals on other resources are adequately recognized in BLM activity plans. In order to correct this situation, we recommend burro impacts be included as follows:

Chapter 1. Management Concern 7. Watershed Protection and Enhancement-Planning criteria. Page 10. Correlate burro grazing, as well as intensive grazing management and watershed productivity. Consider improving watershed condition and trend as a goal in HMAPs, as well as AMPs.

39-7

Chapter 2. Soil Resources. Page 19. Address stabilizing runoff and erosion rates in HMAPs, as well as AMPs.

39-8

Chapter 2. Wildlife Habitat Management. Big Game. Page 33. ADBSS reemphasizes the absolute necessity of managing burros at the lowest possible number under existing HMAPs in accordance with the Rangewide Plan for Desert Bighorn Sheep.

39-9

Chapter 2. Riparian Area Management. Plan actions. Page 35. Management objectives and actions involving riparian/wetland areas should be included in HMAPs, as well as AMPs, HMPs, and RAMPs.

Thank you for the opportunity to comment on your Draft RMP/EIS.

Sincerely,

Louis Coor

Louis Coor, President
Arizona Desert Bighorn Sheep Society, Inc.

LC/sr

40

THOMAS CROSSLIN
STUDENT
EMBRY-RIDDLE
AERONAUTICAL
UNIVERSITY
BOX 7325
PRESCOTT, AZ 86301

BILL CARTER
BLM
KINGMAN RESOURCE AREA OFFICE
2475 BEVERLY AVE.
KINGMAN, AZ, 86401

I am writing in regards to the draft RMP/EIS for the Kingman Resource Area. Arizonas riparian areas are of the utmost concern to me. In Arizona water is the lifesblood and it is therefore very important to protect these areas. Arizona has a history of abusing its riparian areas with 90% of the states riparian areas having sustained some sort of abuse. I would like to recommend that all of the riparian areas in the Kingman Resource Area be designated as Areas of Critical Environmental Concern, in accordance with the Governer's Riparian Habitat Task Force; Executive Order 89-16. I would specifically like to mention the lower burro creek area.

Thankyou for your time.

Thomas W. Crosslin

41

March 7, 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Ms. Marquis:

As a permittee on the Peacock Mt. allotment in the Kingman Resource Area I have some concerns about the Draft Resource Management Plan for the Kingman Resource Area.

I find the draft plan lengthy and difficult to understand. I am confused as to what impacts the proposals in the draft plan such as ACEC designations, wildlife habitat, riparian management, access, water quality, endangered species management, and many other of the proposals will have on my ranching operation, if implemented into a final plan.

41-1 Could you please summarize any changes which would occur with regards to my ranching operation (i.e.; grazing preferences, livestock management, range improvement construction and maintenance, access, etc.) if the proposals in the Draft RMP are implemented into the Final RMP.

Upon receipt of your written response to this letter I plan to send comments on the draft plan.

Thank you for your help in clarifying the impacts these proposals will have on my ranching operation.

Very truly yours,

Howard [illegible]

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

42

Karen Dismukes
524 Dameron Drive
Prescott, Az. 86301
March 14, 1991

Bill Carter
BLM
Kingman Resource Area Office
2475 Beverly Ave.
Kingman, Az. 86401

Dear Mr. Carter:
I am writing in concern on the draft RMP/EIS for the Kingman Resource Area. Having spent much time in Arizona's riparian areas I feel strongly about the protection of theses areas. Riparian areas are of great importance to the state of Arizona, and need to be protected. Not only are riparian areas an important water supply but they support a large variety of vegetation.

I strongly encourage maintenance and preservation of riparian areas throughout the state. Thank you for your time and please consider active protection of these areas.

Sincerely,

Karen Dismukes

43

March 25, 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Ms. Marquis:

As a permittee on the O.C.C.S.C. Hualapai Peak allotment in the Kingman Resource Area I have some concerns about the Draft Resource Management Plan for the Kingman Resource Area.

I find the draft plan lengthy and difficult to understand. I am confused as to what impacts the proposals in the draft plan such as ACEC designations, wildlife habitat, riparian management, access, water quality, endangered species management, and many other of the proposals will have on my ranching operation, if implemented into a final plan.

43-1 Could you please summarize any changes which would occur with regards to my ranching operation (i.e.; grazing preferences, livestock management, range improvement construction and maintenance, access, etc.) if the proposals in the Draft RMP are implemented into the Final RMP.

Upon receipt of your written response to this letter I plan to send comments on the draft plan.

Thank you for your help in clarifying the impacts these proposals will have on my ranching operation.

Very truly yours,

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

44

March 25, 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Lane
Kingman, AZ 86401

Dear Ms. Marquis:

I am a resident in the Kingman Resource Area and I have some concerns about the Draft Resource Management Plan prepared to analyze the alternatives for managing the public lands.

I want to point out that I am concerned about the effect that this document is going to have on taxpayers and livestock operations, both on public and private lands. As developed the designation of ACEC's wildlife habitat, riparian management, access, water quality, endangered species management, ORV's and the Alternatives developed, especially numbers 2 and 3 would have dramatic impacts on multiple uses and users in our area.

I recommend that current management options be followed as detailed in Alternative Number 1. As indicated, I feel the other Alternatives would greatly restrict the use of the public lands in our area.

Sincerely,

Thomas B. McDonald

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

45

March , 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Ms. Marquis:

As a permittee on the Yellow Pine allotment in the Kingman Resource Area I have some concerns about the Draft Resource Management Plan for the Kingman Resource Area.

I find the draft plan lengthy and difficult to understand. I am confused as to what impacts the proposals in the draft plan such as ACEC designations, wildlife habitat, riparian management, access, water quality, endangered species management, and many other of the proposals will have on my ranching operation, if implemented into a final plan.

45-1 Could you please summarize any changes which would occur with regards to my ranching operation (i.e.; grazing preferences, livestock management, range improvement construction and maintenance, access, etc.) if the proposals in the Draft RMP are implemented into the Final RMP.

Upon receipt of your written response to this letter I plan to send comments on the draft plan.

Thank you for your help in clarifying the impacts these proposals will have on my ranching operation.

Very truly yours,

[signature]
for [illegible] Land & Cattle Co

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

46

March 18, 1991

Mt. Henry Bisson
District Manager
Bureau of Land Management
Phoenix District
2015 W. Deer Valley Rd.
Phoenix, Az 85027

Dear Mr. Bisson;

My name is Dave Knisely, and I hold the lease on Mt. Tipton Allotment. As you know my allotment is involved quite extensivly in the Kingman Resource Area Resource Management Pland and Environmental Impact Statement. Especially in the area of the proposed HMA and the Wilderness Area. I find that by backing any of the alternatives, I would be backing a lot of issues I don't agree with or don't understand. I feel more comfortable standing with the comments submitted by the Mohave Livestock Association.

46-1 I might add that in reading the RMP/EIS, it is very hard to follow. I would appreciate a summery in writing of any changes that will or might occur in my cow-calf operation. Such as grazing preferances, range improvements, livestock management and access, if the proposals in the draft RMP are implemented in the the final RMP.

Thank you for your help in clarifying the impacts these proposals will have on my cow-calf operation.

Thank you,

Dave Knisely
P.O.Box 455
Dolan Springs, Az. 86441
602/767-3887

47

March 22, 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Ms. Marquis:

As a rancher on the Cofer Ranch in the Kingman Resource Area I have some concerns about the Draft Resource Management Plan for the Kingman Resource Area.

I find the draft plan lengthy and difficult to understand. I am confused as to what impacts the proposals in the draft plan such as ACEC designations, wildlife habitat, riparian management, access, water quality, endangered species management, ORV's, and many other of the proposals will have on my ranching operation, if implemented into a final plan. I want to point out that I am concerned about the effect that this document is going to also have on taxpayers and livestock operations, both on public lands as well as private lands.

I recommend that current management options be followed as detailed in Alternative I. I feel the other Alternatives would greatly restrict the use of the public lands in our area.

47-1 Could you please summarize any changes which would occur with regards to my ranching operation (i.e.; grazing prefernces, livestock management, range improvement construction and maintenance, access, ect.) if the proposaals in the Draft RMP are implemented into Final RMP.

Upon receipt of your written responce to this letter I plan to send comments on the draft plan.

Thank you for your help in clarifying the impacts these proposals will have on my ranching operation.

Sincerely,

Clinton C. Cofer
Cofer Ranch
H C 30 BOX 230
Kingman, AZ 86401

48

March , 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Lane
Kingman, AZ 86401

Dear Ms. Marquis:

I am a resident in the Kingman Resource Area and I have some concerns about the Draft Resource Management Plan prepared to analyze the alternatives for managing the public lands.

I want to point out that I am concerned about the effect that this document is going to have on taxpayers and livestock operations, both on public and private lands. As developed the designation of ACEC's wildlife habitat, riparian management, access, water quality, endangered species management, ORV's and the Alternatives developed, especially numbers 2 and 3 would have dramatic impacts on multiple uses and users in our area.

I recommend that current management options be followed as detailed in Alternative Number 1. As indicated, I feel the other Alternatives would greatly restrict the use of the public lands in our area.

Sincerely,

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

49

March , 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Lane
Kingman, AZ 86401

Dear Ms. Marquis:

I am a resident in the Kingman Resource Area and I have some concerns about the Draft Resource Management Plan prepared to analyze the alternatives for managing the public lands.

I want to point out that I am concerned about the effect that this document is going to have on taxpayers and livestock operations, both on public and private lands. As developed the designation of ACEC's wildlife habitat, riparian management, access, water quality, endangered species management, ORV's and the Alternatives developed, especially numbers 2 and 3 would have dramatic impacts on multiple uses and users in our area.

I recommend that current management options be followed as detailed in Alternative Number 1. As indicated, I feel the other Alternatives would greatly restrict the use of the public lands in our area.

Sincerely,

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

50

March 22, 1991

Ms. Elaine Marquis Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Ms. Marquis:

As a rancher on the Cofer Ranch in the Kingman Resource Area I have some concerns about the Draft Resource Management Plan for the Kingman Resource Area.

I find the draft plan lengthy and difficult to understand. I am confused as to what impacts the proposals in the draft plan such as ACEC designations, wildlife habitat, reparian management, access, water quality, endangered species management, ORV's and many other of the proposals will have on my ranching operation, if implemented into a final plan. I want to point out that I am concerned about the effect that this document is going to also have on taxpayers and livestock operations, both on public lands as well as private lands.

I recommend that current management options be followed as detailed in Alternative I. I feel the other Alternatives would greatly restrict the use of the public lands in our area.

50-1 Could you please summarize any changes which would occur with regards to my ranching operation (i.e.; grazing prefernces, livestock management, range improvement construction and maintenance, etc.) if the proposals in the Draft RMP are implemented in the Final RMP.

Upon receipt of your written resoponce to this letter I plan to send comments on the draft plan.

Thank you for your help in clarifying the impacts these proposals will have on my ranching operation.

Sincerely,
Ken McReynolds

Ken McReynolds
Cofer Ranch
H C 30 BOX 230
Kingman, AZ 86401

51

March , 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Lane
Kingman, AZ 86401

Dear Ms. Marquis:

I am a resident in the Kingman Resource Area and I have some concerns about the Draft Resource Management Plan prepared to analyze the alternatives for managing the public lands.

I want to point out that I am concerned about the effect that this document is going to have on taxpayers and livestock operations, both on public and private lands. As developed the designation of ACEC's wildlife habitat, riparian management, access, water quality, endangered species management, ORV's and the Alternatives developed, especially numbers 2 and 3 would have dramatic impacts on multiple uses and users in our area.

I recommend that current management options be followed as detailed in Alternative Number 1. As indicated, I feel the other Alternatives would greatly restrict the use of the public lands in our area.

Sincerely,
Ken McReynolds

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

52

March , 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Lane
Kingman, AZ 86401

Dear Ms. Marquis:

I am a resident in the Kingman Resource Area and I have some concerns about the Draft Resource Management Plan prepared to analyze the alternatives for managing the public lands.

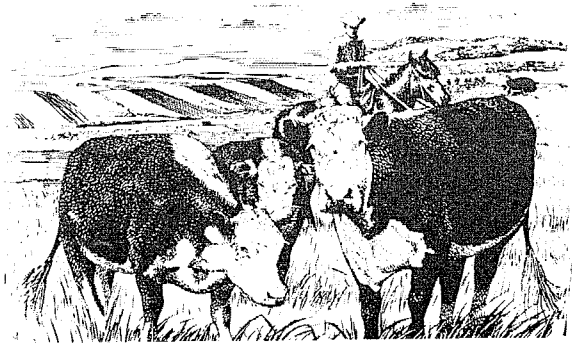
I want to point out that I am concerned about the effect that this document is going to have on taxpayers and livestock operations, both on public and private lands. As developed the designation of ACEC's wildlife habitat, riparian management, access, water quality, endangered species management, ORV's and the Alternatives developed, especially numbers 2 and 3 would have dramatic impacts on multiple uses and users in our area.

I recommend that current management options be followed as detailed in Alternative Number 1. As indicated, I feel the other Alternatives would greatly restrict the use of the public lands in our area.

Sincerely,

Krista McReynolds

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401



53

Mohave Livestock Association
P.O. Box 6578
Kingman, Arizona 86401

WRITTEN Comments on DRAFT of
Kingman Resource Area Resource
Management Plan and Environmental
Impact Statement

Page 16 - Resource Area Goals (2nd item from top left)
Manage Livestock Pollution from Rangelands.
Comment. We assume this reference to best Management practices is in regard to the State Law regarding water quality. It is our understanding that the definition of best management practices is being debated and this issue is not yet resolved. We belive this to be a State of Arizona matter and is not a goal for the Bureau of land Management..

53-1 How can you have a goal for something that is not yet established? It should be deleted from the rmp.

Page 16 - General Management Areas / Areas Requiring Special Management, (right-hand column)
Comment.. We agree that some areas may require special management , however, We do disagree with the size, scope, and need for some of the areas.

Page 19 - Water Rights, (bottom of right column)
Comments. We question the need for the BLM to file for water rights. At a minimum, the document should state that such filings are subject to valid existing rights.

Page 21- Recreation Management.
When did the BLM become involved with NATLONAL PARK SERVICE to develope ,camping, picnicing,4 wheeling recreation areas.?

Page 23 - Special Status Species Management.
Comments. When will their be enough data on the desert tortoise. And what strategies will be impliminted??
How do you manage a desert tortoise??

Page 24 - Riparian Area Management,(last paragraph)
Comments. It is unclear whether the decision in the two riparian plans are incorporated by reference or whether they have been actually written into this document. If by reference, we must object because we do not know what these decisions are or how they will affect livestock grazing.

53-2 On page 1, it is stated that the decisions made on the two grazing EIS,s are adopted as the management direction for livestock grazing. If the riparian decisions conflict with livestock management decision in the grazing EIS, then we assume the Grazing Decision will supercede.

Page 25 - Prescribed Fire.
Comment. We strongly support the use of prescribed fire. However we urge the BLM to consider all options available to reduce costs associated with these fires.

53-3

Page 26 - Public Land Exchange

Comment. State land exchanges should be deletedfrom the RMP because voters of Arizona said no to state exchanges.

Page 30 - Alternative 1, Vegetative Products.

Comment. We support the present policy for support of vegetative products, especially the private and commercial woodcutting activities as this supplies a local demand and relieves cutting pressure elsewhere. We do encourage the BLM to more strictly enforce the present stipulations for the private woodcutting areas.

Page 30 - Alternative 1, Rangeland Management.

Comment. We wish to see the continuation of the co-operative effort between the BLM and the Livestock industry following the completion of the two livestock grazing impact statements, and therefore, support Alternative 1 in regard to rangeland management.

Page 31 - Rangeland Management,

Comment. A total of 165,872 acres of public land at the south end of the Black Mountians would remain closed to livestock grazing to reserve forage for wildlife.

Why is this land not in multiple use?

Page 31 & 47 - OFF ROAD VEHICLES MAP 2-3

This does not take into consideration intermingled BLM lands or STATE and PRIVATE lands, and should show STATE and PRIVATE as such, that both have limited access in shaded(gray) areas.

Page 33 - WILDLIFE HABITAT MANAGEMENT

*20 mile buffer of Bighorn Sheep habitat...

Would this not conflict with the multiple use of Public Lands?

What does this do to individuals in these areas that free raam their domestic sheep and goats ??

Page 34 - Alternative 1, Haulapai Mexican Vole
(1st column, 6th paragraph)

comment: We recommend recovery planning be closely co-ordinated with the livestock grazing permittee to assure his input on the effect to his operation is considered.

Page 34- Riparian Area Management (bottom 2cd column)

comment: We support the proper management of riparian areas as accomplished thruogh the Allotment Management Plan Program on the Brimhall's Burro Creek Allotment. We do have a problem visualizing 432.9 miles of riparian as shown in Appendix 7. With this in mind, we recommend that each grazing permittee be individually contacted for input into the RACE inventory which will be so crucial to his/her operation.

Page 34- Riparian Area Management

comment: Would like to know what the BLM's management plan will be before the book is finished.

Page 35- Special Management Areas (2cd column)

comment: Although Altenative 1 would not designate special management areas, we do not belive it is correct to state that 'all areas would continue to recieve nearly equal management attention.' For example, consider the categorization process in the BLM Allotment Management PLan Program. This results in many areas recieving more 'management attention' than others. We belive the BLM does give special attention to particular areas and resources in their current program and rightly so.

53-4

Page 35- Wild Horse and Burro Management

comment: Allocation for forage for all species, domestic and wild, is inherent in the BLM's monitoring program. Utilization measures do not distinguish which animal ia responcible, and numbers may be adjusted accordingly as laid out in the two grazing EIS's and subsequent decisions. The initial numbers of horses present at the passage of the Wild Horse and Burro Act was established by the BLM as 14 head in the previous planning document. We belive the 14 head plus a reasonable natural increase of the population is the wild horse number which shuold be established. In arriving at this number, the poor condition of the origianal 14 head, predation, ect., should be considered.

Page 35- Wild Horse and Burro Management (continued)

53-5

comment: We believe that a herd of 90 head or 130 head of wild horses or burros would be an unreasonable increase in the Cerbat HMAP, -- as referenced by page 24 & 25.....

PUBLIC LAW 92-195, Dec 15, 1971 (USC 1331-1340 as amended)

Horses and Burros on public land are maintained at the lowest level needed to assure the herds FREE roaming character, health, and self-sustaining ability.

** If this is Law, we find comments on page 59- Wild Horse and Burro Management to be incorrect and should be deleted from RMP :: (lower left paragraph bottom column)

" If the use limits are exceeded after the population LIMITS of 90 horses has been reached, livestock and deer numbers would be reduced."

We do not feel this would be considered multiple use.

Page 35- Alernative 2, Land Owmership Adjustments (column 1, 3rd paragraph from bottom)

53-6

comment: When compared to map II-4, proposed disposal land in T22 & T23N, R18W, appear to be within the Cerbat Herd Management Area and disposal would conflict with buffer zone requirements for the HMA. We recommend the land be retained.

53-7

Also, land propased for disposal in the following areas are part of existing or proposed for Allotment Management Plans and should be retained in public ownership to assure adequate land base to continue these livestock programs as outlined the Grazing EIS's:

Page 35- Alternative 2, Land Ownership Adjustments- Cont.

T22N, R19W, Sec. 2 and 10
T23N, R19W, ALL
T22N, R18W, Sec 2 and 3
T23N, R18W, ALL
T24N, R19W, ALL
T25N, R20W, ALL
T26N, R15W, ALL
T26N, R16W, ALL
T25N, R15W, ALL
T25N, R16W, ALL
T24N, R14W, ALL
T14N, R17W, ALL
T15N, R16W, ALL
T15N, R17W, ALL
T16N, R17W, ALL
T16½N, R17W, ALL
T17N, R17W, ALL

Page 42- Alternative 2, Watershed (column 1, 5th para. from top)

"all grazing allotments are categorized according to current and potential watershed condition, as shown in Appendix 20. This categorization would be validated in the field."

comment: If as stated this categorization needs to be validated in the field, we would assume the information in Appendix 20 is not previously validated by professional standards and therefore this appendix should be deleted or as a minimum, footnoted to be professional judgement only.

Page 42- Alternative 2, Vegetative Products (2cd column, 4th paragraph from top)

'grazing would be strictly controlled to maximize reproduction and regeneration of timber stands.'

comment: What does this Mean?? Allotment Management Planning should provide for the needs of all vegetative species. To our knowledge, reproduction of Ponderosa Pine is not a problem in pine areas at the present time. This sentence should be deleted.

53-8

Page 42- Alternative 2, Vegetative Products (2cd column, 5th paragraph)

'Percent slope less than 15 percent'

comment: Too specific for a document of this type. Exact precentages should be specified on a case-by-case basis in the management plan noted in the sixth paragraph.

Page 43 - Alternative 2, Rangeland Management
(column 1, 4th paragraph)

'This alternative would be the same as Alternative 1, except for the following:'

comment: Our comment is the same as Alternative 1, except f for the following:

Page 43- Alternative 2, Rangeland Management

commnet: (see above) Itiis our opinion that Allotment Planning Procedures already in effect as the rangeland management program are more than adequate to accommodate any special needs in the proposed Areas of Critical Envirinmental Concern. We will cover this specifically in our comments reguarding Appendix 18, pages 201-219.

Page 43- Alternative 2, Rangeland Management
(1st column, 8th paragraph)

'Upon comletion.....be reclassified.'

commnet: Ephemeral Designations were proposed, acted upon, and, to the best of our knowledge, completed as a part of the Bureau's previous planning effort. Any effort to change the designations now is unnecessary and perhaps unlawful. By the BLM's own regulations, the Special Rule adopted in 1968 (then 43CFR4115.2-4) is the guide from which Ephemeral Range is determined. Since the critera in the Special Rule is very specific and was previously applied reguarding elevation, precipitation isoline, and the minor percentage of desirable

53-9

Page 43 Alternative 2, Rangeland Management--(Cont.)

perenial forage plants, itis difficult to comprehend how new inventory data could change the designations.

We strongly feel that this matter has already been adjudicated and recommend this proposal be dropped.

Page 43- Alternative 2, OHV Designation

commnet: Same comments are made here as on Alternative 1 OFF ROAD VEHICLES on pages 31 and 47, of this document.

Page 47- Alternative 2, Wild and Scenic Rivers

53-10

comment: We cannot visualize Wright Creek, Burro Creek, or Francis Creek to be Wild or Scenic Rivers. The eligibility criteria does not appear to be in the document. We recommend that each grazing permittee be individually contacted for input into the eligibility determination as it affects his/her allotment.

Page 47- Wildlife Habitat Management (2od column,4th para.)

'Special management ..... management goals.'

comment: We question whether special management areas would provide tools to achieve management goals. The best tool for wildlife habitat improvement is the Allotment Management Plan Program already in effect.

Page 50- Alternative 2, Riparian Area Management

comment: Same comments as given for Alternative 1 or as stated on pages 24 and 34.

Page 59- Alternative 2, Wild Horse and Burro Management

comment: Same commnet as given for Alternative 1.

Page 60- Alternative 3, Lands (lst column para. 4 &5)

comment: Same comment as given for Alternative 2 reguarding retaining land proposed for disposal within Allotment Management Plan Areas. Same lists of lands to be retained is incorporated by reference plus the following from Map II-10:

T22N, R18W, ALL

In particular, we vigorously object to this particular disposal area because it includes the Curtain Allotment which has been intensively managed Holistically including co-operation a co-ordination between the livestock industry, Arizona Game and Fish, the State Land Department, the Bureau of Land Management, and the local populace. The information andexperience gained here has the potential for beneficial use on a large scale. It makes no logical sence to dispose of this land to private or State control. Although it might be argued that the State would continue to lease the land for grazing, this is certainly no guarantee as the State's primary function is to provide dollars for the schools. And these particular parcels are well situated for commercial development.

Page 60- Alternative 3, Lands ((continued.)

Long-term use for grazing, recreation, wildlife h habitat, and watershed protection is best met if these lands are retained in Federal ownership.

Page 60- Alternative 3, Vegetative Products

comments: Same comment given for Alternative 2. In addition, we wish to emphasize the demand for commercial and private woodcutting and the need to supply this demand. Woodcutters are perhaps the BLM's largest constituency in terms of mumbers of users. We feel the benefits to the rangeland in clearing of Pinyon-Juniper and the subsequent mosaic of grass, shrubs, and Pinyon-Juniper that will result, far outweights any short-term negative impacts that may occur.

Page 78- Wild Horse and Burro Management- Alernative 3

comment: If Wild Horse population is reduced to 14 animals the remaining horses would be managed until they become extinct. What kind of Management is this??????

DD. Page 60 - Alternative 3, Rangeland Management (2nd column, top of page)

'Same as . . . Habitat ACEC's.'

COMMENT: The elimination of livestock grazing is not carried forward in Table II-8 or Appendix 18, regarding the McCracken and Poachie ACEC's. Therefore, it is difficult to know exactly what is being proposed and to what extent. We strenuously object to any elimination of livestock grazing in these areas especially when Table II-5 list both as being excellent habitat for desert tortoise at the present time. Tortoise and livestock must be thriving together for this to be true.

EE. Page 76 - Alternative 3, OHV Designations

COMMENT: Same comment as given for Alternatives 1 and 2.

FF. Page 78 - Alternative 3, Wildlife Habit Management

COMMENT: Same comment as given for Page 60, Alternative 3, Rangeland Management.

GG. Page 78 - Alternative 3, Riparian Area Management (column 1)

COMMENT: Same comment as given for Alternative 1.

HH. Page 78 - Alternative 3, Special Management Areas

COMMENT: The size and scope is preferable to Alternative 2 but still questionable. See Comments on Appendix 18.

II. Page 78 - Alternative 3, Wild Horse and Burro Management (column 2, bottom of page)

COMMENT: Same comment as given for Alternative 1.

JJ. Pages 201-219 - Appendix 18, Areas of Critical Environmental Concern (ACEC)

COMMENT: This comment addresses ACEC's in general as they apply to this document. Section 103(a) of Public Law 94-579 defines Areas of Critical Environmental Concern as 'areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.'

The key phrase is 'to protect and prevent irreparable damage.'

The majority of the ACEC's proposed in Alternatives 2 and 3 do not meet the criteria of this definition. We believe existing policy of the BLM along with the multitude of Laws and Regulations for the public land are more than adequate for the BLM to continue the fine job it is already doing. In particular, the ACEC's proposal for Riparian and Wildlife Habitat protection certainly does not appear to be in danger of irreparable damage. Mining is currently regulated through Mining Notices and Mining Plans of Operation, Livestock Grazing is regulated and managed through the AMP program, Wildlife Habitat is managed through Habitat Management Plans, etc. Wherein lies the threat of irreparable damage. Any damage to vegetation, ~~except perhaps to endangered species,~~ is reparable. For example, the 1978-79 Floods in Burro Creek totally removed all vegetation to bare rock. Now through the Allotment Management Plan and a co-operative mother nature, the Riparian Zone has regrown to such an extent that the rancher received the BLM's highest award for Riparian Management.

We believe ACEC designations should be limited as the law requires to areas where irreparable damage is likely. Some that might qualify would be localized site specific cultural areas or localized site specific habitat for species on the endangered list. Our comments on each ACEC Area follow.

KK. Page 202 - Appendix 18, Alternative 2, Black Mountains ACEC

COMMENT: None of the resources in this area appear to subject to irreparable damage. Wildlife habitat is already supporting one of the best and largest (Thurber) populations of Desert Bighorn Sheep in existance and Allotment Management planning can provide for the Cerbat-Beartongue. Sensitive cultural resources should be considered for site specific protection, perhaps a small localized ACEC. Objectives and management prescriptions for this proposed ACEC are already being met or can be accomplished through current management. We recommend this area be dropped from consideration as an ACEC.

LL. Page 204 - Appendix 18, Alternative 2, Western Bajada Tortoise and Cultural ACEC

COMMENT: Because of the possible human impact close to a highly populated area, irreparable damage is possible to cultural sites and the tortoise themselves and therefore we recommend this area be designated ACEC.

MM. Page 206 - Appendix 18, Alternative 2, Wright and Cottonwood Creek ACEC

COMMENT: None of the resources in this area appear to be subject to irreparable damage. Riparian improvement to excellent condition undeniably can be accomplished under the Allotment Management Plan Program. This is proven in Burro Creek. No site specific cultural sites we identified, and if they exist or are found could be protected with a small localized ACEC. Objectives and management prescriptions for this proposed ACEC are already being met or can be accomplished through current management. We recommend this area be dropped from consideration as an ACEC.

NN. Page 207 - Appendix 18, Alternative 2, Cherokee Point Antelope Habitat ACEC

COMMENT: The document states that "the habitat is in extremely poor condition, and the longterm viability of the antelope population is questionable without immediate intensive management actions." "Species diversity within the grassland ecosystem will be lost without immediate management" and "the area has been historically grazed by too many livestock, resulting in the poor condition of the range."

We believe these statements lack the backup of substantiated scientific study and should be removed from the document. We do know the Cerbat/Black Mountain EIS document did not classify range condition due to lack of data and to the best of our knowledge, the BLM has not made a determination of range condition through vegetation studies since that time. We do know the BLM has considerable trend data since that time which shows considerable species diversity and an approximately static trend. Both the antelope and the vegetation species have maintained themselves for many years and no doubt would for years to come. This is not to say vegetation production could not be increased, but this can be managed through the AMP program.

Objectives and management prescriptions for this proposed ACEC are already being met or can be accomplished through current management. We recommend this area be dropped from consideration as an ACEC.

OO. Page 208 - Appendix 18, Alternative 2, Hualapai Mexican Vole Research Natural Area ACEC

COMMENT: Item ten under management prescriptions excludes livestock from occupied and historic vole habitat. We question whether livestock use is totally incompatible with vole habitat, however, if the exclusion is in the form of fence exclosure, then it is recommended that any water inside the exclosure be piped outside for livestock use. Also, we assume the occupied and historic vole habitat is within the boundaries of the proposed 3,300 acre ACEC. If it is outside, then we would have additional concerns.

PP. Page 209 - Appendix 18, Alternative 2, White-Margined Penstemon Reserve ACEC

COMMENT: No comment/or recommend elimination??

Page 116- MAP III -6 Desert Tortoise Habitat Categories

Being the following lands are Private and State owned and or leased areas they should be deleted from the RMP.

T20N, R13W - Cofer Ranch

T19N, R13W - Windmill Ranch

Page 210- Carrow-Stephens Ranches ACEC

Comment: We as taxpayers and BLM leasees strongly disagree with this being approved, because of the monies it would take to build and operate such an extravegance.

RR. Page 210 - Appendix 18, Alternative 2, McCracken Desert Tortoise Habitat ACEC

COMMENT: The document lists no data that shows tortoise habitat of in danger of irreparable damage with what is needed to meet the definition of an ACEC. The text states "the desert TORTOISE HAS existed for thousands of years and now is said by some to face the threat of extinction" We believe that statement says it all. It is said by some but that doesn't make it a fact. The Mojave population listed as endangered to the west of the Colorado River is infected by an upper respritory disease and is apparently suffering from concentrated predation by ravens. We assume that was the reason it was listed as endangered and we also assume it will be delisted as soon as these two problems are solved. These are not problems on this side of the river. The objectives and management prescriptions for this proposed ACEC are already being met or can be accomplished through current management. And because of the absense of current or imminent impending irreparable damage to tortoise habitat we strongly oppose this designation.

SS. Page 211, Appendix 18, Alternative 2, Poachie Desert Tortoise Habitat ACEC
Page 212, " " " " " , Aubrey Peak Bighorn ACEC
Page 213, " " " " " , Burro Creek Riparian & Cultural ACEC
Page 216, " " " " " , Three Rivers ACEC

Comment: The oblectives and management procriptions for these three proposed ACECs are alrady being met or can be accomplished through current management. We recommend these be dropped for consideration as ACECs.

Comment Summary for Alternatives:

We appreciate the opportunity to comment and give input into the Kingman Resource Area, Resource Management Plan and Environmental Impact Statement. Livestock grazing is one of the most important and earlieat commercial uses of the public lands.

The grazing animal performs a vital function in maintaining a healthy rangeland environment.

We in the livestock industry, as represented by members of the Mohave Livestock Association, would like to see that this cooperation continues thruugh the 1990's and into the 21st Century.

Although the two livestock grazing EIS documents and the livestock grazing programs developed from them have been incoporated into the new Resourse Management Plan by reference, We are concerned that many actions proposed in the RMP would adversely affect individual grazing permittees, and perhaps change the cooperative situation to an adversarial one.

Further concerns reguarding the exclusionary trends in the document reguarding areas of critical environmental concern, riparian areas, and special status species.

It appears the way some of these sections are worded that livestock grazing could be eliminated or severly restricted in such a manner that would be contrary to the approved livestock grazing program developed as a result of the two grazing EIS.

With all of this in mind we feel that Alternative I with a few word changes would be the preferred Alternative.

Sincerely,
Ken McReynolds
Ken McReynolds
President:
Mohave Livestock Association

54

MOHAVE LIVESTOCK ASSOCIATION

P.O. Box 6578
Kingman, Arizona 86401
Phone: (602) 753-3788

April 15, 1991

Ms. Elaine Marquis
Area District Manager
Bureau of Land Management
2475 Beverly Lane
Kingman, AZ 86401

Dear Ms. Marquis:

Please include the attached comments to the ones already submitted by the the Mohave Livestock Association.

Thank you.

Sincerely,

Ken McReynolds
President

KMcR/vac
enclosures(3)

VV. Comments on Chapter IV-Environmental Consequences

We feel the impact analysis for Alternative 1, Current Management, is flawed and should be redone.

The analysis does not accurately reflect all components of Alternative 1 ~~and~~ by neglecting to identify the beneficial effects of implementing the program decisions for the two Grazing EIS's within the five-year time frame ~~planned~~ or in the future.

If the schedule of implementation had been met, or whenever it is met, many of the supposed adverse impacts identified as a part of ''current management'' would be non-existant. It appears an attempt is made to downplay current management even though if implemented it would solve many of the resource conflicts identified.

Examples:

WW. Page 123: 3rd paragraph - ''Wild horse numbers in excess of the carrying capacity would degrade watershed condition''

COMMENT: Aside from questioning if watershed conditions are deteriorated under current management, which we believe they are not, had the Herd Management Plan discussed on Page 8 of the Program Document for the Cerbat/Black Mountain EIS been implemented on schedule in 1983, this identified adverse impact would not exist. It was not implemented, yet even so, the beneficial impact should be identified because the grazing program resulting from the EIS is part and parcel to Alternative 1. (See Pages 1, 20, 30, and 157 of Draft RMP)

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XX. Page 127 (7th Paragraph, 2nd Column)

''Existing priorities do not . . . declines in habitat conditions''

Page 128 (3rd Paragraph, 1st Column)

''Under current management wild horses would be allowed to increase or decline on their own''

Page 129 (2nd Paragraph, 1st Column)

''Existing rangeland program priorities . . . further declines in condition''

Page 129 (9th Paragraph, 1st Column)

''BLM has . . . decline of this species''

Page 130 (1st Paragraph, 1st Column)

''Existing rangeland program priorities . . . decline in riparian condition''

Page 130 (2nd Paragraph, 2nd Column)

''Allowing a population of wild horses to remain unchecked would harm the population itself''

COMMENT: The above examples clearly identify adverse impacts from the viewpoint that current management does not include the livestock grazing program implemented subsequent to the two grazing EIS's. This is of course incorrect as the grazing programs so indicated are part and parcel to Alternative 1, as previously discussed. The fact that they have not been fully implemented does not relieve the responsibility of the Bureau to identify the current or future beneficial impacts of this program as a part of Alternative 1. Once this is done, Alternative 1 should surface as the preferred Alternative, especially from a

vegetation management standpoint. All renewable resources obtain their basic needs from vegetation and the Bureau in the Kingman Resource Area already has an excellent program in place to maximize this resource for all resource uses. That program is the Livestock Grazing Program outlined in the program document for the two EIS's. This fact should be recognized in the RMP.

Pacific
Turbine Systems

10 Lombard Street
Suite 410
San Francisco
California
94111

March 28, 1991

U. S. Department of Interior
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, Arizona 86401

Attention: Ms. Elaine Marquis
Area Manager

Reference: Draft RMP/EIS Comments
100 MW Hydroelectric Pumped Storage Project

Dear Ms. Marquis:

The comments provided herein are made in reference to the Kingman Resource Area Draft Resource Management Plan and Environmental Impact Statement dated November 1990.

55-1 Pacific Turbine Systems, Inc. represents Citizens Utilities--the local electric utility serving Kingman and the majority of the Mohave County area. After extensive study, Citizens has concluded that a 100 MW modular hydroelectric pumped storage project would best serve the growing electrical needs in this area. Due to the project's unique characteristics to both store energy and regulate load (i.e., the project operates analogous to a battery), it will be a valuable energy resource to optimize and enhance the electric system in the Mohave County area, thereby helping to ensure competitive electric rates for consumers.

The project utilizes clean hydroelectric technology and is environmentally kind, especially when compared with the thermal plant alternatives. Unlike fossil-fired (oil/gas/coal) thermal plants, this project has no local air quality impacts nor wastes of any kind. Without the availability of pumped storage as a future electric resource, it is likely that one or more thermal plants would be built instead, with potentially substantial negative environmental impacts to the local area.

The hydroelectric pumped storage project will require roughly 140 acres of land to construct an underground powerhouse and two small reservoirs, impounding

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roughly 2000 acre-feet of water. The project will operate primarily with groundwater. A 230 KV transmission system will also be built to the Hilltop Substation in Kingman. The project is scheduled to be completed as early as April 1995.

This project will provide substantial local economic benefits to Kingman and Mohave County in the form of jobs and services, expected to total more than $40 million during the construction phase alone.

Two project sites have been selected near Kingman in the surrounding mountains. These particular sites were selected because of their unique topographical characteristics, ideal for a hydroelectric pumped storage project. Each site is discussed below.

Cerbat Site

55-2 The "Cerbat Site" is located in the Cerbat Mountain Range, approximately 15 miles north of Kingman. This area is widely intermixed with federal (BLM, as indicated), state, and private lands in a checkerboard pattern. The project site is situated on portions of Sections 28 (BLM), 33, and 34 (BLM), Township 24 North, Range 17 West, and portions of Section 3, Township 23 North, Range 17 West.

This project site is not within a wilderness area, nor a designated Area of Critical Environmental Concern, nor an area with any other apparent special or sensitive environmental concerns. It is located on the central-northeastern corner of the Cerbat Herd Management Area Plan--a wild horse habitat area--totaling 83,501 acres, 71% of which is owned by the federal government. This proposed project is compatible with, and can effectively mitigate impacts (if any) to, the wild horse herd. As an environmental enhancement, this project would offer a new critical surface water source for the wild horses (especially applicable to draft RMP/EIS Alternative 2) and other wildlife in the area.

55-3 This area is shown in the KRA draft RMP/EIS as a land retention area and within the Cerbat Herd Management Area Plan. We request that the federal sections of this land (indicated above) be changed from retention to a designated disposal area through exchange. As mitigation, we will offer to purchase land in BLM-designated high-resource value acquisition areas, such as wilderness areas, for land exchange. We intend to submit a right-of-way/land exchange application to the Kingman BLM office, pursuant to Title 43, CFR, parts 2800 and 2880.

55-2 We also request that you consider moving the Cerbat HMAP boundary slightly westward. Based upon the text in the draft RMP/EIS, page 38, it appears that you considered and rejected a similar request, based upon our letter dated January 31, 1990. Movement of the Cerbat HMAP boundary should be insignificant, especially when all of your RMP/EIS alternatives discuss substantial reductions in the herd size. Further, much or most of the land in this particular area is not federal, therefore, we must question the location, need, and prudence of the federal government to acquire thousands of acres of additional lands for a herd that it will reduce in size, especially considering existing federal lands for this specific purpose already exceed 57,000 acres. Again, this project is entirely compatible with the wild horse herd if movement of the boundary is not possible.

A 230 KV transmission system will be required from the project site to Hilltop Substation (located near Hualapai Mountain Road, southeast of Kingman). The transmission route will occur easterly from the project site to Hualapai Valley, then turning southerly through Hualapai Valley (west of Long Mountain) to Hilltop substation. The southerly portion of this route through Hualapai Valley appears to follow the Lake Mead to Kingman proposed water pipeline right-of-way, as indicated in your RMP/EIS on page 40 and Map II-6.

Hualapai Site

The "Hualapai Site" is located in the Hualapai Mountain Range, approximately 10 miles south of Kingman. This area is primarily federal land. The project is situated on portions of Sections 8, 9, 16, 17, 20, and 21, Township 19 North, Range 16 West.

Compared with the Cerbat Site, this project site requires less transmission and is ideally located in the utility's load center for Mohave County, allowing greater operating efficiency.

This project site is on the northeastern boundary of the Wabayuma Peak Wilderness Area. Since part of this project lies just inside the wilderness boundary, we ask your assistance in preparing a license application to be submitted to the Federal Energy Regulatory Commission, including right-of-way approval by the Secretary of Interior and President Bush. Concurrently, we intend to submit a right-of-way application to the Kingman BLM office, pursuant to Title 43, CFR, parts 2800 and 2880.

A 230 KV transmission system will be required from the project site to Hilltop Substation. The transmission route will occur westerly from the project site to the existing El Paso Gas pipeline, then turn northeasterly along the El Paso Gas pipeline to Hilltop Substation (located near Hualapai Mountain Road, southwest of Kingman). The northeasterly portion of this route appears to follow the existing utility corridor from Yucca to Kingman, shown in your RMT/EIS on page 40 and Map II-6.

This project site is not within an Area of Critical Environmental Concern nor an area with any other apparent special or sensitive environmental concerns. The proposed project is compatible with the local environment and can effectively mitigate any adverse impacts, including: procuring BLM-designated high-resource value acquisition areas, such as private or state lands within wilderness

areas (i.e., inholdings); adding private lands, if available, from areas surrounding this wilderness area, providing a net gain in wilderness; providing a new critical surface water source to enhance the environment for wildlife in the area; and/or providing access and campground facilities for recreationists, such as backpackers, horseback riders, etc.

Please contact us if you require additional information regarding the project sites or transmission corridors.

We appreciate the opportunity to provide you with both comments regarding the draft RMP/EIS and future plans regarding the needs of Citizens Utilities to provide a competitive and reliable electric system for the people in Kingman and the surrounding Mohave County area.

Sincerely,

PACIFIC TURBINE SYSTEMS, INC.

Rick S. Koebbe
Vice President

cc: Mr. James P. Avery, Citizens Utilities
Mr. Thomas J. Ferry, Citizens Utilities

P.S.: Pacific Turbine Systems, Inc. has recently changed its name to better reflect its area of business. The new company name is *Peak Power Corporation.* A formal announcement will follow in the near future.

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RUSSELL D. BUTCHER
Southwest-&-California Representative

March 26, 1991

Mr. Henri R. Bisson
Phoenix District Manager
Bureau of Land Management
2015 W. Deer Valley Road
Phoenix, AZ 85027

RE: KINGMAN RESOURCE AREA
RMP & EIS DRAFT

Dear Henri:

Thank you for the copy of the Kingman Resource Area draft Resource Management Plan & Environmental Impact Statement. National Parks and Conservation Association, a 283,000-member nonprofit organization, founded 72 years ago to promote the protection of national parks and related public lands, appreciates this opportunity to offer comments.

In light of having been involved with the Arizona Strip RMP/EIS, I am impressed with the Kingman document. It reflects a lot of good work by you and your staff.

We are especially pleased to see the protective management provisions under Alternative 2 (Preferred Alternative), regarding such matters as the improvement and maintenance of T & E species habitat, big game habitat (desert bighorn, in particular); riparian habitat; cultural resources (including acquisition of some 3,300 acres containing important cultural values; OHV constraints in areas of especially sensitive resources; segments of rivers that may be added to the Wild & Scenic Rivers system; Areas of Critical Environmental Concern (ACECs); and proposed mineral withdrawals for particularly sensitive ACECs or parts of ACECs.

We commend you on the Alternative 2 proposals for ACECs and management prescriptions relating to each ACEC, and we strongly urge adoption of this alternative's set of ACECs. All of the areas certainly appear worthy of this protective status. We're especially pleased to see the 39,085-acre Joshua Tree Forest-Grand Wash Cliffs ACEC, adjacent to Lake Mead National Recreation Area, recommended for the special protection of this magnificent Joshua Tree area, as well as for the protective management of rare cultural values, wildlife habitat, and the Grand Wash Cliffs scenery. Likewise, we are particularly pleased with the Burro Creek Riparian and Cultural ACEC and the Three Rivers Riparian ACEC for the protective

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Box 67, Cottonwood, Arizona 86326
(602) 634-5758

management of riparian values, T & E species habitat, and important cultural resources.

We suggest one possible addition to the document: a new section, under Environmental Consequences, on "Impacts to Adjoining Lands," including the adjacent National Park Service-administered Lake Mead National Recreation Area. This section (as in the Arizona Strip RMP/EIS, Page IV-31-36) could cover such matters as ACEC designations, mineral withdrawals, public access management, land exchanges/acquisitions/disposals, cultural resource protection, watershed management, recreation management, and visual resources protection. Many of the proposals can be expected to have a positive impact upon adjacent lands, including Lake Mead NRA; others can be expected to have some potentially negative impact (such as the disposal of public tracts). We strongly urge that it is important for BLM to at least succinctly describe those RMP management proposals that would be beneficial to, harmful to, or cooperative with the adjacent uses and land management of the adjacent area. On top of other obvious reasons, such a section is important because it demonstrates that BLM is aware of the potential impacts (positive or negative) upon adjacent landowners or upon the lands of other land-management agencies.

Again, Henri, thanks for letting us review this excellent document.

With best regards,

RDB/prb
cc: NPCA headquarters

Russell D. Butcher
Pacific Southwest Regional Director

57

PRESCOTT AUDUBON SOCIETY

April 1, 1991

Bill Carter
Bureau of Land Management
Kingman Area Office
2475 Beverly Ave.
Kingman, AZ. 86401

Dear Mr. Carter:

I have written to your office previously, in enthusiastic support of the proposal in your Draft R.M.P. to designate the riparian A.C.E.C.'s for Burro Creek, Wright Creek and Cottonwood Creek, and the Three Rivers (Big Sandy, Santa Maria and Bill Williams Rivers). I am taking this opportunity to write to you again in support of this proposal, under Alternative #2 of the Draft R.M.P. during your official comment period.

These areas contain such a rich diversity of riparian bird and plant species that they deserve the monitoring and protection of A.C.E.C. status. I can speak from personal experience about the unique beauty and great number of bird species in lower Burro Creek, where I've gone hiking and bird-watching. Burro Creek also has the highest number of Black Hawks in the U.S. I was sorry that this area wasn't given wilderness status, so it would be good to designate Lower Burro Creek as an A.C.E.C., to allow it some protection. I've also become familiar with the Bill Williams River through researching information for its inclusion in the Wild & Scenic Rivers proposal by the Arizona Rivers Coalition, and I've visited the lower portion of the river on bird-watching trips. This river also deserves A.C.E.C. status since it encompasses precious resources for bighorn sheep, over 100 species of birds, including Bald Eagles, and many plant and fish species.

I'm afraid there may be some protests expressed from mining interests, however A.C.E.C. status isn't all that restrictive. It merely ensures that special riparian areas are given some measure of protection, requires mining companies to file Plans of Operations in designated areas, and to conduct their operations conscientiously. Multiple Use may emphasize mineral resources in some areas, but in other areas other qualities are more valuable - such as protecting the habitat for threatened or endangered species in outstanding lush and varied riparian areas. Please do not be dissuaded from the A.C.E.C. proposals in Alternative 2 of your Draft R.M.P.

I greatly appreciate your thorough evaluation of the Burro Creek, Wright Creek and Cottonwood Creek area, and Three Rivers riparian areas for A.C.E.C. designation.

Sincerely,
Janine O. Spencer
Janine Spencer, Conservation Chair
Prescott Audubon Society
132 Park Ave.
Prescott, AZ. 86303

cc: Senator John McCain
Senator Dennis DeConcini
Representative Bob Stump

58

880 Douglas Lane
Apt 5-B
Prescott, Az 86301

April 3, 1991

Bill Carter
Bureau of Land Management
2475 Beverly Av
Kingman, Az 86401

Dear Mr. Carter:

We are delighted with the Draft Management Plan (R.M.P.) which recommends that Burro Creek, Wright Creek and Cottonwood Creek and the three Rivers (Big Sandy, Santa Maria and Bill Williams Rivers) be designated Areas of Critical Environmental Concern.

Those of us who have hiked these areas are aware that they need special management attention from BLM. As you are aware, the areas contain many threatened and endangered species who depend upon viable riparian areas for survival. We are pleased that your agency recognizes the importance of preventing further damage to this vital habitat.

Keep up the good work!

Best wishes,
Glenn Franklin
Jane Franklin
Glenn Franklin
Jane Franklin

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Southwestern Field Studies

Prescott, AZ 86303
April 2, 1991

Bill Carter
BLM, Kingman Area Office
2475 Beverly Ave.
Kingman, AZ 86401

Dear Mr. Carter,

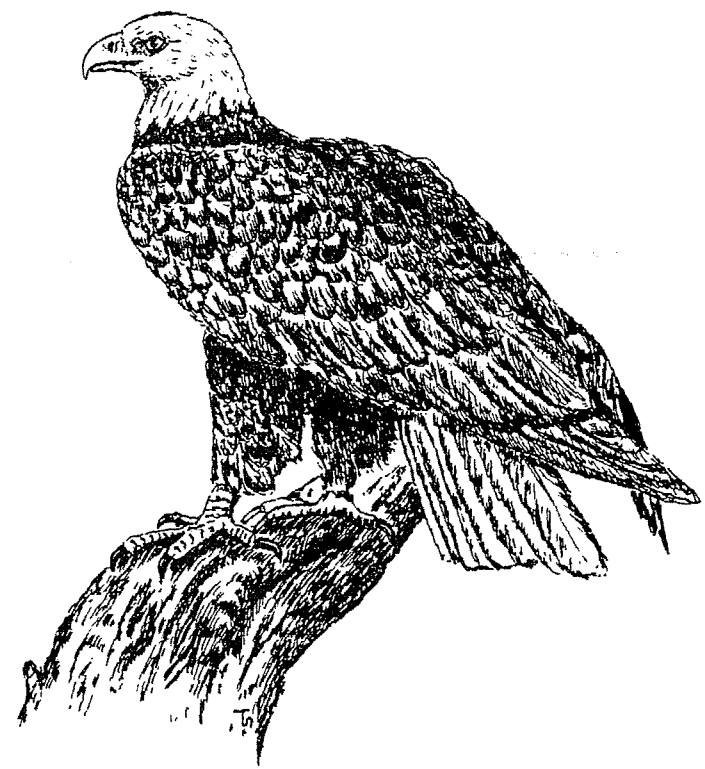
I am pleased to learn that the Kingman BLM office recommends A.C.E.C. status for the Burro Creek and Wright Creek Canyon Complex. I have spent much time on Burrow Creek and agree that it is a very rich riparian area that deserves special protection.

Because these riparian areas contain habitat for several Threatened and Endangered Species, supporting large numbers of Bald Eagles and Black Hawks, care should be taken to preserve these areas in a natural state and monitor carefully the grazing allottments and mining interests. Good management is essesntial for these important streams.

Thank you for recommending A.C.E.C. status for these areas; I fully support that decision.

Sincerely,

Vera M. Walters



60

April 3, 1991
2130 Airway Ave.
Kingman, AZ 86401

Bill Carter
Bureau of Land Management
2475 Beverly Ave.
Kingman, AZ 86401

Re: Kingman Resource Area
Resource Management Plan and
Environmental Impact Statement Draft

Dear Mr. Carter,

We have Walnut Creek Allotment. I want to comment on the above Draft.

The first part of the Draft appears to recognize the rancher's place on the allotment. The purposed Resource Plan indicates the intent to work with the rancher without additional undue hardships to his operation.

However, further into the Draft, the Environmental Impact Statement comes into conflict with livestock grazing on public lands.

60-1 A third of our allotment is designated wilderness. Our entire allotment is designated to the desert tortoise one, two and three habitats and the mexican vole habitat. All are listed as endangered species.

The Evironmental Impact Statement, to give one example, makes references such as "severely damaged by livestock grazing" in remarks to describe the mexican vole habitat. In my opinion this is a statement from a decidedly biased study report. Statements like this plant a wrong image in the minds of the public towards livestock grazing. The damage we have found in that area of our allotment is from the javelina pigs. They are everywhere and they play havoc with the riparian areas and other vegetation areas. Yet I found nowhere in the Environmental Impact Statement that addressed this problem.

If I am understanding the Draft correctly the environmental intent is precise: if it is not compatible with the defined eco-system, remedy it.

Livestock does not fall into the compatible category. Some of the environmental remedies include: fence livestock from riparion (water) areas but leave accessible to wild life; fence habitat areas (possibly hundreds of acreas) from livestock or require the rancher to keep livestock out of the area.

These restrictions are of great concern to us. A rancher could not possibly finance a public project of this magnitude. One that required him to either keep guard or be forced to fence miles of open areas in order to prevent trespass of his cattle.

Another concern is in the monitoring of range forage: will livestock be given priority?; will cattle be reduced to accommodate increased wild life?; how will it be determined who is eating more than their share?; wild life or cattle?.

At this period in time livestock grazing is being regulated to the lowest priority on public lands.

If the implementation of the Environmental and Resource Management Programs necessitate a reduction in our AUM we will be unable to survive in the livestock industry. At the present time our total livestock count allowed on our allotment is about a third of what it was some years back.

There are many instances where government regulations can harm ranchers and others by taking away the value of the land. This value can be taken in several different ways. Increased cost of production, limiting financial return or expectation, denial of use, limiting access and physically taking or occupying the land are some of the ways.

If enacted these programs will be mandated. The enforcement laws granted to these programs, by our lawmakers, supersede the rights of the grazing permittee.

I want to go on record as opposing any additional restrictions or changes in our present land use policy.

Sincerely,
Jean Linn
Jean Linn

61

April 4, 1991

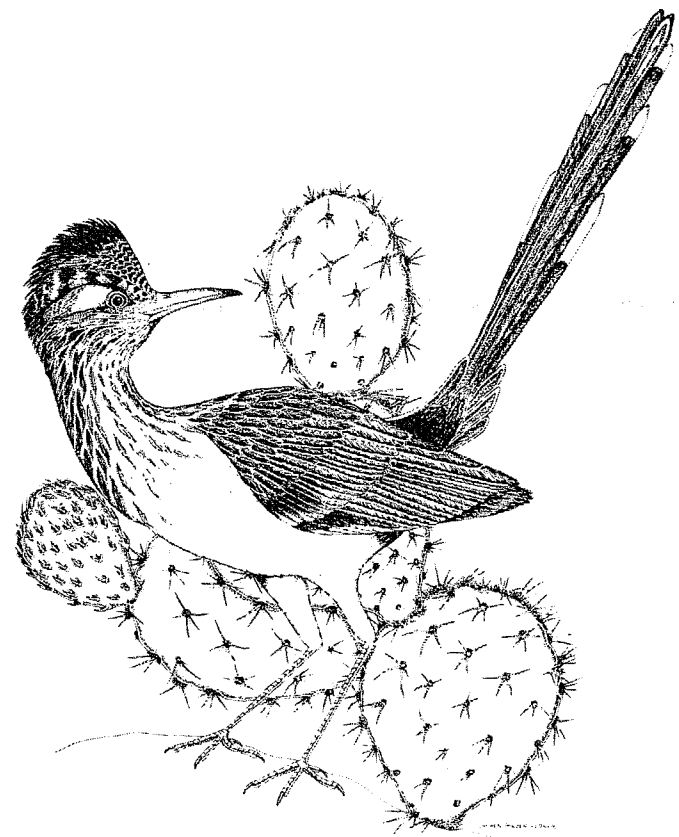
Dear Mr. Carter,

I write in support of giving ACEC status to Burro Creek, Wright Creek and Cottonwood Creek, and the Three Rivers riparian areas as has come out in the R.M.P. draft proposal.

It is important to protect and give special management attention to these areas because they contain such important riparian habitat. Someone told me that 98% of Arizonas Riparian areas have been destroyed. Given the uniqueness of this states climate, environments and wildlife populations that is more than tragic. Giving protection to these areas listed for ACEC status is critical. They house unique associations of plants that create food and shelter for a wide diversity insects, birds and mammal including some that are threatened and endangered.

I have enjoyed some of these areas as a birdwatcher, hiker and amateur botanist but I feel that our stewardship for the land needs to go beyond personal interest to deal directly with the preservation of habitat for the plants + animals that share this planet, and this state, with us.

Sincerely, Rebecca Davis
1542 Shoup St, Prescott Az. 86301



62

United States Department of the Interior

NATIONAL PARK SERVICE

WESTERN REGION
600 HARRISON STREET, SUITE 600
SAN FRANCISCO, CALIFORNIA 94107

IN REPLY REFER TO:

L7617(WR-RP)

April 3, 1991

Memorandum

To: Area Manager, Kingman Resource Area, Bureau of Land Management
Attention: Gordon Bently

From: Associate Regional Director, Resource Management and Planning, Western Region

Subject: Draft Resource Management Plan/Environmental Impact Statement for the Kingman Resource Area, Mohave, Yavapai and Coconino Counties, Arizona (DES-90/29)

The following are the review comments of this office, Lake Mead National Recreation Area, Grand Canyon National Park and our Washington Mining and Minerals Division on the subject document. Our major areas of concern include actions involving mineral activities, off-road vehicle designations, burro management, grazing, watersheds, and land disposal adjacent to the parks.

Burro Management

1. On page 36, Map II-4, the map shows a portion of the Black Mountain wild horse and burro herd management area covering Lake Mead NRA lands. We recommend that this map be revised so that the herd management area does not include park lands as there is no authority for such designation within National Park Service (NPS) areas by the Bureau of Land Management (BLM). While Lake Mead NRA intends to continue working with the Kingman Resource Area and Arizona Game and Fish Department for the management of burros within the Black Mountains, there are fundamental differences in mandates and objectives concerning burro use between the agencies. We will continue to work within the interagency framework to achieve mutual goals within those historic use areas of the Black Mountains, as represented by the herd management area map. However, we are opposed to the establishment of new populations or herds of burros in areas outside of the historic use area as represented by the herd management area map.

2. We view differently some of the burro impact discussion found on pages 123, 129, and 146, pertaining to impact levels upon sensitive vegetation species and riparian areas. The mandates and objectives referred to in Item 1 above may result in differing interpretation of burro impacts within Lake Mead NRA.

Off Highway Vehicles (OHV)

1. On page 46, Map II-7, at the intersection of Township 29 and 30 North, Range 15 and 16 West, there is a block of land shown unshaded indicating "designation for existing roads, trails and washes." We recommend this block of land, adjacent to Grand Canyon NP, be identified as "designated roads and trails only." We would appreciate knowing how these areas will be designated so that the public will be able to differentiate the BLM areas from Grand Canyon NP, where no off-highway vehicle travel is permitted.

2. As discussed at your scoping meeting by our Lake Mead staff, our preference for areas adjacent to Lake Mead NRA would be vehicles limited to "designated roads, trails, and washes," for consistency with the recreation area's policies. Recent discussions indicate that this may not be possible for the length of the recreation area boundary. We recommend that at a minimum, a discussion be included within the Resources Management Plan document advising the public of the different policies for recreation area, and suggesting that they contact the recreation area for further information. We also recommend a map within the document showing the designated roads within Lake Mead NRA open to vehicles. As we discussed with you, such information is digitized and the recreation area staff will be glad to assist you in map preparation. In addition, the recreation area would like to work with you to develop joint hand-outs and future public education programs concerning OHV use.

Mining Operations

1. The discussion of potential mineral occurrence and development in the Environmental Impact Statement (EIS) is not clear in that it does not provide sufficient information on which to assess potential impacts of mineral development on NPS units. The word "potential" is used in the document to mean both potential occurrence and potential mineral development. Because it is used interchangeably, the reader has no way of knowing the intended meaning.

62-1 2. The EIS contains significant inconsistencies in the description of size and location of the planning area. The maps provided with the EIS appear to cover only the western half of the Kingman Resource Area. Mineral development in this half has the potential to impact Lake Mead NRA and Grand Canyon NP. While a map of the eastern half was not provided, it is our understanding that this area is included in the planning area. The EIS (p.7) states that all three counties in the planning area

"contain a wealth of minerals." Mineral development in the eastern portion of the resource area could impact at least three additional NPS units: Wupatki, Sunset Crater, and Walnut Canyon National Monuments, with Wupatki being the most likely. These three units are under the jurisdiction of our Southwest Regional Office in Santa Fe, New Mexico, and we recommend that office have the opportunity to review this document and coordinate with you if any of the three units might be impacted by present or future mining operations on public land.

3. In a conversation with our Mining and Minerals Branch personnel, your staff stated that mineral development potential for the unmapped area is low. However, page 95 of the EIS states that more than half of the minerals in the resource area have high occurrence potential. The following have moderate or high potential: copper, gold, iron, lead, manganese, niobium, silver, tungsten, uranium, zinc, fluorite, feldspar, lime, salts, silica, and sand/gravel. In addition, over 400,000 acres of federal minerals in the Kingman Resource Area are not addressed in the planning document (the plan covers 2.18 million acres, yet the resource area contains 2.6 million acres). The plan does not address this discrepancy, nor state where the acres are geographically located. This is particularly important in the case of mineral development, since possibly five NPS units fall within the planning area and potentially could be affected. The plan and EIS do not provide sufficient details to assess the potential impacts to these NPS units.

62-2

4. From information provided in the document, both the Lake Mead NRA and Grand Canyon NP have the potential to be significantly impacted by mineral development in the Kingman Resource Area. The EIS maps show high development potentials for salables (e.g., sand and gravel), leasables (e.g., salt/halite), and locatables (e.g., metallic minerals) adjacent to Lake Mead. Likewise, there is a high potential for the development of locatables adjacent to Grand Canyon. There is no specific information regarding the development potential near the boundaries of the aforementioned three national monuments in the eastern area. We recommend that the bonding of operations in or near the viewshed of an NPS unit be mandatory. This recommendation can be used as part of your efforts to maintain a cooperative relationship and to consult with federal agencies, as committed to in the EIS. Also, we request that you notify our affected management units and provide them an opportunity to review mineral-related environmental documents and specific plans of operations in the Kingman Resource Area.

62-2a

5. The EIS states that the transfer of some public land out of federal ownership will occur and that this will impede mineral development of these lands (p.119, 131, 141). We are not clear as to why this would be the case. We are concerned, however, that mineral development on such transferred lands may no longer be under the control of the BLM mining or National Environmental Policy Act

regulations. This is a potential impact on any adjoining NPS units that should be discussed.

Other Specific Comments

1. On page 38, under Public Lands in Coconino County, the potential impact of disposal of these lands on any of the three national monuments previously mentioned as being in that area should be identified.

2. On Page 41, Map II-6, Utility Corridors, shows a utility corridor ending at the Lake Mead NRA boundary in the Meadview area. Presumably, this reflects the preliminary planning for the proposed Tran Am pipeline. Lake Mead NRA has only had preliminary discussions with Tran Am at this time, and designation of a defined right-of-way is premature at this point. We recommend eliminating this corridor from the map due to the tentative nature of the planning at this time. We should, however, continue to coordinate our right-of-way planning process for this or any other corridor potentially crossing from BLM to NPS administered lands.

62-2b

3. On page 42, under Watershed Resources, we suggest the plan incorporate the state of Arizona's water quality standards that address "best management practices." These best management practices influence grazing management.

62-3

4. On page 58, Table II-7, and Page 201, regarding Joshua Tree - Grand Wash Cliffs ACEC, we are highly supportive of special designation for this extremely significant area. The Joshua tree forest is a designated National Natural Landmark, a designation reflective of its scenic beauty and high quality natural resource values. We strongly recommend that the entire ACEC be withdrawn from mineral leasing. This area should be afforded the highest possible degree of resource protection. Lake Mead National Recreation Area is interested in pursuing joint planning for educational programs for this area.

5. On page 68, in Table II-9, grazing management activities should include compliance with Arizona water quality standards for non-point sources.

62-4

6. On page 122, under From Rangeland Management, mitigation to meet requirements of the "best management practices" under Arizona state water quality standards should be identified.

7. On page 133, under Impacts to Watershed Management from Mineral Development, drainages that enter a unit of the NPS should be withdrawn or otherwise protected from mineral development.

8. On page 202, under Management Prescriptions (#11), rights-of-way should be routed along existing corridors where possible.

9. We note the plan identifies five potential wild and scenic rivers. In this regard, we recommend you coordinate with the Arizona State Parks Board which is preparing an Arizona rivers assessment with the cooperation and assistance of the NPS, in order to determine if additional streams in the Kingman Resource Area should be identified. The appropriate contact is Tanna Thornburg, Arizona Streams and Wetlands Heritage Program, 800 W. Washington, Suite 415, Phoenix, AZ 85007 (telephone 602-542-1996).

We appreciate the opportunity to review and comment on this plan and environmental statement.

cc:
Superintendent, Lake Mead National Recreation Area
Superintendent, Grand Canyon National Park
Regional Director, Southwest Region
Chief, Environmental Quality Division, National Park Service
Mining and Minerals Branch, National Park Service, Denver, Colorado

63

Kingman Area Chamber of Commerce
P.O. BOX 1150
KINGMAN, ARIZONA 86402-1150
(602) 753-6106

Ms Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, Arizona 86401

Dear Ms. Marquis,

We laud the BLM for doing long range planning in the Kingman Resource Area. However, we have some grave concerns about the implications of the Draft document of the KRA's RMP/EIS.

These concerns are listed below in a spirit of co-operation and are not critical in any way of you or your staff. These comments are very general in nature and reflect primarily economic and land value concerns!

I. We know that your office does not dictate the format for the RMP/EIS document, but wish you to know that it is terrible when it comes to an "outsider" trying to make intelligent meaning of it's contents. The manner in which it jumps around and changes subject matter and references numerous other documents makes it almost impossible for the public to make earnest and honest comments as to it's contents. To say the document is confusing is an understatement at best. It can only be understood by those on the "inside" who have been working with it's development since the first beginnings of the planning process.

II. Map inside front cover: We have noticed that this area includes a large amount of private (Fee Land) and State School Trust Lands, where no federal land is involved, other than where subsurface mineral estate is concerned. We could not find anything in the document where it says that the BLM does not intend to attempt to impose surface environmental management to those properties. If the BLM does not intend to force management in these areas, a section in the Summary under the description of the "Planning Area", page ix, should clarify this concern on the final of the document, for all concerned parties. We are concerned about the negative effect that this proposed management action could have on Fee Land values, as well as the ability of the State Trust to generate the maximum revenues possible, if some sort of explanation is not spelled out up front.

63-1

III. With the passage of recent Wilderness Legislation, the advent of ACES's, riparian area management, endangered species designations, and a host of other parameters, our concern is for the perceived erosion of the "multiple use management" concept of public land management. We feel that without the maximum amount of "multiple use" as possible, it will greatly impact the amount of entrepreneurial activity on the public lands. As you are aware, the "in Lieu" taxes paid by the BLM nowhere compare to the taxes Fee Land holders pay on a per-acre basis. Therefore, the maximum amount of "multiple use" of public lands are necessary to generate revenues to offset that difference, and to create commerce and jobs within a county that is for the most part owned by the federal government.

IV. We find the document to be very general in nature, and hope that the BLM has intentions of more specific plans for various management areas that will require the inputs from all affected parties before actual activity begins on the site or actual management policy is set for specific sites or areas.

Above we have listed some concerns for your consideration. Below we list some recommendations that may assist BLM in the mitigation of those concerns:

(1) Recommend that the KRA RMP/EIS more fully describe which lands they intend to impose management on that are within the KRA. This description should take place within the summary on page ix of the document.

(2) Recommend that the BLM choose whichever management scenario that allows the largest amount of "multiple use" of the public lands. We feel that alternative 1. accomplishes that end the best.

(3) Recommend the BLM use those management plans that have the least negative impact upon the values of private (fee) land or limiting any otherwise legitimate business that may operate in harmony with public land management policy. We feel that alternative 1. accomplishes this best.

In closing, we wish to thank you at this time for your consideration and co-operation with our concerns and recommendations.

Sincerely,

Carla Malvick
President

T.R. Orr
Secretary

64

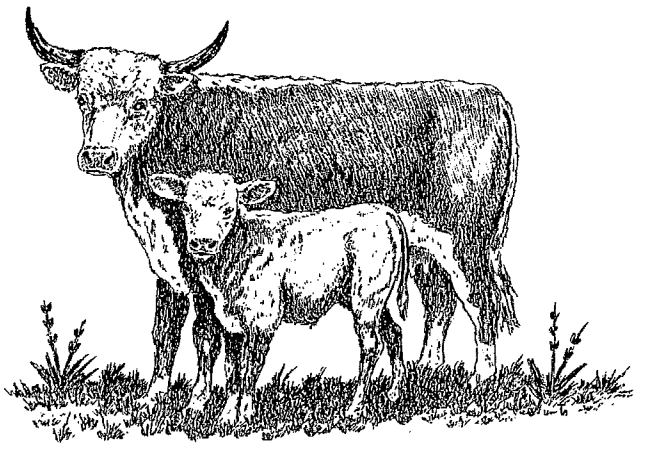
Sue Baughman
P.O. Box 634
Dolan Springs, Az 86441
8 April 1991

Bureau of Land Management
Kingman Resource Area Office
2475 Beverly
Kingman, Az 86401

In regards to your meeting in Dolan Springs, Az., January 24 1991. I found your alternative plans condradicting each occasionaly with a lot of double talk. You left out sections dealing with the cattle growers/wilderness; because it was being address in another study. However; by leaving these items they can some times be lost in the government shuffle of paperwork and the overall picture cannot be seen.

My main concern is the wild horse herd in the Cerbat Mt range. I feel that this nerd should be reduced to 50 head of horses or less. Thus allowing ample feed for the horses, cattle allotment and deer population and by maintaining the springs at higher elevation will keep the horses from coming down to the lower elevation and co mingling with the rancher's cattle.

Sue Baughman



65

Headquarters West, Ltd.

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257 JUSTIN DRIVE, STE. C
P.O. BOX 1840
COTTONWOOD, AZ 86326
(602) 634-8110

3275 INA ROAD
SUITE 100
TUCSON, ARIZONA 85741
(602) 742-2211

April 8, 1991

Ms. Elaine F. Marquis, Area Manager
Kingman Resource Area Office
Bureau of Land Management
2475 Beverly Avenue
Kingman, Arizona 86401

Dear Ms. Marquis:

This letter is in response to the Resource Management Plan and Environmental Impact Statement Draft. On November 28, 1990 the Arizona Wilderness legislation was signed by President Bush creating the Upper Burro Creek wilderness, of which a part of the Yolo BLM lease is located in this wilderness. The point that I want to make is, the main reason why this area is so pristine and beautiful in its natural state as it is now, is the result of good management and stewardship of the land. This has been and currently is under the management of the present rules and regulations of the Bureau of Land Management (B.L.M.) in cooperation with ranches, who are the "true environmentalists" and "stewards" of the land.

I believe that the existing policies of the B.L.M. together in working with each of the grazing permittees are more than adequate in doing their respective jobs. There have been many research reports published in the last few years, by various government agencies and land grant institutions stating that our public rangelands in the west are in their best condition ever in the last 100 years. This is backed by scientific data that has been collected and analyzed since the early 1900^{s}. This is proof and evidence that the government agencies (i.e.-BLM) in cooperation with the cattlemen are doing a great job in managing our public lands. "If it is not broke, why fix it"? is the question that I ask?

In reference to ACEC's, Section 103 (a) of Public Law 94-579 defines Areas of Critical Environmental Concern (ACEC) as areas within public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or

processes, or to protect life and safety from natural hazards. The important and key statement is: "to protect and prevent irreparable damage". I believe that the majority of the ACEC's proposed in Alternatives 2 and 3 do not meet the criteria of this definition. As I described earlier in this letter, I believe that the existing BLM policies that are implemented are doing a outstanding and efficient job together with the individual support (both financial and physical) of each grazing permittee. I do not feel that the ACEC's proposal for riparian and wildlife protection certainly is not in danger of irreparable damage. Multiple use is governed by many rules and regulations already in place. Livestock grazing is regulated and managed through the AMP Program; wildlife habitat is managed through the Habitat Management Plans, Mining is regulated through mining notices and Mining plans of operation, etc. As you know, any damage to vegetation is reparable. A good example of that is the Burro Creek Flood that occurred in 1978-79, where all of the vegetation was totally removed and obliterated by "Mother Nature". Presently through careful allotment management planning, between the rancher and the BLM, the plant community in Burro Creek has been re-established and the riparian area is known to be one of the most rigorous and beautiful in the entire state. In fact, this has been so successful, that the rancher, our neighbor, recently just received BLM's highest award in riparian management. This is an excellent example showing that through good managment practices, that most damage to vegetation is reparable!

I believe that the ACEC designations should be limited to as the law requires to areas where irreparable damage is likely, such as specific cultural areas or localized site specific habitat for threatened and endangered species.

As you are aware, the final decision on this draft document is not a simple selection of either Alternative 1, 2, or 3 from our perspective, there are good and bad segments of each alternative. A combination of mangement decisions taken from selected parts of each alternative will provide the most workable and realistic Resource Management Plan to serve as a guide to your agency. As a livestock operator on public lands, we do prefer Alternative 1 with some portions of Alternatives 2 and 3 combined with it. In conclusion, we want to reiterate that the present philosophy and policies of the Bureau of Land Management together in working with the rancher is working extremely well. This relationship and the results of this fine relationship between the cattle industry and your agency needs to be told to the public. Your agency can do this

and must do this. What a success story to tell the "American people"! Your staff and the ranching community are doing a great job in managing our rangelands. This is happening every day throughout the west. Tell the public! This is why we have so many beautiful & pristine areas. Let's keep it that way.

We at the Yolo Ranch do want to thank you for the opportunity to provide imput into this important document. If you have any questions, please contact us.

Sincerely,

Andy Groseta, Manager
YOLO RANCH

cc: Jack Croll

jlm

66

LIQUINOX Company

221 WEST MEATS AVENUE ORANGE, CALIFORNIA 92665-3386
Phone (714) 637-6300

April 8, 1991

Kingman Bureau of Land Management
2475 Beverly Ave.
Kingman, Arizona 86401
Attention: Resource Management Plan

To Whom It May Concern,

The following is a reply regarding the current Enviornmental Resource plan for Mohave County.

The Liquinox Company in this letter will be addressing only the "Selective Harvesting" of the Yucca Schidigera in the county area.

Beginning in 1954 on private lands, and then starting in 1958 on Federal Lands, the Liquinox Company has been harvesting yuccas for their liquid fertilizer operations. Prior to 1954 the harvesting and processing was done in California.

Since moving to Kingman, Arizona in 1954, we have supported a minimum of two (2) full time men and sometimes in years past up to six (6) full time men, thus investing into the local economy up to $65,000.00 per year. Our basis for our plant in Kingman is harvesting from the desert.

When we started in 1954 on private land, we set a rule that any plants under three (3) feet tall would not be harvested. This was the first conservation rule that had ever been considered regarding harvesting plants from the desert.

Over the years through cooperation and imput from the local Bureau of Land Management office, we have arrived at a process of "Selective Harvesting", which we feel has proven to keep the yuccas as a renewable resource.

Prior to the 1970's, we used large trucks and personnel that were paid by the ton delivered to our plant. In the 1970's when ecology came along, both the Bureau of Land Management and the Liquinox Company altered our harvesting process to reflect improvements in harvesting. Today we no longer take

LIQUINOX

QUALITY LIQUID FERTILIZERS - SINCE 1938

LIQUINOX Company

221 WEST MEATS AVENUE ORANGE, CALIFORNIA 92665-3386
Phone (714) 637-6300

six hundred (600) tons per year with per tonnage paid personnel. We use strictly company men and the tonnage has been decreased to fifty (50) tons per year. This has had no noticable impact on the desert areas. Using our current method of "Selective Harvesting" and our reduced tonnage per year (50 tons) we feel that this process is the best harvesting done over the last thirty some years in both California and Arizona. An example of this process and its results can be shown by our 1982 Governors Award from the Commission on the Arizona Enviornment (copies attached). We feel that this award was well deserved in that we have tried very hard to do the least damage and maintain the yuccas as a renewable resource. The award represents a combination of efforts between the Liquinox Company and the local Bureau of Land Management office and it shows that a commercial operation and government agency can work hand in hand with beneficial results.

There are some areas that we have cut in the past fifteen (15) to twenty (20) years that one could pass by and not know that we had been there. Our current program of full time company paid employees, reduced log consumption and even recently replacing our truck with a lighter weight truck with wider tires is an example of Liquinox Company trying to maintain the harvesting of yucca schidigera as a renewable resource. We feel that it can be done if done correctly.

We know that "Selective Harvesting" can be done under proper regulation since we have been doing just that for the last fifteen (15) years. The Liquinox Company is a concerned commercial operation that believes that the yuccas can be harvested on a selective basis and still be a renewable resource.

The areas that we have harvested in have shown an increase and betterment of the desert. Only select logs have been carefully removed from the area, leaving the lesser logs and new off-shoots surviving. Maybe its not the most scientific data collected, but it seems to show that our selective thinning can keep the yuccas growing.

Lets keep the desert open for qualified companies that have shown that they can do the job, cooperate and show results.

Sincerely,

Henry C. Garner

LIQUINOX

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Arizona Public Service Company
P.O. BOX 53999 • PHOENIX, ARIZONA 85072-3999

April 9, 1991

Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, Arizona 86401

Dear Ms. Marquis:

This is in response to the Kingman Resource Area RMP update, dated November 1990. Our utility planners have reviewed the proposed utility corridor in Alternative 2, your proposed alternative. We currently have no plans to construct transmission lines outside of these proposed corridors.

We do have plans to be a participant with the Salt River Project and others in the construction of the Mead-to-Phoenix 500kV transmission line. It appears that this line will be within the utility corridors of your proposed alternative. Enclosed is a copy of our Ten Year Plan (see page 5 for the Mead-Phoenix project). Also enclosed is a map showing the route for this line.

Thank you for the opportunity to comment on the Kingman Resource Area RMP update.

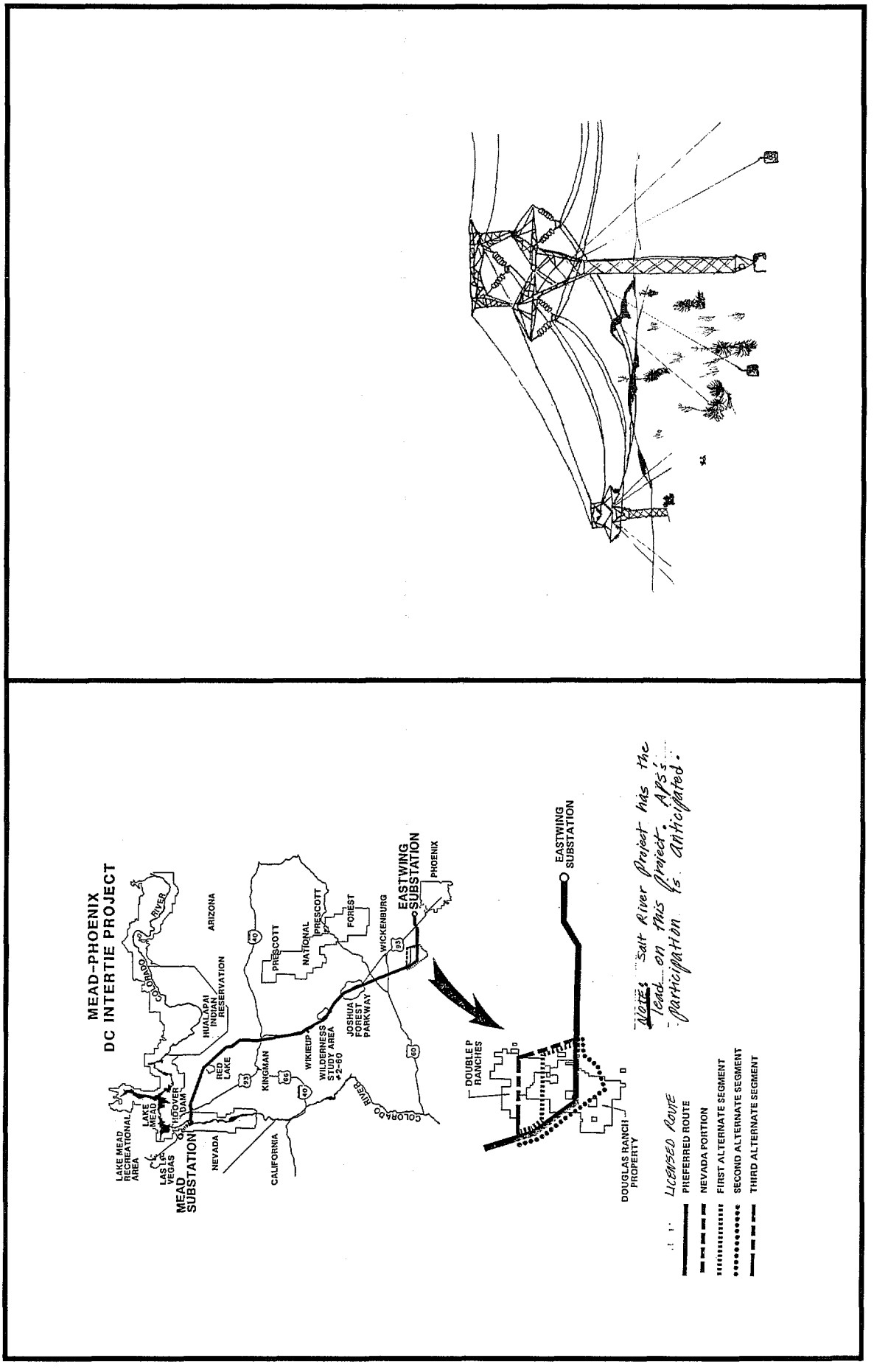
Sincerely,

Frank C. Shields
Environmental Department

/m

bcc: Robert Cook 1320
Ralph Berry 9170
Jim Dugan 3278

(7018.017)


MEAD-PHOENIX
DC INTERTIE PROJECT
LAKE MEAD RECREATIONAL AREA
LAKE MEAD
LAS VEGAS
HOOVER DAM
MEAD SUBSTATION
NEVADA
ARIZONA
COLORADO RIVER
HUALAPAI INDIAN RESERVATION
RED LAKE
KINGMAN
CALIFORNIA
WIKIEUP
WILDERNESS STUDY AREA #2-60
PRESCOTT
PRESCOTT NATIONAL FOREST
JOSHUA FOREST PARKWAY
WICKENBURG
EASTWING SUBSTATION
PHOENIX
COLORADO RIVER
DOUBLE P RANCHES
DOUGLAS RANCH PROPERTY
EASTWING SUBSTATION
LICENSED ROUTE
PREFERRED ROUTE
NEVADA PORTION
FIRST ALTERNATE SEGMENT
SECOND ALTERNATE SEGMENT
THIRD ALTERNATE SEGMENT
Note: Salt River Project has the lead on this project. APS's participation is anticipated.

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Cyprus Bagdad Copper Corporation

Post Office Box 245
Bagdad, Arizona 86321
Telephone (602) 633-2241

April 11, 1991

Mr. Bill Carter
U. S. Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401

Dear Mr. Carter,

Attached is the original Transcript of Proceedings recorded by Sonia Y. Felix, Court Reporter, at the KRA RMP/EIS public hearing held in Bagdad, Arizona on January 23, 1991. This official transcript is hereby presented as part of the public comments to be included in the BLM Kingman Resource Area's Resource Management Plan and Environmental Impact Statement.

The people of the Bagdad area generally support preservation and enhancement of riparian and recreational values in the central Burro Creek area. However, we are deeply concerned that unnecessarily restrictive management, proposed for this area under the RMP's Alternatives 2 and 3, poses a very real threat to our livelyhood and the future of our community. Upper Burro Creek is now protected by Wilderness, and conservation and enhancement of central Burro Creek can best be acheived by a comprehensive program of cooperative management.

Once again, we wish to thank you for the opportunity to participate in the formal public comment process.

Sincerely,

CYPRUS BAGDAD COPPER CORPORATION
Phil M. Blacet
Phil M. Blacet
Environmental Coordinator

cc: H. Cosner
C. Bromley
H. Bisson
file

CYPRUS

69

Bureau of Land Management — April, 12, 1991.
Kingman Area Resource office
Gordon Bently.
Mr. Bently,

This is to inform you that I am in agreement with the Mohave Livestock Association in regards to the Written Comments on the DRAFT of Kingman Resource Management Plan and Environmental Impact Statement.

I believe that DRAFT EIS. language needs to be rewritten to contenue the multiple use concepts required for natural resource management.

Sincerely,
Marvin Hunt
Foreman,
Dale Smith Ranches
Dolan Spring, Ariz.
P.O. Box 1451. 86441

70

April 10, 1991

Bureau of Land Management
Kingman Area Resource Office
Elaine Marquis, Director

Dear Elaine,

This is to inform you that I am in complete agreement with the Mohave Livestock Association in regards to the Written Comments on the DRAFT of Kingman Resource Management Plan and Environmental Impact Statement. A copy of the comments is enclosed.

I sincerely hope that DRAFT EIS language can be rewitten to continue with the multiple use concept and the continued cooperation, consultation and coordination between the ranching community and BLM.

Sincerely,

Frank L. Hunt

Frank L. Hunt
P.O. Box 58
Peach Springs, Az.
86434

71

April 12, 1991

To - B.L.M.

In regard to the proposed R.M.P. I assure you every permitte and land owner that I have talked to in the Kingman area are apposed to all 3 alternatives.

71-1 How can you ignore sec. 8 of the organic act passed by our Congress?

As a member of the Kingman Resource area advisory board + the Arizona advisory board for B.L.M. I ask you not to adopt this R.M.P.

Sincerley
John L. Neal

72

April 10, 1991

David B. Wilcoxen
Urban/Regional Planning
University of Illinois
907 1/2 W. Nevada
Urbana, Illinois 61801

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401

Dear Mr. Carter:

Having reviewed the draft Kingman Resource Area Resource Management Plan and Environmental Impact Statement, I offer the following comments.

PURPOSE AND NEED

The Purpose and Need section adequately identifies the issues and concerns pertaining to the Kingman Resource Area. The planning criteria established to address these issues are comprehensive and appear to be all inclusive. In my opinion, this portion of the DEIS is outstanding.

PLAN ALTERNATIVES

Under the section titled Plan Objectives and Guidelines, it is stated that "The overall goal of KRA is to provide multiple use and sustained yield resource management of the public lands." Perhaps a more appropriate goal (given the extreme sensitivity of the KRA) is *to provide multiple use and sustained yield in limited areas; thereby preserving a majority (> 75%) of KRA's cultural and biological resources for subsequent generations.*

In essence, my question is: What is the rationale for a goal that maximizes multiple use (i.e 85% of KRA is open in some form to OHVs) and sustained yields over a goal that maximizes the environmental sanctity of the KRA while providing for sufficient, yet not excessive, multiple use and sustained yields? It would seem that the above "goals" are actually potential alternatives. This leads me to my next point.

ALTERNATIVES

After reviewing the three alternatives it was quite apparent that they are very similar-- in fact, almost identical. For example, of the thirteen categories common to all three alternatives (Minerals, Lands, Watershed Resources, Vegetative Products, Rangeland Management, Cultural Resources, Recreation Management, Wildlife Management, Special Status Species Management, Riparian Area Management, Special Management Areas, Wild Horse Burro Management, and Support Services), eight of the thirteen "Plan Actions" of Alternative 2 are similar and/or identical to the "Plan Actions" of Alternative 1 . Moreover, all thirteen of the "Plan Actions" of Alternative 3 are essentially identical and/or similar to the "Plan Actions" of Alternative 2. The implications of this structure is a negation of the alternatives; in this regard, the DEIS fails to adhere to the NEPA requirement of presenting and investigating all possible, viable alternatives.

72-1

To remedy this situation, I propose a fourth alternative that will favor and enhance protection of the natural resources to the complete exclusion of mineral mining, grazing, and OHV use in a significant portion of the KRA (i.e. > 75% of the total area above and beyond the ACECs and WSAs).

72-2

SPECIFIC COMMENTS/QUESTIONS FOR ALTERNATIVE 1

1. Given that a soil survey for the southern half of KRA will not be completed until 1993, how did the BLM assess the impacts of the three alternatives on KRA soil resources?

72-3

2. Given that a vegetation survey (currently being conducted) will not be completed until 1993, how did the BLM assess the impacts of the three alternatives on KRA's vegetation resources?

72-4

3. On page 31, under section Off-Highway Vehicles, it states that "a total of 409,377 acres would be closed to OHV use following designation of wilderness by Congress." This amounts to only 16% of the total KRA. Clearly this is inadequate given that two of the BLM's goals are to "*Maintain and enhance wildlife habitat to ensure viable populations and natural diversity* and to *Maintain the open space, scenic character, and remoteness of public lands.*" Granting OHVs access to 84% of the KRA certainly will not achieve these goals. OHVs are extremely noisy, disruptive, and destructive in a desert environment. The whining noise of a X-Country motorcycle can be heard for miles in a desert environment thereby effectively destroying the "remoteness" objective. In addition, it is

highly unlikely (given the lack of supervision which will occur in remote areas) that individuals engaging in OHV use will restrict themselves to "existing roads, trails, and washes."

4. Please supply more information on the Visual Contrast Rating Worksheet and its procedure for completion.

SPECIFIC COMMENTS/QUESTIONS FOR ALTERNATIVE 2

1. On page 37 under the section Minerals, it states that a "total of 2,131,242 acres are open to locatable mineral exploration and development of federal minerals." This is approximately 85% of the total KRA. Mining, (with its heavy equipment and necessary road network), does little to achieve the stated goal of *"minimize(ing) long-term impacts to the visual quality of sensitive landscape characteristics* and or accomplishing *"special management emphasis in areas with unique features or special management needs."* If it is estimated that over the life of the plan roughly 1,700 acres will be disturbed by mining operations, why not make this the total number of acres allowed for mining with a specified additional area allowed for site access?

72-4a 2. Please further explain what is meant by the statement on p.38 "consolidate land ownership for better resource management and to block up state lands to maximize revenue producing development."

72-4b 3. Please justify why a 1-2 mile wide corridor is necessary for utility ROWs. If the ROW ran directly N-S across the longest possible axis, (approximately five miles east of the town of Kingman), this would be a 2 x 114 square mile area or 145,920 acres (nearly 6% of the KRA).

72-5 4. On p.42, What criteria were used to establish the four categories used to classify grazing allotments?

5. The objective for Vegetative Products "to meet public demand for vegetation resources on public land on a sustained yield basis without impairing resources" seems to conflict with a following sentence which

72-6 states "When demand for a product exceeds the supply on a sustained yield basis, permitting for harvest would be carried out through a sealed-bid procedure." Does this imply that harvesting will continue beyond sustained yield limits, effectively impairing the resources? Please clarify.

6. Under section OHV Designation (p.45), it states that only designated wilderness areas would be closed to OHV use. Bearing in mind that these wilderness areas do not officially exist and may not for some time (if ever), the BLM should make extra-ordinary provisions to ensure the preservation of both wilderness areas and ACECs. Furthermore, what is the use of designating an area as an ACEC if OHV use will still be permitted?

7. The illustration on page 45 accurately depicts OHV use. Notice the vehicle does not appear to be on an existing road, trail, or wash as he or she drives over sensitive vegetation and habitat. Any desert tortoise seeking shaded refuge from the sun's searing heat is likely to perish as sensitive cover species are destroyed.

72-7 8. Please provide the definition of a "wash" as employed by the BLM.

9. Table II-4 on page 47 appears to contain an error. Under Alternative 2 OHV Designations With Wilderness: "Limited to existing roads, trails, and washes" is repeated twice with separate acreage values.

72-8 10. Please explain the justification for allowing mineral leasing on identified lambing grounds and in riparian areas (p.49) and define what are the "special stipulations" that would protect these resources.

72-9 Furthermore, how was the figure of 41,104 acres (1.6% of KRA land) to be designated NSO obtained?

SPECIFIC COMMENTS/QUESTIONS FOR ALTERNATIVE 3

1. Table II-8 "Management Prescriptions for ACEC" illustrates the lack of viable alternatives-- fifteen of the twenty ACECs prescriptions contain the phrase "Prescriptions are the same as in Alternative 2."

2. OHV Designations for Alternative 3 vary little from Alternative 2. In the more critical category: amount of acreage "closed" with "wilderness designation", both figures are identical.

72-10 3. The following sentence appears under the section titled Riparian Area Management (p.78). "Same as Alternative 2, except the ACEC covering Wright and Cottonwood Creeks would include only the area immediately along the creeks and not the area further back from the drainages." Please specify the distances implied in this sentence.

72-11 4. I find the MapII-11 misleading. From the legend it appears that a very small area is open to OHV use when in reality all but the designated closed area is actually "open"; albeit with limited restrictions.

SPECIFIC COMMENTS ON ENVIRONMENTAL CONSEQUENCES

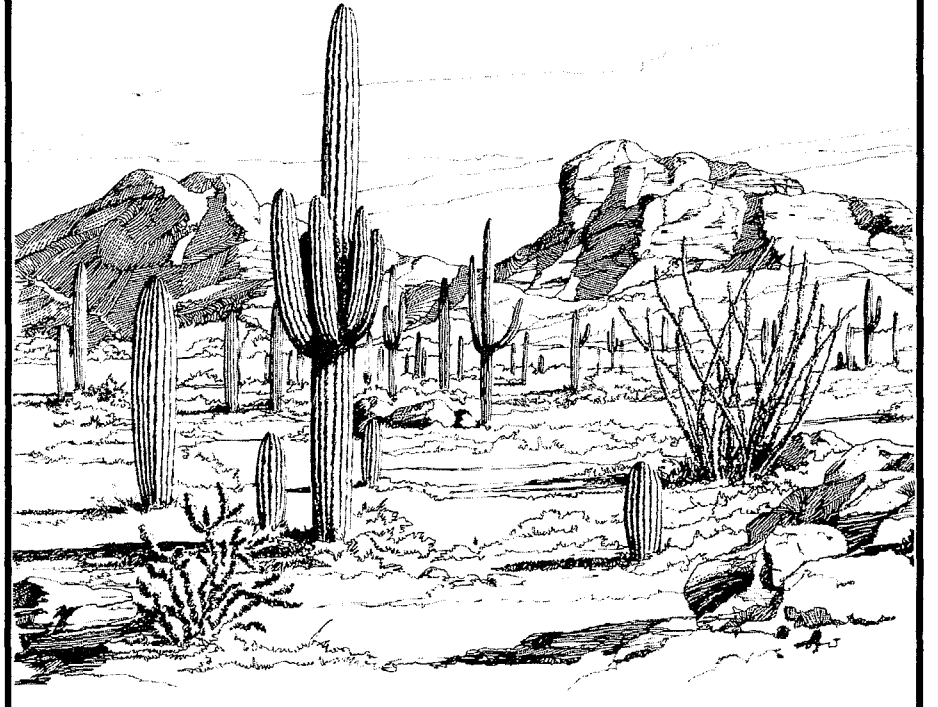
1. The text describing the environmental consequences of the proposed alternatives again illustrates a lack of variation among the alternatives. The environmental impacts of Alternative 2 are the "same or similar" in approximately sixty instances. Likewise, Alternative 3's impacts are the "same or similar" to Alternative 2 in approximately 54 cases.

72-12 2. The most alarming aspect of this section is the lack of a substantive and exhaustive discussion of the short and long term environmental impacts to the KRA environment, not the elements of the management plans.

This concludes my comments and review of the Kingman Resource Area Resource Management Plan and Environmental Impact Statement. I hope you will address my stated concerns. Please send me a copy of the final impact statement.

Respectfully,

David B. Wilcoxen



73

March 31, 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Ms. Marquis:

As a permittee on the Big Sandy allotment in the Kingman Resource Area I have some concerns about the Draft Resource Management Plan for the Kingman Resource Area.

I find the draft plan lengthy and difficult to understand. I am confused as to what impacts the proposals in the draft plan such as ACEC designations, wildlife habitat, riparian management, access, water quality, endangered species management, and many other of the proposals will have on my ranching operation, if implemented into a final plan.

Could you please summarize any changes which would occur with regards to my ranching operation (i.e.; grazing preferences, livestock management, range improvement construction and maintenance, access, etc.) if the proposals in the Draft RMP are implemented into the Final RMP.

Upon receipt of your written response to this letter I plan to send comments on the draft plan.

Thank you for your help in clarifying the impacts these proposals will have on my ranching operation.

Very truly yours,

Glen S. Barton Pres.
Wagon Bar Inc

cc: Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

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MOHAVE COUNTY PARKS DEPARTMENT

P.O. BOX 390 • 305 OAK STREET • KINGMAN, ARIZONA 86402-0390 • 753-0739

April 11, 1991

Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

RE: Resource Management Plan

Dear Mr. Carter,

Thank you for the opportunity to participate in the BLM planning process on the Kingman Resource Management Plan. The Mohave County Parks Department has reviewed the plan and has met with members of your staff concerning the plan.

74-1 As discussed with you at our last meeting, the need for regional public park facilities in the Mohave Valley is growing tremendously. With all of the present and projected population growth in this area, the need for ball fields and park and open spaces is great. Mohave County has identified one possible site that will help us accommodate this demand, and we request that you set this land aside for Recreation and Public Purpose Leasing. The land that we identified is T.18N., 21W., Sec. 7 E½, consisting of approximately 320 acres. It is our understanding that this site has also been identified for other public purpose uses which would be compatible with park purposes. It is hoped that within the next 3 to 5 years, the Mohave County Parks Department will have the resources to begin construction on a regional park in the Mohave Valley area.

Once again, thanks for the opportunity to comment on your RMP.

Sincerely,

Thomas W. Brady
Thomas W. Brady
Director

April 11, 1991

BLM,

As a resident of the Yucca area and in the Kingman Resource Area, I would like to comment on the RMP/EIS. There is a lot to be said for maintaining the status quo. However, since this is not a likely alternative, I would opt for Alternative 2.

It is a more moderate plan than Alternative 3 and would probably meet the needs of this area more closely than either 1 or 3.

75-1 The one really negative comment is the amount of land slated for disposal in the Yucca area. So much public land becoming private land would severely impact our wildlife, native plants, and the quality of life of the local residents.

We really need those patches of public land. They serve as important buffers.

By the way, perhaps burros do damage palo verdes, but I have seen a horned range bull reduce a palo verde to a stump in a matter of minutes. I doubt if the burros could keep up with the cattle in wreaking this kind of destruction. I have lived with burros and do live with cattle, so I have observed both and don't dislike either.

If further comment is desired, I would be happy to oblige.

Thank you,

Georgia McCrory
Box 35
Yucca, AZ
86438

76

CITIZENS UTILITIES

CITIZENS UTILITIES RURAL COMPANY, INC.
P.O. BOX 3609 • KINGMAN, ARIZONA 86402-3609 • (602) 757-4051

April 10, 1991

Mr. Gordon Bentley
Bureau of Land Management
2475 Beverly
Kingman, Arizona 86401

Re: Response to request for comments
Kingman Resource Area R.M.P. Update

Dear Mr. Bentley:

76-1 We would like to add a proposed microwave communication site to Appendix 19 of your R.M.P. Update.

This site will be located near Valentine and will provide a microwave link to the Truxton and Valentine area. The exact site has not yet been determined but I have enclosed a map showing the proposed general area.

If you have any questions or require additional information in order to add this site to your update, please contact our Right-of-Way Dept. at (602) 757-0230.

Sincerely,

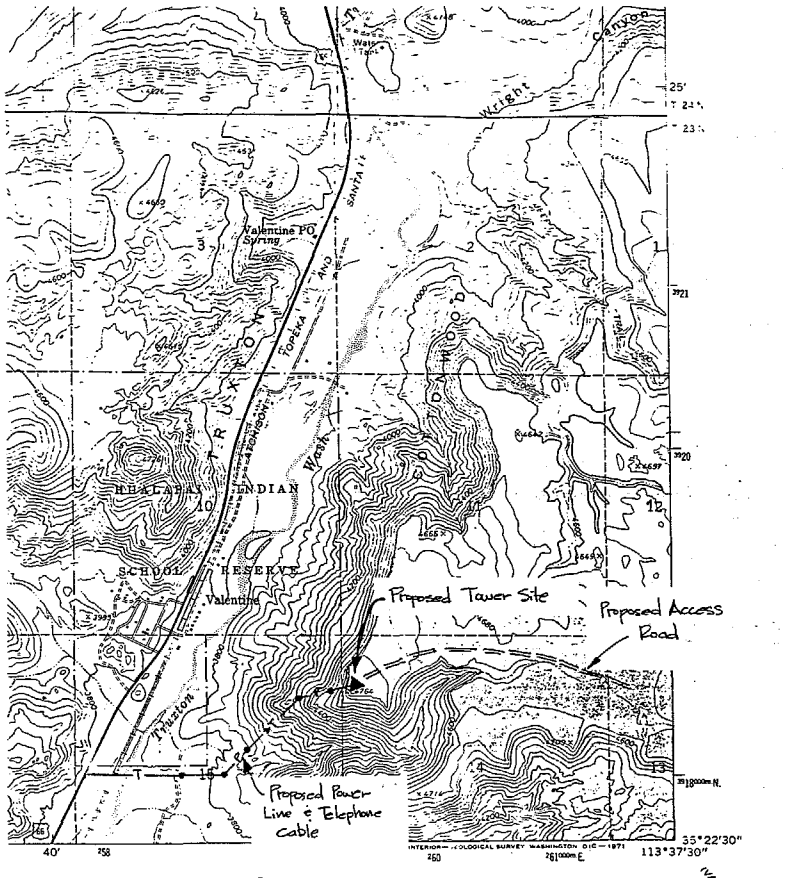
Bruce Mitchell
Right-of-Way Supervisor

TH:vb

COM 20-02

Encl.

cc: Cathy Jensen



CYPRUS Minerals Company

Cyprus Minerals Company
9100 East Mineral Circle
Post Office Box 3299
Englewood, Colorado 80155
(303) 643-5838
Fax: (303) 643-5161

C. Corwin Bromley
Attorney

Via Overnight Express Mail

April 11, 1991

Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401

Comments to the Draft Resource Management Plan/Environmental Impact Statement for the Kingman Resource Area

Cyprus Bagdad Copper Corporation (Cyprus Bagdad) would like to take this opportunity to provide the Bureau of Land Management (BLM) with written comments to the Kingman Resource Area (KRA) Draft Resource Management Plan (RMP). Transcripts of verbal comments given during the January 23, 1991 public hearing held at Bagdad, Arizona were previously provided to BLM staff on April 11, 1991 and are incorporated herein by reference.

I. GENERAL COMMENTS

The Bureau of Land Management has a legal mandate to manage lands under its jurisdiction on the basis of multiple use and sustained yields, balancing the economic, ecological and social interests and concerns affecting such lands. Further, as stated at page 7 of the Draft RMP, the 1872 Mining Law, The Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976, Research and Development Act of 1980, and the National Materials and Minerals Policy all direct BLM to actively encourage and facilitate the development of public land mineral resources by private industry to satisfy local and national needs and provide for economically and environmentally sound exploration, extraction and reclamation. Congress and these Acts and Policies promote the multiple use of the public lands and recognize that mineral exploration and development is a valid beneficial use of the lands and can occur consistently with the protection of the environment and other resource uses.

Cyprus Bagdad is concerned that the RMP's Plan Alternatives 2 and 3, as presently drafted and proposed, are unsuitable in view of BLM's legal mandate, are inconsistent with the stated planning criteria set forth in the Draft RMP and are inadequately supported by the EIS. More specifically, Cyprus Bagdad is concerned with respect to extent of unnecessary and inappropriate inclusion for special management and corresponding restrictions on multiple use and mineral development in the following areas: Burro and Francis Creeks (Cultural and Riparian ACECs, Riparian

Management and Scenic and Wild River Nomination); Desert Tortoise Habitat Boundaries and Categories and the Poachie Desert Tortoise Habitat ACEC; and the Mineral Park and Carrow-Stephens Ranch Areas (Cultural ACEC and SRMAs). Under the proposed Plan Alternatives 2 and 3, each of these special management proposals have the potential to adversely impact or conflict with Cyprus Bagdad's present and future mineral development operations, permitting plans and water rights, as well as having corresponding economic and social impacts on the the Bagdad community, as well as on the County, State and Federal levels.

Accordingly, Cyprus Bagdad respectfully requests that BLM re-evaluate the Draft RMP and issue a final KRA RMP consistent with the comments submitted herein.

II. ISSUES OF GENERAL APPLICABILITY

1. THE BUREAU OF LAND MANAGEMENT'S JURISDICTION TO REGULATE STATE OR PRIVATE LAND

All references to State or private lands within the planning jurisdiction of BLM should be removed from the RMP, as the BLM lacks jurisdiction over such lands.

Section 1701(a) of the Federal Land Policy and Management Act of 1976 ("FLPMA") directs the BLM to promptly develop regulations and management plans for the protection of public land areas of critical environmental concern. 43 U.S.C.S. § 1701(a)(11). The term "public lands" means "any land and interest in land owned by the United States within the several States and administered by [the BLM]." 43 U.S.C.S. § 1792(e). Although courts give the BLM much deference regarding the content of RMPs, the BLM's planning jurisdiction is limited to public lands. See, Natural Resources Defence Counsel v. Hodel, 624 F. Supp. 1045 (D. Nev. 1986), aff'd 819 F.2d 927 (9th Cir. 1987); American Motorcyclist Ass'n v. Watt, 534 F. Supp. 923 (C.D. Cal. 1981), aff'd, 714 F.2d 962 (9th Cir. 1983).

77-1 The Draft RMP appears to assume that State land exchanges will occur and that management and regulation of activities will extend to State land. See RMP at pages 5, 26, 38, 40, 99-100. However, in March of 1990, the Arizona Supreme Court ruled that State land exchanges are prohibited by Article 10 of the Arizona Constitution. Fain Land & Cattle Company v. Hassell, 790 P.2d 242 (1990). In that case, the Supreme Court stated that the statutory framework authorizing the State to exchange State land for public or private land violates the constitutional provision which requires all sales to be at public auction. Fain Land & Cattle Company, 790 P.2d at 248 (1990). In response to this Supreme Court decision, the Arizona legislature proposed a constitutional amendment in favor of State land exchanges and submitted the amendment to the qualified electors in November of 1990. A majority of the qualified electors voted against the

proposed amendment. Thus, State land exchanges are prohibited by Arizona law and should not be incorporated in the RMP.

2. OTHER ISSUES

77-2 In Appendix 18 on page 214, the RMP erroneously states that the Burro Creek drainage has been contaminated by mine wastes along the Creek. There is insufficient data to support the RMP's statement that heavy metal contamination "has killed invertebrates and fish in the creek and in turn has adversely impacted the rest of the food chain, particularly raptors. Such pollution also creates hazards for people engaged in water-based recreation provided by Burro Creek." Cyprus Bagdad has and will continue to conduct its mine operations in a sound environmental manner, in compliance with all applicable laws and regulations. Cyprus Bagdad requests that this language be removed from the RMP, as it is without adequate foundation and is inflammatory and inappropriate.

III. SPECIFIC SPECIAL MANAGEMENT AREA ISSUES

1. DESIGNATION OF BURRO CREEK AS A CULTURAL AND RIPARIAN ACEC, AND NOMINATION OF BURRO AND FRANCIS CREEKS FOR WILD AND SCENIC RIVER DESIGNATION

A. ACEC Designation and Riparian Habitat Management.

In designating Burro Creek as an Area of Critical Environmental Concern ("ACEC"), the stated goal of the Bureau of Land Management is "to protect and enhance riparian, threatened and endangered species, and cultural resources, emphasizing total ecosystem management." See Appendix 18, page 214. Cyprus Bagdad believes that this goal can be fully achievable without the Burro Creek ACEC designation, with controls presently existing (a majority of the land is federally owned and controlled) and by use of alternative management practices in conjunction with the State of Arizona, private owners of lands within and surrounding the proposed ACEC area and with other interested parties, each of which have already expressed a willingness to work with the BLM in achieving these goals, without requiring the undue and overly restrictive conditions which would otherwise be imposed by designation as an ACEC.

As currently drafted, the Burro Creek Cultural and Riparian ACEC would not only prohibit mineral material disposal within the full area of the ACEC, but would also require mandatory bonding and Plan of Operations for all mineral exploration and development activities within the ACEC, as well as "elsewhere", and would restrict utility corridors and off-highway vehicular traffic in the area. See RMP Table II-5 at page 55, & Appendix 18 at page 214. Cyprus Bagdad Copper Company currently disposes mineral material, or tailings, on private lands and state leased lands adjacent to the proposed ACEC boundaries of the Burro Creek

ACEC, but not in any cultural or riparian habitat areas. Future tailings disposal site plans indicate potential extension into the proposed ACEC boundaries, as was shown in the maps previously submitted to the BLM, but again not in any cultural or riparian habitat areas. The extensive areas proposed for the Burro Creek Cultural and Riparian ACEC designation in Alternative 2 and 3 of the RMP, and their potential effect outside the actual boundaries on permitting and operations, have the potential to severely restrict Cyprus Bagdad's operations and continued existence, without any corresponding benefit or achievement of the stated goals of the designation.

With respect to the need for designation of the Burro Creek ACEC or the Burro and Francis Creek nominations for Wild and Scenic River designation, cultural resources and riparian habitat protection should not in any way be affected by Cyprus Bagdad's operations. Cyprus Bagdad's operations are designed to avoid adverse impacts on water quality, avoid alteration of the free-flowing nature of creeks, and minimize future shoreline developments. If development of future tailings is of concern, Cyprus Bagdad has previously demonstrated willingness and ability to effectively stabilize inactive tailings ponds. During the late 1970's, Cyprus Bagdad voluntarily established a self-perpetuating and effective vegetative cover on the Kimberly Tailings that has successfully controlled erosion. The vegetation growing on the Kimberly Tailings is healthy and vigorous to this day. If water quality in Burro Creek and its tributaries is of concern, Cyprus Bagdad operates and maintains a network of collection ponds, pumpbacks with backup generators, a lined flood control basin, ditches, and other controls to prevent water discharges into surrounding streams. In other words, the tailings ponds and leach system are designed as a closed circuit that captures and recycles the water before it exits the property. Furthermore, Cyprus Bagdad operates the tailings pond and leach system in accordance with our National Pollutant Discharge Elimination System (NPDES) Permit and submits monthly reports documenting compliance to the Environmental Protection Agency (EPA) and Arizona Department of Environmental Quality (ADEQ).

Cyprus Bagdad agrees that it is important to protect sensitive resources and supports the Cliffrose and Black Butte ACECs. Cyprus also supports the protection and management of riparian habitat areas on Burro Creek, but believes that this habitat can be fully protected with existing controls and alternative management plans of cooperation. Designation as an ACEC and the corresponding restrictions on multiple use of the incorporated and surrounding lands unnecessarily conflict with Cyprus Bagdad's continued operations and is inconsistent with the stated goals and planning criteria set forth in the RMP for the ACEC.

B. Nomination of Burro Creek and Francis Creek for Designation as Wild and Scenic Rivers.

The Draft RMP has proposed that Francis Creek and Burro Creek be nominated for designation as Wild and Scenic Rivers pursuant to the Wild and Scenic River Act, 16 U.S.C.S. §§ 1271, et. seq. The foregoing comments regarding general issues and the Burro Creek ACEC have applicability to this proposed nomination and are incorporated herein.

To be eligible for designation as a Wild and Scenic River, the "rivers" or segments thereof must be "free-flowing" and possess outstandingly remarkable scenic, recreational, geological, fish and wildlife, historic, cultural or other similar values. 16 U.S.C.S. § 1286(a). A "free-flowing" river is one that is "flowing free of the influence of dams or other major man-made alterations . . . ." See 43 C.F.R. § 8351.0-6(b). A "river" is defined as a "flowing body of water . . . ." (Emphasis added). 16 U.S.C.S. § 1286(a).

The RMP inaccurately describes the entire Francis Creek and Burro Creek as "free-flowing perennial streams with outstanding scenic qualities including riparian vegetation, cliffs, and largely undeveloped shorelines uncluttered by the activities of man." See Appendix 18, page 213. Contrary to this description, portions of Francis Creek and Burro Creek are intermittent in nature and do not "flow" during certain seasons of the year, and thus may not be within the definition of a "river" under the Act.

77-3

77-4

Additionally, the shorelines are not "largely undeveloped", so as to support a Scenic River Area designation. See, 16 U.S.C.S. § 1273(b)(2). The Cyprus Bagdad mining operation has existed for decades, making use of Burro Creek and Francis Creek water and conducting mining operations above the shoreline of the proposed Wild and Scenic Rivers. The present tailings are fully visible from the central segment of Burro Creek, and future planned tailings areas will likewise be visible. Moreover, Cyprus Bagdad is concerned about its existing utility facilities which cross both Burro Creek and Francis Creek. These utilities are critical to the Bagdad mine and community, are visible from the river, and require access in order to operate, maintain, upgrade and potentially replace the existing utility lines. These existing lines may also constitute an obstruction to the "free-flowing" requirement for designation of a Wild and Scenic River.

Because Francis Creek and Burro Creek do not meet the criteria for designation as Wild and Scenic Rivers, Cyprus Bagdad requests that the nominations, if any, be limited to an area that precludes individuals from viewing the tailings of the Cyprus Bagdad mining operation, and which is not impaired by Cyprus' use of existing utility corridors. Alternatively, Cyprus Bagdad requests that language be inserted in the final RMP that reflects

77-5

the ineligibility issues identified above, that expressly recognizes the utility corridors as necessary and allowable, that permits the upgrade of the utility facilities within any Wild and Scenic River designation areas for Burro Creek and Francis Creek, and that permits mineral development in the areas presently used and those planned for the future, both during any study period and after any designation.

3. THE DESERT TORTOISE HABITAT BOUNDARIES AND CATEGORIES/ ACEC DESIGNATION REQUIRES FURTHER STUDY

The Draft RMP states in Appendix 6 at page 169 that "a suitable habitat for the desert tortoise is abundant" in the RMP study area. Cyprus Bagdad agrees that there is abundant habitat in the RMP study area, as well as a potentially large population of desert tortoise. The suitable habitat and proposed habitat boundaries and categorizations for the desert tortoise, however, were arbitrarily drawn. The data collected to determine the Poachie Desert Tortoise ACEC and other habitat boundaries and categories of the desert tortoise is insufficient to justify the proposed habitat boundaries.

77-6

Cyprus Bagdad supports the BLM in management of lands to protect the desert tortoise and its habitat, but sound scientific data must be used in defining areas essential to the perpetuation of this species, in order to ensure balanced and reasonable multiple use of public lands. Further studies regarding the extent of the desert tortoise population and habitat are necessary before establishment of boundaries which arbitrarily restrict other compatible and beneficial uses of public lands and resources.

Cyprus Bagdad will offer its cooperation in any studies or other efforts of the BLM with respect to the desert tortoise, but believes the RMP's proposed boundaries and categories are unsuitable, have insufficient support in the EIS and other studies, and unduly restrict use of public lands. The Category II Desert Tortoise areas shown in the RMP include approximately 400 acres of Cyprus Bagdad's active tailings area and an additional 300 acres previously approved for tailings deposition under a Plan of Operations issued to Cyprus Bagdad by the Arizona State Land Department. An additional 800 acres of State land included within Category II Desert Tortoise boundaries are being considered for future tailings sites. Cyprus Bagdad respectfully requests that the boundaries in the Poachie and Bagdad public land areas be re-evaluated with respect to conflict resolvability and amended to non-categorized or Category III, until further studies have been completed justifying otherwise, and that mitigation procedures be considered. Additionally, the RMP should also be amended to exclude private and state lands and cover only public lands until further studies are completed.

4. MINERAL PARK SRMA AND CARROW-STEPHENS RANCH ACEC AND SRMA

77-7 The RMP has proposed a Special Recreation Management Area (SRMA) for the "Mineral Park Historic Mining Area". The proposed area for this SRMA is located upon patented fee land owned by Cyprus Mineral Park Corporation, and the mine located within in this area is in active operation. The mining operations are inconsistent with a SRMA area designation and development of same would pose a danger to the public. Accordingly, Cyprus urges that the Mineral Park Historic Mining Area SRMA be deleted.

The proposed Carrow-Stephens Ranches ACEC and SRMA incorporates lands east of Highway 93 and the Big Sandy River, portions of which are fee-owned by Cyprus and the ACEC extends over an existing well field and pipeline network owned and used by Cyprus Bagdad for its water supply. Access to the wells and pipeline for maintenance purposes is conducted off existing roads and trails by off-highway vehicles. Table II-5 at page 53 of the RMP indicates that right of ways are to be limited to the area west of Highway 93, OHVs will be limited to existing roads and trails, and that the BLM will file for water rights on springs and for instream flow. While Cyprus Bagdad generally supports the Carrow-Stephens Ranches SRMA, to avoid conflict, Cyprus Bagdad urges that the Carrow-Stephens Ranches ACEC and SRMA boundaries in the final RMP be confined to the areas west of the Big Sandy River, (Cyprus Bagdad is willing to continue management practices on its property to achieve substantial consistency with protection and preservation of resources), and urges that any water rights sought by BLM are limited to the water needed for the actual ranch and SRMA, and are consistent with Cyprus Bagdad's existing water rights and use. Additionally, Cyprus is interested and is willing to discuss land exchanges with BLM in order for BLM to obtain a contiguous area of land for its SRMA.

IV. CONCLUSION

Cyprus Bagdad appreciates the opportunity to comment on the KRA Draft RMP. Of the 2.5 million acres in the Kingman Resource Area, Cyprus Bagdad will require only 4,600 Acres, which is only 0.2% of the Kingman Resource Area, for present and future operations and tailings ponds over the remaining 35-year mine life. Of these 4,600 acres, only 2,400 acres, which is only 0.1% of the 2.5 million acres in the KRA, conflict with the Special Management Areas and Category II Desert Tortoise Management Areas proposed under Alternatives 2 and 3. Considering the small percentage of the Special Management Areas proposed under Alternatives 2 and 3 that conflict with the present and future operations and tailings sites, and the importance of these areas to the continued operation of Cyprus Bagdad beyond the next 10 years, Cyprus Bagdad hopes that BLM will reconsider many of the Draft RMP's positions to be more consistent with the multiple use policy, stated planning criteria and these comments.

Should you have any questions concerning these comments, please do not hesitate to contact me.

Sincerely,

C C Bromley/s

C. C. Bromley

cc: Henri R. Bisson
Elaine F. Marquis
Distribution List

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R.M.P. COMMENTS MIKE GROSS AND NORMA GROSS
RANCHERS OF THE CURTAIN AND MINERAL PARK ALLOTMENTS

I am going to comment on the allotments thats affecting my operation then I am going to comment on other areas that may affect the ranching industry.

The most critical affect that would cause me problems with my operation of the Curtain and Mineral Park Allotments would be the Land Disposals or Land Trades. My family had some discussion with the BLM Officals about these possible Land Disposals and Trades. At this time it was just a feeling out process. I've done alot of thinking on this, here are some of my opinions. First of all I don't think this ought to be consider for land disposal or trade. I have many reasons for this. There is so much land in the disposal areas in Golden Valley that isn't near fully develop. Why should the allotments be put up for disposals or trade when there is so much land in the disposal areas that isn't develop. There is a good block of land with the 30 sections in the Mud Springs Allotment and Curtain Allotment that would give BLM a good management area. For many uses like ranching, wildlife, and receation. My family has been ranchers thats trying to improve the ranges with good management. The proof of this is that we are the only ranch in the K.R.A. that is practicing Holistic Resource Manangement. BLM and my family has put lots of time and money into this project. It would be ashame not to see what this kind of Range Management would do. If the land disposals or trades took affect we would never know the results that this could have on improving range conditions in this area. We are showing signs of improving conditions but it has been slow due to the drought conditions we've been face with the last five years. One major aspect that has accure with this kind of management is the increase in numbers of cattle, from the conventional way of grazing. Also the wildlife species are on the increase, mainly the quail. I had many comments from hunters about the quail, they said that this area has been the only place with any numbers of quail than any other areas that they hunted. This may be a good sign that we are doing some good with this kind of range management.

This isn't the only reasons why we went to Holistic Resource Management. Something I have seen in this kind of Range Management that I haven't seen in other Range Management System in the K.R.A. is the closeness of people. We have a very good management team form up of many interest groups. I don't think I would benifit any by going to another Land Agency. Since my family and BLM started this project I would still like to work with BLM. Why, my family and BLM took on this kind of range management is to improve the plant species and water cycle. Also to improve profitable for my family and improve wildlife habitit. Just by improving the water cycle is going to benfit every one in Golden Valley, since all of the water comes from under ground reservoir. People also needs open space to get out in. For getting away from closed in develop areas, for recreation, for feeling apart of the land. These are my reasons why the allotments I operate on shouldn't go into the Land Disposal or Trades in the next 20 year R.M.P...

Another critical affect is going to be the wild horses in the Cerbat Mountains which Mineral Park Allotment is part of. Not only is it going to effect my operation also many other allotments. More so in the Mount Tipton Allotment. I know there is going to be wild horses, that I can accept. But not the numbers that is plan for at this time. My understanding there is plans to manage about 90 to 110 head of horses. This is way to many considering back in 1973 when the Wild Horses and Burros Act took affect it was only 14 head. Why a big increase? Our allotment doesn't get increase with cattle like that. If anything I fear a decrease in cattle numbers with the increase in horses.

Another specis its going to effect is the Mule Deer population. My opinion is the Cerbats has probably the best herd of Mule Deer than anywhere else in the K.R.A... I am not against an increase in horses, but there got to be an understanding numbers that won't affect my operation and other allotments. I am willing and probably most other permitts that Wild Horses affect would sit down with the BLM and Wild Horse Interest Groups and come to an understanding numbers and management system. The horses that are there now are not managed. I have seen many In-breed Horses, and many old and sick looking horses. The horses are starting to roam into areas that I haven't seen horses in all of the years that I been in the ranching business. In the drought periods I seen horses down on the flats looking for feed and water. The numbers that are there now is to many for what I consider a manageaable numbers.

There are the two important effects that will have an impact on my operation on the Curtain and Mineral Park Allotments, that my family grazes cattle on. Here are my comments on areas that will affect cattle grazing in general.

First of all the R.M.P. Draft doesn't give very good details on grazing in these areas. That I am going to comment on such as; How is grazing going to be handle in critcial areas, in Ripainan Areas and places where Desert Tortoise Habit. 78-1

I am going to start with the AC's and EC's. My feeling and many others is in the R.P.M. Draft nothing is mention about grazing in these areas. The feeling that I get is

grazing is going to be eliminated from these areas that are listed as critcial. With my experince with Holitic Management grazing is a major effect for healing these lands if they are properly manage. It would be a terrible mistake not allowing grazing in these areas of critical concerns. I am also confuse why these areas are listed as critical. Is all our land a critical concern? Why list these areas if only proper management would cure the problem to start with. If the Environmentally Impact Statements in our grazing regulations where implemented at the beginging there wouldn't be problems with the areas that are listed as critical. Bottom line is proper management with cattle grazing included.

The Riparian Areas is the most talked about wtih every Land Agencies and Interest Groups than any other areas. This is going to be a very tough area to manage with all of the priviate lands involved and the down stream water users. But the most effected is going to be the Livestock Grazers. Why, because every Land Agencies and Interest Groups are blaming the Livestock Grazing for the deterioration of the Riparian Areas. I think there is many other effects first. Lets take a look why. The drough is got to be a major effect with the amount of rain fall that has acquired in the last 5 years got to put a damper on the amount of water in these areas. Flooding also is effected. Look what happen to Burro Creek. Look what happen after proper management with livestock grazing done afterwards. These two effects is uncontrollable. But livestock shouldn't get all the blame.

Now, another effect that may be most destructive of all and is controllabe is the water users. There are so many groups such as cities, mining, and farming that wants to take control of these areas only for the water. But the first thing that happens when people don't see anything growing either up stream or down stream is that livestock grazing is the problem. They don't think about all the water thats being pump out of the ground to supply all of the water users. I think stricter managing of the Riparian areas is going to put a burden on the rancher without help from our Land Agencies with Funds. The extra waters and fencing thats going to be needed. Also extra time managing the cattle. The management plan also could be a problem if not put together proberly. I am for mangement but only if it done with lots of input and reasioning. I think a separate fund should be set aside from our Government to help the ranchers with funding for the extra waters and fencing and for any other unseen expences. When I read articles about the Riparian Areas and reasons for there deteriorating overgrazing is always mention as the main cause. I think this is a fause statement when many other effects can cause deterioration. In my opinion this is going to be a tough task for all affected groups to agree on. How to manage these Riparian Areas. Know one has a good description of an Riparian Area. Many tried and every Land Agencies or Interest Groups has there own why of describing a Riparian Areas. Livestock Grazing should be included as a main tool in bringing back theses Riparian Areas. Also, how is wildlife going to be manage in these areas. Wildlife are grazers too. There's so many variables and question that needs to be study before anyone can even start to managing these areas.

I think the Desert Tortoise is an effect thats got started from interest groups that wants to eliminate livestock grazing all together four or five years ago. Nothing wasn't hardly mention about Desert Toprtoises then all of suddenly it was brought on the National scene overnight. Some interest groups says this is a good way to eliminate livestock grazing. Put it on the Endanger Species List. There hasn't been any proven data on livestock grazing in Desert Tortoise Habitat to make a fair accessement. I don't think livestock grazing has any effects on Desert Tortoises. The biggest problem that faces Tortoises is pedators and population growth. What I read about Tortoises is they come out when everything is green and flush. In that case there is more than enough forage for tortoises and cattle. People say they don't see tortoises all the time. How can they when tortoise spends 90% of its time in burrows. This is not a fair starement that there are not any tortoises. I think it would be a mistake to eliminate cattle grazing or cutting numbers. I don't believe cattle are overgrazing the Desert Tortoises Habitat thats being written in every article about the Tortoises. Cattle are not enemies of the Tortoises. Tortoises main enemies are pedators and population grouth. Over all, on all of my comments, livestock grazing is being blame for all the problems that special interest groups are saying, "Why the lands is deteriorating." This is very misleading. Theres got to be a better education why livestock grazing is very important to our lands

Thank you

Mike Gross
Rancher in the K.R.A.

79

April 11, 1991

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

Dear Mr. Carter:

Thank you for the opportunity to respond to the Kingman Resource Management Plan and Environmental Impact Statement draft.

In general observation of the entire plan, I have noticed an abyss of negativity in areas related to wild horses and burros. This negativity is deceptive and unfounded and leads to corrosion of trust and credibility of the BLM. It also creates an atmosphere of aversion to the Wild Horse and Burro program by employees and other parties who read the plan. It also adds fuel to the fire of those who are already species prejudice.

I encourage you to speak objectively about the Wild Horse and Burro program as you do your Wildlife program. There is no doubt that words create reality. The Wild Horse and Burro program is one of the most potentially positive programs that the BLM has.

You have stated that tourism may well become the number one industry of Mohave County. I would like to encourage you to include wild horses and burros in your recreation plan as watchable wildlife. The cost would be minimal with a few road signs to notify the public. By December, a book will be published showing HMAs and areas where tourists can view wild horses and burros. I would be happy to give you the necessary information so that Mohave County can be listed in this book. There is a growing demand for this, especially, by international travelers.

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PLAN ALTERNATIVES:

Pages 24/25; Wild and Free Roaming Horse and Burro Management

79-1 "made BLM responsible" has a very negative effect to mean that BLM was forced to do this. More positive wording would be "gives BLM the responsiblity".

79-2 "disposal" should be changed to "placement"

79-3 "Horses and burros should be maintained at the lowest level needed". This statement is in direct opposition to Public Law 92-195! In the IBLA decision 88-678, appropriate management level (AML) was defined as "the optimum number of wild horses and burros that results in a thriving natural ecological balance and avoids a deterioration of the range".

AMLs set in the Black Mountains (400) and Big Sandy (135) were established in the Management Framework Plan (MFP) and were not established through monitoring by determining optimum levels; therefore, those numbers are not in accordance with the law. IBLA's decision, 88-678, states the following: "An appropriate management level established purely for administrative reasons because it was the level of wild horse use at a particular point in time cannot be sustained under 16 U.S.C.£ 1333 (b)(2) (1982). The statute does not authorize the removal of wild horses to achieve an appropriate management level which was established for administrative reasons rather than in terms of the optimum number of animals which results in a thriving natural ecological balance and avoids a deterioration of the range."

79-4

ALTERNATIVE I:

Page 33; Big Game

79-5 "lowest" possible number must be changed to "optimum".

Stated in this paragraph is "to mitigate impacts to bighorn sheep habitat" when actually quite the reverse should be the case. Bighorn sheep numbers should be managed to mitigate impacts to wild burro habitat. Introduction of Bighorn sheep into burro habitat has created serious conflict and disregard for Public Law 92-195 which protects wild horses and burros.
Declaration statements by Don Martin, sports writer for a local paper, to the National Wild Horse and Burro Advisory Board's February '91 meeting clearly

highlighted this conflict. He stated, "In the past 20 years, over 10,000 burros have been shot". He further explained that the deaths of the 54 burros in the Black Mountains were done by amateurs because professionals would only kill two to three burros at one time. The conclusion is that no suspicion of foul play would be aroused when smaller numbers would be eradicated.

79-6 The law **does not** imply that "burro numbers will be set at a level to protect the natural ecological balance of all wildlife species using the land". This unfounded statement again appears on page 35 under Wild Horse and Burro Management Objectives. Burro numbers must be set at optimum levels determined by monitoring. The law further define their range as the "amount of land necessary to sustain **existing** herd or herds of wild free-roaming horses and burros, which does not exceed their known territorial limits, and which is **devoted principally** but not necessarily exclusively to their welfare in keeping with the multiple-use management concept for public lands". (Principally is defined as chiefly; mainly; above all; according to Webster's new 20th century dictionary.)

ISPMB will not support Alternative I

ALTERNATIVE II:

Page 59; Wild Horse and Burro Management

79-7 Increased forage resulting from improved habitat should be allocated fairly to all wildlife species, including wild horses and burros. Public Law 92-195 states, "Any adjustments in forage allocations on any such lands shall take into consideration the needs of other wildlife species which inhabit such lands." Consideration means thoughtful regard for others and it does not mean at the expense of the party who does the considering.

79-8 In regard to the Cer bat Wild Horse herd, 90 does not constitute a viable herd. On page 117, viable horse herds are at least 120 animals.

This Cer bat Herd is unique in its genetic characteristics as stated by Dr. Gus Cothran of the Univesity of Kentucky. Because of their unique characteristics, history, and genetic features, this herd should be declared an Area of Critcal Environmental Concern (ACEC). More research will be coming from Dr. Cothran. This area should have closure to grazing of feral horses and burros.

Deer populations of 875 on Cer bat mountain island are in excess according to the Cer bat/Black Mt. Grazing EIS. Deer populations should be approximately 200. There is no mention about reducing deer population, only inference that degradation of the range will happen if we wait for monitoring studies (page 138). The determination of 14 horses was an administrative decision in the MFP and therefore is invalid. The lack of mentioning

79-9 an excess of 675 deer creates a void of trust and credibility with the BLM. It also appears that this RMP favors other wildlife over wild horses and burros.

79-10 Utilization levels for wild horse and burro use should not be at 30%, unless it is to be used for a specific unique purpose such as improving riparian habitat or changing the ecological condition status from early to mid or mid to high seral for a particular reason. You will need to show what type of criteria determines this such as: the amount of ground litter, frequency and composition, and diversity so that at the end of the stated time frame, you will know whether objectives have been met. If the objectives have been met at the time of the evaluation, then it would no longer be necessary to reduce grazing pressure from horses. The important factors are: having a specific objective, monitoring at regular intervals to determine if objectives have been met, determing where horses graze and numbers and seasons of use, and choosing a key area carefully that actually measures the impact of the horses on their habitat, and if other wildlife species inhabit the area than utilization of forage must also be limited to 30% for them, as well as anyother user.

Although Alternative II is better than Alternative I or III, it still is not satisfactory for Wild Horse and Burro management and is in opposition to the 1971 law to protect wild horses and burros. ISPMB cannot support this Alternative unless satisfactory changes are made.

ALTERNATIVE III:

Page 78; Wild Horse and Burro Management

79-11 The Cer bat horses represent a unique herd of wild horses both historically and genetically. The number set in the MFP for 14 horses does not constitute a viable population nor is it in accordance with the 1971 law and the IBLA decision 88-678 as previously stated on page 2.

ISPMB strongly objects to Alternative III

COMMENTS TO THE EIS:

Page 106: Rangeland

While I-C-M categorization appears to favor forage production, ISPMB encourages the BLM to look carefully at the ecosystem in terms of damage and degradation.

79-12 You have defined 83 grazing allotments, however your charts only show 82.

Page 117: Cer bat HMA

We agree that the Cer oat herd must be preserved because of their uniqueness. We believe that a viable population is 120 animals. Policy has not been approved to manipulate population through age and sex ratios. This is experimental and not proven.

79-13 The statement "to correct overobligation of forage" is in inaccurate. Monitoring has not been carried out in the Cer bats and therefore this would fall under an administrative decision.

It is very important that the Cer bat herd be determined as an ACEC.

Page 123: Wild Free-Roaming Horse and Burro Mgm.

We agree that any concentration of animals in one area could degrade watershed conditions; however, under good management this will not happen.

Page 128 Wild Horse and Burro Mgm.

We agree that dispersed populations of animals at

79-14 a light stocking rate will improve habitat. We believe that numbers must be set on Bighorn sheep and monitoring must be done to assure utilization levels are met for that range. Increased forage production must be shared by all users of the range.

79-15 The statement, "presence of large introduced, exotic species" is an affront to wild horse and burro advocates. Its use jepardizes any efforts to resolve the continuing controversy between users of public lands. It greatly destroys the credibility of the BLM and erodes any trust.

Again, good management will not allow degradation of habitat.

Page 129 Wild Horse and Burro Management

79-16 Concentrations of any animal will have an adverse affect on the environment. Under good management this will not happen. This statement is totally inappropriate.

Page 130 Cerbat HMA

79-17 This is a very true statement but needs to be applied to all animals using public lands. Boom or bust populations of any animal will create degradation to the environment. ISPMB demands that the BLM applies this philosophy to all wildlife.

Page138 Wild Horse and Burro Management

79-18 Again this entire section is unfounded. Numbers of horses must be optimum. Monitoring is required by law. No mention has been made that deer population is in excess of 675 animals. Horses are made the scapegoat once again.

Page 140 Cerbat HMA

79-19 This is an untrue statement. Monitoring is required by law. Provisions are made within the law that requires the BLM to manage optimum numbers which will not result in deterioration of the range...

Page 145 Wild Horse and Burro Management

79-20 Eliminating wild horses when historically they have occupied a range prior to 1971 is against the 1971 law.

Page 146 Wild Horse and Burro Mgm

79-21 This statement is unproven because monitoring studies are lacking to prove it. Overgrazing if caused by cattle would not improve if horses were removed.

SUMMARY:

ISPMB is greatly concerned by the overall negativity that this plan has for wild horses and burros. We cannot support such a plan.

SUMMARY: CONT.

These are our following recommendations which we urge you to incorporated into the final RMP:

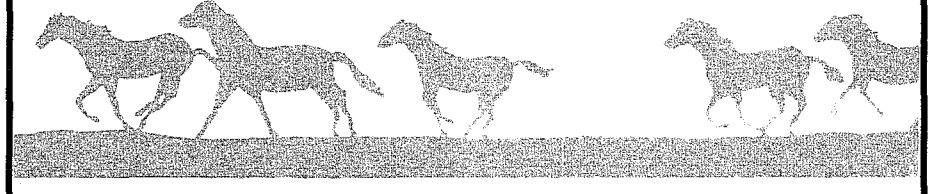
1. That the plan be written in accordance with the 1971 law amended, protecting wild horses and burros.
2. That the language regarding wild horses and burros be written in a positive manner which would reduce conflict and improve trust and credibility with the BLM.
3. That boom or bust populations of wildlife be prohibited and that utilization levels are enforced for all users.
4. That wild horses and burros be included in your recreation plan as watchable wildlife in areas prescribed by the Wild Horse and Burro Specialist.
5. That increased forage production be allocated fairly. Multiple Use precludes the increase of forage production for one species.
6. That the Cerbat Wild Horses HMA become an ACEC.
7. That reduction of deer population in the Cerbat mountain island be addressed.
8. That further clarification of reduction of utilization to 30% be addressed.
9. That statements which are unfounded be removed.
10. That the term "exotic species" not be used in reference to wild horses and burros. (Current research may now prove that horses never disappeared off the American continent).
11. That closure to livestock 4710.5 be enforced if conditions warrant in the Cerbat area.

Sincerely,

Karen A. Sussman

Ms. Karen A. Sussman
President, ISPMB

cc: Mr. Les Rosenkrance, State Director
Mr. Michael Penfold, Assistant to the Director
Mr. John Boyles, Chief, Wild Horses and Burros



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"The Joshua Network"

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April 10, 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly
Kingman, AZ 86401

Dear Elaine,

Thinking how to comment on the Kingman Resource Area Resource Management Plan, I reflect upon my experience with the evolution of planning over 27 years with the BLM. As I remember, planning in 1963 was on the basis of watershed areas. After that we went to describing planning units by physical boundaries (highways, mountain tops, railroads, etc.). I guess this better suited management needs from a political or ease of access viewpoint. Who knows? Then in the late 60's and throughout the 70's, we were in the Unit Resource Analysis and Management Framework Plan phase. Then in the 80's and on into the 90's, the Management Situation Analysis and Resource Management Plan phase was implemented.

I can remember saying to myself and probably others--Are we ever going to finish planning?? Of course the answer is no. To plan and replan is a necessity for all organizations from the family, to government, to the large corporation. It just seems the BLM has made the process extremely complicated. I always felt the old watershed plans made sense and I still do.

My frustration level since the coming of Management Framework plans has been high. Knowing the need for planning is one thing but having it drive you nuts is another. So what was bothering me. Yes, management of natural resources is complex. Yes, we had plenty of valuable data about each resource. Yes, we had knowledgeable, professional people to do the planning. Yet, when we got to that ''spaghetti'' overlay trying to mesh all the resource needs together into a plan of management, I felt totally frustrated. Something is wrong with a system where achieving the final solution is so cumbersome. And yet, inter-disciplinary sounds so good! That is the question that has been bugging me and until recently eluded me. I only knew I was frustrated with the process. Planning should be simple and relatively easy, not complex and cumbersome. If anyone questions the complex and cumbersome statement, ask any stranger to read virtually any RMP Draft and observe his response.

The inter-disciplinary team approach to planning for any ecosystem does not work because this approach fails to deal with a basic premise on which every ecosystem operates. That is the fact that the ecosystem is holistic. But don't take my word for it. Here is what two respected scientists had to say. In 1959 Eugene P. Odum wrote:

> ''I am more convinced than ever that the ''ecosystem'' or ''whole-before-the-parts'' approach with its functional emphasis is sound because it avoids several stumbling blocks which can make the presentation of ecology either to students or to scientists in other fields very difficult. That is to say, the reverse approach, which starts with individual environmental factors or organisms, often bogs down in details of description, sampling methodology and taxonomy; such details, of course, are vitally important in the carrying out of specific investigations, but they need not obscure the presentation of principles which must be understood by the beginner before he can possibly design research of his own or judge critically the work of others.''[1]

> ''Probably the most important job in conservation for the immediate future is to establish the fact in the minds of the general public that man is a part of a complex environment which must be studied, treated, and modified as a whole and not on the basis of isolated 'projects.'''[2]

In 1941 Aldo Leopold wrote:

> ''Mechanized man, having rebuilt the landscape, is now rebuilding the waters. The sober citizen who would never submit his watch or his motor to amateur tamperings freely submits his lakes to drainings, fillings, dredgings, pollutions, stabilizations, mosquito control, algae control, swimmer's itch control, and the planting of any fish able to swim. So also with rivers. We constrict them with levees and dams, and then flush them with dredgings, channelizations and floods and silt of bad farming.

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[1]Eugene P. Odum, Fundamentals of Ecology, p. VI.

[2]IBID, p. 422.

> ''The willingness of the public to accept and pay for these contradictory tamperings with the natural order arises, I think, from at least three fallacies in thought. First, each of these tamperings is regarded as a separate project because it is carried out by a separate bureau or profession, and as expertly executed because its proponents are trained, each in his own narrow field. The public does not know that bureaus and professions may cancel one another, and that expertness may cancel understanding. Second, any constructed mechanism is assumed to be superior to a natural one. Steel and concrete have wrought much good, therefore anything built with them must be good. Third, we perceive organic behavior only in those organisms which we have built. We know that engines and governments are organisms; that tampering with a part may affect the whole. We do not yet know that this is true of soils and water.
>
> ''Thus men too wise to tolerate hasty tinkering with our political constitution accept without a qualm the most radical amendment to our biotic constitution.''[3]

I know these quotes are lengthy, and I apologize, but they necessarily illustrate my point. The reverse approach to Holism discussed by Odum quite accurately describes the Bureau's Planning System.

Further, his concern for ''the most important job in conservation for the immediate future,'' has 32 years later, yet to be accomplished. It is not just the general public but a large percentage of the resource management professionals that still do not understand that ''man is a part of a complex environment which must be studied, treated, and modified as a whole.''

I believe the reason the Bureau is still bogged down in details of a complex planning system stems, previously, from a lack of an alternative means of analyzing and managing the great complexity of the ecosystem, combined with a lack of broadbased understanding and belief in Holism by Bureau employees. This is totally understandable and perhaps we have not reached the point in our paradigm where we can go forward. But we won't know that unless someone asks.

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[3] IBID, p. 422, 423.

Therefore, through these comments, I am asking the BLM in Kingman, Arizona, to step out of their paradigm of ''parts before the whole'' management and step forward to show the rest of the Bureau and others how to plan and manage Holistically. This would have been impossible ten years ago or probably five years ago, but it is possible today and in fact resource needs demand it. It is possible today because The Center for Holistic Resource Management has provided the tools necessary to enable us to view a complex ecosystem in a manner that focuses on the issues at hand without getting bogged down in detail. This is accomplished through the use of a Holistic Resource Management Model and an understanding of why management must be Holistic. (Read Chapter 4 of Holistic Resource Management by Allan Savory, especially the caption under Plates 1-4.)

I equate the inter-disciplinary approach to a family driving down the road with no destination (no goal) in mind and each member arguing about where they ought to go versus a Holistic approach where they all know Grandma's house is the destination (goal) and all agree that that is where they are going. They may go slower, faster, take a different route than normal, but they eventually get to Grandma's house. In other words, you have to know where you are going before you can decide how to get there. That illustration defines a basic flaw in the inter-disciplinary approach to resource management planning. Knowledgeable and dedicated resource specialists are asked to engage in three years of planning before management decides to let them know where they are going with a plan. How much better it will work when the goal is determined first and the resource specialists can concentrate their knowledge and expertise in mapping the best way to get there. This, in part, is how Holistic Management differs from conventional management.

Of course, it is too late to make this RMP Holistic in nature, but what can be done is to modify the end result and introduce Holistic Management as a planning and action tool to get the job done on the ground. For example, the end result of the RMP as it stands now will be the implementation of Allotment Management Plans, Wildlife Habitat Management Plans, Wild Horse and Burro Management Plans, Wilderness Management Plans, etc. How much better and simpler it would be to have only one Holistic Plan for a particular unit of land (whole).

The Whole I'm suggesting for management as a pilot project is the Sacramento Valley Watershed. The decision in the RMP would be to manage this area Holistically. You would be starting from scratch regarding planning for this particular Whole. This would require a concentrated effort and much commitment and support by the BLM for the concept. Also, this would entail the co-ordination with City, County, State, Landowners, and all citizens living within this area. With the current Community Unity push by the City and County, and the fact that Kingman's mayor is right now attending the

Introductory Holistic Management Course, this could be an opportune time to launch such an initiative. I would not even suggest such an endeavor unless the Bureau would be willing to enlist the aid of The Center for Holistic Resource Management. Getting such a program done right would be a must or not start it at all.

The reason I suggest Sacramento Valley as the place to start is because of the rapidly expanding population with associated resource problems. Proper management of all the resources in that Valley should be important to all and goes back to Odum's thought about the most important job in conservation is to establish the need to manage the whole in the minds of the general public. What a better place to start than Sacramento Valley. Tackle the tough one first.

Elaine, on a personal note, I sincerely hope you will give my suggestion careful consideration. Such a bold move would pay dividends to the Bureau, not only in improved resource management, but in good public relations, and a realization in the public's mind that the BLM is an organization that gets the job done right. In all my years with the Bureau, I was always proud to be associated with a great organization. Although I do admit in recent times the coming of uniforms and the seemly increased preservationist tendencies of some of the folks had me spooked.

Holistic Management is the wave of the future, and the sooner the BLM gets on trackthe sooner they will be recognized as the leader in Natural Resource Management Planning worldwide.

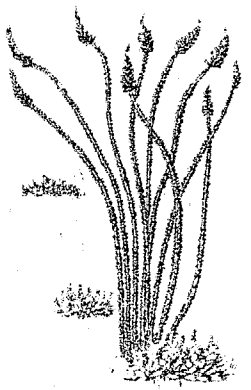
Thanks for the opportunity to comment on this RMP.

Sincerely,

Elno Roundy

Elno Roundy

1 of 2 Comment Letters/KRA/RMP/1991



81

"The Joshua Network"

Mohave Joshua Co. • P.O. Box 3222 • Kingman, Arizona 86402 • (602) 757-2818

April 11, 1991

Ms. Elaine Marquis, Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Elaine,

This is my second comment letter on the RMP. The first, as you know, dealt with Holistic Management, the importance of which goes way beyond what I may personally feel. I felt that issue should stand on its own merit, therefore the separate letter.

This comment letter will be specific to a few issues I personally feel should be considered in the final draft of the RMP.

Range Management

I realize the grazing program developed as a result of the two grazing EIS's were incorporated by reference as a part of Alternative 1, and I think this is great. We had a long, tough fight to get this program going and it was proper not to resurface this issue as a part of the RMP/EIS.

Since the grazing program is part of Alternative 1, it follows that the benefits of an implemented grazing program should be documented in the Environmental Consequences Chapter. This does not appear to be the case. Rather the adverse impacts of not implementing the grazing program on schedule were identified. I believe the benefits should be added.

ACEC's (Riparian/Tortoise/Bighorn Sheep)

81-1 Grazing management is essentially vegetation management and therefore the benefits of an implemented livestock grazing program in Alternative 1 will solve the habitat problems which the resource specialists evidently feel necessitated proposing Riparian, Tortoise, and Bighorn Sheep ACEC's in Alternatives 2 and 3.

Further, I do not feel a careful reading of the definition of ACEC's in the Act or in the regulations support these particular designations. I suggest a reassessment based on the written critera in BLM files.

I recommend the following ACEC's be dropped from consideration:

Black Mountain
Wright Creek & Cottonwood
Cherokee Point
McCracken
Poachie
Burro Creek
Aubrey Peak

I concur with the following ACEC's:

Western Bajada
Hualapai Mountain
Carrow-Stephens Ranches
Silver Creek
Black Butte

Vegetative Products

I strongly support private woodcutting on public land and ask that this use be provided for in the final draft. Woodcutters are KRA's single largest constituency with maybe the exception of miners. BLM's longstanding multiple use policy should prevail on this issue.

I appreciate the provision in all Alternatives for small-scale negotiated sales of vegetative products, and I support this provision being carried forward into the final draft.

OHV

I strongly oppose the designation of the majority of public land as limited, to roads, trails, and washes.

81-2 Such a designation restricts legitimate users of the land; i.e., Rancher can't go get the sick calf, Hunter can't drive cross-country to pick up his buck, BLM can't drive out to inspect section corners, Landowner can't inspect land he bought sight unseen 20 years ago, etc.

These types of one-time traversing of the land by vehicles harm nothing, and the tracks are quickly obliterated by wind and rain (Pictures will follow).

I recommend the majority of the public lands be left open as they are now. Of course I do not support repeated, indiscriminate, OHV use. However, if this becomes a problem, then the BLM can act on it as they did near Grasshopper Junction several years ago. Use the old adage, ''If it ain't broke, don't fix it.''

Land Disposal

I oppose the disposal of public land within any area that is proposed for Allotment Management Planning as a part of the livestock grazing program. I suggest an analysis of this constraint be considered as the final disposal/retention boundaries are decided.

I specifically oppose any disposal in the Sacramento Valley Watershed, North of Old Highway 66. Exceptions would be scattered tracks within the solid block of private land. In particular, I oppose disposal of the Curtain Allotment where we have worked so hard to establish Holistic Management. But most importantly, I oppose further disposal in this Watershed because the primary importance of managing the public land surrounding the large block of private land is for Watershed protection to insure an improved water cycle to support ground water supplies for the exploding population. The people are not aware of this but the professional land managers should be, and it is their responsibility to look to the future for the benefit of all.

This matter should be carefully considered in all the other watersheds involved in the RMP Area, and I hope final decisions on disposal will be carefully considered. Watershed Management may be the single most important issue for the future. Now is the time to consider how land disposal may effect the BLM's ability to manage the water resource.

Bojorquez Natural Area

81-3 I would like to recommend the final draft contain a proposal to designate the area encompassing the old Silver Creek Allotment and the two areas reserved for Wildlife which adjoin the allotment to the south as the Bojorquez Natural Area.

Albert Bojorquez was one of the early pioneers in the Bullhead City area. He was a good friend to the BLM and before his death initiated an exchange in which he gave three 40-acres parcels in prime Big Horn Habitat in the Black Mountains for about 12½ acres on the bahada below. As a part of this proposal, he was going to relinquish his grazing privileges for the benefits of the wildlife and burros. After his death, his widow Marie carried the proposal forward to completion because as she told me, ''Albert wanted it that way.''

Long before the Wild Horse and Burro Act was even thought of, Albert was the burro manager for the area. Over the years, he achieved population control by gathering over 6,000 burros from the area. Most he sold to Sears & Roebuck for sale in their catalog. You might call this the first adoption program. Albert was the one who introduced the spotted burro to the Oatman herd. I could go on about his contributions to the growth of the Bullhead/Riviera area, etc., but enough for these comments. I have more in my notes if you wish to pursue this idea.

I just think it would be fitting to remember his contributions to the local history by recognizing his name for the area he spent so many hours, weeks, and years caring for before anyone else took notice. I know the regulations provide for several types of designations. If Natural Area does not fit, then perhaps another one would. I hope you will give this idea serious consideration. Thanks much.

Conclusion

I believe that once the benefits of an implemented livestock grazing program are identified in the document then Alternative 1 will emerge as the preferred Alternative. Selected portions of Alternatives 2 and 3 could be added to make a good plan of management for the public lands.

If any of my comments need clarification, please feel free to contact me. I would be glad to discuss any of these matters at any time.

Thank you for the opportunity to comment on the RMP.

Sincerely,

Elno Roundy

Elno Roundy

2 of 2 Comment Letters/KRA/RMP/1991

82

Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Ave.
Kingman, AZ. 86401

Dear Mr. Carter,

It is reasonable to assume that the BLM as custodian of vast amounts of public lands has always made effort to implement the concept of "Highest and Best Use." It follows therefore, that the Kingman Resource Area in the planning of its RMP/EIS for the next 20 years, should continue this appropriate philisophy.

There was a time when the Highest and Best Use of Public Land was mining, cattle grazing and about anything else anyone wanted to do to make a dollar off of it. There was lots of space, plenty of land. "This is America-do what you want. No one cares." Well, not anymore. Those of us who have grown older, watching the changes, have become polarized, even impassioned. I have seen the (endless) wilderness vanish at frightening speed, the casual trashing of those areas accessable to motor vehicles. Constantly, there are the hot, sweaty hands of commercial developers.

Our land must be preserved for use by the greatest number of people. This means Tourism, Recreation and Aesthetic Appreciation. How much pleasure was ever derived from the mining and cattle grazing on public lands? Furthermore, I suspect the financial contribution to the Kingman Resource Area from either mining or cattle is insignificant. Ther is alot of money in Tourism and Recreation though. There are the sellers of camping, hiking and backpacking equipement. Ask the businesses surrounding the access to Yellowstone and the Grand Canyon. So with Tourism, Recreation and Aesthetic Appreceation there is money to be made and enjoyment for the people. Surely this is the Highest and Best Use now and evern more so as time passes into your 20 year plan. Consider what it was like 20 years ago. People certainly care for the wild lands alot more now, don't they. Project this changing, more caring attitude into the next 20-years.

Tourism, Recreation and Aesthetic Appreciation can not co-exist with mining, cattle grazing, wood cutting and anything else that disfigures the land. A mining operation is ugly to see and creates noise, water and air polution. There is a scar forever on the land. Cattle destroy the natural vegetation. They turn riparian areas into excretion covered, fly infested mud holes. The mooing of cows is not the preferred serenade in the wilds. A bull wandering through a camping area does not make for relaxation and a sense of well being. Wood cutting is simply unsightly mutilation.

Therefore, it is absolutely necessary you consider all lands that could conceivably be used for Tourism, Recreation and Aesthetic Appreciation as Areas Requiring Special Management.

It is there to see. Please don't miss the boat.

Sincerely,

Richard L. Leibold
Environmental Chair
Ramparts Chapter
Sierra Club
565-3213

83

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105

12 APR 1991

Ms. Elaine F. Marquis
Area Manager, Kingman Resource Area Office
Bureau of Land Management
2475 Beverly Avenue
Kingman, AZ 86401

Dear Ms. Marquis:

The Environmental Protection Agency (EPA) has reviewed the proposed **Draft Kingman Resource Area Resource Management Plan and Environmental Impact Statement** (DEIS). Our comments on this DEIS are provided pursuant to the National Environmental Policy Act (NEPA) and EPA's authorities under Section 309 of the Clean Air Act.

The Kingman Resource Area DEIS identifies and analyzes three alternatives for managing 2.5 million acres of land in western Arizona which are administered by the Bureau of Land Management (BLM). The alternatives are: Alternative 1 - No Action; Alternative 2 - the preferred alternative, which combines resource use with some environmental protection; and Alternative 3, which places smaller areas under special management, adds two disposal areas, increases recreation facilities, closes more areas to livestock grazing, and reduces wild horse numbers.

We have classified this DEIS as EO-2 -- Environmental Objections, Insufficient Information (see enclosed "Summary of Rating Definitions and Follow-Up Action"). EPA believes that the preferred alternative would perpetuate land management practices which adversely affect water quality, soils, vegetation, riparian habitats, and wildlife. According to the DEIS, livestock management, mineral development, vegetation harvest, and off-highway vehicle use in the planning area have had, and would continue to have, detrimental impacts on these resources. Changes to the proposed alternative appear necessary to provide adequate protection for the environment. We therefore recommend that BLM develop enforceable conditions to reduce or eliminate various practices' adverse impacts and where this is not feasible close additional areas to these activities.

We believe that this document contains insufficient information on which to base decisions regarding the long-term use of this planning area. Our rating reflects the need for additional information regarding the alternatives' potential impacts to the planning area's environmental resources as well as mitigation measures necessary to prevent or offset the potential impacts.

We recommend that BLM consider preparing a draft supplemental EIS to address the needed information. We also recommend that BLM seriously consider preparing new grazing EISs for the planning area which would allow for needed revisions of current grazing practices and allotments. It does not appear appropriate to incorporate the existing 10- and 14-year-old grazing plans, which have not sufficiently protected water qualtiy and riparian habitats, into this Resource Management Plan. Our detailed comments are enclosed.

We appreciate the opportunity to review this DEIS. Please send three copies of the Final Environmental Impact Statement (FEIS) to this office at the same time it is officially filed with our Washington, D.C., office. If you have any questions, please contact me at (415) 744-1015, or have your staff contact Jeanne Dunn Geselbracht, Office of Federal Activities, at (425) 744-1576.

Sincerely,

Jacqueline Fyland

for Deanna M. Wieman, Director
Office of External Affairs

Enclosures

000639
91-437

cc: Carol Russell, ADEQ

SUMMARY OF RATING DEFINITIONS AND FOLLOW-UP ACTION*

Environmental Impact of the Action

LO—Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC—Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO—Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU—Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of environmental quality, public health or welfare. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1—Adequate
EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2—Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3—Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From: EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

Water Quality

1. Pursuant to Section 305(b) of the Clean Water Act, the Arizona Department of Environmental Quality (ADEQ) prepared a Water Quality Assessment Report for 1990. In addition, ADEQ prepared a Nonpoint Source Assessment Report (SAR) in 1988, pursuant to Section 319(a) of the Clean Water Act. Arizona's SAR, approved by EPA in 1989, provides the following information which should be cited in the Affected Environment section of the DEIS.

- Over 90 percent of Arizona's waters do not meet designated beneficial uses required by state water quality standards due to impacts from nonpoint sources.

- The most significant categories of nonpoint sources affecting Arizona's waters, by stream miles, are grazing, hydrologic/habitat modification, recreation and resource extraction.

- Waters which are affected in the Kingman Planning Area.

2. Pursuant to Section 319 of the Clean Water Act, states have the lead role in identifying and controlling nonpoint sources. In Arizona, ADEQ has been designated as the lead agency for implementation of the Section 319 Nonpoint Sources Program. Pursuant to Section 319(b) of the Clean Water Act, ADEQ prepared a State Nonpoint Source Management Program (SMP), which was approved by EPA on January 4, 1990. Arizona's SMP identifies federal programs and activities subject to the Federal Consistency review requirements of Sections 319(b)(2)(F) and 319(k) of the Clean Water Act. These sections require federal agencies to submit specific assistance programs and development projects to the lead state nonpoint source agency (ADEQ) for review for consistency with Arizona's SMP.

Specific BLM programs identified in Arizona's SMP include: watershed projects; mineral exploration and development; coal, oil and gas leasing; off-highway vehicle (OHV) activities; timber activities; grazing allotment/grazing management; chemicals/pesticides; area analysis/cumulative impacts; riparian management plans; and Area of Critical Environmental Concern (ACEC) plans. Further, it is BLM's responsibility to implement sufficient Best Management Practices (BMPs) to enable full protection of beneficial uses of surface waters, attainment of surface water quality standards, and compliance with the antidegradation provisions of 40 CFR 131.12.

83-1

We strongly encourage BLM to work closely with ADEQ to satisfy BLM's obligations under the Federal Consistency requirements of Section 319 and 40 CFR 131.12. We expect that BLM's development of a memorandum of understanding (MOU) with ADEQ would serve to facilitate this process and encourage BLM to establish this as a priority. The MOU should contain the procedures to be used in resolving conflicts between resource development activities and protection of surface water quality. Resolution of conflicts should ensure that beneficial uses of surface waters would be fully protected, that surface water quality standards would be attained, and that there would be no further degradation of surface water quality.

3. According to the DEIS (Table II-13), water quality in riparian areas in special management areas, unique waters, and scenic rivers would be monitored quarterly or biannually. The FEIS should identify the specific parameters that would be monitored at the testing sites as well as the appropriate water quality criteria or standards. We recommend that parameters to be monitored include appropriate parameters based on activities in each watershed (e.g., grazing, mining, vegetation harvest). At a minimum, these parameters should include nutrients, fecal coliform, total dissolved solids, and turbidity. In addition, waters potentially affected by mining activities should be monitored for metals and pH as well. BLM should consult with ADEQ in the design of the monitoring program.

We encourage BLM to also include appropriate bioassessment methods, such as the macroinvertebrate assessment method developed by the U.S. Forest Service, and any appropriate biological monitoring and assessment methods which have been developed by EPA pursuant to Section 304(a)(8) of the Water Quality Act of 1987. BLM should conduct bioassessments in surface waters that are potentially affected by nonpoint sources (e.g., Burro Creek). Bioassessments are particularly valuable in detecting effects of nonpoint sources of pollution including sediment loadings. Data collected should be entered into EPA's STORET database, to facilitate sharing data with other water quality managing agencies. We recommend that BLM enter biological data collected into STORET's BIOS database.

83-2 4. The FEIS should include baseline information regarding existing water quality for drainages in the planning area. This information is essential in a planning document for the purposes of identifying specific problem areas, tracking, and determining appropriate mitigation measures.

83-3 5. The FEIS should include a thorough discussion of the mitigation measures that would be implemented if it were determined that water quality had been or was being degraded in any of the drainages of the planning area.

Livestock Management Issues

1. According to the DEIS (page 129), rangeland management program priorities do not provide for needed revisions of AMPs on important areas supporting special status species. Continuation of existing grazing programs would result in further decline in conditions. It is unclear why BLM proposes to incorporate 10- and 14-year-old grazing plans and decisions into this Resource Management Plan (RMP), since these environmentally inadequate plans would be extended for another twenty years. We believe that these existing grazing plans should not be incorporated into this Resource Management Plan. We recommend that BLM seriously consider preparing new grazing EISs for the planning area which would allow for needed revisions of grazing practices and allotments. At a minimum, we urge BLM to incorporate into the FEIS provisions by which the existing rangeland management plans would be revised to protect the resources in the planning area.

2. We recommend that the FEIS briefly summarize the planning area's special livestock management practices currently implemented in sensitive watersheds or in watersheds in unsatisfactory condition. It is also unclear how, under this proposed RMP, AMPs could be revised to accommodate necessary allotment revisions based on resource needs of the planning area. The FEIS should discuss the parameters and standards that would be used to evaluate the need for revisions to AMPs for the purpose of protecting special status species, riparian areas, watershed resources, and areas of critical environmental concern (ACECs).

3. Livestock access to riparian areas has a significant negative impact on water quality due to trampling of stream banks and consumption of riparian vegetation. In light of the potential significant impacts to water quality from grazing in riparian and non-riparian areas, we suggest the following measures be identified for implementation in the FEIS:

- Include special provisions in grazing allotment plans to reduce the number of animal units in allotments during drought conditions.

- Develop and implement measures to discourage use of riparian areas by livestock (e.g., develop upland water

supplies; use fencing or other exclosure methods; implement appropriate rest-rotation grazing practices).

4. According to the DEIS (Appendix 18), BLM would manage livestock grazing in several ACECs to achieve goals and objectives of the ACECs. The FEIS should discuss the specific measures that would be implemented to achieve these goals and objectives (e.g., fencing, exclosures).

5. The upper Bill Williams watershed, the Bill Williams River, Wright Creek, and smaller creeks in the Hualapai Mountains have the best developed and most extensive riparian deciduous forest communities on the planning area and are valuable riparian resources (DEIS, page 115). In addition, areas of severe/critical erosion occur on alluvial fans near Wikieup, the Big Sandy River Valley, the Burro Creek area, lands adjacent to the Santa Maria River/Alamo Lake areas, the Dutch Flat area and small areas in the Sacramento, Detrital, and Hualapai Valleys, Hackberry, and Truxton. Erosion in these areas has been attributed in part to overuse by livestock. We urge BLM to consider closing all these outstanding riparian areas and areas of severe/critical erosion to livestock use. At a minimum, we recommend that BLM include Management Prescription #11 for the Hualapai Mountain Research Natural Area ACEC (DEIS, page 208) in other ACEC management prescriptions for ACECs with riparian preservation goals (e.g., Wright, Burro, and Cottonwood Creeks, and Three Rivers) and consider significantly reducing the animal unit months allowed on allotments in all areas of severe/critical erosion.

6. It appears that where public land would be acquired for ACECs, forage allocation as outlined on page 43 of the DEIS could conflict with the goals and objectives of ACEC plans. The FEIS should clarify this apparent discrepancy.

83-4 7. It is unclear from conflicting sections in the DEIS (page 143 and Table II-8) if Alternative 3 would close Poachie and McCracken ACECs while Alternative 2 would only limit grazing activities. We recommend that BLM include as a component of the preferred alternative greater protection for the desert tortoise habitat ACECs.

Mineral Development Issues

1. Surface disturbing activities associated with exploration and development of energy and minerals have the potential to increase soil erosion and loss of soil productivity and to cause declines in both groundwater and surface water quality and quantity (DEIS,

83-5 page 122). The DEIS discussions of the differences in potential impacts between the three alternatives is extremely vague. The FEIS should include more information on the impacts of mining in the district in the past and foreseeable future. It should specify for the entire planning area: mineral materials (including sand and gravel), mining activities, number of cases with each activity, and acreages disturbed or affected by each mineral material or activity. The FEIS should also provide this information for each ACEC, special management area, or riparian area within the planning area. The FEIS should also specifically evaluate the impacts of mining in these areas and discuss any mitigation measures that are necessary to protect water and air quality, soil resources, vegetation, and wildlife (including special status species).

83-6 2. Drainages such as Burro Creek are contaminated by mining waste. The FEIS should discuss the retroactive compliance program for existing mining activities in the planning area. The FEIS should also discuss in detail the Best Management Practices and mandatory mining regulations and bonding requirements for the State of Arizona and federally managed lands.

3. According to the DEIS (page 214), the Burro Creek riparian habitat supports the greatest recorded diversity of birds of prey anywhere in the United States. In light of the heavy metal contamination that has already occurred in the creek, we urge BLM to close the Burro Creek ACEC to mineral development. We also recommend that BLM close the McCracken and Poachie Desert Tortoise Habitat ACECs to future mineral development.

Special Management Areas

83-7 1. It is unclear why none of the rivers and creeks that are being considered for Scenic River designation has not been nominated for Wild River designation. The FEIS should distinguish between the different qualification criteria for Scenic and Wild designations, as well as the degree of protection that each designation would afford designated streams. In
83-8 addition, these waters should be considered for Unique Waters designation through the State of Arizona standards process.

2. Approximately 60 percent of the riparian areas surveyed on the planning area are in unsatisfactory condition (DEIS, page 115). The FEIS should thoroughly discuss how riparian areas would be managed. BLM's riparian management plans should be consistent with Arizona's new Riparian Habitat Protection Policy (Executive Order 91-6: Protection of Riparian Areas, February 14, 1991). The FEIS should discuss this policy and address the goals

and objectives of riparian management on the planning district. The FEIS should identify monitoring parameters and methods and specific mitigation measures to ensure protection and/or enhancement of these areas.

Vegetation Management

1. The FEIS should discuss any vegetation management plans that are currently used by BLM on the planning area and whether new plans, subject to NEPA, will be drafted in the foreseeable future.

2. In light of the outstanding vegetation, fish, and wildlife resources in the riparian ACECs and other riparian areas on the planning area, we urge BLM to close all riparian areas to vegetation harvest.

3. The FEIS should discuss any pesticide use on the planning area with respect to its effect on fish and wildlife, particularly special status species, and on water quality. Appropriate precautions should be included in the discussion. The FEIS should discuss the use of pesticides or herbicides in relation to the following topics: cattle dip treatment; fire prevention programs; predator control programs; deer repellent programs; wood preservative treatment for fences; vegetation control near roads and right-of-way corridors; and control of disease vectors.

4. The FEIS should define "large-" and "small-scale" vegetation harvests (see DEIS, page 42). The FEIS should clarify whether large-scale vegetation harvest plans would be prepared as separate NEPA documents and whether small-scale harvests would be subject to decisions made in some other comprehensive vegetation management plan for the planning area.

83-9 5. The FEIS should thoroughly discuss the BMPs that would be implemented by BLM for all vegetation harvests.

Off-Highway Vehicle Use Issues

1. We urge BLM to consider closing washes to off-highway vehicle (OHV) use, particularly in light of the potential damage to watersheds, vegetation, and wildlife that would be posed by OHVs. In addition, it is uncertain that OHV users would prudently distinguish between washes and areas that may be marginal riparian areas or springs. We recommend that OHVs be limited to existing roads and trails and designated OHV use areas in the planning area.

2. Given the seasonally wet and dry conditions of Red Lake and the important habitat for raptors in washes surrounding Red Lake, we urge BLM to consider closing the playa and surrounding area to OHV use. The FEIS should discuss whether other areas are available for OHV designation, which may be less environmentally damaging.

Lands Actions

1. The FEIS should discuss the specific impacts to vegetative products, water quality, soil resources, wildlife, and other resources that would result from land withdrawals, recreation and public purpose uses, and right-of-ways under each alternative. For example, how many acres of various vegetative products would be impacted, or how many tons of soil could be lost due to erosion resulting from these actions? The FEIS should also discuss any mitigation necessary to prevent or offset adverse impacts.

2. The FEIS should discuss the purpose and need for the newly proposed utility corridors in the planning area. Alternatives to these corridors should be assessed, and the potential environmental impacts and necessary mitigation measures associated with each alternative should be discussed in detail.

Recreation Issues

1. According to the DEIS (page 122), intensive recreation activities would impact watershed condition by increasing erosion and reducing soil productivity. The FEIS should identify the potential environmental impacts of each alternative, where they would occur, and what mitigation measures would be implemented to protect resources from adverse impacts.

83-10

Special Status Species

1. The FEIS should identify the habitat improvement projects such as exclosures and spring developments that would be implemented to protect special status species.

84

THE STATE OF ARIZONA

GAME & FISH DEPARTMENT

2221 West Greenway Road, Phoenix, Arizona 85023-4312 (602) 942-3000

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Director
Duane L. Shroufe

Deputy Director
Thomas W. Spalding

April 12, 1991

Ms. Elaine F. Marquis
Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Ms. Marquis:

Re: Kingman Resource Area, Draft Resource Management Plan and Environmental Impact Statement

The Arizona Game and Fish Department has reviewed the Bureau of Land Management's (BLM) Kingman Resource Area Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS). We have provided comments below by management concern. Specific, page-referenced comments, and an errata are attached.

FIRE MANAGEMENT

Common to All Alternatives

The Department believes that the BLM should adopt and identify prescription burn policies in the RMP. Our post burn management recommendations would include seeding with a mixture of native forbs and grasses, and prohibition of grazing within the burn area for a minimum of two years after the burn.

The fire suppression goals listed on page 25 appear too restrictive in that all fires would be suppressed by the BLM. If the BLM does not currently have a comprehensive fire suppression management plan, the Department recommends the development of a plan which would identify areas where reduced suppression would allow natural fires in targeted areas to burn a larger acreage before suppression. Additionally, other areas could be managed for no suppression.

The Emergency Fire Rehabilitation procedures may include seeding. Our Department recommends a mixture of native forbs and grass species for all seeding and reseeding efforts.

WILDLIFE HABITAT MANAGEMENT

Alternative 2

The last paragraph in column 1 on page 33 and Table II-1 on page 33 should mention that the sheep numbers listed as proposed goals in 1981 were designed to increase bighorn numbers. However, we have recently determined that sheep numbers were already above these goals in the Black Mountains and on Mount Wilson when the Habitat Management Plans (HMP's) were written.

Movement Corridors

We support movement corridors for bighorn sheep on Highway 68 at Union Pass and on Highway 93 at Mile post 2.4.

We also support a movement structure on Highway 93 for mule deer at Coyote Pass. This should be an underpass or overpass associated with the 4-lane improvement proposal now under consideration.

WILD HORSE AND BURRO MANAGEMENT

Alternative 2

Reference the Cerbat Herd Management Area (HMA), the Department believes that the maximum management level of 90 horses for the Cerbat horse herd should be subject to and contingent upon there being no detrimental impacts to wildlife or wildlife habitats as a result of this herd management level. Further, the EIS states on page 59 that "If the use limits are exceeded after the population limit of 90 horses has been reached, livestock **and deer** numbers would be reduced" (emphasis added). The Department maintains that the reduction of deer numbers is not a decision, nor is it an option that BLM can legally exercise and, therefore, should be deleted from the text.

84-1

We support BLM's goal of attaining wild horse and burro "management levels" for the Kingman Resource Area (page 117) by October 1992. Attainment and maintenance of this goal is imperative for maintaining healthy and sound wildlife habitat. We also enthusiastically support the Black Mountain HMA population attaining maintenance level by the end of FY91.

84-2

No mention of burro removals outside of authorized herd management areas is mentioned in the RMP. We suggest these areas be mapped and documented, and that an inventory and removal plan be developed with a goal of zero burros by a specified date.

Page 128 of the EIS states that "The current burro management philosophy is a dispersed population at a light stocking rate. Such burro management benefits wildlife habitat by resulting in increased forage production and availability, better habitat quality and condition, and reduced competition." The erroneous idea presented here is that burros are beneficial to wildlife, not

that a managed burro population is less detrimental to wildlife than an un-managed population. This paragraph needs rewording in order to more accurately express the merits of wild horse and burro management. Additionally, table II-13, page 89, should be modified so that burro population estimates are conducted at 3 year intervals.

84-3

FUELWOOD MANAGEMENT

Common to All Alternatives

Fuelwood cutting can be an effective and economically feasible management tool to improve wildlife habitat. The Department recommends that the BLM maintain fuelwood cutting as an option for wildlife habitat management.

RANGELAND MANAGEMENT

Alternative 2

The McCracken and Poachie ACECs are in both Alternative 2 and 3. Livestock grazing is eliminated from these areas in Alternative 3, but not in Alternative 2. Why isn't livestock grazing eliminated from these ACECs in Alternative 2?

Private and State lands are often over-allocated for livestock grazing and in poor condition. These lands should not be exposed to possible continued deterioration under federal management when they are acquired through the land exchange program. It seems only prudent that for each newly acquired block of land, BLM should determine proper forage allocation, and attempt to predict impacts to the environment from its actions, as prescribed by The National Environmental Policy Act. We recommend that all newly acquired lands should be inventoried and assessed before BLM administered land management practices are implemented.

RECREATION MANAGEMENT

Common to All Alternatives

Several of the proposed recreational sites would adversely affect wildlife and wildlife habitat. The Department questions the specific recreational needs identified in the RMP. We do not agree with the sites and types of recreational improvements identified.

84-4

For example, we think the Thimble Butte Campground in section 14 will be too close to the bighorn sheep ram pasture on Thimble Butte and too close to bighorn habitat near Baker Spring. We also think this campground would attract people to the prime desert tortoise habitat in this area to the possible detriment of the tortoise.

84-5

Also, we recommend that the campground at Pine Flat be developed at a different site at least 1/2 mile from the flat itself to lessen impacts to both Hualapai mountain voles and traditional campers.

84-6

Kingman Regional Park should take into account wildlife needs, such as two or three permanent waters and a movement corridor, to both enhance wildlife habitat and to mitigate human impacts to wildlife populations from the park itself.

We believe that the recreation management plan was not a result of a thorough and complete assessment of needs and impacts to these areas. The Department recommends that the BLM withdraw specific recreational management sites and proceed instead with a comprehensive recreational management plan based on identified demands and needs of user groups, as well as impacts to the environment.

OHV USE

Common to All Alternatives

The Department does recognize that significant impacts to wildlife habitat can occur through uncontrolled OHV use. However, we do not oppose OHV use in washes where no damage will occur to existing vegetation. We also recommend that the public have the option to drive off of designated roads and washes to retrieve legally killed game animals while hunting. This provision has been included in other RMP's, and we feel it should be made a part of the Kingman Resource Area RMP.

84-7

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

Alternative 2

The Department is strongly supportive of the ACECs specified in Alternative 2, provided that the Department will have an active role in development of the management plans for all ACECs in the Kingman Resource Area, and that ACEC management plans will be coordinated with, consistent with, and will not supersede existing HMPs, without concurrence of the Department.

Wright-Cottonwood Creeks Riparian and Cultural ACEC

84-8

Management prescriptions for wildlife and Threatened and Endangered species (T/E) should include an inventory to determine the presence or absence of native fish species. Inventory efforts should be coordinated with the Department.

Cherokee Point Antelope Habitat ACEC

84-9

Management prescriptions for wildlife (pronghorn) and T/E should include the following: 1) an inventory of existing and developed water sources; 2) identification of those areas not presently serviced by the availability of permanent water; 3) an inventory of existing fencelines; and 4) the development of a new and badly needed Allotment Management Plan for the Crozier Allotment currently operated by the Robinson family. Poor range conditions on this allotment have likely contributed to the overall decline of

the area's pronghorn population and below-average pronghorn fawn survival. These efforts should be coordinated with a badly needed revision of the Cerbat-Music HMP.

Three Rivers Riparian ACEC

Any management efforts in this ACEC should be closely coordinated with the Department in regards to those activities which may be implemented in or adjacent to the Alamo Lake Wildlife Area. The Department (Region IV) is presently in the process of rewriting the management plan for this area. Our Department has the primary authority for management of wildlife and habitat in this wildlife area.

Black Mountains ACEC

Management prescriptions for wildlife (bighorn sheep and tortoise) and T/E should address the overall cumulative impacts of mining in critical bighorn sheep and desert tortoise habitat in the Black Mountains (refer to Minerals Management below).

MINERALS MANAGEMENT

The Department strongly reiterates the need for a comprehensive minerals management plan that will address the cumulative impacts of mining operations on bighorn sheep habitat in the Black Mountains. Piece meal evaluation of mining operations, on a case-by-case basis, is resulting in the segregation of critical habitat. Considering the importance of movement corridors for genetic exchange, management of mineral resources over the entire mountain range needs to be evaluated.

HABITAT MANAGEMENT PLANS

Common to All Alternatives

The Department stresses the importance of the HMP process for management and enhancement of wildlife resources. Historically, HMPs have been effective vehicles for improving wildlife habitat. The Department recommends that this RMP should not supersede or change priorities set forth in existing HMPs.

Overall, the BLM has done a commendable job with the enormous task of developing a RMP which will serve the public's myriad of interests. The Department believes that Alternative 2, when combined with recommendations and concerns referenced in this letter, would best serve wildlife and therefore the public. We accordingly recommend implementation of Alternative 2, after our concerns have been integrated.

We appreciate this opportunity to comment on the Draft RMP/EIS for the Kingman Resource Area.

Sincerely,

Duane L. Shroufe,
Director

DLS:KLY:ky

attachments

cc: Henry Bisson, Phoenix District Manager, BLM
Steve Ferrell, Kingman Regional Supervisor, AGFD

ATTACHMENT 1

SPECIFIC PAGE-REFERENCED COMMENTS

PAGE	COMMENTS
13,22,31, 50,57,76, 78,80,85, 110,119	References to Wilderness - Wilderness Designations have been finalized and should be updated in the RMP.
17 84-10	Areas Requiring Special Management - "Provide for primitive motorized and non-motorized recreation". What is primitive motorized recreation ?
21 84-11	Existing Plans, Decisions, and Objectives - "Insecticides are also prescribed to control insects such as grasshoppers and crickets." The Department believes the BLM must consider more closely the detrimental impacts to wildlife caused by the use of pesticides on public land. The Department requests formal notification prior to any pesticide applications.
25	Column 1, Paragraph 2, regarding Title 43 Subpart 4710.5b, a better explanation is needed to clarify the meaning of this paragraph.
34 84-12	State-listed Species Section - Reference is made to the "AGFD October Fish Count", This has been changed to the "AGFD Fall Fish Count" to allow more latitude in collecting dates.
35	Table II-2 - We question the rationale used in the priority ranking of riparian management areas listed in the table. Due to the existence of the State Listed Colorado roundtail chub Gila robusta robusta in Francis and Boulder Creeks, we feel these creeks merit a higher priority than that given. The Department would greatly appreciate being consulted in the development of management plans and priorities such as these. We feel that the expertise within our Department could enhance interagency management of important wildlife resources.
40 84-13	Communication Site Rights-Of-Way - We question the appropriateness of the Cherum Peak site when Windy Point already exists as a communication site. We recommend a less pristine site, such as Potato Patch or Hayden Peak which would likely meet these communication needs.
88 & 89 84-14	Table II-13 HAZMAT Element, Water Quality Item - It is not possible to use a "Visual" technique to measure units of "ppm". We suggest a more quantitative technique for this monitoring.

ATTACHMENT 2

ERRATA

PAGE	COMMENTS
ix	Introduction, paragraph 2 - correct "Federal Land Management and Policy Act of 1976 (FLMPA)" to "Federal Land **Policy and Management** Act of 1976 **(FLPMA)**".
12	Planning Criteria - correct "beforesurface" to **"before surface"**.
19	Watershed Resources - correct "FLMPA" to **"FLPMA"**.
23	1st line - correct "develop-ments" to **"developments"**.
23	Column 1-HMP list, spelling of #3 Aquarius
45	Recreation Management Plan Actions Paragraph 8 - Reference to Table II-5 should be to **Table II-9**.
47	Plan Actions Section - correct "empha-sizing" to **"emphasizing"**.
52	Table II-5, Western Bajada/Lands - correct "Acquire privae" to **"Acquire private"**.
66	Change Agent Mining Law, Alt.2 & Alt. 3 - correct "acquiredand" to **"acquired and"**.
92	Table II-14 Wildlife Resource Alt. 3 - correct "...the sized of special..." to "...the **size** of special..." and "...eliminated from aCEC proposals..." to " ...eliminated from **ACEC** proposals...".
93	Table II-14, Special Status Species, Alt. 2 - correct "limita-tions" to **"limitations"**.
104	Table III-4 Category III - correct :...because of thesoil temperature/moisture regime thesoils..." to "...because of **the soil** temperature/moisture regime **the soils**...".
111	1st paragraph, 4th line from the bottom - correct "...on the Haulapai Mountains..." to "...on the **Hualapai** Mountains...".

Errata cont'd

Page	Comments
113	Remarks Column for Javelina - correct "The present Havelina population..." to "The present **Javelina** population...".
126	Table IV, Mineral Park Area, Alt. 3 - align "Low" for Deterioration Type IV with those above for Type I-III.
134	3rd to last line - correct "Santa Maria (LGRA" to "Santa Maria (LGRA)".

April 11, 1991

Elaine F. Marquis
Area Manager
Kingman Resource Area
2475 Beverly Avenue
Kingman, Arizona 86401

Re: Draft Kingman Resource Area Resource Management Plan and Environmental Impact Statement

Dear Ms. Marquis:

American Rivers, formerly named the American Rivers Conservation Council, is a national, public interest not-for-profit corporation with more than 15,000 members nationwide. American Rivers is the only national conservation organization dedicated exclusively to the preservation of free-flowing rivers. In its seventeen-year history, American Rivers has worked intensively to protect rivers under the federal Wild and Scenic Rivers Act and has actively assisted states and local groups with their river conservation efforts.

American Rivers has worked extensively with the Bureau of Land Management ("BLM") since 1987 in its planning efforts for the river resources on the public lands. American Rivers has assisted the planning staff in Washington to clarify administrative direction for consideration of potential wild and scenic rivers in BLM's resource management planning, and has reviewed and commented on numerous BLM plans. American Rivers has filed to date five Protests of Resource Management Plans. Each Protest alleged, inter alia, that the individual RMP failed to comply with the Wild and Scenic Rivers Act and explicit agency administrative requiring that BLM study potential wild and scenic rivers and provide interim management prescriptions for those rivers found eligible. On June 4, 1990, the Director agreed that the subject RMPs[1] failed to comply with the Wild and Scenic Rivers Act and advised the affected State Directors that additional planning was required to comply with established requirements.

American Rivers members live near, use and benefit from the

[1] The Director's decision resolved American Rivers' four Protests then pending. One more RMP has been Protested since June, 1990; no decision has yet been made.

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resources of the Kingman Resource Area ("KRA"), including its rivers and associated landscapes.

GENERAL COMMENTS

Section 5(d) of the Wild and Scenic Rivers Act, 16 U.S.C. section 1271 et seq., requires all federal agencies to consider potential national wild, scenic and recreational river areas in all planning for the use and development of water and related land resources. 16 U.S.C. section 1276(d). The planning responsibility imposed by section 5(d) plainly requires the BLM to assess the values of potential Wild and Scenic Rivers during the preparation of resource management plans pursuant to the FLPMA. Recognizing that responsibility, BLM Manual Section 1623.41A2d identifies wild and scenic river recommendations as a possible determination to be made in such plans.

To provide further guidance for fulfilling BLM's planning responsibilities for potential wild and scenic rivers, the agency's Washington office on July 23, 1987 circulated Instruction Memorandum No. 87-615, containing draft guidelines for identifying, evaluating, and protecting potential wild and scenic rivers on BLM lands. That guidance was promulgated by the Director in final form in Instruction Memorandum No. 87-670 and the attached Guidelines for Fulfilling Requirements of the Wild and Scenic Rivers Act (the "Guidelines"), issued September 8, 1988 and renewed annually. In addition, the Director included a "Wild and Scenic River Act Plan Review Procedures Summary" ("Procedures Summary") with his June 4, 1990 Memorandum to State Directors concerning the resolution of existing American Rivers' Protests that clarified certain elements of the study process.

Under the directions established in the Guidelines, planning for potential wild and scenic rivers on BLM lands follows a relatively straightforward, three-step procedure. Each BLM resource management plan is to:

(1) evaluate the eligibility of potential wild and scenic rivers within its planning area for inclusion in the National Wild and Scenic Rivers System in accordance with the criteria set forth in Section 1(b) of the Wild and Scenic Rivers Act (i.e., whether the river is free-flowing and possesses one or more "outstandingly remarkable" values);

(2) determine the appropriate classification ("wild," "scenic," or "recreational") for rivers found to be eligible;

(3) assess the suitability of such rivers for inclusion in

> the national rivers system, based upon the public values and uses that would be enhanced or foreclosed by such protection, the degree of public, state and local interest in designation, and practical concerns regarding costs and feasibility of administration.

Guidelines, Section VIII, at 9-12.

Until a final decision is reached by the agency and, for recommended rivers, by Congress, BLM is to protect river resource values and characteristics through specific management prescriptions established in specific or programmatic interim management plans. Guidelines, Section IV.C., at p. 7; Section IX, at p. 20.

I. Comments Concerning Eligibility

American Rivers commends the Kingman planners for their determination that segments of 5 rivers are eligible for inclusion in the national rivers system. Each of the rivers determined to be eligible possess extremely high resource values which would qualify them for inclusion in the national rivers system.

The commitment and sensitivity of the KRA to river issues is very striking. American Rivers is particularly pleased that the KRA planners did not limit their analysis merely to those rivers listed on the National Rivers Inventory, but instead conducted a resource inventory of all rivers within the KRA. Draft at 111. A solid foundation now exists from which the KRA planners may complete one of the finest rivers study of any BLM resource area.

The description of ineligible rivers, Draft at 111-112, is a very helpful component of the plan. The Final should specify whether other rivers, and which ones, were examined and found ineligible.

85-1 American Rivers questions the basis for the determination that certain segments are ineligible. The segment of the Santa Maria River that was determined ineligible should be reexamined. The presence of private or state land is not a factor of eligibility; it may be a factor in determining whether a river is suitable, but it is irrelevant to a determination of whether a river is free-flowing and possesses one or more outstandingly remarkable values. Similarly, lack of resource inventory data is not a proper reason to find a stream ineligible; the planners should obtain data necessary to make decisions of how to manage the land and its resources.

American Rivers believes also that the Kingman planners

misinterpreted BLM guidance concerning study of rivers which flow through mixed ownerships. BLM guidance indicates that the percentage of BLM ownership, i.e., substantial control of 40-50 % of the total shoreline and adjacent lands, should be used as a guide in identifying segments for study. Guidelines, section VIII.A.1.c. The Guidelines also provide that "joint studies" should be followed, to the extent practical, where a river identified on the NRI touches only a small area of public lands. Id. at VIII.C.[2]

American Rivers believes that the appropriate procedure to be followed in situations of mixed ownership is to determine whether a stream and its adjacent area possesses outstandingly remarkable values. This determination may include the identification of particular segments, based upon land ownership, changes in river character and the other factors listed in Guidelines, section VIII.A.1.c. If a river segment is eligible, then it is subject to interim protection pending a determination of suitability.

BLM may defer suitability studies of particular streams, particularly in the case of a joint study, Guidelines, section VIII.B and C, however, the RMP must include decisions on eligibility and classification. Id.

Thus, in cases such as the Santa Maria River, where BLM administers 11 miles of a 17 mile long stretch of river, BLM should determine, at minimum, whether the river and lands it administers are eligible. BLM may choose to defer the suitability study to a joint study, however, the Plan should identify which streams may be eligible for the national rivers system and it should protect those streams, or stream segments, which do qualify until a decision has been made concerning the stream's suitability for federal designation.

The Final RMP should include descriptions of each river that document with greater specificity the particular outstandingly remarkable values possessed by each stream. Mere reference to ACEC descriptions is an inadequate substitute for descriptions of individual streams and their outstandingly remarkable values.

Only through full documentation of the basis for BLM's findings

[2] Although the Guidelines explicitly refer to "joint studies" only in the context of NRI rivers, American Rivers believes that the principle of interagency cooperation should not be limited to NRI-listed rivers. Rather, the BLM should pursue such interagency cooperative agreements whenever a river which possesses outstandingly remarkable values is identified.

can the public be assured that the agency has in fact given these streams the consideration mandated by section 5(d) of the Wild and Scenic Rivers Act, and that rivers and streams with potential as additions to the national rivers system have not been rejected on a superficial examination.

The fundamental importance of such documentation is plainly expressed in the Guidelines: "The RMP record of decision (ROD) serves as the release document for river areas, or portions of river areas/segments, determined nonsuitable for WSR river designation." Section VIII.B.1.

Moreover, pursuant to the National Environmental Policy Act (NEPA), the planning documents must assess the potential environmental impacts of any decision not to recommend rivers for inclusion in the national rivers system. In California v. Block, 690 F.2d 753 (9th. Cir. 1982), the United States Court of Appeal for the Ninth Circuit held that the Forest Service is required to prepare a site-specific EIS when it decides in its planning process to release potential wilderness areas for nonwilderness uses. BLM decisions not to recommend designation for potential wild and scenic rivers, like decisions releasing potential wilderness areas, irretrievably commit the resources of such rivers and their adjacent lands, and require similar site-specific environmental analysis. Even where the BLM establishes relatively protective prescriptions for a river area in its RMP, such as an ACEC, the decision not to recommend Wild and Scenic River designation exposes the river to a continued risk of hydroelectric development that may degrade or destroy the river's free-flowing character, and to mineral development that may impair its outstanding natural values.

American Rivers' concern with the depth of the planners' eligibility analysis is not a mere academic concern. In addition to identifying eligible streams, the description of outstandingly remarkable values is a central component of any suitability study. The heart of the suitability determination is a consideration of the characteristics that make a river and its corridor a worthy addition to the national rivers system. Guidelines, section VIII.A.3. That analysis is crippled if the eligibility determination is incomplete. Also, streams not found eligible are subject to management activities which may impair or even preclude their later inclusion in the national rivers system.

American Rivers is concerned also that the planning team may have adopted a screen, either formally or informally, that resulted in the exclusion of streams of relatively small length or volume. Congress provided an expansive definition of "river" in the Wild and Scenic Rivers Act. See 16 U.S.C. §1286(a)

("'River' means a flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes."). The wild and scenic rivers system encompasses a wide range of rivers and streams, from Alaska's vast Fortymile River system to the North Fork Owyhee in Oregon to Louisiana's Saline Bayou River. The public lands planning activities of BLM and the Forest Service are leading to the identification of literally hundreds of rivers eligible for the national wild and scenic rivers system.

II. Classification

It is impossible to provide detailed comments on particular classifications due to the sparse data provided in the plan. American Rivers questions, however, whether the planners have carefully and appropriately classified each of the eligible rivers. We have never reviewed a plan which has provided a single classification for every river mile found eligible.

III. The Kingman RMP Fails to Establish Detailed Management Standards

85-2

In order to protect the resource values and character of its potential wild and scenic rivers until a decision is reached regarding their designation, BLM's Guidelines require agency planners to establish detailed management prescriptions. The Guidelines state: "... the RMP must prescribe the protection (interim management prescriptions) to be provided for the river and adjacent public land area pending the suitability and, when necessary, subsequent action by the Congress." Guidelines, Section VIII.A.3.a., at p. 11 (emphasis added).

The Guidelines address in detail the scope of management prescriptions that should be adopted:

> Specific management prescriptions for river corridors identified from the NRI list, or otherwise identified for study, should provide protection in the following ways:
>
> 1. Free-flowing values. The free-flowing characteristics of such identified river segments cannot be modified to allow stream impoundments, diversions, channelization, and/or rip-rapping to the extent the BLM is authorized under law.
>
> 2. River values. Outstandingly remarkable values of the identified river segment or area must be protected (subject to valid existing rights) and, to the extent practicable, enhanced.

3. Classification Impacts. Management and development of the identified river and its corridor cannot be modified, subject to valid existing rights, to the degree that its eligibility or classification would be affected (i.e., its classification cannot be changed from wild to scenic, or scenic to recreational).

Guidelines, IX, B., at 1-20.

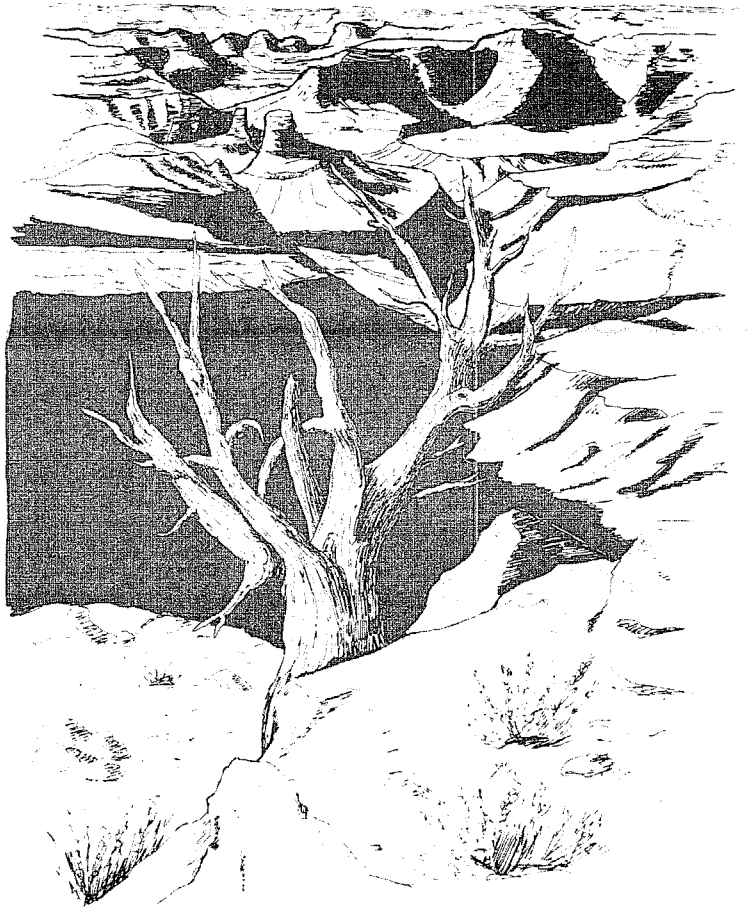
85-3 Many of the management prescriptions listed for the relevant ACECs within which the rivers are located are adequate to protect significant resource values, however, there is no indication that the required 1/4 mile corridor is established, nor are there standards to ensure free-flowing values are maintained and enhanced.

American Rivers suggests the planners contact the Bishop Resource Area in California or the Three Rivers Resource Area in Oregon. Both of these Resource Areas have included excellent management prescriptions in their Draft RMPs.

We trust these comments assist the planning team complete and improve the RMP. Please do not hesitate to communicate with us if you have any questions concerning any of the matters set forth above. American Rivers looks forward to working closely with the Kingman Resource Area.

Sincerely,

Thomas J. Cassidy, Jr.
Public Lands Counsel



The Nature Conservancy

The Arizona Nature Conservancy

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(602) 622-3861 FAX (602) 620-1799

Bill Carter
BLM Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

9 April, 1991

Dear Mr. Carter,

I am writing on behalf of the Arizona Nature Conservancy with comments on the Kingman Resource Area Draft Management Plan. We appreciate the opportunity to review and comment on your draft Plan. We offer the following comments to ensure that the Plan adequately addresses the management of rare and endangered species of plants and animals and their habitats, and the management of sensitive natural communities.

Our response to the RMP is organized in two parts; first, some general comments about several general issues that we feel are important in the plan, and second, page-by-page comments of a more specific nature where the text of the RMP could be clarified or improved.

Areas of Critical Environmental Concern:

In general we strongly support the ACECs and their management prescriptions as presented in the Preferred Alternative (Alt. 2). The Kingman Resource Area (KRA) is responsible for a variety of unusual and sensitive wildlife and natural community resources that require special management attention. Designation of special management areas such as ACECs is often the best way to ensure the protection of these high-priority natural areas.

Three Rivers ACEC -- The Cottonwood-Willow forest such as that found along the Big Sandy, Bill Williams and Santa Maria rivers is among the best of the remaining stands of this riparian forest type in the southwest, and may be the only viable stands in the Bill Williams drainage system. Cottonwood-Willow riparian forests have been found to have among the highest breeding bird densities of any natural community in North America. The high bird densities are the result of numerous nesting sites provided by structural heterogeneity of the riparian forest community, coupled with the diverse foraging habitats in the associated aquatic and adjacent upland communities.

The resource values of the Alamo Lake area are clearly of more than local significance. The Southern Bald Eagle is nationally recognized by the Fish and Wildlife Service as an endangered species requiring special management attention. Also, the Desert Tortoise is a candidate for listing and some populations of the tortoise already have been listed.

We support withdrawal of the riparian zone from mineral entry and limiting OHV use to designated roads and trails. One of the highest priority management actions here should be acquiring instream flow water rights.

Treating the Three Rivers area as a single ACEC is preferable to the treatment suggested in Alternative 3 in which Alamo Lake is excluded from the ACEC. Although the best riparian habitat is found along the rivers and not at the lake, the management of the lake is critical to many resource values that the ACEC is intended to protect. For example foraging of Bald Eagles on fish in the lake is directly affected by lake management, and management of dam releases are critical to stream flows on the Bill Williams River below the lake. For this reason, it makes sense to include the lake area in the Three Rivers ACEC to highlight the need for management coordination among the agencies involved in management of Alamo Lake.

Black Mountains ACEC -- The Cerbat Beard-tongue is a rare plant that is known only from north-western Arizona, north-eastern California and southern Nevada. This species is presently a candidate for listing as threatened or endangered with the U.S. Fish and Wildlife Service. Some known populations in California and Nevada have declined due to human activities. Management of the Black Mountain population may contribute significantly to the decision of whether or not to list this plant.

In Arizona this plant is known only from the Black Mountains in the Kingman Resource Area. This species was collected in the Black Mountains in 1937 and was not seen there again for fifty years, leading to speculation that it may have been extirpated. However, it was found again in 1989 and it is currently known from two locations.

We strongly recommend closing the canyon bottom habitat of this species to saleable mineral extraction, and we support restricting OHV use to designated roads and trails. The acreage of available habitat is sufficiently restricted that any additional disturbance in the canyon bottom areas would significantly impact the beard-tongue's population.

White-margined Beard-tongue ACEC -- The White-margined Beard-tongue is a rare plant that is known from only six locations in northwestern Arizona, southern Nevada and northeastern California. Of the six historically known locations, recent surveys have been unable to locate the plant at one site in California, leaving just five currently known populations of the

species. Of these, by far the largest is that near Yucca in the Kingman Resource Area. The White-margined Beard-tongue is a candidate for listing as threatened or endangered by the U.S. Fish and Wildlife Service.

The proposed ACEC is also good Desert Tortoise habitat that supports relatively high densities of tortoises. If the private parcels in the area are acquired by BLM, making the area more manageable, the area will qualify as Category 1 tortoise habitat. The Desert Tortoise is also a candidate for listing by the Fish and Wildlife Service.

This area has mixed ownership, so we recommend that BLM acquire land in the area to consolidate management. We recommend that the area be closed to mineral entry and OHV use be restricted to designated roads and trails. The Yucca population is by far the largest known population of this species, so the management of this species on the Kingman RA will have a major influence on whether this species is considered for listing by the U.S. Fish and Wildlife Service.

Joshua Tree Forest ACECs -- Joshua Tree vegetation is found in Arizona only on the Kingman RA, and some of the stands there rival any in the country, including those in Joshua Tree National Monument. The Joshua Tree stands in the proposed Grand Wash Cliffs ACEC are especially well developed, and are particularly scenic, with the back-drop of the Grand Wash Cliffs making the area a significant visitor attraction.

In addition, the McCracken Mountains and Poachie Mountains proposed ACECs support an unusual plant community that is transitional between Mohave and Sonoran desertscrub. The species assemblages found in these areas are known only from Arizona. Several characteristic species found there are among the most distinctive dominants of the two desert regions, giving the area a very unusual vegetative aspect. These species include columnar Saguaro cactus and spidery Ocotillo of the Sonoran Desert, combined with Joshua Trees, Bigelow Nolina, and Mohave Yucca of the Mohave Desert.

We support the management prescriptions presented in Alternative 2 for the three ACECs that include the Joshua Tree natural communities. The management prescriptions proposed provide a balanced approach for protection of the unusual ecological features of these areas, but without closing them to carefully managed commercial uses.

Burro Creek ACEC -- Burro Creek has been recognized for years as one of the most important riparian areas in western Arizona. It supports a healthy, diverse native fish fauna and it has the greatest number of nesting raptor species known from any comparable area in the country, including bald eagles and peregrine falcons.

We support the management prescriptions presented in Alternative 2. The two most important management prescriptions here are acquisition of instream flow water rights and closure of the riparian corridor to mineral entry and mineral materials disposal.

Clay Hills ACEC -- This site supports Arizona Cliffrose, a plant that is found only in Arizona and is known from just a handful of populations. It is found only on an unusual rock substrate, making it vulnerable to mineral development of its habitat.

The most important management prescription at this site is withdrawal from mineral entry to protect the population of cliffrose from further population declines due to loss of habitat.

Hualapai Mountain ACEC -- The high elevation meadows supported by springs in this area are home to the Hualapai Mountain Vole, a small mammal found only in mountains in the Kingman area. These small, specialized habitat sites are critical to the survival of this animal, and are vulnerable to several kinds of impacts, including grazing, recreational use, and water diversion. This area is one of the most critical management priorities on the KRA.

We support the management prescription in Alternative 2 for this area, and we emphasize that it may have the most urgent management needs of any area on the KRA. Instream flow water rights should be acquired for the springs, fencing should be installed and maintained to exclude grazing and recreational visitors, and the area should be closed to mineral entry.

Riparian Habitat:

As you correctly recognize in the draft Plan, riparian areas are the most significant ecological habitats on the district with regard to maintenance of biological diversity of all kinds. One of the most effective tools for protecting the plant and animal life associated with riparian and wetland areas is acquisition of instream flow water rights. Where management actions are prioritized for riparian wetland areas (pg. 35), acquisition of instream flow water rights should be included as the highest priority management action for all perennially flowing streams that support native fish or significant wildlife habitat.

A major threat to riparian areas is mineral extraction activities that can cause habitat destruction, erosion, and water quality problems. The riparian corridors for all perennial streams should be withdrawn from mineral entry and closed to sale of mineral materials.

It would be helpful to include a detailed description of riparian area management goals, including criteria used to

evaluate different riparian habitat conditions. This is an area of considerable discussion and confusion among various agencies and individuals, but objective descriptions of ecological goals are necessary to provide guidelines for monitoring and evaluation of progress toward management goals. An example of the confusion that can arise is the different terms used within the draft Plan to describe riparian area goals: pg. 15 - "good or better ecological status"; pg. 24 - "advanced ecological status"; and pg. 34 - "proper functioning condition." Do these terms all mean the same thing?

Page-by-page Comments:

pg.13, last paragraph -- One of the Hualapai Mountain meadows was dropped from consideration for ACEC status due to its inclusion in the Wabayuma Peak WSA. A management prescription protecting the meadow habitat and the Hualapai Mountain vole that lives there should be included in the wilderness management plan. Two of the major threats to the site are grazing and recreational visitors, neither of which are excluded by wilderness designation.

86-1 pg.16, top of page -- In describing your goal of 10% of the RA in "early seral stage" it would be helpful to provide a definition of seral stage. Generally, seral stages are described in relation to some kind of disturbance. Your goal of a low percentage of the RA in an early seral stage could be interpreted to restrict the use of prescribed fire (another goal on the same page) that might create extensive areas of an "early seral stage."

pg.17, right column, third paragraph -- OHV events are mentioned here as a possibility on the KRA, but are not discussed elsewhere in the Plan under OHV management (i.e. pgs. 31, 45). In California OHV cross-country events have been shown to be very destructive, with major damage to watershed condition such as soil compaction and erosion. We recommend that OHV events not be permitted on the KRA.

pg.25 -- In your goals for Emergency Fire Rehabilitation, native plants should be used wherever possible for revegetation of burned areas.

pg.27 -- The lands indicated for disposal in Alternative 1 (Map II-1) include essential habitat for the White-margined Beard-tongue near Yucca, east of the Yucca-Lake Alamo Road. These lands should be retained and managed to protect this rare plant, as described in the ACEC prescription for this area.

pg.35, right column -- The list of streams for which instream flow rights will be acquired does not include Francis Creek, Grapevine Spring, and Upper Bull Flat. These significant riparian sites should be added to the list.

pg.43 -- We support the retirement of the Alamo and Chino Springs allotments. These ephemeral allotments have very low value for grazing, but include significant riparian habitat along the Big Sandy and Bill Williams rivers that has been damaged by improper grazing management in the past.

pg.49 -- Establishment of wildlife corridors is a good, innovative idea, however little information is currently available to guide the design of such corridors. We recommend that the Plan include a program to monitor wildlife use of corridor areas to establish background information for future wildlife corridor planning.

pg.167 subintegra is misspelled at top of page, Orobanche is misspelled at bottom of page.

pg.169 regalis is misspelled in middle of page.

pg.170 Choeronycteris is misspelled at top of page.

Thank you for the opportunity to comment on the draft Plan. If we can be of further assistance, please feel free to contact us.

Sincerely,

Peter L. Warren

Peter L. Warren
Public Lands Protection Planner

The Nature Conservancy

The Arizona Nature Conservancy

[illegible] Boulevard, Suite 230, Tucson, Arizona 85705
[illegible] 620-3861
FAX (602) 620-1799

12 April, 1991

Bill Carter
BLM Kingman Resource Area
2475 Beverley Avenue
Kingman, AZ 86401

Dear Mr. Carter,

I am writing on behalf of the Arizona Nature Conservancy with comments on the Kingman Resource Area Draft Management Plan. This letter is a supplement to the letter sent earlier to address one point that was missed in the earlier letter.

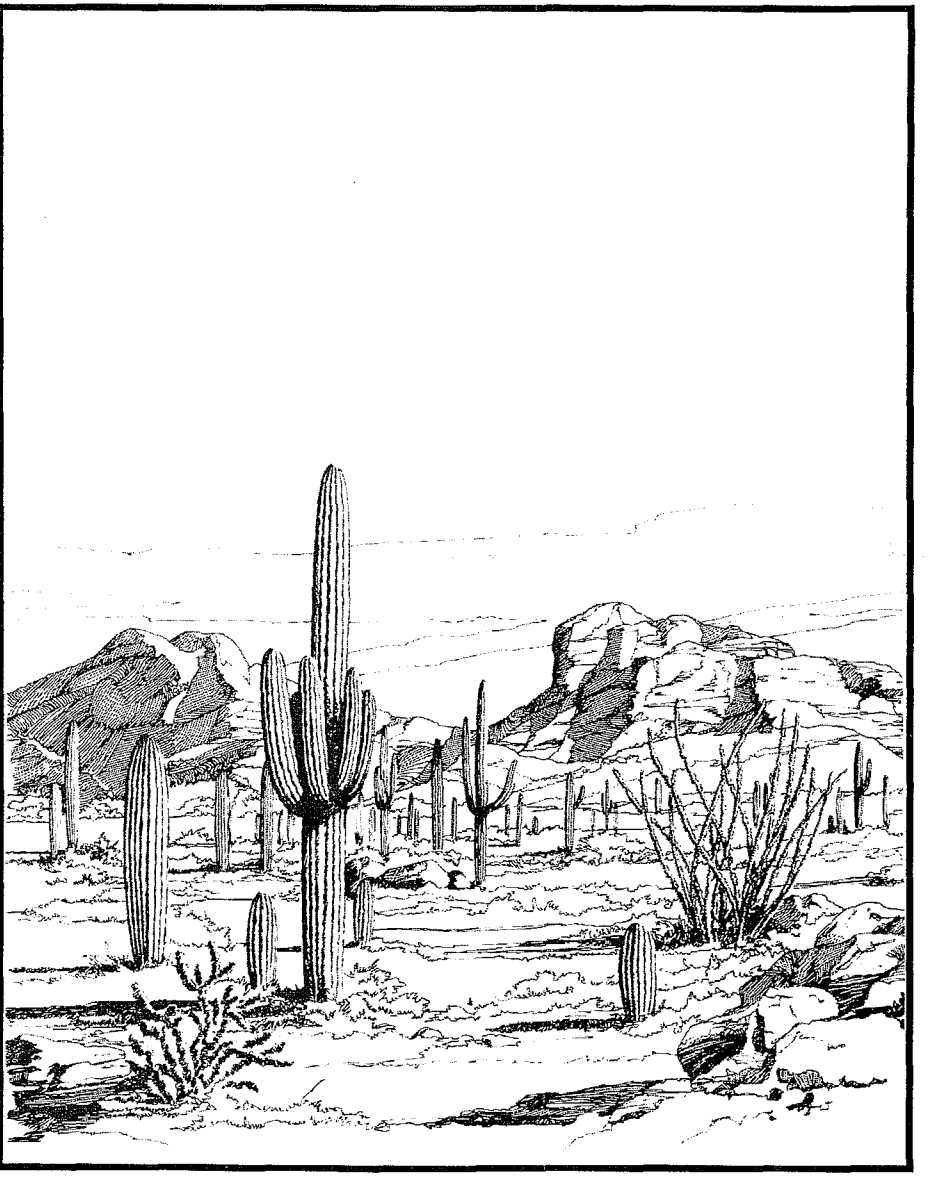
On page 43 in the first paragraph in the right-hand column, you state that when land is acquired from the State of Arizona, "forage will be allocated to livestock at the same grazing capacity as had been set by the State prior to exchange."

86-2 We strongly recommend that BLM conduct its own analysis of grazing capacity for all newly acquired land, and set stocking rates accordingly. The State does not have the same environmental protection mandates that BLM does, and it is not appropriate to assume that stocking rates determined by the State will meet the guidelines for sustainability and environmental protection that BLM must follow. Before an allotment plan is written and implemented on newly acquired land, the BLM should conduct a new grazing suitability and capacity analysis.

Thank you for the opportunity to comment on the draft Plan. If we can be of further assistance, please feel free to contact us.

Sincerely,

Peter L. Warren
Public Lands Protection Planner



87

FRIENDS OF ARIZONA RIVERS

503 E. Medlock Dr.
Phoenix, Az. 85012
265-4325 (H)

April 13, 1991

US BLM Kingman Resource Area
2475 Beverly Avenue
Kingman. AZ 86401

Dear Mr. Bentley:

This letter offers comments on the draft Kingman Resource Area RMP-EIS, Nov 1990.

I am pleased that you have placed an emphasis on the protection and restoration of riparian areas. In reviewing the impacts of the various alternatives, I recommend Alternative Two, the KRA Preferred Alternative, as the overall best approach.

There are a few specific proposals for modifications to the Preferred Alternative that I wish to make.

A. I recommend that you create one or two special riparian restoration zones (SRDZ) that can be compared to zones that are placed under no special management. The purposes of such a comparison would be 1) to demonstrate whether it is possible to restore riparian areas in the KRA, 2) to demonstrate what such a restored zone would look like, and 3) to generate information that may be useful in planning for restoration of other riparian areas listed in Appendix 7 (page 172). I recommend you select the SRDZs to be a comparable as possible to "matched control" areas not placed under special management. The three activities particularly needing to be excluded from the SRDZ are cattle grazing, vehicular use, and vegetative clearing. The SRDZ could be chosen from among the ACECs proposed under Alternative 2 or could be chosen from Appendix 7 and managed accordingly. Comparable, geographically sequential reaches of any of the longer riparian areas on Appendix 7 also would suffice as the SRDZ and "control zones." SRDZs would require appropriate fencing and land management. Evaluation of the effect could be performed on an infrequent basis, and would not require a great deal of resources.

87-1 B. I applaud your Wild and Scenic River (W&SR) evaluation of the five streams listed in Appendix 22. However, the entire length of the Santa Maria River should be considered for W&SR eligibility; the areas under state control should be planned for acquisition by trade. I am not familiar enough with the Big Sandy River to know whether it would be valuable to acquire the non-BLM lands through trade.

~~4915 West Hazelwood Pkwy.~~ ~~Phoenix, Arizona 85013~~ ~~(602) 242-8478~~

C. On mid March trip on the Bill Williams River I noted that the riparian quality downstream to the area near Reid Valley was in a much impacted condition. Tamarisk and salt cedar had choked out most native trees, fences were in a state of disrepair, cattle had heavily overgrazed, and wild burros and their tracks were all too common. Beaver appeared to have been active in the past. Proper management will require a multi-disciplinary, multi-agency effort. Not to be overlooked is the need for a more dependable flow of water from Alamo Dam. A flow more representative of the natural regime is needed.

D. The management objective for the 14 ACECs proposed under Alternative Two are reasonable. Perhaps Wright Creek in the north half, and Santa Maria River in the south half could be selected as the SRDZs I proposed above.

E. The Arizona Rivers Coalition recently produced its proposal for W&SR designations. Friends of Arizona Rivers, a member of the Coalition, asks the BLM-KRA to be cognizant of this proposal and to actively participate in the discussions to be generated during the political and legislative process to follow. We ask that BLM work with the Coalition in selecting the best remaining segments in Arizona for W&SR designation.

Thank you for the opportunity to comment.

Sincerely,

Tim Flood

Timothy J. Flood

88

THE WILDLIFE SOCIETY, ARIZONA CHAPTER
P.O. Box 41337
Phoenix, AZ 85080-1337

April 12, 1991

Ms. Elaine F. Marquis
Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, Arizona 86401

Dear Ms. Marquis:

Re: Kingman Resource Area Draft Resource Management Plan and Environmental Impact Statement.

The Arizona Chapter of the Wildlife Society would like to thank the Bureau of Land Management (BLM) for the opportunity to review and comment on the draft Kingman Resource Management Plan (RMP) and Environmental Impact Statement (EIS). The Society has been extremely active in environmental issues that may both potentially impact or protect Arizona's diverse natural wildlife and habitat heritage.

In review of the three alternatives considered for analysis by the draft RMP/EIS, we are strongly supportive of Alternative 2. We believe that Alternative 2 will provide the best tool for guiding management of both resources and various multiple uses on public lands within the Kingman Resource Area (KRA).

In recognizing that the planning process for this draft RMP/EIS was issue driven, the following specific comments by issue or management concern are offered for your consideration.

VEGETATIVE PRODUCTS MANAGEMENT

We are supportive of BLM's direction to inventory and develop management plans for fuelwood cutting. Properly designed fuelwood cutting can be one tool for creating a mosaic of wildlife habitat within dense stands of pinyon-juniper dominated plant communities. However, without proper management and enforcement, woodcutting areas are often littered and severely degraded by off-highway vehicles or other uncontrolled public uses.

RANGELAND MANAGEMENT

We are generally supportive of BLM's direction to develop and revise Allotment Management Plans (AMP's), especially as needed on those allotments to be affected by Areas of Critical Environmental Concern (ACEC) or Special Recreation Management Area (SMA) designation. However, we recognize the critical importance of properly managed public lands resource area-wide, to wildlife and habitat resources, and therefore, would recommend that the BLM prioritize it's AMP planning process after consideration is given to all grazing allotments within the KRA as based on need or condition.

88-1 All state or private lands acquired by BLM through exchange should be subject to the same range management principles as applied to public lands. Often state lands are of poor condition and should not be subject to continuation of existing grazing practices.

Additionally, we are strongly supportive of the change-in-kind of livestock action that would prohibit domestic goats or sheep within or adjacent to occupied bighorn sheep habitats. The potential consequences to bighorn populations, especially in the Black Mountains, from various disease vectors are far too great to consider otherwise.

RECREATION MANAGEMENT

We recognize the BLM's desire to increase public recreational opportunities within the KRA. However, we would recommend caution when identifying sites for permanent or developed campgrounds in remote outlying areas. Increased public use can often degrade surrounding or existing wildlife and habitat resource values. Developed facilities should be carefully planned and policed. We would suggest that the BLM develop a more comprehensive recreational management plan that would consider the needs and impacts of potential recreational sites.

We strongly support the BLM's attempt to intensively manage or regulate off-highway vehicle (OHV) use within the KRA. More control of OHV use will help to protect and enhance wildlife and habitat resource values without significantly impeding various non-consumptive or consumptive public uses or access. We recommend that the BLM adequately enforce and properly sign or post such areas.

SPECIAL AREA DESIGNATIONS

We strongly support the BLM's direction to identify and designate ACEC's within KRA. These special area designations should help to promote public awareness of sensitive or critical wildlife and riparian habitats in need of additional protection or enhancement.

ACEC designation should not detract from other resource values or multiple uses of these areas, but rather to develop and implement more intensive management and monitoring of past, present and future activities. Management plans for proposed ACEC's should be developed and coordinated with other management plans for the area, especially Habitat Management Plans (HMP's).

WILDLIFE HABITAT MANAGEMENT

We support and encourage the BLM in it's effort to continue with the development or revision and implementation of new or existing HMP's within the KRA. We view these documents as the essential and driving wildlife habitat management tool for KRA. BLM in Arizona currently has one of the most progressive and effective HMP programs in the United States. We realize the need for additional emphasis on special status or sensitive species and monitoring. However, the RMP should not supersede HMP's as the guiding wildlife management tool. We recommend that the HMP's be left intact and revised or developed to include these additional needs. Any additional funding realized from the designation of ACEC's for wildlife enhancement or improvements should be directed by approved HMP's.

RIPARIAN AREA MANAGEMENT

We strongly support the BLM's efforts to identify, inventory and classify riparian-wetland areas within the KRA and the overall RMP objective to restore and maintain 75 percent of these areas in proper functioning condition by 1997. However, we believe that this noble attempt will take a combination of decisive resource or multiple-use management actions and additional funding from BLM or other sources before it can be achieved. When the proposed Riparian Area Management Plans (RAMP's) are completed, additional funding may be more attainable.

Additionally, in reference to Governor Rose Mofford's Executive Order No. 91-6, dated February 14, 1991, we would encourage the BLM to coordinate their riparian management efforts very closely with the Arizona Game and Fish Commission (AGFC). The AGFC, per this executive order, has been tasked with the job of conducting a statewide inventory and classification of all riparian areas and to coordinate the drafting of a statewide riparian management plan.

WILD HORSE AND BURRO MANAGEMENT

We strongly support the BLM's direction to reduce excess wild horse and burro numbers to management levels in all herd management areas by October 1992. A reduction of these animals to management levels will result in increased habitat quality and forage availability for all species. This should alleviate the overall physiological stress often experienced by animals in feral v. wildlife

relationships as a result of competition for available habitat. This stress can be compounded when other environmental factors persist (e.g. prolonged drought), and may result in a number of detrimental effects to wildlife populations.

We recommend the BLM aggressively inventory and monitor wild horse and burro numbers in order to arrive at accurate population estimates. The lack of adequate population data for these species in various herd management areas has often resulted in fewer animals removed than allowed by previously set management levels.

88-2

FIRE MANAGEMENT

We would recommend that the BLM develop a fire suppression management plan that would identify and guide objectives for fire suppression, prescription burning, and post-burn management in the RMP. Fire can be an extremely effective tool to improve overall habitat quality and plant vigor in dense, decadent chaparral communities when properly designed and managed. Post-burn management should include reseeding with an adequate mixture of both palatable and nonpalatable native grasses and forbs compatible with existing native plant community. We recommend against the reseeding of exotic species. Exotics are very hardy and readily out complete native species, often becoming established in undesirable locations such as riparian areas.

Again, we would like to thank you for the opportunity to review and comment on this Draft RMP/EIS. The Arizona Chapter would appreciate receiving a final copy of this RMP/EIS when completed.

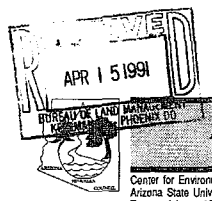
Sincerely,

Denise L. Baker

Denise L. Baker
Secretary/Treasurer

DLB:RWL:rl

89



ARIZONA RIPARIAN COUNCIL

Center for Environmental Studies
Arizona State University
Tempe, Arizona 85287-1201

(602) 622-3881
(602) 870-6764
(602) 965-2490

August 12, 1991

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Mr. Carter:

In response to the draft Kingman Resource Area Resource Management Plan and Environmental Impact Statement, the Arizona Riparian Council. The Council is a non-profit organization whose statement of purpose includes the protection and management of riparian systems.

The Council strongly supports your identification of riparian/wetland as an Issue. Overall, we support the Preferred Alternative, but offer the following comments and concerns for your consideration.

1. Riparian habitat condition goals and objectives are weak and do not provide sufficient objective criteria upon which to evaluate future condition. We strongly recommend that the final plan provide clearer guidance on what the terms "optimal riparian habitat condition", "good or better ecological status", and "properly functioning condition" are intended to mean. Possibly an Appendix which provides the public with information on RACE along with the numerical scores that would provide a measure as to whether the aforementioned objectives have been attained.

2. We strongly support your Three Rivers, Wright and Cottonwood Creeks and Burro Creek ACECs. In reading the Objectives in Appendix 18 we suggest that the word minimum be dropped when referring to acquisition of instream flow water rights. The word minimum in reference instream flow water rights is no longer considered appropriate. We also question the need to file a claim after 5 years of monitoring data. One year is generally sufficient with a 3 year monitoring period generally required "to prove" up on the claim. We recommend that instream claims be filed following one year of monitoring data for the Wright and Cottonwood Creek, Burro Creek, Three Rivers, and Hualapai Mountains ACEC.

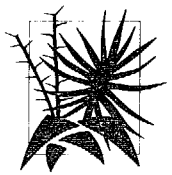
We also want to commend the Bureau for the strength of their management prescriptions within these riparian ACECs, particularly the withdrawal of mineral entry from the riparian zones, the prohibition of mineral disposal and the restrictions on mineral leasing activity and the necessity for posting bonds.

3. The riparian goals and objectives are centered exclusively on the riparian zone with little or no attention to the watershed conditions. Enlightened approaches to riparian management recognize the close interrelationship between watershed condition and riparian habitat conditions. We strongly recommend that the Kingman Resource Area provide management guidance which recognizes this relationship.

In summary, we support the preferred alternatives and urge you to incorporate the aforementioned points in the final plan. Thank you for your time and consideration.

Sincerely,

Andy Laurenzi
President



The Arizona Native Plant Society

Box 41206 Sun Station
Tucson, Arizona 85717

August 10, 1991

Mr. Bill Carter
BLM - Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Mr. Carter:

The Arizona Native Plant Society submits the following comments in response to your draft Kingman Resource Area Resource Management Plan and Environmental Impact Statement. Our organization is a statewide, non-profit dedicated to a wide variety issues related to the plant resources of Arizona.

In general, we support the proposed preferred alternative, and your attention to Issues #2, #3, #4 and #5 and management concerns #7, #8 and #10. With respect to these issues we address the following specific comments:

Resource Area goals

Page 15. We recommend that more precise language be included in the final plan to better elucidate your goal to restore and maintain 75% of riparian/wetland areas to properly functioning condition or good or better ecological status. Properly functioning condition and ecological status are jargonistic and provide no reasonable standard in a qualitative or quantitative sense that will allow the public to determine if properly functioning condition and good or better ecological status have been attained?

Page 16. We questions to appropriateness of the guideline that only 10% of rangelands be maintained in a early seral stage. This guideline may be intended to reduce overgrazing by livestock which we strongly support, but may reduce opportunities to implement prescribed burning practices.

Page 16. We strongly support your goal to use prescribed fire, and recommend that this goal include watershed restoration as a stated purpose for prescribed burning. We also recommend that the plan specify some treatment level expressed in total acres, or a percentage during the next 10-15 years.

Management Guidance Common to all Alternatives

Page 25. We recommend that additional language be included to provide flexibility in assessing the need to suppress fires in T&E species habitat. Some plants species of concern may benefit from fire and management guidance should acknowledge the use of fire as an appropriate and necessary tool for species habitat management.

Alternative 2 (Preferred Alternative)

90-1 Page 43. We strongly object to the planned action within rangeland management that states that State lands that are acquired will be allocated to livestock at the same capacity established by the State prior to the exchange. This policy is in direct conflict with BLM's responsibility to develop appropriate grazing guidelines based upon an environmental analysis. The Arizona Native Plant Society believes that if the BLM does not wish to manage these lands subject to federal laws and regulations pertaining to grazing that they not acquire these lands. We also want to call your attention to the fact that if this language is not deleted from the final plan, that the Society believes this action to be sufficient grounds to consider remedying our concern through the appeals process.

Page 43. We strongly support your retirement of livestock grazing on the Silver Creek, Chino Springs and Alamo allotments.

Areas of Critical Environmental Concern

The Society strongly supports your proposed ACEC recommendations in Alternative 2. We are especially supportive of your management prescriptions that call for withdrawing the Clay Hills ACEC from mineral entry and leasing, and your restrictive minerals management prescriptions for the Black Mountain, White-margined Penstemon Reserve, Three Rivers Riparian and Burro Creek ACECs. Your analyses detailing the special values of these areas are well-done and provide strong support for the designations and management prescriptions listed in Alternative 2.

The Arizona Native Plant Society appreciates the opportunity to provide input to the public land management planning process.

Sincerely,

William R. Feldman

William Feldman
President

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SIERRA CLUB - GRAND CANYON CHAPTER
516 East Portland Street
Phoenix, Arizona 85004

(602) 253-8633

April 11, 1991

BUREAU OF LAND MANAGEMENT
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

RE: Resource Management Plan

To Whom It May Concern:

Thank you for this opportunity to comment on your Resource Management Plan. I confess I have not been able to study the document in great detail, but I read enough to see that you are intending to take some management steps that I feel are quite appropriate. Frankly, I'm quite excited about some of the possibilities.

As the founder of the Mohave Wilderness Association, and as a member of the Steering Committee of the Arizona Wilderness Coalition, I had many opportunities to visit several remote locations in the greater Mohave County area over the past few years. In the Black Mountains, I visited the Warm Springs WSA, the Mount Nutt WSA, the Burns Springs/Black Mountains North WSA, Mount Davis, Mockingbird, and Van Deeman. I have additionally visited the Mount Tipton WSA and other parts of the Cerbat Mountains. I am familiar with the Hualapai Mountains and especially the Wabayuma Peak area. In the Grandwash Cliffs area, I have spent time from the Music Mountain area northward through the Grandwash Cliffs WSA as well as the areas surrounding and including the Grapevine Wash WSA.

As to the latter, I made perhaps two dozen visits. I found extensive evidence of prehistoric use (roasting pits), as well as a variety of beautiful scenery and the tremendous Joshua Tree forest. I helped prepare the proposal to create the Ramparts Wilderness Area which was suggested to Congress. I am sure a copy of that proposal was submitted to your office.

I am familiar with the riparian areas of Peeples Canyon, the Santa Maria River, the Bill Williams River, the Big Sandy, Burro Creek, Frances Creek, along with the surrounding countryside. After reviewing your Draft EIS, I made two trips to the Wright Creek area south and east of Valentine. We located historic and prehistoric sites in great abundance. We were privileged to spot the pronghorn herd (or a part of it) that makes that area its home.

As you can see, I have extensive background in the areas you are responsible for managing. I can make the following general comments. These are all fairly remote and wild places. They all have remarkable scenery, prehistoric and historic sites, and abundant and varied wildlife and plants. The bighorn sheep population in the Black Mountains is thriving, and should be considered a national treasure. The raptor population in the Alamo Lake Complex is unique in all the world. Even my siting of a desert tortoise at the southeast tip of the Warm Springs Wilderness is deserving of mention.

I laud your proposals to manage these special and sensitive areas. They are well deserving of special protection. I believe Areas of Critical Environmental Concern are a necessary and appropriate tool. I believe you should follow up on your studies and proposals for Wild and Scenic River designations. Wherever you encounter riparian habitats, please make special efforts to preserve these areas.

I look forward to your progress in the managing of our precious resources. Please make note of my new address, and keep me posted on any further developments. Thank you.

Sincerely,

Craig R. Friesner

CRAIG R. FRIESNER
Staff Lobbyist

CRF/crf

92

584

MOHAVE SPORTSMAN CLUB

April 8, 1991

Elaine F. Marquis
Area Manager
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, AZ 86401

Dear Ms. Marquis:

The Mohave Sportsman Club has reviewed the Kingman Resource Area Resource Management Plan. We hope our brief comments will assist you with a few difficult decisions.

Our club has 125 members at this time. We also manage and maintain the local rifle range which was originally a BLM R&PP lease.

Regarding your ACEC proposals we strongly support your efforts to establish the following ACEC's listed under alternative II:

- Black Mountain
- Western Bajada & Tortoise
- Wright and Cottonwood Creeks Riparian and Cultural
- Cherokee Point Antelope Habitat
- Hualapai Mountain Research Natural Area
- White-Margined Penstemon Research Area
- McCracken Desert Tortoise Habitat
- Poachie Desert Tortoise Habitat
- Aubrey Peak Bighorn Sheep Habitat
- Burro Creek Riparian and Cultural
- Three Rivers Riparian Area

Note! Many of our club members are senior citizens. We would like to keep the option of driving off the road to retrieve big game animals in those ACEC's where you plan to limit vehicle access.

In regard to wild horses and burros, we do not support the idea of a wild horse herd in the Cerbat Mountains. We also wish you would reduce burro numbers in the Black Mountains to 400 or less as soon as possible. Burros should also be removed in historic bighorn sheep habitat along the Santa Maria and Bill Williams rivers. Absent in this RMP is a plan to handle burros in non herd management areas. These animals should be removed immediately and not allowed to multiply and inhabit new areas.

Thank you for the opportunity to comment on this plan.

Sincerely,

Herb Stipe

Herb Stipe
President MSC

93

4-10-91

In regard to the RMP for the Burro Creek area we are adamantly opposed to any wild & scenic river designation or ACEC designation.

Why is grazing not represented by the RMP team members?

Sincerely,

Ruth Brimhall
P.O. Box 554
Bagdad Az 86321

94

Box 553
Wickenburg, Az. 85358
April 5, 1991

Kingman Resource Area
Mgmt plan
Enviormental impact Dept.
Bill Carter, Technical coordinator
2475 Beverley Ave.
Kingman, Az. 86401

Dear Area Manager and assistance:

1. No respect, or admission of the Old legal water rights are given on the grazing leases to the rancher.

2. Closing of roads in the wilderness area limits use to people being able to walk there a lot of people unable to walk- but can ride in motorized vehicles. plus a vehicle on the roads do not make that much noise or do damage- you can hear the hiway traffic on Hiway 93 better than you can hear a vehicle on the roads in the country.

94-1 | 3. Failure to show roads or vehicle ways on maps supplied with this draft when and where they exist.. A BIG BIG OMISSION!

4. There is a strong feeling this draft was prepared by wishers and dreamers with their own wishes and special interest in mind instead of the true picture or story of the facts. and NEVER was the weather element mentioned.

5. Water: Who had water even before the time of B.L.M. The renher has developed and worked on the waters alone and it has been shared by livestock and wildlife and even people when they come along thirsty the B.L.M. comes along after the fact and maybe if you have water they come up with big ideas or funds. MAYBE??

94-2 | 6. WHY do you want to make the rancher the scrape goat?? and out the number of livestock on the McCracken- Poschie turtle habitat.? Cattle don't eat the damn things. It hasn't been proven they eat the same forage. you don't even consider the possible fact that the wild pigs in rooting around turn the turtles upside down and makes them lunch for crows, eagles and buzzards, Plus the coyote, foxes, lions and bobcats can destroy them.

7. Why is the Arrastra Mt. Allotment being used as first the wilderness and 2nd. the turtle habitat. It should be kinda equal- ?

8. Do the turtle pay a personal property tax?? Does the wilderness pay any thing to contribute to your salaries??

Respectfully

Art Rodgers,
Arrastra Mt. Allotment
Art Rodgers

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April 12, 1991

Bureau of Land Management
Kingman Area Resource Office
Gordon Bentley Team Leader

Mr. Bentley

I am in complete agreement with the Mohave Livestock Association in regards to the written Comments on the DRAFT of Kingman Resource Management Plan and Environmental Impact Statment.

The DRAFT EIS Language should be rewitten, To continue with the multiple use concept That has worked very well for the last 10 years

Thank you,
Frank Allen Hunt
P.O. Box 189
Peach Springs, Az.
86434

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
3616 W. Thomas, Suite 6
Phoenix, Arizona 85019

April 12, 1991

MEMORANDUM

TO: Area Manager, Kingman Resource Area, Bureau of Land Management, Kingman, Arizona

FROM: Field Supervisor, Fish and Wildlife Service, Phoenix, Arizona

SUBJECT: Review of Draft Resource Management Plan and Environmental Impact Statement for Kingman Resource Area (EC 90/137)

The Fish and Wildlife Service (FWS) has reviewed the subject draft Resource Management Plan (RMP) and offers the following comments for your consideration.

GENERAL COMMENTS

The draft RMP lays out the management goals for the Kingman Resource Area (KRA) that the Bureau of Land Management (BLM) will use to direct resources management over the next 20 years. We note that some of the documents adopted as part of the RMP/Environmental Impact Statement (EIS) are reaching the end of their expected life. This adoption has two main effects; 1) that of extending the effective lives of these documents without providing for adequate public comment, and 2) that of inhibiting the exploration of new management opportunities and possibilities since the old documents are included in their entirety. We recognize that some of these documents remain valid and include acceptable management practices, however, we suggest the older major EIS's included in the RMP be evaluated for revision at the end of their planning cycle, not at the end of the RMP cycle.

96-1 Although not specifically mentioned under either Minerals, Wildlife, or Recreation sections of the RMP/EIS, safety of both visitors and animals on public lands is an area of management interest. In this respect, treatments to caves, mines, shelves and similar features to protect human health and safety, and cleaning up mining impacts may adversely affect wildlife use of these areas. Any comprehensive plan for these features should take into consideration wildlife impacts.

96-2 The glossary needs to contain all words and phrases that are used to describe different management responsibilities. For example, leasable minerals is in the glossary but locatable and saleable minerals are not. What exactly is "mineral material disposal" as mentioned in Table IT-5? Other examples exist. Please revise accordingly. Providing descriptions of terms used in early chapters only in later chapters of the document has limited utility.

96-3 The Areas of Critical Environmental Concern (ACEC's) that are included in the preferred alternative target important wildlife habitats and, if implemented, should provide for effective management of these resources. Were there other ACEC's that were not included? Why are the three cultural ACEC's in Alternative 3 not included in Alternative 2? We suggest all identified ACEC's be recognized and given special consideration.

Considering the range of alternatives presented in the draft RMP, for the most part there are few major differences between them, with the exception of ACEC designations. Perhaps some discussion of why the alternatives are so alike would be instructive. Also, while there were biodiversity and recreation alternatives eliminated from consideration, no mention is made of a commodity based alternative. Do the planning objectives preclude such an alternative?

SPECIFIC COMMENTS

Page 5; Issue 3. The Needed Decisions sections should include a re-evaluation of not only Habitat Management Plans (HMP's), but any decision-making documents or products of such documents that may exist. This is especially important for Area Management Plans (AMP's). Planning Criteria should also evaluate AMP's.

96-4 Page 9; Management Concern 3. Under this concern, segregations, classifications, and withdrawals appear to be separate types of protective actions. However, in the glossary, segregation is defined as "Any action such as a withdrawal...." If segregation is a distinct protection action, this needs to be clarified. Also this concern appears to be biased toward getting rid of special-use designations such as withdrawal while putting more land under multiple use. We note no planning criteria that would evaluate establishing or enlarging current or potential withdrawals. This concern should be revised to reflect the need to determine what areas should be protected through segregation, classification, or withdrawal. Planning criteria should include provision for land reviews to establish segregation needs.

96-5 Page 10; Management Concern 7. Should the 13th Planning Criteria read "watershed condition" rather than "watershed productivity?" What is the management strategy difference, if any, between the two terms? The issue of threatened and endangered species should be included in the opening statement.

Page 11; Management Concern 9. It would appear to us that the first decision needed with regard to acquiring land would be to establish its best use, i.e., multiple use or withdrawal for special use. Forage allocations should be applicable to all lands and based on established criteria. We suggest a Management Concern be added to determine appropriate use of acquired land. The Needed Decision statement for this concern seems to imply there is no option available to not graze newly acquired lands. Is this true? If not, please alter wording to "Should forage allocations... " from "What forage allocations...."

Page 11; Management Concern 10. Again, the assumption is that ephemeral grazing on all lands is a given, not an option. We suggest the Needed Decision be changed to the following: "Which methods should BLM use in deciding if ephemeral and supplemental licensing of livestock should be allowed...."

Page 15; Introduction. By incorporating the previous grazing EIS's into the RMP, is the BLM extending the operational life of those EIS's? Is this an appropriate action given the changes in resource values, threatened and endangered species, and riparian priorities that BLM has made since the EIS's were finalized? How much longer will it be until these grazing EIS's can be reevaluated - an additional 20 years? At the next RMP revision, will grazing be an integral part? We would prefer to see the grazing EIS's re-evaluated at the end of their operational life and revised to fit the RMP timeframe for revision. For example, assuming a 20-year life, the Cerbat/Black Mountain EIS (1978) would be revised in 1998, then revised in 2011 as part of the RMP revision.

96-6 Page 15; Resource Area Goals. We suggest inclusion of a specific goal for threatened and endangered or special status species.

Page 17; Management Guidance Common to all Alternatives. Other BLM actions under the RMP that would require Section 7 consultations include land sales or transfers out of Federal ownership.

Page 20; Air Resources. Use restrictions should be evaluated and applied when appropriate in areas of high airborne dust potential.

96-7 Page 23; Special Status Species Management. We support BLM commitment to monitoring the status of and evaluating effects to listed and candidate species covered by the Endangered Species Act. Please note that the 1988 Amendments to the Endangered Species Act require Federal agencies to monitor category 1 and 2 species.

96-8 Page 23; Plant Species. We recommend that the BLM develop a HMP for Arizona cliffrose in cooperation with the FWS. The Recovery Plan mentioned in the RMP is a FWS document and not considered binding to the BLM. We believe an aggressive recovery program for Arizona cliffrose could begin without a finalized FWS recovery plan. In the absence of an HMP, the BLM should state in the RMP what the goals of Arizona cliffrose management will be. In addition, we believe the RMP should state that the HMP for Arizona cliffrose, once developed, will be implemented by the BLM.

96-9 Page 26; Alternative 1 - Public Land Exchange. The constitutional amendment needed for State-Federal land exchanges was defeated in November 1990.

96-10 Page 30; Vegetative Products. Is there a recommended seed list for rehabilitation of commercial woodlots? Are nonnative species used, or are only native species allowed?

Page 31; Recreation Management - Off-Highway Vehicles (OHV). We believe the use of washes for OHV travel is incompatible with maintenance of natural diversity and wildlife and riparian vegetation management. Drainage systems and their associated vegetation and wildlife richness add an important element of community and species diversity to desert ecosystems. OHV traffic has potentially significant impacts which could severely degrade these critical riparian systems. We strongly recommend that the BLM exclude desert washes from OHV use.

Page 32; Map TT-3. The use of the word "open" for OHV areas on this map is misleading. Instead of "open," the word "limited" may more properly define the situation. There does not appear to be any areas on the KRA fully "open" to OHV use under this alternative.

96-11 Page 33; Wildlife Habitat Management - Big Game. In determining permitted livestock numbers for a specific allotment, which animals have the highest priority and which have the lowest priority for available forage - livestock, burros, or game species? This priority needs to be addressed in new AMP's as well. What, if any, special management would be done for the elk herd in the Hualapai Mountains?

96-12 Page 34; Endangered Species. A section on the endangered Arizona cliffrose (Purshia subintegra) should be included here. We believe addressing only the endangered animal species in this section is inappropriate.

Page 34; Riparian Area Management. Given that the inventory will not be completed until 1991 and there are constraints on implementation in documents incorporated into this RMP, can the goal of 75 percent or more riparian areas in proper functioning condition by 1997 be met? What is meant by "proper functioning condition?" What will the consequence be if this condition is not met?

96-13 Page 35; Wild Horse and Burro Management - Plan Actions. For clarification, does the Cerbat HMP allow for 14 horses or is the level higher and is the current herd size in excess of 130 animals?

96-14 Page 37; Minerals - Plan Actions. Is the approximately 400,000 acres not available for mineral development withdrawn or in land use categories preventing use of the mineral resource? Please identify this acreage.

96-15 Page 38; Lands - Land Withdrawals and Classifications. Would all the land under PLO 492 be included in the new mineral withdrawal, or would portions become open to mineral entry? We recommend all lands surrounding Alamo Reservoir be retained in a mineral withdrawal status.

Page 40; Linear Rights-of-Way. Are rights-of-way designated for a particular company and/or function usable by other entities needing rights-of-way for other projects? Since the new routes shown on Map TT-6 are mostly (except for the span month of Red Lake) replaceable by existing corridors, why are new ones necessary?

96-16 Page 42; Watershed Resources. We recommend plans to improve watershed conditions stress the use of appropriate native plant species. We believe use of nonnative plants, even if they are established in the area, is counter-productive to managing for natural diversity.

Page 43; Rangeland Management - Plan Actions. We believe rangeland trend and utilization studies should be implemented on more than newly acquired lands. Recognizing that there are BLM lands with such studies ongoing, our concern is to ensure that all sensitive lands be monitored if grazing (by livestock or burros and wild horses) is allowed. Why should an allotment not have an implemented AMP?

Concerning new lands and the continuation of grazing, we are concerned that the BLM plan does not allow for a timely resolution of grazing/resource issues. Lands being acquired by the BLM under this plan are likely to have high values for special resources. Maintaining livestock pressure at existing (State land) or comparable (private lands) levels for an undetermined period could be counterproductive to the intent of the exchange. We believe that a timetable for assessing

grazing on the lands should be set with a target date of no more than a one or two year post-acquisition period for completion of an AMP. A definition of "controlled" would be helpful to understand how the permittee and their legal and presumed rights fit into the decision. It may also be useful to note that not all newly acquired lands should be grazed because of their special values, regardless of whether they could be grazed.

Page 44; Recreation Management - Plan Actions. Is the Pine Flat picnic/campground site on private land that must first be acquired? How many other sites on the list are not on currently BLM owned lands? Note that the Hualapai Mountains National Back Country Byway (NBCB) is not yet established (as of February 1991).

Page 45; OHV Designation. Since much of the KRA would be given an OHV designation limiting OHV use to existing roads, trails, and washes; we would like to see a plan developed to assess hydrologic changes and degradation of wash banks, wash vegetation, and wildlife values of the area due to this use.

Page 49; Wildlife Habitat Management - Special Status Species Management. Management of the ACEC for Arizona cliffrose will have to contain a special, high-priority commitment by the BLM to prevent habitat and plant-destroying incidents as we have seen in the past. Priority for this ACEC management plan should be very high. Please note the name of this ACEC here for reference. 96-17

96-18 Page 51-55; Table TT-5. Why is mineral leasing allowed in some new ACEC's when there is a mineral withdrawal also proposed?

96-19 The Black Mountains, Clay Hills, and White-margined Penstemon Reserve ACEC's mention development of a "recovery plan" for the Cerbat beardtongue, Arizona cliffrose, and White-margined penstemon. A recovery plan is the title of a FWS document. We recommend the RMP refer to developing a HMP, which is binding to the BLM, as well as implementing a FWS recovery plan to achieve downlisting and delisting criteria.

96-20 Why is grazing only removed from one of the three desert tortoise ACEC's?

We support mineral withdrawals for all of the ACEC's. As experience has shown us, requirements for Mining Plans of Operation (MPO's) do not prevent but only modify or manage impacts due to mining. Sometimes, these impacts can result in the loss of habitat or individuals of listed threatened or endangered species. For example, habitat and individuals of Arizona cliffrose have been lost to mineral exploration several times in the past. We believe it is inappropriate to recognize the outstanding natural and cultural features of these ACEC's, and only give them inadequate protection against mineral entry and destruction of habitat.

96-21 Page 59; Wild Horse and Burro Management. In the event of conflicts between horse, deer, and livestock use of resource; we would prefer that deer and wild horses be of higher priority than livestock in determining herd size reductions.

Page 60; Vegetative Products. For an alternative that is termed less restrictive, eliminating firewood and yucca harvest seems inconsistent.

96-22 Page 60; Cultural Resources. Why are these ACEC's only considered here and not in Alternative 2? We believe all ACEC's should be given special consideration/protection regardless of the alternative selected as the final action.

96-23 Page 60; Table TT-8. Why do the three new ACEC's under this alternative have restrictions under the Mineral Materials Sales Act and other ACEC's do not?

96-24 Page 66-75; Table TT-9 - Mineral Management; Item 3. What is mineral material disposal? We request a definition be included in the glossary.

Lands; Item 3. We would prefer not to see the sale of trespass lands to the trespasser as the primary resolution tool for this concern, as we believe it does little to discourage future trespass.

96-25 Lands; Item 6. Is there also a new right of way corridor for a waterline from Lake Mead to Kingman included in Alternatives 2 and 3?

96-26 Special States Species Management Animal Species. Why are the endangered peregrine falcon and Hualapai Mexican vole not mentioned under Special Status Species Management? Why is implementation of the Desert Tortoise Rangewide Plan (Rangewide Plan) and Arizona Implementation Plan only mentioned as part of Alternative 1? The FWS is concerned that this may not fully represent the original intent of the Rangewide Plan's function and use.

96-27 Page 84; Table TT-13 - Rangeland Vegetation. The 5-year interval on trend monitoring means that some sites may be surveyed less than four times in the 20 year planning horizon of the RMP. Given the ambitious goals for watershed improvement, riparian values, and other vegetative concerns; can an adequate plan to achieve these goals be implemented with such limited monitoring?

96-28 Page 86; Table TT-13 - Wildlife. What monitoring is done on the Hualapai Mountains elk herd? Information on plans for this herd are absent from this RMP, though mentioned on page 113.

96-29 Page 91; Table TT-14 - Vegetative Products. The discussion for Alternative 3 does not mention the elimination of certain product harvests under the RMP.

96-30 Page 104; Watershed Management. Appendix 15 deals with withdrawals, not grazing allotment condition. Would Category II watersheds be priority ones for improvement to excellent range condition? It seems that critical erosion areas includes some very sensitive habitats. Will these areas be priorities for intensive management to correct the erosion problems?

Page 131; Impacts to Mineral Development. While we agree that the consolidation of lands in the KRA would benefit mineral operations, it also means that it is easier to lose wildlife habitats and natural vegetation communities to mining operations, some of which may not be reclaimed.

Page 137; Impacts From Vegetative Products Harvesting. Mitigation of damage to wildlife habitats during harvest does not prevent losses. Hopefully, it trades present damage for future recovery. Since not all wildlife have the same habitat needs, altering the structure of the habitat benefits some species and adversely affects others.

Page 137; Impacts From Recreation Management. With the limited waterfowl habitat on the KRA, we suggest seasonal use provisions be implemented to assist in the protection of wetland resources at Red Lake?

96-31 Page 139; Impacts From Recreation Management. We are concerned about effects of the Pine Flat Campground on the endangered Hualapai vole. Vole habitat is within the existing campground and is very subject to degradation. Given the extremely limited habitat available for this species, development of this site may not be appropriate.

96-32 Page 142; Impacts to Vegetative Products Management. How can the impacts be the same as those for Alternative 2 when firewood cutting and yucca harvesting, the two primary products, have been eliminated in this alternative?

96-33 Page 145; Impacts From Vegetative Products Management. If erosion, loss of cover, and nesting habitat losses are potentially significant enough to mention here in Alternative 3; they should be more fully discussed in Alternatives 1 and 2.

96-34 Appendix 1. Please include watershed category for each allotment. Is there anything that can be accomplished for custodial allotments? How many of these overlap areas where special management or resources have been highlighted in the RMP?

Appendix 6. The correct spelling of the genus of Broom Rape is Orobanche. The Candidate Category II Yuma puma (Felis concolor browni) should be included.

Appendix 18; ACEC Descriptions - Joshua Tree Forest-Grand Wash Cliffs. We recommend a management prescription to acquire existing claims in prime Joshua tree areas.

96-35 Western Bajada Tortoise and Cultural. The Mohave Desert tortoise is listed as threatened, not endangered. Consideration should be given to a prescription to modify AMP's as needed for tortoise management. Newly acquired subsurface minerals should be withdrawn.

96-36 Cherokee Point Antelope Habitat. One of the objectives for this ACEC is to provide high quality livestock forage. Is the primary forage user antelope or livestock? Which of these animals' needs will be given priority? The prescriptions indicate antelope do have priority, but the objectives seem to confuse the issue.

96-37 Hualapai Mountains Research Natural Area (RNA). Grazing of introduced wildlife, especially elk, may also be affecting the Hualapai vole and its habitats. Occupied sites may not currently be in excellent condition and an objective should be to bring those areas to excellent condition. At this time, we do not support development of camping facilities at Pine Flat. Given the limited area for camping, keeping recreationists out of Hualapai vole habitat may be impossible.

96-38 McCraken Desert Tortoise Habitat and Poachie Desert Tortoise Habitat. The Mohave Desert tortoise is threatened, not endangered. As a Category I habitat, consideration should be given to withdrawing lands without mining claims and newly acquired mineral rights.

96-39 Clay Hills RNA. Management prescriptions to eliminate unnecessary roads and trials require that MPO's and mandatory bonding for all mining actions in the existing claims should be included. Due to past problems with BLM protective measures for the cliffrose, special attention to enforcement and implementation of stipulations in MPO's should be made.

96-40 Appendix 20. Please define "satisfactory" and "unsatisfactory" in the glossary or in the definitions on page 223.

In summary, the direction of the preferred alternative to protect both special resources and fragile desert habitats is very positive and supportable by the FWS. We particularly support the designation of the

ACEC's which, when finalized, will provide management emphasis and direction appropriate for sensitive species and habitats. Please note that the FWS believes specific actions implemented under the RMP will require site-specific environmental compliance.

Thank you for the opportunity to review and comment on this draft RMP. If the FWS can be of further assistance, please contact Ms. Lesley Fitzpatrick or me (Telephone: 602/379-4720 or FTS 261-4720).

Sam F. Spiller

cc: Director, Fish and Wildlife Service, Washington, D.C. (BFA)
Director, Arizona Game and Fish Department, Phoenix, AZ
State Director, Bureau of Land Management, Phoenix, AZ
District Manager, Bureau of Land Management, Phoenix, AZ
Regional Director, Fish and Wildlife Service, Albuquerque, New Mexico (FWE/HC)

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THE KEITH COMPANIES - ARIZONA
A Division of North Counties, Inc.

April 12, 1991

Bureau of Land Managment
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401
Attention: Mr. Gordon Bentley

Re: Draft Kingman Resource Management Plan (RMP)

Dear Mr. Bentley:

The Keith Companies represents parties with interests in more than 40,000 acres of private land in the north central portion of The Kingman Resource Area. The lands are located generally in the Detrital Valley and extending northeast into the Lake Mead National Recreation Area. These lands would be valuable additions to the federal government's holdings. Much of the land has substantial mineral resource potential and recreational values, and it would allow BLM to "block up" its holdings.

The purpose of this letter is to comment on the Draft Resource Management Plan and to propose amendments to the preferred alternative prior to adoption of a final plan. We have evaluated BLM's holdings and have identified three areas that we feel have good potential for private development. We would like to pursue discussions with the BLM to trade the lands mentioned above for lands located in the following areas:

1. BULLHEAD CITY (Township 19 North, Range 21 West, Sections 5,6,7 and 8) These lands are located directly adjacent to rapidly growing Bullhead City. The City is moving to construct a major highway bypass route in the near future which will bring access and urban development to this area. The highway will skirt the northwest corner of Section 6. The preferred alternative RMP designates these lands as an Area of Critical Environmental Concern (ACEC) in recognition of potential habitat for the Desert Tortoise and for the potential of finding cultural artifacts. We understand that your recent studies indicate that these sections are not in the prime habitat areas (Category I) for the tortoise, but are in Category II. Should an exchange involving these lands prove successful, we would work with the BLM to incorporate a habitat protection plan for the key habitat areas into our agreement with the BLM. In addition, we would also include the appropriate measures to insure that a thorough archaeological investigation is conducted prior to any development and that necessary provisions are made to protect any significant cultural

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97-1 resources. We request that these four Sections be deleted from the ACEC and be included in the list of lands proposed for future disposal.

2. GOLDEN VALLEY (Township 22 North, Range 18 West) Alternative 3 includes most of the BLM's holdings in this township on the list of lands proposed proposed for future disposal, while the list in Alternative 2 contains only 2 sections. Alternative 3 also notes that the disposal of these lands would be through exchange to the State Land Trust. The State no longer has legal authority to exchange land. We request that the lands proposed for disposal in Alternative 3 be included in your final RMP and be made available for exchange to private land owners.

3. MOHAVE VALLEY (Township 18 North, Range 21 West) Alternative 2 calls for a small area along the western edge of this township to be made available for future disposal, whereas Alternative 3 lists 13 additional sections. Significant development activity is currently underway in the Mohave Valley and a great deal more is planned, particularly in light of the Fort Mohave Indian Reservation's plans for casino development on the Nevada side of the Colorado River and their plans for a major wastewater treatment system on the Arizona side. We request that the Alternative 3 list of lands proposed for future disposal be included in the final RMP and that they be made available for exchange to private land owners.

Thank you for the opportunity to comment on the Draft Resource Management Plan. We look forward to working with you to achieve the goals of the final Resource Management Plan.

Sincerely,

THE KEITH COMPANIES-NORTH COUNTIES, INC.
dba THE KEITH COMPANIES-ARIZONA

Ross Smith

Ross Smith
Director of Planning

THE KEITH COMPANIES

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April 13, 1991

Bill Carter
B.L.M. Kingman Area Office
2475 Beverly Ave.
Kingman, AZ 86401

Dear Mr. Carter:

A few words in support of the Kingman Area B.L.M. draft Resource Management Plan, Alternative 2, inclusion of A.C.E.C. designation for some of western Arizona's most significant riparian areas.

In 1987 I was a student in a Desert Biology class at Yavapai College. A field trip took us to the Burro Creek area. That winter the water was so high that we were unable to continue on the back road from near Wikieup to Bagdad, so we were forced to stay on the west side of Burro Creek. How fortuitous this turned out to be! We stumbled upon a relic Pleistocene plant community of saguaro and one-seed juniper in Kaiser Spring Canyon. The area was so unusual and intriguing that the Biology Department thought it worth a more detailed look. In the fall of 1987, Biology of Pleistocene Deserts was offered. This offered students a chance to participate in an study of vegetation and animals in this unique area of time/space overlap. There did appear to be quite a bit of grazing (the washes were especially impacted, of course) and a good deal of destruction from feral burros. Though there was mining in the area, it did not seem to impact this particular area. This area would most likely not fall within the proposed "riparian" area as it lies approximately one mile west of Burro Creek. There are, reportedly, a few other such relics in Arizona. None of them are protected in any way.

I am aware that several other studies have been done in the Burro Creek area. Both Prescott College and the U.S. Forest Service have gathered some data on unusual plant associations and intrusions in this drainage.

The Burro Creek and Santa Maria River areas have traditionally been a Mecca for birders in Yavapai County. The Prescott Audubon chapter sponsors frequent field trips to those riparian areas. A wide variety of raptors in these drainages make this area unique and, most likely, very important ecologically. The pressure of grazing in these fragile ecosystems has become intense. From the reports of birders and hikers, and from personal observation, there have been very few seedling or sapling cottonwoods in the Kirkland Creek/Santa Maria River or the Burro Creek systems in the past few years. This and the accompanying streambank

destruction by cattle gravely jeopardize this fragile area that is all that remains of a once thriving riparian community along the Bill Williams River Basin in western Arizona. The required Plans of Operation from mining interests in A.C.E.C. areas would further protect these communities.

Short of Wilderness status, your A.C.E.C. proposal appears to be a hopeful approach to the most rapidly dwindling western commodity - riparian habitat.

Thank you, again, for addressing the importance of preserving and, hopefully, restoring these fragile riparian areas by recommending them for A.C.E.C. status.

Sincerely,

Signe A. Hurd
415 W. Gurley St.
Prescott, AZ 86301

cc: Senator John McCain
Senator Dennis DeConcini
Representative Bob Stump

99

Joseph M. Feller

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April 12, 1991

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

Re: Draft Kingman RMP

Dear Mr. Carter,

I have a few comments on the draft Kingman RMP issued in November, 1990. I regret that I did not have time to write more detailed comments. These comments are my professional opinions as an Associate Professor of Law and a teacher of environmental, natural resources, and public lands law at Arizona State University. They do not necessarily represent the views of the University or the College of Law.

1. I strongly support establishment of the Three Rivers Riparian ACEC. This extraordinary area, with which I am personally familiar, needs and deserves ACEC status.

99-1 ACEC management prescription 19 on page 217 should be extended to include livestock grazing. That is, the BLM should evaluate whether livestock grazing in the ACEC is compatible with the ACEC's goals and objectives, or whether it should be eliminated in part or all of the ACEC.

2. Under the multiple-use mandate of FLPMA, livestock grazing should not be permitted in those areas where its environmental and economic costs exceed its public benefits.

99-2 Development of an RMP is the appropriate occasion for the BLM to evaluate the costs and benefits of grazing in individual areas to determine in which areas it should be continued and in which it should be discontinued. See 43 U.S.C. §§ 1752(c)(1), 1903(b); 43 C.F.R. § 4100.0-8, BLM Manual § 1622.31.A.1. In the draft RMP, however, the BLM does not perform such evaluations.

Reliance on determinations made in grazing EIS's that are ten years old or older is not satisfactory. The appropriateness of grazing in individual areas must be evaluated in light of current information, resource values, and public demands.

On page 43, the draft RMP states that allotments may be reserved for wildlife "as opportunities arise." The BLM should not wait for chance opportunities. If there are allotments that are more valuable for wildlife than for livestock, they should be identified in the RMP and retired from livestock grazing.

99-3 3. The draft RMP also states on page 43 that, on lands acquired from the state, the BLM will adopt the grazing capacity set by the state. I believe this provision to be unlawful and an abdication of the BLM's responsibility to manage acquired lands in accordance with applicable federal statutes and regulations.

On acquired lands, the BLM should first make an independent determination of whether livestock grazing would be in the public interest. If it would be, then the BLM should make its own, independent determination of the appropriate stocking level. The procedure that the draft RMP prescribes in the third paragraph on the right-hand column of page 43 would be appropriate.

The issue of livestock grazing on acquired lands is discussed at length in my Protest of a September 11, 1990, proposed decision concerning the Santa Maria Ranch Allotment in the Lower Gila Resource Area. I have enclosed a copy of the protest and I hereby incorporate it by reference into these comments.

Thank you very much for considering these comments.

Sincerely yours,

Joseph M. Feller

100

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April 12, 1991

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401

Re: Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for Kingman Resource Area

Dear Mr. Carter:

The following comments on your draft RMP/EIS are directed specifically on the impact of your preferred alternative on the Cavalliere allotment. However, the principles underlying these comments may be applicable generally.

In your proposed alternative, you propose two areas of critical environmental concern (ACEC) that affect the Cavalliere ranch. The first is the Hualapai Mountain Research Natural Area ACEC. This would be established to provide habitat for the Hualapai Mexican vole. The Bureau would designate 3,300 acres of public land as an ACEC. In addition it would acquire 1,186 acres of private land and 1,004 acres of non-federal sub-surface estates (minerals). Your document acknowledges that you view cattle grazing in this area as in direct conflict with vole habitat and would exclude cattle grazing from the area, including the water sources in the area (Grapevine Spring and Upper Bull Flat).

The second area is the White-Margined Penstemon Reserve ACEC. For this ACEC, the Bureau would designate 17,493 acres, acquire 749 acres of private land without minerals and 15,289 acres of private lands with minerals. The Bureau would also acquire 2,114 acres of state land including minerals and an undisclosed amount of mineral rights underneath federal lands.

In both instances, a considerable amount of money would be required in order to block up the areas in question. Given the current financial condition of BLM and the Interior Department and the expected budgetary constraints for next year and the ensuing years in the near term, it is highly unlikely that funds will be available to make the acquisitions in question. The state land in question cannot be acquired by exchange because the State of

100-1

Arizona, by recent court decision, is no longer empowered to make land exchanges. The area is highly mineralized and has a long history of mining activity. The mineral estates in question are likely to be valued by appraisers at significant amounts. The private lands in question are not only going to be expensive but probably cannot be acquired in the near future except by eminent domain. Without the money appropriated by Congress, that avenue is impossible.

Additionally, the Penstemon is only a C-2 category plant. Thus, drastic efforts concerning its habitat in Arizona are unwarranted.

100-2

The alternatives you display in the draft EIS need to be modified. In cases like the two ACEC designations mentioned above, cooperative agreements could be negotiated with the ranchers that could have considerable beneficial effects for the management objectives pointed toward by ACEC designation. This seems a prudent alternative to a program that will require the infusion of considerable amounts of money for land acquisition and other activities when that money just isn't going to be available. The cost of improving waters and grazing control would be substantially less and such range improvements would not only benefit BLM objectives and the ranches in question but would make scarce financial resources go farther. Your final EIS should

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display a fourth alternative that bridges the gap between alternatives 1 (existing management) and 2 (preferred alternative) to designate areas where, recognizing limited available federal resources, the reasonable alternative is to negotiate more detailed management techniques with the ranchers in question. Recognizing budgetary constraints in an environmental impact statement is nothing new. Since it is your charge to display all "reasonable" alternatives, displaying an alternative that recognizes the fiscal difficulty of carrying out more expensive strategies is obviously displaying a reasonable alternative.

Thank you for the opportunity to comment on this important document. Please keep me apprised of future developments on this program and the development of the final EIS.

Sincerely,

Robert S. Lynch

RSL:psr
cc: Jerre Cavalliere
Arizona Cattle Growers Association

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April 23, 1991

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area
2475 Beverly Ave.
Kingman, Arizona 86401

Dear Bill:

This letter is in response to BLM's request for comments on its Kingman Resource Area Resource Management Plan and Environmental Impact Statement.

Santa Fe Pacific Railroad Company is the owner of some 1,650,399.04 acres of property interests in Mohave, Yavapai, and Yuma Counties. In Mohave County, 151,782.24 acres of our property is owned in fee. The majority of these lands are within the BLM's Kingman Resource Area. A review of the RMP/EIS indicates that a substantial amount of Santa Fe Pacific's property has been identified for acquisition by BLM.

Santa Fe Pacific has worked long and hard in past years with the BLM in Arizona, particularly in the Kingman Resource Area, with respect to land exchanges. Exchanges totalling some 210,000 acres of mineral interests were accomplished in October, 1988 involving lands in twelve BLM Wilderness Study Areas, the Shivwits Plateau region of the Grand Canyon National Park, the Havasu National Wildlife Refuge, and Navajo relocation ranches in Apache County. These exchanges were made on an acre-for-acre basis with an attempt being made to exchange Santa Fe Pacific into federal mineral interests of similar geologic potential where possible. On April 6, at the dedication ceremony for BLM's Arizona Wilderness system, we exchanged yet more mineral interests so the Upper Burro Creek Wilderness would have no private inholdings. Santa Fe Pacific supported the purpose and need for these exchanges and worked diligently with BLM for over six years in order to see that they were accomplished. The chief issue which caused this process to stretch for such a long time was the difficulty in locating suitable federal mineral interests with which to exchange with Santa Fe Pacific.

A Santa Fe Southern Pacific Company

As this RMP/EIS calls on Santa Fe Pacific to conduct yet more exchanges with BLM, this document must identify the location of the federal mineral estate statewide in Arizona which BLM has identified to exchange with our company. This EIS will remain deficient until this step is taken. As we are a mining company, not a real estate firm, our requirements for exchange will be the same as they were in the exchange completed in 1988. Santa Fe Pacific will require to be exchanged into unencumbered federal mineral interests of similar resource character and mineral potential as that which Santa Fe Pacific would relinquish. Further, the federal mineral interests must have surface that is not subdivided or it will be unacceptable (the federal surface above our mineral estate which BLM has identified for acquisition now has only one owner-the Federal Government). Subdivided private surface presents an impossible situation when it is necessary to secure access and the proper permissions to conduct mineral exploration or development activities, or if we wish to lease our property to third parties. Further, Santa Fe Pacific is no longer willing to accept an exchange into scattered, unmanageable parcels as we did in Apache, Navajo, and Coconino Counties when we exchanged out of some of our solidly blocked mineral interests within a portion of the Navajo relocation ranches.

With proposed acquisitions of private fee lands and mineral interests as massive as these proposed by BLM, Santa Fe Pacific believes BLM can no longer be constrained in conducting exchanges simply because there may be insufficient federal mineral interest to exchange within a resource area or within a district. As indicated above, Santa Fe Pacific believes BLM must identify lands on a statewide basis. Should BLM determine that insufficient federal lands are available for exchange, then BLM must modify this draft RMP accordingly, and should not impose management prescriptions which will simply result in a de facto taking of the unacquired private property interests.

101-1

BLM has identified 336,460 acres for acquisition, yet has identified only 83,760 of federal interests for disposal. How does BLM intend to conduct exchanges with such a large disparity? Santa Fe Pacific believes that this draft RPM/EIS is deficient and will remain so until a sufficient acreage of suitable property interests is identified for disposal. If such an identification cannot be made, then Santa Fe Pacific must support Alternative 1 as the only reasonable alternative.

We would like to make some specific comments as well as our foregoing comments regarding the general deficiency of this document. First, Table 2-5 contains a major conflict with respect to the Black Mountains ACEC. The table indicates that the ACEC has high locatable mineral potential, yet calls for acquiring state and private lands and non-federal minerals. Santa Fe Pacific retained its mineral

interests in the Black Mountains WSA and did not exchange them in 1988 because of the extremely high mineral potential in this area. To identify our lands now for acquisition, despite BLM's admitted high mineral potential of this area, is highly inconsistent. Simply put, it is as though there is an unwritten policy of removing from multiple use those areas which fail BLM's wilderness suitability test but which meet some highly subjective scenic or biological yardstick. It is disappointing that Santa Fe Pacific's past cooperation could be rewarded in this fashion.

Next, Table 2-7 identifies some 56,758 acres to be withdrawn from mineral entry, much of which is in former WSA's supposedly now returned to multiple use. Given the high mineral potential of much of Mohave County, Santa Fe Pacific believes that this is far too much land which is proposed for withdrawal from potential mineral development. Again, this seems to be merely a mechanism for establishing de facto wilderness.

Enclosed is a just-completed map showing areas of high mineral potential in Mohave, La Paz, and Yavapai Counties. Santa Fe Pacific believes all of the areas so designated must be returned to multiple use and the private lands or interest in these areas be removed from the list of lands which BLM has identified for acquisition in this document.

Finally, Santa Fe Pacific would like to reiterate its support for Alternative 1, as it is the alternative which calls for the least impact to our company's private property.

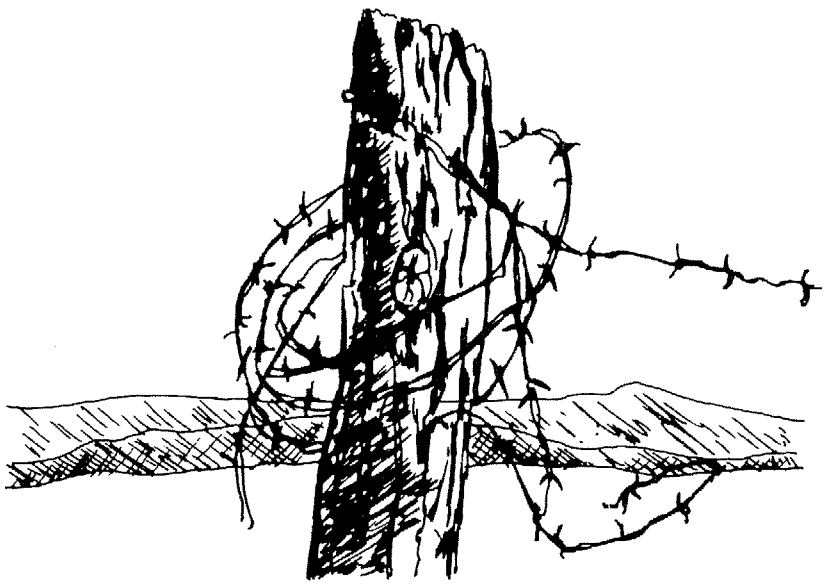
Thank you for this opportunity to comment.

Sincerely,

George Byers
Vice President-Government Affairs

GB:pt

Enclosure



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STATE OF ARIZONA
DEPARTMENT OF MINES AND MINERAL RESOURCES
Mineral Building • State Fairgrounds • Phoenix, Arizona 85007
(602) 255-3791

April 23, 1991

Mr. Bill Carter
Bureau of Land Management
Kingman Resource Area Office
2475 Beverly Avenue
Kingman, AZ 86401

Dear Mr. Carter:

The following comments are submitted with the hope that the BLM will give serious consideration to the damage to mineral development that is done by additional withdrawal of public lands from mineral entry. The recent inclusion of 1 million plus acres, much of which has high mineral potential, in the 1990 Wilderness Act was a travesty against multiple use doctrine. New withdrawals proposed in the Kingman Resource Area RMP/EIS simply adds to the burden.

To be specific, the following is a list of some of the comments the Arizona Department of Mines and Mineral Resources would like to make.

102-1 1. While it may not be intentional, the Kingman Resources Area RMP/EIS hides or at least confuses the plan's impact on present and future mineral resource development. There should have at least been a tabulation in each of the alternatives showing the numbers of acres already withdrawn from mineral entry, and how much additional acreage would be withdrawn by the RMP/EIS.

2. The BLM preferred alternative described in the RMP/EIS would circumvent the will of Congress in the Wilderness Act of 1990.

3. Most mineral entry withdrawals are unnecessary. Disturbances to local environmental conditions can and should be handled on a case by case basis. Those disturbances can be mitigated. For example, it puts an enlightened perspective on the situation, to learn from your Table III-2, page 99, that historically 864 acres have been disturbed by mining activity within the Resource Management Area. Of that, 436 acres have already been reclaimed. This compares to the 92,622 acres proposed for withdrawal from mineral entry.

4. The Arizona Cliffrose (Pursha subintegra) raises an example of warped values. Current information indicates that this species prefers to plant its feet in a particularly unique and valuable type of lithium-magnesium clay. There are a number of long standing mining prospect areas of this clay within the proposed withdrawal zone. To prevent the mining of this rare clay would be a travesty on property rights. This is especially true when a reclamation plan could be drawn that would allow for the continued presence and growth of the Arizona Cliffrose.

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There are other examples of rampant preservation at the expense of multiple use. Those listed should be sufficient to support a recommendation by the Department of Mines and Mineral Resources that the BLM take another look at all of the resources that occur in the Kingman Management Area, and to give serious consideration to a plan under which all interests would be served.

Yours truly,

Leroy E. Kissinger
Director

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103

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

FIFE SYMINGTON, GOVERNOR
RANDOLPH WOOD, P.E., DIRECTOR

April 26, 1991

Mr. Bill Carter, Technical Coordinator
Bureau of Land Management
Kingman Resource Area
2475 Beverly Avenue
Kingman, Arizona 86401

RE: Comments on the Draft Environmental Impact Statements for Kingman Resource Area.

Dear Mr. Carter:

The Arizona Department of Environmental Quality, (ADEQ) has reviewed the Draft Environmental Impact Statement on Kingman Resource Area and has concluded that all alternatives represent potentials for unacceptable impacts to both water and land resources. The Department is the responsible agency for administration and implementation of the Arizona Environmental Quality Act and Section 319 of the Clean Water Act (CWA) in the State. However, under the provisions of the Nonpoint Source Water Quality Management Program, the Department can administratively delegate this responsibility through a formalized Memorandum of Understanding (MOU). Until an MOU is formalized the ADEQ requests that the Bureau of Land Management submit to the Department specific plans for activities subject to CWA Section 401 (A) certifications and/or review prior to implementation. The CWA Section 401(A) Program is designed to demonstrate that the proposed programs would not cause or contribute to the violation of State Water Quality Standards for surface water or aquifers.

Sincerely,

Donald L. Miller, Ph.D.
Assistant Director
Office of Water Quality

RLM:MH:pjh

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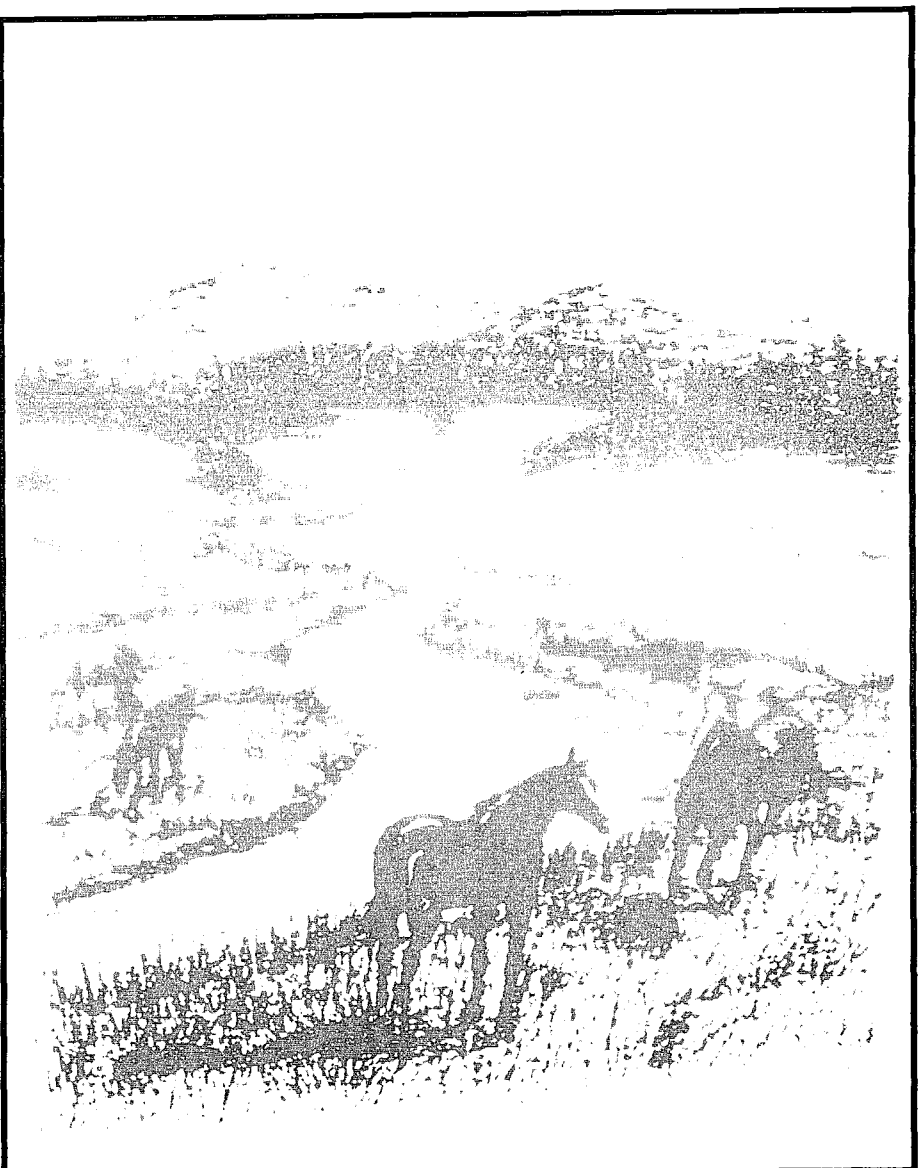

RESPONSES TO PUBLIC COMMENTS

1-1 The BLM is working with the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service to determine the status of Mexican voles in the Music Mountains by collecting additional inventory data.

6-1 Site-specific actions, such the letter proposes, are addressed when activity plans are developed. No site-specific action will be approved until National Environmental Policy Act compliance procedures have been completed.

8-1 The presence of gypsum has been identified in Chapter 3 and on **Map 29.**

9-1 Monitoring is implemented on acquired lands as funds become available. The process for determining a grazing capacity for acquired land is outlined in the Range Management section of *Alternative 2,* Chapter II.

10-1 Alternative 1 carries forward corridors designated in the management framework plan only. All of the corridors identified are included in *Alternative 2* and *Alternative 3,* as shown on Map 14.

12-1 In the preferred alternative, Cherum Peak and Mount Perkins have been identified; however, due to its proximity to the private site on Aubrey Peak just south of Chicken Springs Road, Groom Peak has been dropped in *Alternative 2.*

13-1 The section referred to in the draft document has been corrected. Wild equids will not be managed "at the lowest level needed..." The document now reads; "The herds are managed to assure their free-roaming character, health and self-sustaining ability" (see page 31).

13-2 "Management Guidance Common to all Alternatives" has been changed to read; "Where analysis of monitoring data indicates a need for change in the number of grazing animals in areas of multiple species use, allocations will be determined for each species on a case-by-case basis" (see page 31).

13-3 The wording has been changed to reflect the management strategy of maintaining a viable population of wild horses within the constraints of their habitat in an ecological balance. The population level will be defined by the level of what the habitat can support.

13-4 This document has been changed on page 88 to read; "If proper forage use limits are exceeded when the wild horses are at or below the minimum viable population limit, livestock numbers would be reduced and the BLM would recommend to the Arizona Game and Fish Department that deer numbers be reduced accordingly. If the wild horse population is above the minimum viable level, an equitable reduction in grazing allocation among wild horses, wildlife and livestock would occur."

13-5 Forage allocations in dual use areas would be prorated according to the ratios shown in **Table 10.**

13-6 Discussions of grazing management practices necessary to improve and maintain soil, watershed, vegetation and wildlife resources have been added to the Rangeland Management sections of Management Guidance, *Alternative 2* (pages 71 and 72) and the Riparian Management section of *Alternative 2* (page 86).

13-7 For an analysis of allotment categorization see page 24.

13-8 Categorization of watershed condition by grazing allotments is a sufficient enough change of action from existing management as governed by the Cerbat/Black Mountain and Hualapai/Aquarius grazing environmental impact statements to warrant inclusion into the proposed action (Alternative 2).

13-9 The schedule for inventories and monitoring will not change from one alternative to another. Monitor scheduling is a function of allotment category. Changes in category can occur with variations in the five standard criteria listed on page 24.

13-10 The management prescriptions for riparian habitat should provide greater protection for these resources. The proposed management is a significant change from current. Table 18 highlights the differences among the impacts for each alternative.

13-11 If proper utilization levels are exceeded in the Cerbat Herd Management Area, numbers of all ungulates would be reduced on an equitable basis.

13-12 Discussions about wild horse and burro habitat management have been expanded on page 87.

18-1 The text has been changed on page 20 to more accurately outline BLM policy concerning elimination of abandoned mine hazards.

19-1 The BLM manages the public lands under the multiple use concept. The various proposals for Upper and Lower Burro creeks represent a balanced management approach for the resource area.

20-1 The proposed off-highway vehicle open area at Red Lake has been dropped and a statement made that an open area would be proposed in the future if private lands could be acquired in the playa (see page 76).

21-1 The cultural section of Chapter III has been expanded to provide additional information on the Yavapai tribe (see page 172).

22-1 On page 65, secs. 4, 5 and 6 are identified as suitable for exchange only with the state. Secs. 7, 8 and 9 are identified as suitable for exchange primarily to the state, but not exclusively. The lands requested under Item (1) in T. 22 N., R. 18 W. have been identified as suitable for exchange primarily to the state, but not exclusively, in *Alternative 2* and suitable only for state exchange in *Alternative 3*. Public lands in T. 22 N., R. 18 W. are within a disposal area, but not identified as being for state exchange only.

23-1 See Letter L-1 at the end of the Response to Comments section.

25-1 See Chapter III, page 99 of the draft Resource Management Plan/Environmental Impact Statement for a discussion of the Payments in Lieu of Taxes Act funds provided to Mohave County.

25-2 Decisions in this document will apply only to public lands administered by the BLM and will not be enforced in any way, either directly or implied, on private, state, other federal or Indian lands (see page 20 and also Letter L-2 at the end of the Response to Comments section).

26-1 Wildlife corridors are shown on **Map 20.**

26-2 See Letter L-3 at the end of the Response to Comments section.

26-3 See Letter L-3 at the end of the Response to Comments section.

26-4 The Western Bajada was dropped from consideration as an area of critical environmental concern in *Alternative 2*.

26-5 See Letter L-3 at the end of the Response to Comments section.

26-6 See Letter L-3 at the end of the Response to Comments section.

26-7 The discussion of desert tortoise on page 54 has been expanded to read; "Monitoring data showing a downward population trend, an increase in mortality or a downward trend in key forage plants would trigger a review of grazing management actions in desert tortoise habitat."

26-8 Impacts to Special Status Species from Mineral Development on page 204 has been changed to read; "Long-term cumulative impacts could occur on small areas. These impacts could be mitigated."

26-9 See Letter L-3 at the end of the Response to Comments section.

27-1 See Letter L-4 at the end of the Response to Comments section.

28-1 See Letter L-5 at the end of the Response to Comments section.

28-2 See Letter L-5 at the end of the Response to Comments section.

29-1 See Letter L-6 at the end of the Response to Comments section.

29-2 See Letter L-6 at the end of the Response to Comments section.

29-3 This document was prepared by an interdisciplinary team represented by all BLM resource specialists at the resource area, district and state office levels. It also reflects the ideas and wishes of many of the general public, user groups, environmental groups and other agencies.

29-4 See Letter L-6 at the end of the Response to Comments section.

30-1 See Letter L-7 at the end of the Response to Comments section.

31-1 See Letter L-8 at the end of the Response to Comments section.

39-1 **Initial** forage allocation for desert bighorn sheep and other ungulates in the Black Mountains would be determined based on the ratios shown in **Table 10.** The terms "optimum habitat potential" and "optimum numbers" for bighorn sheep have been removed. Forage would be managed to all ungulates in an equitable fashion.

39-2 Desired plant community descriptions would be developed for important wild burro habitat.

39-3 See response 39-1.

39-4 The term "optimum potential" has been defined in the glossary.

39-5 **Page 182** shows the present population of wild burros in the Black Mountains at 890 animals.

39-6 This statement has been deleted.

39-7 This statement has been changed to state "activity plans."

39-8 See response 39-1.

39-9 This suggestion has been incorporated on page 55.

41-1 See Letter L-9 at the end of the Response to Comments section.

43-1 See Letter L-10 at the end of the Response to Comments section.

45-1 See Letter L-11 at the end of the Response to Comments section.

46-1 See Letter L-12 at the end of the Response to Comments section.

47-1 See Letter L-13 at the end of the Response to Comments section.

50-1 See Letter L-14 at the end of the Response to Comments section.

53-1 BLM planning regulations 43 CFR 1610.3-2(a) require planning documents to be compatible with state policy and plans. The BLM is further mandated by the Federal Clean Water Act of 1989, Public Law 101-144 as amended, to assist states in controlling non-point source pollution from rangelands through the development of Best Management Practices. Grazing management procedures fall into the category of Best Management Practices and guidance is given for range management on pages 24 and 72.

53-2 The Burro Creek Riparian Management Plan and the Bill Williams Riparian Management Area Plan were written subsequent to the Hualapai/Aquarius Grazing Final Environmental Impact Statement. Both riparian plans conform to the grazing environmental impact statement. These three documents, incorporated into this document by reference, are available for review at the Kingman Resource Area office. The question of grazing management in riparian areas has been more adequately covered on pages 72 and 86.

53-3 The reference to state land exchanges has been deleted, see page 34.

53-4 The Arizona Desert Wilderness Act of 1990 designated nine wilderness areas in the planning area. *Alternative 1* would not designate additional special management areas (as defined by the BLM planning regulations).

53-5 See response 13-3.

53-6 The disposal area boundary shown on **Map 13** has been changed to move it out of the herd management area.

53-7 These lands have been proposed for disposal to meet the needs of growing communities nearby. Management of public lands in checkerboard areas is difficult for the public land manager and private landowners. Consolidation of public landownership in areas containing a higher percentage of public lands and higher value natural resources is in the best interest of the public.

53-8 The discussion of grazing in timber stands has been changed on page 71 of this document to read: "Consideration of the physiological needs of ponderosa pine and mixed conifer stands for regeneration would be incorporated into environmental documents necessary for the approval and development of a coordinated resource management plan."

53-9 Ecological site inventory data have revealed inconsistencies. The location of true ephemeral rangeland, areas containing no more than a minor amount of desirable perennial forage, needs to be defined. Designation of ephemeral range will be consistent with the Special Ephemeral Rule of 1968.

53-10 A revised eligibility assessment of river segments is shown on pages 174 through 176.

55-1 Retention areas are based on resource values and are not subject to change. This does not mean the project will not be considered.

55-2 The herd management area plan boundary is based on the area used by the horses and is not subject to change.

55-3 This type of project in wilderness is strictly prohibited and it would take an Act of Congress to change the boundary.

60-1 See Letter L-15 at the end of the Response to Comments section.

62-1 Management of public resources east of the planning area boundary has been addressed on pages 19.

62-2 The Minerals section of *Alternative 2* has been revised to more clearly identify acreages open to mineral development and acreages closed to development.

62-2a Site-specific environmental analysis and public comment are part of all disposal actions.

62-2b Corridors are established in previously disturbed areas where future actions may be directed.

62-3 See response 53-1.

62-4 **Table 16** has been revised to read that grazing systems will comply with state water quality standards.

63-1 See response 25-2.

71-1 This apparently refers to Section 8 of the Public Rangelands Improvement Act of 1978, Public Law 95-514, which amends Section 402 of the Federal Land Policy and Management Act of 1976. Section 8 of Public Law 95-514 stipulates that development of allotment management plans will be done through consultation, cooperation and coordination with involved parties; it is discussed on pages 25 and 71.

72-1 The three complete plans proposed represent a reasonable range of alternatives. Other alternatives were considered, but the interdisciplinary team did not do a further analysis, as stated on page 120.

72-2 This proposed alternative would not comply with the intent of the Federal Land Policy and Management Act of 1976, which requires the BLM to manage public resources on a multiple-use basis.

72-3 A soil survey has been completed for the southern half of the Kingman Resource Area (see page 28 of the draft Resource Management Plan/Environmental Impact Statement).

72-4 Impacts to vegetation are addressed in terms of losses due to surface-disturbing activities, without specifically identifying the species being impacted. On pages 71 and 72 of this document is a discussion of how grazing systems will benefit vegetative conditions.

72-4a Public lands are blocked up to enhance and protect resource values. State lands are blocked up to maximize revenue-producing development that supports the state schools, etc., as required by state law.

72-4b Corridors are one to two miles wide to allow for expansion and required separation between utilities and topography.

72-5 See response 13-7.

72-6 Changes have been made on page 71 to reflect that permits would only be issued within limits of sustained use.

72-7 The term "wash" has been defined in the glossary.

72-8 The proposed stipulations outlined on pages 49 and 204 of the draft Resource Management Plan/Environmental Impact Statement would protect bighorn sheep by restricting mineral lease operations from December 1 to May 31, during the lambing period. Other restrictions controlling road construction, living on-site and reclamation are designed to reduce interaction between humans and bighorn sheep. The information in this document will be used to guide the preparation of site-specific stipulations when a lease is issued.

72-9 **Table II-7** on page 58 of the draft Resource Management Plan/Environmental Impact Statement shows the acres of no surface occupancy for each area of critical environmental concern. The management prescriptions listed for each of the areas of critical environmental concern indicate that a no surface occupancy stipulation would be applied to Hualapai vole and Arizona cliffrose habitats, the Carrow and Stephens ranches and one-fourth of a mile on either side of important streams (see Appendix 18 of the draft Resource Management Plan/Environmental Impact Statement).

72-10 Map II-12 on page 79 of the draft Resource Management Plan/Environmental Impact Statement indicates that the areas of critical environmental concern for Wright and Cottonwood creeks would be one mile wide, as described in aliquot parts.

72-11 Limited and closed off-highway-vehicle designations are defined on page 277 of the draft Resource Management Plan/Environmental Impact Statement. The limited designation closes the area to cross-country travel. Travel on roads and trails under normal conditions is nonimpairing, as is travel in navigable washes. The term "navigable wash" is defined in the glossary.

72-12 The focus throughout Chapter IV was on the analysis of environmental impacts of implementing the alternatives. No significant environmental impacts occurring from the implementation of any of the alternative plans were found.

74-1 Only the NE1/4 of sec. 7, T. 18 N., R. 21 W. has been identified for recreation and public purposes; however, there are 1,708 acres identified for these actions in Mohave Valley.

75-1 As shown in Appendix 12, many of those lands near Yucca would only be exchanged for specific lands with much higher resource values.

76-1 This site would be considered a single use site and not potentially valuable for commercial development; therefore it has not been designated, but may be applied for.

77-1 See response 53-3.

77-2 The subject statement is based on water quality data and U.S. Geological Survey information cited in the following reports.

1. Arizona Department of Health Services, 1984.

2. BLM Technical Note 352.

3. Aquatic Inventory of the Upper Bill Williams Drainage, Yavapai and Mohave Counties, Arizona, 1979.

4. Burro Creek Watershed Background Survey and Proposed Intensive and Survey Design. Arizona Department of Health Services, March 1982.

77-3 The Wild and Scenic Rivers Act of 1968 defines a river as "a flowing body of water or estuary or a section, portion or tributary thereof, including rivers, streams, runs, kills, rills and small lakes." The Act also defines free-flowing as "existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping or other modification of the waterway." A river need not have perennial flow in order to meet the eligibility criteria. Intermittent streams already exist within the National Wild and Scenic Rivers System.

77-4 See response 53-10.

77-5 Factors relating to ineligibility have been included in the revised eligibility assessment on page 176.

77-6 Desert tortoise habitat boundaries and categorizations have been delineated based on all known information from historic records, inventory reports and BLM and Arizona Game and Fish Department databases. **Map 34** reflects a shift of the tortoise boundary to the south of the Cyprus Bagdad copper mine tailing piles.

77-7 The proposed special recreation management area around the Mineral Park historic mining area has been deleted.

78-1 Grazing is discussed under proposed management prescriptions for each area of critical environmental concern, including those for the protection of riparian values and tortoise habitat; these are shown on pages 97 through 111 and **Table 11.** Grazing management is also discussed on pages 71 and 72.

79-1 The phrase has been changed to read: "... established policy regarding management of wild free-roaming horses and burros on the public lands."

79-2 This paragraph has been rewritten on page 31.

79-3 A change has been made on page 31 to state that wild horses and burros will be maintained on public lands to assure the herds' free-roaming character, health and self-sustaining ability.

79-4 See responses 13-1 and 13-4.

79-5 This statement has been rewritten to read: "Desert bighorn sheep and other ungulates in the Black Mountains and Mount Wilson would be managed at a level which would ensure the continued existence of all ungulate species."

79-6 The following sentence has been added: "Monitoring data would continue to be collected and numbers of animals adjusted according to condition of key forage species" (see page 56).

79-7 See response 39-1.

79-8 The discussion of wild horse numbers in the Cerbat Mountain Herd Management Area has been greatly expanded in two paragraphs on page 87 (also, see response 13-4).

79-9 See response 79-8.

79-10 See response 13-4.

79-11 This alternative has been revised as shown on page 120.

79-12 Changes have been made to **Map 32** to include several allotments which had been missed in the draft.

79-13 This statement has been deleted on page 182.

79-14 This statement has been changed to read: "Implementation of the herd management area plans included in the Current Management Alternative would result in a dispersed population at a light stocking rate. This, and the implementation of the wild horse management provisions of the Current Management Alternative, would achieve a thriving natural ecological balance in wild horse, burro and wildlife populations which the BLM considers to be a significant benefit".

79-15 This statement has been removed from the discussion on page 203.

79-16 On page 205, this statement has been replaced with: "Wild horses and burros managed within an ecological balance should have no impact on special status species."

79-17 This discussion has been revised as shown on page 206.

79-18 This discussion has been revised on page 217.

79-19 The text has been changed on page 220 to remove the statement considered to be inaccurate.

79-20 The BLM's Wild Free-Roaming Horse and Burro Program Guidance, January 1983, IIC 5b (1)(a) and (b) states: "Decisions to remove wild horses and burros from herd areas may be appropriate if horse or burro management is found to be incompatible with planned uses of the area... Removal may also be appropriate from herd areas too small to support populations of acceptable effective size... Although wild horses and burros may be totally removed from herd areas, the areas retain their status as herd areas."

79-21 The text has been changed on page 228 to state: "Same as under *Alternative 2*."

81-1 The benefits accruing to existing grazing management have been described in a more positive light under *Alternative 1* of Chapter IV to reflect this comment.

81-2 Based on this comment, changes have been made on page 79 to provide for authorized permit holders to travel off roads, trails and washes to fulfill their permits.

81-3 The area encompassing the old Silver Creek Allotment is being proposed as the Bojorquez Wild Burro Range in the Wild and Free-Roaming Horse and Burro Management section under *Alternative 2* in Chapter II.

83-1 See response 53-1.

83-2 Baseline water quality data found in the Kingman Resource Area office files are incorporated into this document by reference in the Management Situation Analysis. Response 77-2 lists some reports containing water quality data. Water quality is not significantly impacted by any of the alternatives in the Resource Management Plan/Environmental Impact Statement.

83-3 See response 6-1.

83-4 **Tables 14 and 16** have been revised to show the proposed elimination of livestock grazing on the McCracken and Poachie areas of critical environmental concern under *Alternative 3*.

83-5 See response 6-1. Also, potential impacts were analyzed and no significant impacts were identified.

83-6 Guidance for preparation of Best Management Practices is given for minerals management on pages 20.

83-7 See responses 53-10, 85-2 and 85-3.

83-8 The stretch of Burro Creek between Francis and Boulder creeks (mostly within wilderness) has been designated a unique water by the state of Arizona. The Big Sandy, Santa Maria and Bill Williams rivers have been evaluated and were found to not meet water quality standards necessary for designation.

83-9 See response 62-3.

83-9a Before any actions occur on public lands, a site-specific environmental analysis must be completed addressing impacts of specific projects and may require mitigation to protect resources.

83-9b Purpose and need for corridors are discussed in Chapter 1. Site-specific environmental analysis is done on each project.

83-10 See response 6-1.

84-1 Page 88 now reads that the BLM would "recommend" to the Arizona Game and Fish Department that deer numbers be reduced.

84-2 Based on the comment, changes have been made on page 31 to state that wild horses or burros in areas outside of designated herd management areas will be removed as soon as possible after consulting with the landowner.

84-3 **Table 17** has been changed to show population census of burros at three-year intervals.

84-4 The facilities proposed for the Thimble Butte area have been changed to a wilderness trailhead and day use area (see **Table 8**).

84-5 Pine Flat has been dropped from consideration.

84-6 A wildlife corridor has been included on Coyote Pass. The suggestions for specific wildlife habitat improvement projects will be considered when an activity plan is developed in cooperation with the city of Kingman, Mohave County and the Arizona Game and Fish Department.

84-7 See response 81-2.

84-8 Page 30 has been changed to add: "As additional wildlife information is gathered, existing habitat management plans would be updated or revised."

84-9 See response 6-1.

84-10 The terms have been changed to "semiprimitive motorized and nonmotorized recreation" and are defined in the glossary.

84-11 See response 6-1.

84-12 The change from an "October Fish Count" to a "Fall Fish Count" has been made on page 54.

84-13 See response 12-1.

84-14 A sampling technique will be used to determine parts per million (ppm) of contamination in water (see **Table 17**).

85-1 See response 53-10.

85-2 Interim guidance to protect river segments is discussed on pages 42, 44 and 48 through 51.

85-3 The one-quarter-mile corridor and standards to ensure free-flowing values are discussed on pages 42, 44 and 48 through 51.

86-1 Seral stage is defined in the glossary.

86-2 The process used to determine a grazing capacity for acquired land is outlined on page 72.

87-1 See response 53-10.

88-1 See response 86-2.

88-2 The discussion of emergency fire rehabilitation has been revised to state that burned areas would be seeded with approved native and naturalized seed mixtures (see page 32).

90-1 See response 86-2.

94-1 The North and South planning area maps in map pockets 1 and 2 in the back of the draft Resource Management Plan/ Environmental Impact Statement are the most detailed maps available to the BLM.

94-2 Elimination of grazing was not proposed in the Preferred Alternative, nor is it made a part of the Proposed Plan.

96-1 See response 6-1.

96-2 Mineral terms are defined in the glossary.

96-3 The three cultural areas of critical environmental concern shown in *Alternative 3* were included as part of the larger acreages for the Black Mountains, Wright-Cottonwood creeks and Burro Creek areas of critical environmental concern under *Alternative 2*.

96-4 Segregation, classification and withdrawal are defined in the glossary.

96-5 Watershed productivity has been changed to watershed condition in the second to last planning criteria of Management Concern 7 on page 11.

96-6 A new resource area goal dealing with threatened and endangered species has been added on page 18.

96-7 Category 1 and 2 species have been added to Management Guidance on page 29 and to **Table 17.**

96-8 The recovery plan, when finalized, will be incorporated into a habitat management plan, which will then be implemented (see page 30).

96-9 See response 53-3.

96-10 The discussion of seeding cutover areas on page 39 has been changed to clarify that native and naturalized plant species will be used.

96-11 See response 79-4.

96-12 A discussion of Arizona cliffrose has been added to the Special Status Species Management section of *Alternative 1* on page 53.

96-13 The current situation is a draft Cerbat Herd Management Area Plan which proposed 90 horses, a grazing environmental impact statement which proposed 14 horses and approximately 130 horses actually using the area in 1990.

96-14 The acres of publicly owned minerals open to various minerals actions or closed to activity are more accurately discussed on page 60.

96-15 All federal minerals proposed for release from withdrawal by Public Land Order 492 would be proposed for withdrawal when the area is returned to full management of the natural resources by the BLM.

96-16 Plans to improve watershed conditions would stress the use of appropriate native and naturalized plant species (see page 70).

96-17 The name of the Clay Hills Area of Critical Environmental Concern has been added to page 85.

96-18 Mineral leasing in riparian areas of critical environmental concern refers to a no surface occupancy stipulation for oil and gas, potassium, sodium, phosphates, etc., while withdrawal for mineral entry refers to locatable minerals such as gold, silver, copper, lead, etc. Extraction of leasable minerals can occur without damage to protected resources, because of the no surface occupancy stipulations.

96-19 An area of critical environmental concern plan will be developed for the areas containing the *Cerbat beardtongue, white margined penstemon* and *Arizona cliffrose.* Management prescription for these three species will be incorporated in these plans. For Arizona cliffrose, the specific provisions in the draft recovery plan will be incorporated in the area of critical environmental concern plan (see page 110 and **Table 11**).

96-20 In the Western Bajada region, the Resource Management Plan is formalizing a long-term existing action to close the area to livestock grazing.

96-21 See responses 13-1 and 13-4.

96-22 See response 96-3.

96-23 **Table 14** has been changed to remove the language concerning the Mineral Materials Sales Act in the lands column. The proper language existed in the minerals column for the Cottonwood Mountains and Black Butte areas of critical environmental concern. This language has also been added to the minerals column of the Silver Creek Area of Critical Environmental Concern.

96-24 The term "mineral material disposal" is defined in the glossary.

96-25 The corridor for the Lake Mead to Kingman water pipeline has been added to **Table 16.**

96-26 The Special Status Species section of *Alternative 2* directs the reader to the Special Management Areas section of *Alternative 2* for a discussion of how management prescriptions in specific areas of critical environmental concern would protect the peregrine falcon and Hualapai Mexican vole. Actions in *Alternative 1* are brought forward in *Alternative 2* by the statement: "This alternative is the same as under *Alternative 1* with the additional ..." **Table 16** has been updated to include a discussion of changes affecting the Hualapai Mexican vole, bald eagle and peregrine falcon.

96-27 Changes in vegetation occur very slowly in arid regions. Monitoring more frequently than at five-year intervals has been shown to provide little additional information. Trend in riparian areas is monitored on a yearly basis (see **Table 17**).

96-28 A discussion has been added to page 83, stating that the BLM would work with the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service to incorporate new information on elk management into the existing habitat management plan in the Hualapai Mountains.

96-29 **Table 18** has been changed to include the impacts of eliminating firewood cutting and yucca harvest.

96-30 The citation in Chapter III has been changed to Appendix 19. The discussion of watershed categorization in the Watershed section of *Alternative 2* on page 70 has been changed to state: "Highest priority would be given to Category IV allotments, followed by allotments in category II."

96-31 See response 84-5.

96-32 The discussion of the Impacts to Local Economy has been eliminated in Chapter IV and replaced by Impacts to Socioeconomic Factors. Impacts to Vegetative Products Management from the elimination of firewood cutting and yucca harvest are discussed on page 223.

96-33 Impacts of vegetative harvest on wildlife habitat have been more thoroughly discussed in *Alternative 1* on page 202. The discussion for *Alternative 2* on page 215 has been further clarified.

96-34 A discussion of Category C allotments in areas of critical environmental concern is shown in the Rangeland Management section of *Alternative 2* on page 72.

96-35 The word "threatened" has been substituted for "endangered" in the relevance statement for the Western Bajada Area of Critical Environmental Concern.

96-36 The Cherokee Point Area of Critical Environmental Concern has been dropped from consideration in *Alternative 2* and moved to *Alternative 3*. Area of critical environmental concern objectives have been clarified in *Alternative 3* (see **Table 14**).

96-37 The BLM will monitor the impacts of elk, deer and livestock grazing on vole habitat as stated on pages 102 and 103 (see also comment 84-5).

96-38 The word "threatened" has been substituted for "endangered" in the relevance statement for the McCracken and Poachie areas of critical environmental concern.

96-39 Mining plans of operations and mandatory bonding have been added to the management prescriptions for the Clay Hills Area of Critical Environmental Concern.

96-40 The terms "satisfactory" and "unsatisfactory" referring to watershed condition have been defined in the glossary.

97-1 See response 22-1.

99-1 Livestock management is discussed in Management Prescription 13 of page 217 of the draft Resource Management Plan/Environmental Impact Statement. The statement that livestock would be managed to achieve goals and objectives of the area of critical environmental concern means grazing must be compatible with the unique values found in the area.

99-2 Grazing as an appropriate use in riparian areas was evaluated in the grazing environmental impact statements. They are brought forward into the Resource Management Plan and incorporated by reference, an appropriate tiering technique.

99-3 See response 86-2.

100-1 See response 13-3.

100-2 See response 71-1.

100-3 The alternative suggested is not necessary as any specific action analyzed in the Resource Management Plan/Environmental Impact Statement alternatives can be selected for the proposed plan by the decisionmaker.

101-1 BLM land use plans must identify lands "suitable" for acquisition based on natural resource values and manageability with adjacent public lands before an exchange can take place. This does not mean that the lands must be acquired. Private landowners must be willing parties to any proposed exchange.

102-1 Existing withdrawals are discussed under Land Withdrawals and Classifications on page 38 of the draft Resource Management Plan/Environmental Impact Statement and in **Table 1** under Wilderness Management of this document. Mineral withdrawals in the proposed alternative are shown in **Table 12** and discussed in the Minerals section on page 60 of this document.

A

THE DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

DRAFT RESOURCE MANAGEMENT PLAN/
ENVIRONMENTAL IMPACT STATEMENT
for the
KINGMAN RESOURCE AREA

REPORTER'S TRANSCRIPT OF PROCEEDINGS

ORIGINAL

Public hearing
January 15, 1991
7:00 p.m.

Maricopa Board of Supervisors
Auditorium
205 West Jefferson
Phoenix, Arizona

BE IT REMEMBERED that heretofore on the 15th day of January, 1991, commencing at 7:10 p.m., at the Maricopa Board of Supervisors Auditorium, 205 West Jefferson, Phoenix, Arizona, the Public Hearing on the Bureau of Land Management Kingman Draft Resource Management Plan/Environmental Impact Statement was held.

Mr. Ray A. Brady, Hearing Officer, and Ms. Elaine Marquis presided.

* * * * * *

(Whereupon, the following proceedings ensued.)

MR. BRADY: Ladies and gentlemen, this public hearing will now come to order. My name is Ray Brady, Bureau of Land Management District Manager in Safford District here in Arizona. I've been requested to assist with this hearing this evening.

Tonight's hearing is being conducted under the authority of the Federal Land Policy Management Act and in accordance with established Land Management procedures. This formal public hearing is being held to obtain comments on the draft Kingman resource area resource management plan and the environmental impact statement prepared by the BLM's Kingman resource area, Phoenix district. Release of the draft resource management plan and the environmental impact statement marks the beginning of a 90-day comment period which ends on March 8th, 1991.

Public notice of the hearing this evening in Phoenix and on Thursday evening in Kingman has been advertised in the local media. Notice was also published in the Federal Register. Additional informal public meetings will be held in Bullhead City, Bagdad and Dolan Springs. Written comments on this draft resource management plan and environmental impact statement can be provided to BLM In addition to any oral statements that will be provided at this oral hearing this evening.

The official Court Reporter who is seated

on my right is Melinda Songstad. She will prepare a verbatim transcript of everything that is said this evening. If you wish to obtain a copy of the complete transcript, you should make your own arrangements with the reporter after the hearing this evening.

The purpose of this hearing centers on two issues: first, are the proposed actions as depicted in the draft resource management plan suitable; second, is the draft environmental impact statement adequate. Your comments on either issue will be appreciated. Although the draft plan includes a preferred alternative, the final plan will consider all public comments that are received.

Now, for a few words about procedure, I hope most of you have signed the attendance sheet as you came into the room. If you have not done so, I would like you to sign it before you leave. Also, if you would like to make a statement this evening, we would like to have a record of that on the attendance sheet. This hearing is not a debate, a trial, or a question and answer meeting; it is an advisory hearing, and all interested parties may present statements or provide other information pertinent to the draft plan.

There will be no cross-examinations from the audience, but if anyone fails to understand any statement from any speaker, you may direct a clarifying question to me and I will determine if it is pertinant. This may seem

overly formal, but it is intended to give everyone a fair and reasonable opportunity to present his or her views.

When I have finished with my opening statement, I will call on a Bureau of Land Management representative to say a few words about BLM's proposed action. That presentation should take about five minutes. Then I will call upon individuals who have indicated that they wish to make a statement this evening.

In view of the limited number of people that we have this evening, if you could limit your statements to about ten minutes, that would be appropriate. If you cannot express all of your comments in that length of time, you may submit further comments in writing. Any written statements submitted this evening will be included in the official transcript and will be considered on the same basis as any oral comments.

You may also submit follow-up written comments until March 8th, and these will also be considered fully. Written comments should be addressed to the BLM Office, Kingman Resource Area, 2475 Beverly Avenue, Kingman, Arizona, and the zip is 86401.

Now, I would like to introduce Elaine Marquis, who is the BLM Kingman area manager, for a few comments. Elaine.

MS. MARQUIS: Thank you, Mr. Brady. The

preferred alternative is alternative number 2, and it represents a continued use in management of the natural

increase in population in Mohave County, we have an increased desire or impact, I should say, on recreation uses. On one of them we have identified some trails for hiking and biking. There are campgrounds, both primitive and concessions, interpretive sites, three back-country byways, seven special recreation management areas. And we would establish, or the plan would establish a Kingman regional park, which is a joint venture to the city, the county, and the BLM.

There is also an additional 84,000 acres identified on the third alternative for disposal, land disposal through exchange recreation and public purpose or sale. Our preferred method is identified as exchange of recreation and public purpose. The resource area plan also designates the off-highway use for the whole resource area. It identifies two areas. It's completely open, covering about 5700 acres. The designation of wilderness, actually closes 350,000 acres to vehicular use in all. We have not identified any additional acreage closed beyond what is designated by wilderness. So that leaves about 2.1 million acres designated as limited. And we have designated a limitation to existing roads, trails, and washes. In some of our critical tortoise habitat areas we have actually identified certain washes as closed to vehicles also.

And this is more or less just a synopsis and a brief highlight of our preferred alternative.

Alternative 3 also identifies most of these uses and items that I have just spoken of, but we have a different degree of

MR. BRADY: Would you like to respond to that, Elaine?

MS. MARQUIS: Scott, my understanding is that you had desired to provide a recorder --

MR. LEWIS: Yes. That was the intent.

MS. MARQUIS: -- at your expense.

MR. LEWIS: Yes, at our expense.

MS. MARQUIS: We did not see any reason why that couldn't occur. We were trying to decide this day as to the format. If a recorder would be there, did you want that recording submitted to BLM for us to incorporate into the document?

MR. LEWIS: Yes, sir. That is our intention, yes.

MS. MARQUIS: We will work out the details on how to form that meeting on the phone lines. So there is no problem with that.

MR. LEWIS: Will there be a need then for public notice too?

MS. MARQUIS: We are looking into that.

MR. LEWIS: Okay.

MS. MARQUIS: I don't think so, but we will certainly look into it.

MR. LEWIS: Okay.

MR. BRADY: Could you state for the record

the date that meeting in Bagdad will take place?

MR. LEWIS: Yeah. Wednesday, January 23rd, 1991, at 7:00 p.m. in Bagdad, Arizona. I will reserve further comment until either the Kingman or Bagdad meetings.

Thank you, Mr. Brady and Miss Marquis.

MR. BRADY: Thank you, Mr. Lewis.

Are there any other individuals that would like to make a statement this evening?

(Pause.)

Bill Carter, do we have anyone else indicated on the sign-in sheet who would wish to make a statement?

MR. CARTER: No.

MR. BRADY: I see no other individuals that have indicated a willingness to make statements this evening. I would like to make an announcement that there will be another hearing in Kingman on Thursday evening at 7:00 p.m. to hear additional statements on the draft resource management plan and environmental impact statement.

There being no other people wishing to testify, I hereby close the hearing. Anyone wishing to ask questions of the BLM people that are here this evening are welcome to do so, and I thank you for your attendance this evening. Thank you very much.

(Whereupon, hearing concluded at 7:25 p.m.)

STATE OF ARIZONA)
) SS.
COUNTY OF MARICOPA)

BE IT REMEMBERED that heretofore, on the 25th day of January, 1991, at the time and place aforesaid, the foregoing proceedings were stenographically recorded by me or under my direction into the 10 foregoing pages of printed matter, and that the same contain a full, true and accurate transcription of said proceedings all to the best of my skill and ability.

DATED at Phoenix, Arizona, this 30th day of January, 1991.

Melinda J. Songstad

MELINDA J. SONGSTAD
Notary Public

B

ORIGINAL

BUREAU OF LAND MANAGEMENT HEARING

TAKEN ON THURSDAY, JANUARY 17, 1991

AT 400 GRANDVIEW
KINGMAN, ARIZONA

AT 7:06 P.M.

REPORTED BY: JANICE MINER, COURT REPORTER

APPEARANCES:

HEARING OFFICER: RAY A. BRADY, DISTRICT MANAGER

B.L.M. REPRESENTATIVE: ELAINE F. MARQUIS, AREA MANAGER

INDEX

MR. BRADY: LADIES AND GENTLEMEN, THIS PUBLIC HEARING WILL NOW COME TO ORDER. I AM RAY BRADY, B.L.M. DISTRICT MANAGER, WITH THE SAFFORD DISTRICT IN ARIZONA. I HAVE BEEN REQUESTED TO ASSIST IN THIS HEARING THIS EVENING.

TONIGHT'S HEARING IS BEING CONDUCTED UNDER THE AUTHORITY OF THE FEDERAL LAND POLICY AND MANAGEMENT ACT AND IN ACCORDANCE WITH ESTABLISHED B.L.M. PROCEDURES.

THIS FORMAL PUBLIC HEARING IS BEING HELD TO OBTAIN COMMENTS ON THE DRAFT KINGMAN RESOURCE AREA RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT PREPARED BY THE BUREAU OF LAND MANAGEMENT'S KINGMAN RESOURCE AREA, PHOENIX DISTRICT.

RELEASE OF THE DRAFT RESOURCE MANAGEMENT PLAN AND E.I.S. MARKS THE BEGINNING OF A 90-DAY COMMENT PERIOD WHICH ENDS ON MARCH 8TH, 1991.

PUBLIC NOTICE OF THE HEARING THIS EVENING IN KINGMAN HAS BEEN ADVERTISED IN THE LOCAL MEDIA. NOTICE WAS ALSO PUBLISHED IN THE FEDERAL REGISTER. ADDITIONAL INFORMAL PUBLIC MEETINGS WILL BE HELD IN BULLHEAD CITY, BAGDAD, AND DOLAN SPRINGS.

WRITTEN COMMENTS ON THE DRAFT RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT CAN BE PROVIDED TO B.L.M. IN ADDITION TO ANY ORAL STATEMENTS THAT YOU WILL PROVIDE THIS EVENING.

THE OFFICIAL REPORTER, WHO IS SEATED ON MY RIGHT,

IS JANICE MINER. SHE WILL PREPARE A VERBATIM TRANSCRIPT OF EVERYTHING THAT IS SAID THIS EVENING. IF YOU WISH TO OBTAIN A PERSONAL COPY OF THE COMPLETE TRANSCRIPT, YOU SHOULD MAKE YOUR OWN ARRANGEMENTS WITH THE REPORTER AFTER THE HEARING.

THE PURPOSE OF THE HEARING CENTERS ON TWO ISSUES. FIRST, ARE THE PROPOSED ACTIONS AS DEPICTED IN THE DRAFT RESOURCE MANAGEMENT PLAN SUITABLE? SECOND, IS THE DRAFT ENVIRONMENTAL IMPACT STATEMENT ADEQUATE?

YOUR COMMENTS ON EITHER ISSUE WILL BE APPRECIATED. ALTHOUGH THE DRAFT PLAN INCLUDES A PREFERRED ALTERNATIVE, THE FINAL PLAN WILL CONSIDER ALL PUBLIC COMMENTS RECEIVED.

NOW, FOR A FEW WORDS ABOUT PROCEDURE. I THINK EVERYONE HAS SIGNED IN THE ATTENDANCE SHEET AS YOU ENTERED THE ROOM. IF YOU'VE NOT DONE SO, I WOULD LIKE ANYONE WHO DID NOT DO THIS TO SIGN THESE SHEETS OR THE ONE OUT BY THE FRONT DOOR.

THIS HEARING IS NOT A DEBATE, A TRIAL OR A QUESTION AND ANSWER MEETING. IT IS AN ADVISORY HEARING AND ALL INTERESTED PERSONS MAY PRESENT STATEMENTS OR PROVIDE OTHER INFORMATION PERTINENT TO THE DRAFT PLAN.

THERE WILL BE NO CROSS-EXAMINATION FROM THE AUDIENCE, BUT IF ANYONE FAILS TO UNDERSTAND THE STATEMENT OF ANY SPEAKER, IF YOU COULD DIRECT THE CLARIFYING QUESTION TO ME, THEN I WILL DETERMINE WHETHER IT'S A PERTINENT QUESTION TO BE RESOLVED.

THIS MAY SEEM OVERLY FORMAL, BUT IT IS INTENDED TO GIVE EVERYONE A FAIR AND REASONABLE OPPORTUNITY TO PRESENT HIS OR HER VIEWS.

WHEN I FINISH MAKING MY OPENING STATEMENT, I WILL CALL UPON A BUREAU OF LAND MANAGEMENT REPRESENTATIVE TO SAY A FEW WORDS ABOUT THE PROPOSED ACTION. THAT PRESENTATION SHOULD TAKE ABOUT FIVE MINUTES. THEN I WILL CALL UPON INDIVIDUALS WHO HAVE INDICATED THEY WISH TO MAKE A STATEMENT THIS EVENING.

IN VIEW OF THE NUMBER OF PEOPLE THAT WE HAVE HERE THIS EVENING, I WOULD REQUEST THAT YOU LIMIT YOUR TIME TO ABOUT FIVE MINUTES. IF YOU CANNOT EXPRESS ALL OF YOUR COMMENTS IN THAT LENGTH OF TIME, YOU MAY SUBMIT FURTHER COMMENTS IN WRITING.

ANY WRITTEN STATEMENTS SUBMITTED THIS EVENING WILL BE INCLUDED IN THE TRANSCRIPT AND WILL BE CONSIDERED ON THE SAME BASIS AS ANY ORAL COMMENTS PROVIDED. YOU MAY ALSO SUBMIT FOLLOW-UP WRITTEN COMMENTS UNTIL MARCH 8TH AND THESE ALSO WILL BE CONSIDERED FULLY.

ANY WRITTEN COMMENTS SHOULD BE ADDRESSED TO THE B.L.M. KINGMAN RESOURCE AREA OFFICE, 2475 BEVERLY AVENUE, KINGMAN, ARIZONA 86401.

NOW, I WOULD LIKE TO INTRODUCE ELAINE MARQUIS, THE KINGMAN RESOURCE AREA MANAGER, FOR A FEW COMMENTS.

MS. MARQUIS: THANK YOU, RAY. I'D LIKE TO

TAKE A FEW MOMENTS TO TALK ABOUT OUR PREFERRED ALTERNATIVE THAT WE HAVE IN THE DRAFT DOCUMENT THAT I THINK MOST OF YOU PROBABLY HAVE SEEN BY NOW.

THE PREFERRED ALTERNATIVE ACTUALLY REPRESENTS A COMBINATION OF CURRENT USES THAT ARE GOING ON ON PUBLIC LANDS RIGHT NOW THAT REFLECT MULTIPLE USE ON PUBLIC LAND AND ADDS TO IT A FEW ADDITIONAL MEASURES THAT PROVIDE SOME ADDITIONAL PROTECTION TO THE ENVIRONMENT.

WHAT I'D LIKE TO DO IS JUST CAP FOR YOU A REAL QUICK SUMMARY ON SOME OF THESE MEASURES THAT WE'VE ADDED TO THE CURRENT MANAGEMENT IN THIS RESOURCE AREA.

WE'VE IDENTIFIED 14 AREAS OF CRITICAL ENVIRONMENTAL CONCERNS THAT ARE LISTED AS A.C.E.C.'S THAT DO ADD ADDITIONAL PROTECTION TO SOME CRITICAL RESOURCES THAT WE HAVE.

WE HAVE TAKEN ABOUT 56,000 ACRES PROPOSED AS CLOSED TO MINERAL ENTRY, MOST OF IT IS IN THE BOTTOMS OF RIPARIAN AREAS, TO PROTECT THE RIPARIAN ZONE AND OTHER CRITICAL ENVIRONMENTS.

WE'VE ALSO PROPOSED ABOUT 355,000 ACRES AS CLOSED TO MINERAL MATERIAL DISPOSAL. AT THE SAME TIME, TRYING TO ENSURE THAT THERE ARE MATERIAL SITES OF SAND AND GRAVEL PRIMARILY AVAILABLE TO THE COMMUNITIES AND THE NEEDS AROUND THE RESOURCE AREA; AND AT THE SAME TIME, TRYING TO PROTECT SOME OF THE CRITICAL HABITATS, ESPECIALLY SOME OF THE DESERT

TORTOISE AND RIPARIAN HABITATS THAT WE HAVE.

WE'VE IDENTIFIED FIVE RIVERS AND STREAMS AS ELIGIBLE TO BE STUDIED FOR WILD AND SCENIC RIVER DESIGNATIONS. WE HAVE ALSO DESIGNATED TEN WILDLIFE MOVEMENT CORRIDORS TO TRY TO ENSURE THAT ANY ACTIONS THAT WE TAKE OR THE PUBLIC REQUIRES OR REQUESTS FROM US IN THE FUTURE DOES NOT ACTUALLY FORM AN ISOLATED OR ISLAND HABITAT FOR WILDLIFE BUT THAT WE HAVE CONTINUAL MOVEMENT THAT IS SO GREATLY NEEDED.

THE PASSAGE OF THE ARIZONA WILDERNESS ACT IN NOVEMBER ACTUALLY FURTHER PROTECTS ABOUT 350,000 ACRES IN THE RESOURCE AREA WITH THE DESIGNATION OF NINE WILDERNESS AREAS.

NOW, IN ADDITION WITH THESE PROTECTION MEASURES, WE CONTINUE WITH ALMOST ALL AS IT IS--THE CURRENT MANAGEMENT AS IT IS WITH SOME ADDED USES TO THE PUBLIC LAND OR MODIFICATION TO THESE USES.

NOW, THE CURRENT MANAGEMENT IS REFLECTED IN THE DOCUMENT AS ALTERNATIVE ONE; AND TO THIS CURRENT MANAGEMENT, WE'VE ADDED SOME RECREATIONAL MEASURES. MOHAVE COUNTY HAS GROWN TREMENDOUSLY IN THE LAST FEW YEARS. THERE'S A DEFINITE INCREASE IN RECREATIONAL USE BY THE INHABITANTS OF MOHAVE COUNTY AND NEIGHBORING CALIFORNIA AND LAS VEGAS IN PARTICULAR.

WE'VE IDENTIFIED SOME DAY USE AREAS, SOME

CAMPGROUNDS, BOTH PRIMATIVE AND MORE DEVOLPED WITH CONCESSIONS. WE'VE IDENTIFIED TRAIL HEADS AND SOME TRAILS FOR HIKING, BIKING, AND EQUESTRIAN USE.

WE HAVE INTERPRETIVE SITES WHERE WE HAVE SOME VERY NATURAL AND--I'M LOST FOR WORDS--NATURAL AND PROBABLY VERY RARE, I GUESS, FEATURES IN THIS COUNTY THAT COULD BE USED FOR INTERPRETIVE SITES AND FOR VISITORS TO VISIT.

WE HAVE THREE BACK COUNTRY BYWAYS, WHICH MOST OF YOU KNOW ABOUT ALREADY, AND WE HAVE ALSO IDENTIFIED SEVEN SPECIAL RECREATION MANAGEMENT AREAS; AND THESE ARE JUST AREAS THAT HAVE BEEN IDENTIFIED TO MANAGE FOR RECREATIONAL USES; AND IT ALSO EXHIBITS-- ALTERNATIVE TWO ACTUALLY ESTABLISHES THE KINGMAN REGIONAL PARK THAT WE'VE TALKED ABOUT BEFORE WHICH IS A JOINT VENTURE BETWEEN THE CITY, THE COUNTY, AND B.L.M. TO GET A REGIONAL PARK IN THE VICINITY OF GOLDEN VALLEY AND KINGMAN FOR THE USE BY CITIZENS IN THIS AREA.

THERE'S AN ADDITIONAL 84,000 ACRES IDENTIFIED AS SUITABLE FOR DISPOSALS THROUGH LAND EXHANGES, RECREATIONAL AND PUBLIC PURPOSES FOR THE COMMUNITIES FOR SALE. THE DOCUMENT DOES STATE THAT THE PREFERRED METHOD IS EXCHANGE OF RECREATIONAL AND PUBLIC USE.

ONE OTHER ITEM I WANT TO MENTION IS THE--THE DOCUMENT DOES DESIGNATE OFF-HIGHWAY VEHICLE USE FOR THE WHOLE RESOURCE AREA, AND WE DESIGNATED THE WHOLE RESOURCE

AREA AS EITHER OPEN, CLOSED OR LIMITED TO OFF-HIGHWAY VEHICLE USE.

WE HAVE TWO AREAS IDENTIFIED AS COMPLETELY OPEN. THAT MEANS CROSS COUNTRY USE AND THE WILDERNESS ACT DID CLOSE ABOUT 350 ACRES TO ANY VEHICLE USE AND DID NOT IDENTIFY ANYTHING IN ADDITION TO THIS AS CLOSED TO VEHICLE USE.

THE REST OF THE RESOURCE AREA ABOUT 2.1 MILLION ACRES, IS IDENTIFIED AS LIMITED AND THAT IS LIMITED TO ROADS, TRAILS, EXISTING ROADS, TRAILS, WASHES, WHATEVER.

THERE ARE A FEW WASHES THAT WE DID SPECIFY AS CLOSED AND THIS IS IN THE CRITICAL DESERT TORTOISE HABITAT AREAS WHERE THE TORTOISES ARE USING THE WASHES, BUT OTHER THAN THAT, IT'S COMPLETELY OPEN.

THIS IS A QUICK HIGHLIGHT. IT'S VERY, VERY QUICK AND I DON'T WANT TO TAKE UP YOUR TIME, SO WITH THAT, IF YOU'RE READY TO PROCEED.

MR. BRADY: THANK YOU VERY MUCH, ELAINE.

WE WOULD NOW LIKE TO PROCEED WITH THE PUBLIC HEARING. AS I CALL YOUR NAME, I WOULD LIKE YOU TO COME TO THE MICROPHONE SO THAT THE OFFICIAL REPORTER AND OTHER MEMBERS OF THE AUDIENCE CAN HEAR YOU THIS EVENING.

PLEASE STATE YOUR NAME AND WE MAY ASK YOU TO SPELL THE NAME FOR THE COURT REPORTER AND WHETHER OR NOT YOU ARE REPRESENTING SOME GROUP.

THE FIRST PERSON WHO'S INDICATED A DESIRE TO MAKE A STATEMENT THIS EVENING IS MR. FRANK HUNT.

FRANK, COULD YOU COME TO THE MICROPHONE, PLEASE.

MR. HUNT: DO YOU WANT ME TO STAND AND ADDRESS YOU?

MR. BRADY: YOU CAN FACE THE AUDIENCE. THAT'S FINE. WHEREVER YOU FEEL COMFORTABLE.

MR. HUNT: I AM NOT COMFORTABLE.

MY NAME IS--EXCUSE ME. MY NAME IS FRANK HUNT. I'M REPRESENTING THE MOHAVE LIVESTOCK ASSOCIATION. I HAVE A LETTER I WOULD LIKE TO READ.

"TO THE B.L.M.: WE APPRECIATE THE OPPORTUNITY TO COMMENT AND GIVE INPUT INTO THIS RESOURCE MANAGEMENT PLAN. LIVESTOCK GRAZING IS ONE OF THE MOST IMPORTANT AND, ALONG WITH MINING, IS ONE OF THE EARLIEST COMMERCIAL USES OF THE PUBLIC LAND.

"INTERMINGLED LAND AND CONSULTATION AND COOPERATION PER F.L.P.M.A. IS IMPORTANT TO THE LIVESTOCK GRAZING TO PUBLIC LAND MANAGEMENT, IMPORTANT TO THE LIVELIHOOD OF THE INDIVIDUAL RANCHER AND THE INDUSTRY CONTRIBUTES SIGNIFICANTLY TO THE LOCAL ECONOMY.

"THE GRAZING ANIMAL PERFORMS A VITAL FUNCTION IN MAINTAINING A HEALTHY RANGELAND ENVIRONMENT. HEALTHY RANGELANDS EQUAL HEALTHY WATERSHEDS AND THIS ISSUE CONCERNS ALL OF US. LOCAL DECISIONS ON WATER ISSUES ARE CONTINUALLY

IN THE HEADLINES.

"THESE MATTERS WERE BROUGHT OUT IN THE CERBAT/BLACK MOUNTAIN AND HUALAPAI-AQUARIUS ENVIRONMENTAL IMPACT STATEMENTS WRITTEN FOR THE PUBLIC LANDS IN THE KINGMAN RESOURCE AREA IN THE LATE '70'S AND EARLY '80'S.

"ADMITTEDLY, THERE WAS SOME BUMPY RANCH ROAD TRAVERSED AT HIGH SPEED DURING THE DEVELOPMENT OF THESE TWO DOCUMENTS, BUT SUBSEQUENT TO THEIR COMPLETION, THE ROAD SEEMS TO HAVE SMOOTHED OUT AND A COOPERATIVE SPIRIT BETWEEN RANCHER AND PUBLIC LAND MANAGERS HAS PREVAILED.

"WE IN THE LIVESTOCK INDUSTRY, AS REPRESENTED BY MEMBERS OF THE MOHAVE LIVESTOCK ASSOCIATION, WOULD LIKE TO SEE THIS COOPERATION CONTINUE THROUGH THE 1990'S AND INTO THE 21ST CENTURY.

"ALTHOUGH THE TWO LIVESTOCK GRAZING E.I.S. DOCUMENTS AND THE LIVESTOCK GRAZING PROGRAM DEVELOPED FROM THEM HAVE BEEN INCORPORATED INTO THE NEW RESOURCE MANAGEMENT PLAN BY REFERENCE, WE ARE CONCERNED THAT MANY ACTIONS PROPOSED IN THE DRAFT R.M.P. WOULD ADVERSELY AFFECT INDIVIDUAL GRAZING PERMITTEES AND PERHAPS CHANGE THE COOPERATIVE SITUATION TO AN ADVERSARIAL ONE. WE WOULD LIKE TO PREVENT THIS BY ADDRESSING OUR CONCERNS NOW AND HOPEFULLY AFFECT THE OUTCOME OF THE FINAL R.M.P./E.I.S.

"THIS STATEMENT--THIS ORAL STATEMENT WILL SUMMARIZE SOME OF OUR CONCERNS. HOWEVER, DETAILED WRITTEN

COMMENTS WILL BE SUBMITTED PRIOR TO THE MARCH 8TH, 1991 DEADLINE.

"OUR FIRST CONCERN IS THAT LIVESTOCK GRAZING WAS NOT CONSIDERED AN ISSUE IN THE R.M.P. ALTHOUGH THIS IS EXPLAINED ON PAGE 1, IT IS DIFFICULT TO UNDERSTAND SINCE GRAZING IS REFERRED TO AND CUSSED AND DISCUSSED THROUGHOUT THE DOCUMENT.

"BECAUSE IT WAS NOT CONSIDERED AN ISSUE, WE ASSUME THIS WAS THE REASON THAT BETWEEN NOVEMBER 1988 THROUGH MARCH 1990 REPRESENTATIVES OF THE R.M.P. TEAM MET WITH 15 DIFFERENT INTEREST GROUPS BUT NOT THE MOHAVE LIVESTOCK, AND THE MAILING OF THIS DRAFT WENT TO 57 INTEREST GROUPS PLUS ALMOST 600 OTHERS BUT NOT THE MOHAVE LIVESTOCK ASSOCIATION.

"IF IT IS DETERMINED THAT ALL PERMITTEES WERE NOT SENT A COPY, THEN IT NEEDS TO BE INSERTED HERE. BELIEVE US, WE ARE INTERESTED AND RESPECTIVELY REQUEST TO BE PUT ON THE MAILING LIST. WE ALSO REQUEST A PERSONAL MEETING WITH THE R.M.P. STAFF PRIOR TO MARCH 8TH SO WE CAN PRESENT AND DISCUSS OUR WRITTEN COMMENTS.

"THE SECOND CONCERN REGARDS THE GRAZING PERMITTEES' RIGHT TO GRAZE THE PUBLIC LAND. ALTHOUGH THESE RIGHTS ARE GIVEN BY LAW AND BY VESTED INTEREST IN WATER RIGHTS, LIVESTOCK GRAZING IN THE DOCUMENT SEEMS BLURRED WHEN COMPARED TO THE WIDE VARIETY OF PUBLIC LAND USES CONSIDERED.

"PERHAPS THIS IS BECAUSE GRAZING WAS NOT

CONSIDERED AN ISSUE, BUT IT DOES NOT ESCAPE THE FACT THAT LIVESTOCK GRAZING IS THE MOST WIDESPREAD USE OF THE LAND AND ALONG WITH MINING IS ONE WHICH HAS THE MOST VESTED INTEREST. AS REPRESENTATIVES OF THE LIVESTOCK INDUSTRY IN MOHAVE COUNTY, WE SIMPLY ASK THAT OUR VOICE BE HEARD.

"FURTHER CONCERNS REGARD THE EXCLUSIONARY TRENDS IN THE DOCUMENT REGARDING AREAS OF CRITICAL ENVIRONMENTAL CONCERN, RIPARIAN AREAS, AND SPECIAL STATUS SPECIES.

IT APPEARS THE WAY SOME OF THESE SECTIONS ARE WORDED THAT LIVESTOCK GRAZING COULD BE ELIMINATED OR SEVERELY RESTRICTED IN SUCH A MANNER THAT WOULD BE CONTRARY TO THE APPROVED LIVESTOCK GRAZING PROGRAM DEVELOPED AS A RESULT OF THE TWO E.I.S.'S. THESE CONCERNS WILL BE DEVELOPED FURTHER IN OUR WRITTEN COMMENTS.

"AGAIN, WE APPRECIATE THIS OPPORTUNITY TO COMMENT AND RESPECTIVELY REQUEST THAT OUR CONCERNS BE ADDRESSED AND THAT THE FINAL DOCUMENT REFLECT THE CHANGES NECESSARY TO ASSURE CONTINUED COOPERATION AND COORDINATION BETWEEN THE BUREAU OF LAND MANAGEMENT AND THE LIVESTOCK INDUSTRY. SPECIFIC WRITTEN COMMENTS WILL FOLLOW."

MR. BRADY: OKAY. THANK YOU VERY MUCH, FRANK. APPRECIATE IT.

THE NEXT INDIVIDUAL THAT HAS INDICATED AN INTEREST TO MAKE A STATEMENT IS ELNO ROUNDY.

IF YOU COULD SPELL YOUR NAME.

MR. ROUNDY: E-L-N-O.

THE COURT REPORTER: AND WHAT'S YOUR LAST NAME?

MR. ROUNDY: ROUNDY, R-O-U-N-D-Y. I'LL--I'LL HAVE A COPY-- YOU CAN HAVE ONE WHEN I GET DONE HERE. I USUALLY DON'T LIKE TO READ STUFF, BUT BEINGS IT'S KIND OF INTO THE RECORD, THAT'S WHAT I'M GOING TO DO.

"AS I THOUGHT ABOUT THIS MEETING YESTERDAY, I WASN'T REALLY SURE WHETHER I EVEN WANTED TO COME. MY SPIRITS WERE DAMPENED BY THE BREAKOUT OF WAR IN THE MIDDLE EAST AND I JUST DIDN'T FEEL THAT A PUBLIC MEETING WAS WHERE I WANTED TO BE.

"THEN LAST NIGHT AS I WATCHED T.V., I VIEWED A MAP OF IRAQ SHOWING THE HEART OF THAT COUNTRY TO BE A BIG VALLEY WITH TWO LARGE RIVERS FLOWING THROUGH IT INTO THE PERSIAN GULF.

"REVIEW OF MY GLOBE SHOWED THESE TO BE THE TIGRIS AND EUPHRATES RIVERS. AFTER READING THE MORNING PAPER, I REALIZED IRAQ IS LOCATED IN THE AREA REFERRED TO AS THE CRADLE OF CIVILIZATION.

"I GUESS I KNEW IN GENERAL THAT SOMEWHERE IN THE MIDDLE EAST WAS THE ORIGINAL GARDEN OF EDEN, BUT I HAD NEVER REALLY STUDIED THE GEOGRAPHY OF THE AREA.

"AND WHAT DOES THIS HAVE TO DO WITH A RESOURCE MANAGEMENT PLAN MEETING IN KINGMAN, ARIZONA? A LOT, I

THINK, BECAUSE WE CAN USE HISTORY TO ILLUSTRATE A POINT USEFUL AS WE ATTEMPT TO MANAGE NATURAL RESOURCES ANYWHERE IN THE WORLD.

"IT IS MY UNDERSTANDING THAT GREAT ANCIENT CIVILIZATIONS WERE LOST IN THE MIDDLE EAST DUE TO A PROCESS CALLED DESERTIFICATION. THE REASON FOR THIS, WE ARE JUST BEGINNING TO UNDERSTAND, WAS A LACK OF UNDERSTANDING OF HOW OUR ECOSYSTEMS OPERATE.

"EVEN AS SCIENCE HAS DEVELOPED THAT UNDERSTANDING, WE HAVE BEEN UNABLE TO PUT THAT UNDERSTANDING TO USE IN MOST OF OUR NATURAL RESOURCE PLANNING PROCEDURES. THE MISSING ELEMENT IS THE FACT THAT NATURE OPERATES FROM A HOLISTIC STANDPOINT.

"IT WOULD BE IMPOSSIBLE FOR ME TO EXPLAIN WHAT THAT IS DUE TO LACK OF TIME AND BECAUSE I DO NOT TOTALLY UNDERSTAND ALL OF THE RAMIFICATIONS MYSELF. HOWEVER, SUFFICE IT TO SAY THAT ANY PROPERLY-FUNCTIONING ECOSYSTEM OPERATES AS ONE UNIT COLLECTIVELY.

"THIS RESOURCE MANAGEMENT PLAN IS BEING DEVELOPED TO MANAGE THE PUBLIC LAND WITHIN THE KINGMAN RESOURCE AREA WHICH BOUNDARY LARGELY CONTAINS MOHAVE COUNTY SOUTH OF THE COLORADO RIVER; THEREIN LIES THE INITIAL PROBLEM.

"IF THE ECOSYSTEM IS DESCRIBED WITH, LET'S SAY, SOUTHERN MOHAVE COUNTY AS THE BOUNDARY, THEN PUBLIC LANDS ARE ONLY ONE PART OF THAT ECOSYSTEM. ALREADY THE PLAN HAS

FAILED FROM A HOLISTIC VIEWPOINT.

"YOU ALSO HAVE INTERMINGLED PRIVATE LAND, STATE LAND, CITY LAND, OTHER FEDERAL LAND, AND ALL THE RESOURCE USES ON THOSE LANDS. YOU HAVE WILDLIFE, DOMESTIC LIVESTOCK, AND PEOPLE USING THE VARIOUS RESOURCES, THE INTERRELATIONSHIP OF ALL NATURE'S BOUNTY FORMS THE ECOSYSTEM WE LIVE IN.

"SO WHAT, YOU'RE PROBABLY THINKING AND I WOULDN'T BLAME YOU. TO GET A LITTLE MORE SPECIFIC, LET'S TAKE THIS PROPOSED MANAGEMENT PLAN. MUCH HARD WORK AND GOOD INFORMATION HAS GONE INTO THIS DOCUMENT DEVELOPED BY A LOT OF GOOD PEOPLE.

"HOWEVER, EACH RESOURCE IS LARGELY GUIDED BY ITS OWN AGENDA, AND THIS IS GOING TO MAKE IT EXTREMELY DIFFICULT FOR MANAGEMENT PERSONNEL TO SORT OUT WHAT THE BEST MIX OF LAND USE WILL BE.

"WILDLIFE PROPONENTS HAVE THEIR WANTS, LIVESTOCK PROPONENTS HAVE THEIR WANTS, MINING PROPONENTS HAVE THEIR WANTS. WILD HORSE AND BURRO PROPONENTS HAVE THEIR WANTS, WOODCUTTERS HAVE THEIR WANTS, AND WATER USERS HAVE THEIR WANTS. EVERYONE HAS WANTS AND WHAT A DIFFICULT JOB IT WILL BE TO SORT THESE OUT AND COME UP WITH A PLAN THAT EVERYBODY WANTS; NO DOUBT IMPOSSIBLE.

"THIS DIFFICULTY COULD BE AVOIDED IF THE ECOSYSTEM INVOLVED WAS MANAGED HOLISTICALLY WHERE ALL RESOURCE

COMPONENTS AND USES ARE INTERTWINED TO OPERATE AS ONE FUNCTIONING UNIT, THE WAY NATURE INTENDED BEFORE MAN MUCKED IT UP.

"THERE IS A WAY TO GET OUT OF THIS MESS WE'VE GOT OURSELVES INTO WITH THIS DOCUMENT. I SAY MESS, NOT IN A DEROGATORY SENSE, BUT IN A FACTUAL SENSE. THE FAULT LIES, NOT IN THE PEOPLE INVOLVED IN DEVELOPING THE R.M.P. OR DETAILED INFORMATION WITHIN IT, BUT RATHER IN THE PROCESS ITSELF.

"IN MY WRITTEN COMMENTS, WHICH WILL BE SUBMITTED BEFORE MARCH 8TH, 1991, I WILL BE SUGGESTING A PROCESS THAT WOULD MAKE THE FINAL OUTPUT OF THIS PLANNING DOCUMENT HOLISTIC IN NATURE AND THEREBY SATISFYING THE WANTS OF ALL OF US WHO LIVE WITHIN THE CONFINES OF THIS ECOSYSTEM WE CALL MOHAVE COUNTY."

THANK YOU.

MR. BRADY: THANK YOU VERY MUCH, ELNO.

THE NEXT PERSON WHO'S INDICATED AN INTEREST TO MAKE A STATEMENT IS MR. ROBERT HARRISON.

MR. HARRISON: THANK YOU FOR THE OPPORTUNITY TO ADDRESS YOUR HEARING. MY NAME IS ROBERT HARRISON. I DON'T HAVE A FORMAL LETTER FOR YOU AT THIS TIME. I WILL HAVE ONE BEFORE THE DEADLINE.

AS A NUMBER OF YOU KNOW, I WAS THE B.L.M. GEOLOGIST FOR THE KINGMAN RESOURCE AREA FOR FOUR YEARS. I

ASSISTED IN THE INITIAL PREPARATION OF THIS DOCUMENT. I HAVE SINCE LEFT THE BUREAU AND I AM A PRIVATE CONSULTANT.

AFTER READING THE DOCUMENT, I FELT THAT THERE WAS A NUMBER OF MAJOR PROBLEMS. THE FIRST MAJOR PROBLEM THAT I SAW WAS THERE WERE TOO MANY PERSONAL AGENDAS, PERSONAL AGENDAS THAT SIGNIFICANTLY DESTROY THE EFFECTIVENESS OF THE FEDERAL LAWS, POLICIES, B.L.M. POLICIES AND PRETTY MUCH-- OH, I LOST MY LINE HERE. THE POLICIES IN POINT ARE PRIMARILY THE A.C.E.C.'S.

I'D LIKE TO READ A COUPLE OF LINES OUT OF THE E.I.S., THE DRAFTED E.I.S. "THE MINING MINERAL"-- LET'S SEE. EXCUSE ME. "THE MINERALS INDUSTRY HAS HAD A LONG AND PROFITABLE RELATIONSHIP WITH THE COMMUNITIES AND CITIZENS OF THESE PORTIONS OF MOHAVE, YAVAPAI, AND COCONINO COUNTIES WITH K.R.--WITHIN THE K.R.A. BOUNDRIES. MOUNTAIN RANGES AND INTERVENING VALLEYS THROUGHOUT THE AREA CONTAIN A WEALTH OF MINERALS," AND IT GOES ON TO SAY, "THE MINING AND MINERALS POLICY ACT OF 1970, F.L.P.M.A., RESEARCH AND DEVELOPMENT ACT OF 1980, NATIONAL MINERALS AND MINERALS POLICY ACT--EXCUSE ME--NATIONAL MATERIALS AND POLICY ACT ALL DIRECT B.L.M. TO ACTIVELY ENCOURAGE AND FACILITATE THE DEVELOPMENT OF OUR PUBLIC LAND MINERAL RESOURCES BY PRIVATE INDUSTRY TO SATISFY LOCAL/NATIONAL NEEDS AND TO PROVIDE ECONOMICALLY AND ENVIRONMENTALLY SOUND EXPIRATION, EXTRACTION, AND RECLAMATION." IT SAYS MUCH MORE BEYOND THIS.

THE SUPPORT OF THE DEVELOPMENT OF THE MINERAL RESOURCES ON PUBLIC LANDS IS FURTHER ENCOURAGED BY THE B.L.M.'S MULTIPLE RESOURCE USE CONCEPT AND THE B.L.M. MINERAL RESOURCE POLICY OF MAY 29, 1984.

THESE STATEMENTS ARE DIRECTLY FROM THE R.M.P. THEY ARE STRAIGHTFORWARD DEFINITIONS OF POLICY COMPATIBLE WITH THE NEEDS OF THE MINERALS INDUSTRY, LOCAL, STATE, AND NATIONAL REQUIREMENTS AND ALLOW FOR THE PROTECTION OF ALL OTHER RESOURCES UNDER THE EXISTING UMBRELLA OF THE NATIONAL ENVIRONMENTAL PROTECTION ACT.

RATHER THAN COMPLYING WITH EXISTING FEDERAL LAWS AND POLICIES AND B.L.M. POLICY STATEMENTS, K.R.A. HAS CHOSEN TO REMOVE LANDS FROM MINERAL ENTRY BY DEFACTO WITHDRAWALS UNDER THE GUISE OF PROTECTING THE SPECIES OR POTENTIAL SPECIES THAT MAY NOT BE IN DANGER; IN FACT, ARE NOT ON ANY STATE THREATENED OR ENDANGERED LIST. EXCUSE ME A MOMENT.

THE PRIMARY SPECIES INVOLVED IS BIG HORN SHEEP. BIG HORN SHEEP IS A VERY BEAUTIFUL SPECIES, BUT, IN FACT, IT IS NOT ON AN ENDANGERED LIST, ANY ENDANGERED LIST.

THE GAME AND FISH ANNUALLY HOLD HUNTS FOR BIG HORN SHEEP, AND IN APPENDIXES 18, PAGE 203 OF THE R.M.P, IT IS STATED THAT "THE BIG HORN SHEEP IS EXTREMELY VALUABLE ECONOMICALLY AS WELL AS PROVIDING REVENUE TO MOHAVE COUNTY. HUNTERS ANNUALLY CONTRIBUTE OVER A HUNDRED AND TWENTY-FIVE THOUSAND DOLLARS FOR ONE AUCTION AND ONE RAFFLED HUNT

ALONE."

A HUNDRED AND TWENTY-FIVE THOUSAND DOLLARS FOR ONE HUNT ALONE. THAT'S A LOT OF MONEY. BUT WHERE DOES THAT MONEY ACTUALLY GO? DOES THAT MONEY COME TO THE COUNTY? NO.

I KNEW IT DIDN'T, BUT JUST TO MAKE SURE, I CALLED THE ARIZONA GAME AND FISH FINANCIAL DEPARTMENT YESTERDAY AND THAT GOES DIRECTLY TO THEIR COFFERS. IT DOES NOT COME TO THE COUNTY. THE-- IF, IN FACT, THIS MONEY GOES TO GAME AND FISH, HOW DOES THIS SPECIES BENEFIT THE COUNTY?

IT IS NICE AND I WOULD NOT REMOVE THAT BIG HORN SHEEP FROM THIS COUNTY UNDER NO MEANS. THE A.C.E.C.'S, AS DESIGNED WITHIN THIS R.M.P., REMOVE APPROXIMATELY 308,216 ACRES FROM EFFECTIVE MINERAL ENTRY, NOT ENTIRELY, BUT FROM EFFECTIVE MINERAL ENTRY.

THEY HAVE NUMEROUS DEFACTO WITHDRAWALS. OCCUPANCY OF THE LAND WITHIN THESE AREAS, IN CERTAIN AREAS, FROM DECEMBER 1 TO MAY 31. THAT MEANS YOU CAN OPERATE THE MINE FOR THREE--SIX MONTHS OF THE YEAR. SOME OF THE LANDS, 30 SOME ODD THOUSAND ACRES, WHICH I DON'T HAVE HERE IN FRONT OF ME, NO SURFACE OCCUPANCY. YOU CAN'T MINE IF YOU CAN'T GET ON THE GROUND AND MANY OTHER CONSTRAINTS.

WE'VE HEARD HOW MUCH VALUE, A HUNDRED AND TWENTY-FIVE THOUSAND DOLLARS, ANNUALLY FOR ONE HUNT. THAT'S HOW MUCH VALUE A SHEEP IS WORTH--HOW MUCH A SHEEP IS WORTH.

CYPRESS/BAGDAD, THAT'S A VERY LARGE MINE. THERE'S

NOT THAT MANY MINES AROUND THAT ARE THAT LARGE, BUT WE DO HAVE ONE THAT SIZE. YAVAPAI COUNTY, ANNUALLY, THE TOTAL TAX REVENUE IS APPROXIMATELY $10 MILLION. SIXTY PERCENT COMES BACK TO THE COUNTY. THE MINE LIFE VALUE TAX MONEY FOR THAT PARTICULAR MINE IS APPROXIMATELY $300 MILLION. THAT'S A LOT OF BIG HORN SHEEP.

THE A.C.E.C.'S, AS DESIGNED IN THIS R.M.P., BASICALLY REMOVE ALL OF THE MAJOR MINERAL POTENTIAL AREAS IN MOHAVE COUNTY FOR MINERAL ENTRY. THAT IS A TERRIBLE INJUSTICE TO THE MINERAL'S INDUSTRY. THAT IS AN ABUSE OF THE A.C.E.C. PROVISIONS.

THANK YOU.

MR. BRADY: THANK YOU VERY MUCH, BOB.

I DID NOT SEE ANY OTHER INDIVIDUALS THAT HAD INDICATED AN INTEREST TO MAKE A STATEMENT ON THE SIGN-IN SHEET.

ARE THERE ANY OTHERS IN THE AUDIENCE THAT WOULD LIKE TO MAKE A STATEMENT THIS EVENING?

(AN AUDIENCE MEMBER RAISES HIS HAND.)

MR. BRADY: YES, SIR.

IF YOU COULD PLEASE STATE YOUR NAME AND IF YOU ARE ASSOCIATED WITH SOMEONE.

MR. GROSS: MY NAME IS MIKE GROSS. I'M A RANCHER OUT IN THE GOLDEN VALLEY/SACRAMENTO VALLEY. I COME UP HERE TO MAINLY TALK ABOUT LAND DISPOSALS AND HOW I'M

REALLY GOING TO BE AFFECTED BY LAND DISPOSALS.

ALL ALONG IT SEEMED LIKE THE DEVELOPMENTS JUST KEEPS PUSHING, PUSHING, AND PUSHING; AND IN MY OPINION IS WHAT IS HAPPENING IS I THINK A LOT OF REAL ESTATERS, LAND DEVELOPERS ARE TRYING TO GET GREEDY REAL FAST.

THERE'S A LOT OF LAND LAYING OUT THERE IN THAT GOLDEN VALLEY THAT HASN'T NEVER BEEN DEVELOPED YET. THEY SEEM LIKE THEY WANTA KEEP ON PUSHING AND PUSHING AND PUSHING TO GRAB UP MORE AND MORE AND MORE LAND, AND IT'S A VERY BIG CONCERN TO ME BECAUSE WHAT'S IS IN THIS R.P.M. IF IT GOES TO ALTERNATE TWO OR THREE, I'M REALLY GOING TO BE PROBABLY PUT OUT OF THE CATTLE BUSINESS.

NOW, ELNO MENTIONED SOMETHING ABOUT HOLISTIC. MY FAMILY ABOUT FOUR YEARS AGO PUT IN A HOLISTIC RESOURCE MANAGEMENT OUT THERE. WE ARE THE FIRST RANCHER IN MOHAVE COUNTY TO DO THIS.

I'VE--MY FAMILY HAS--IN THE LAST FIVE YEARS HAS REALLY PUT A LOT OF TIME IN LAND MANAGEMENT WITH OUR CATTLE. WE DON'T INTEND TO RAPE THE LAND.

WE ALSO WANT TO IMPROVE THE LAND FOR MANY REASONS. ONE THING IS WATERSHED. IT'S VERY IMPORTANT IN THIS DESERT. IT'S A VERY BIG BACKFIRE OUT THERE, BUT THAT BACKFIRE DIDN'T GET GOIN' JUST BY DEVELOPING LAND. IT-- YOU KNOW, IT HAPPENED BY NATURE, HOLISTIC, AND WE ARE TRYING TO IMPROVE PLANT SPECIES.

WE ARE ALL TRYING TO IMPROVE THE LIFE STYLE OUT THERE. WE'VE BEEN INVOLVED WITH B.L.M. THEY PUT A LOT OF TIME IN THIS, TOO; AND I HATE TO SEE THIS LAND DISPOSAL GO THROUGH. THEN--THEN WE HAVEN'T REALLY--REALLY JUST BARELY GET INTO THIS. NOW WE'RE SHOWING SOME SIGNS OF VARIOUS PLANT--DIFFERENT KIND OF PLANT SPECIES.

VERY-- WE'RE ALSO FINDING OUT THAT WE'VE HAD VERY LITTLE EROSION AND WE'RE FINDING OUT WE CAN RUN A LOT OF CATTLE IN A LITTLE AREA THAT WE HAD FIGURED MANY, MANY YEARS AGO WE COULDN'T NEVER DO THIS; AND I HATE TO SEE THIS GO OVER TO ANOTHER PRIVATE OR A STATE BECAUSE B.L.M. HAS REALLY WORKED CLOSE WITH US.

I HAVE A VERY GOOD RELATIONSHIP WITH THE B.L.M. OFFICE AND I WANT TO CONTINUE THIS. THEY PUT A LOT OF TIME AND A LOT OF MONEY INTO THE RANCH IMPROVEMENT OUT THERE ALONG WITH MY--MY FAMILY, SO I'M DEFINITELY AGAINST THIS DISPOSAL, THIS LAND DISPOSAL.

IT'S ALSO GOING TO AFFECT THE MINERAL PARK ALLOTMENT, WHICH I'M RIGHT UP AGAINST THE CYPRESS/BAGDAD MINE OUT THERE; AND I WANT TO BRING UP ONE OTHER THING ABOUT THE WILD HORSE.

I THINK THE NUMBERS FOR MANAGING MY HORSES OUT THERE ARE A LITTLE HIGH, AND BACK IN 1971, THERE WAS A-- WHEN THE ACT WENT IN, THE NUMBER WAS SUPPOSED TO HAVE BEEN 14 HEAD AND, ALL OF A SUDDEN, THEY WANTA JUMP UP TO 90 HEAD.

THAT SEEMS AWFUL HIGH IN JUST A SHORT PERIOD OF TIME OF WHAT THEY WANT TO MANAGE. THESE HORSES ARE REALLY GOING TO BE INVOLVED WITH THE DEER POPULATION. THE CERBATS DOES GOT A FINE DEER POPULATION; AND IF THAT HAPPENS, I THINK IT'S GOING TO BE IN COMPETITION WITH--WITH THE DEER POPULATION AND ALSO WITH--WITH MY--MY ALLOTMENT AND OTHER ALLOTMENTS IN THE CERBAT.

I THINK THERE'S GOT TO BE A BUFFER ZONE TO THESE HORSES AND TO THE BIG HORN SHEEP IN THE BLACK MOUNTAINS, SO I THINK WE'RE REALLY SERIOUSLY GOT TO BE THINKING ABOUT THIS LAND DISPOSAL SITUATION 'CAUSE THERE'S GOT TO BE A BUFFER ZONE AND ALSO THERE'S GOT TO BE LAND FOR PEOPLE TO HUNT, TO BUILD AND, YOU KNOW, TO DO OTHER--OTHER THINGS BESIDES JUST CHOP IT UP IN DEVELOPMENT.

THANK YOU.

MR. BRADY: THANK YOU VERY MUCH, MIKE.

IS THERE ANY OTHER INDIVIDUAL THAT WOULD LIKE TO MAKE A FORMAL STATEMENT THIS EVENING?

(NO RESPONSE.)

MR. BRADY: THERE BEING NO OTHER PEOPLE WISHING TO TESTIFY THIS EVENING, I HEARBY CLOSE THE HEARING.

ANYONE WISHING TO ASK QUESTIONS OF THE B.L.M. PEOPLE THAT ARE HERE THIS EVENING ARE WELCOME TO DO SO AFTER THE HEARING.

AGAIN, I THANK YOU FOR SHOWING UP THIS EVENING AND

YOUR ATTENDANCE IS DEEPLY APPRECIATED.

THANK YOU.

(THE TAKING OF THE HEARING WAS CONCLUDED AT 7:50 P.M.)

CERTIFICATE OF REPORTER

STATE OF ARIZONA)
) SS.
COUNTY OF MOHAVE)

I, JANICE MINER, COURT REPORTER, DO HEREBY CERTIFY THAT I TOOK DOWN IN SHORTHAND (STENOTYPE) ALL OF THE PROCEEDINGS HAD IN THE BEFORE-ENTITLED MATTER AT THE TIME AND PLACE INDICATED, AND THAT THEREAFTER SAID SHORTHAND NOTES WERE TRANSCRIBED INTO TYPEWRITING AT AND UNDER MY DIRECTION AND SUPERVISION AND THE FOREGOING TRANSCRIPT CONSTITUTES A FULL, TRUE AND ACCURATE RECORD OF THE PROCEEDINGS HAD.

IN WITNESS WHEREOF, I HAVE HEREUNTO AFFIXED MY HAND THIS 31ST DAY OF JANUARY, 1991.

JANICE MINER NEE BROWER, COURT REPORTER

C

BUREAU OF LAND MANAGEMENT

PUBLIC HEARING

In the Matter of the Draft:
KINGMAN RESOURCE AREA
RESOURCE MANAGEMENT PLAN
ENVIRONMENTAL IMPACT STATEMENT

Bagdad, Arizona
January 23, 1991
7:12 p.m.

TRANSCRIPT OF PROCEEDINGS

Prepared For:
Scott Lewis
Environmental Coordinator
Cyprus Bagdad Copper Corporation

(ORIGINAL)

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By: Sonia Y. Felix
Court Reporter

ORIGINAL

THE PUBLIC HEARING IN THE MATTER OF THE BUREAU OF LAND MANAGEMENT KINGMAN RESOURCE AREA RMP/EIS was taken at 7:12 p.m., on January 23, 1991, at the Bagdad High School Auditorium, Bagdad, Arizona, pursuant to notice.

Appearing on behalf of the Bureau of Land Management was Ms. Elaine Marquis, Area Manager for the Kingman Resource Area.

Also appearing on behalf of the Bureau of Land Management were Mr. Gordon Bentley, team leader, Kingman Resource Area, and Mr. Bill Carter, technical coordinator, Kingman Resource Area.

Also present were John Pettit, Jerry Brimhall, James Patterson, Ted Eyde, Harry Cosner, Bob Cunningham, Janette Bush, Dan Mead, Guy Granger, Kent Watson, Scott Lewis, Phil Blacet, Michael Swain, Cory Bromley, Joseph Mortimer, Troy Vaughn, Nate Jackson, Vernon Sipes, Mike Colville, Lloyd Murphy, Wayne Mills, Mario Ranka, Bob White, and Denton Gill.

(Whereupon, the following proceedings ensued.)

MS. MARQUIS: Good evening. I know we said we'd start at 7 o'clock. This is about as

close as we can get. If we can have everybody take a seat and sign in.

If any of you have not signed in on your way in, we would like you to sign in on our sheet before you leave. It's important that we do have a record that you are represented in our document as having attended our public meetings and have had an opportunity to participate, so there was a question as to why we were requiring you to sign in. I assure you that this list will not end up with the recruitment bureau of the Marines for the next list to go out, but we do require a list and it's just more or less for our documentation and it will be documented that you have attended. We also ask you to put an "X" by your name if you do want to speak.

We have a court reporter with us here tonight. Sonia Felix did come up. The Cyprus Bagdad Copper Company did us a favor, I would say, by hiring Sonia to record this night's meeting so that your comments can be incorporated into our document. The only way that we can formally respond to your comments are if you submit them to us in writing or they are recorded by an appointed court reporter. And that way the comments will be

published in the document and we can formally respond to them.

We are going to try to do this evening in two parts. The first part, we'd like to have the formal comment period so that we can have Sonia while she is still somewhat rested record all of those, and then I would like to take some time afterwards and just turn off the recorder and have it open to any question and answers or information-sharing that any of you have any interest in or would like to informally just come up and talk to us.

My name is Elaine Marquis. I'm the area manager of the Kingman office. And we are the ones responsible for putting together this plan. Gordon Bentley to my right here is the plan leader who has worked with a team in our office putting together our plan, and I have Bill Carter who's our technical coordinator for the plan document. They are here to answer any of your questions or -- and assist in the proceedings of this meeting.

I don't want to take too much time. We have about 15 people who would like to speak, and I'd like to give those people as much time as possible so we are not here all night, and I would

also like to have enough time afterwards for, like I said, anyone having questions or answers that they wish on any part of the document, have that time available for you also. It's nice to see this kind of turnout, and I hope we can have a productive evening.

I'd just like to give you a little bit of information on the plan. I have a map here to my left which is in the back of your document. If any of you did not receive a document and you'd like to have one, I think we only have two left. We brought a whole box of them and people have been picking them up as they have been walking in, but there are a couple left. If you would like one, please give us your name and address. We'd be more than happy to mail you one tomorrow, but this map is in the back of the plan, and we have an overlay, an onion paper overlay to show some of the more significant areas that we are addressing in the plan.

I will give you just a quick synopsis of the color coding that we have here.

The blue -- dark blue areas, solid blue areas are the city centers. Kingman in the center and Bullhead City and Lake Havasu City. This map

represents more or less the Kingman Resource Area planning area, so that's the boundary that you're more or less seeing on this map.

The blue-checkered areas are areas that we have identified as suitable for disposal of federal lands to go into private ownership.

And the dark green areas are those wilderness areas that have been designated in the last -- in the Wilderness Bill that was signed by the President on November 28, so we have nine wilderness areas in our resource area that are now designated as wilderness. Those are final.

The green slash mark areas are areas that we have identified in our plan as containing some sensitive resources or habitat areas or features that need some kind of special management above and beyond the normal management of the Bureau of Land Management. Those are identified in the document. We have 14 of them, and we actually outlined specifically what type of management prescriptions we would be proposing for those areas. I think that more or less covers what's on the overlay.

There are three alternatives in the plan. The first alternative reflects current

management as we are doing it right now. It incorporates all the old plans, what we are operating under.

Alternative number two we have designated as our preferred alternative. It includes just about all the same prescriptions that we are currently doing; however, we have added or modified some of the prescriptions. We have increased some of the areas for land disposal. We've provided some areas for additional protection. The areas of critical -- excuse me -- environmental concern are some of those prescriptions.

And the third alternative more or less reflects some changes or some alternatives, I guess, to our preferred alternative. Some of these areas are either greater or some of the prescriptions are less in acreage, so there are some differences.

With that -- I think I will just leave it at that. I don't want to take up all of your time. What I'd like to do is call you up in the order that you signed in to speak. I do have a list and I would like you to come to the microphone, and I know that's not particularly what

you might want to do, but it's important that the court reporter gets your name, so if you could state your name and what you do or what you're representing so that she has an idea of -- can record, you know, what position or from where you're coming from and then just -- we'll limit you to about five minutes so that we have enough time to get everybody to speak. Most people don't usually take five minutes, but if you need it, you will have it, okay?

Okay. First speaker I'd like to call up is John -- is it Pettit?

MR. PETTIT: Pettit.

MS. MARQUIS: Pettit.

MR. PETTIT: First of all, my name is John Pettit. I'd like to state that I'm representing myself as a Bagdad citizen, an avid outdoorsman, and also as an employee of Cyprus Bagdad.

I'm thoroughly appalled at the underhanded attempts of BLM to hamper current and long-term operation of the Bagdad copper mine. It frustrates me to witness the political ploys that have become such an essential part of our democratic bargaining process. Was it not enough

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that Congress by way of our citizens voted as they did on the Arizona Wilderness Bills Number 2570 and 1080? In my opinion, the people have decided.

I have always been under the impression that the Bureau of Land Management's mission was to promote multiple-use land management. It is my opinion that the BLM is being swayed by special interest groups. These special interest groups are striking at the very heart of Arizona's highly mineralized mining sectors. Media coverage and the well-planned strategies of wilderness activists are effectively turning the tide and shifting the advantage to the side of preservation. It is special interest groups who are surely behind these management proposals, are successfully converting high-potential, highly mineralized lands into areas of critical environmental concern, desert tortoise areas, or wild and scenic designated areas. The mining industry, specifically Bagdad, would be forced to compete in world markets while incurring greatly increased production costs or worst yet, forced out of business entirely.

What this entire issue really boils down to are two separate factions attempting to prioritize economy and ecology. True resolution

can only be achieved through balance. It is ludicrous to think that a government agency would attempt to place such a big restriction on a well-established, profitable, and significant tax-contributing company and community. This is actually a much bigger issue than one of ecology. We must continue to maintain our country's economic superiority if we are to continue to provide a balance of world peace. Granted, we are one copper producer among many, but we must set a precedent. Though preservation is needed and appropriate in some circumstances, multiple land use, properly administered, can provide the balance needed to succeed and to survive.

My thoughts are summed up by a quote from Aldo Leopold, a pioneer in the preservation movement. This particular quote comes from his writings titled "The Sand County Almanac," and the quote goes as follows:

"The bulk of all land relations hinges on investments of time, forethought, skill, and faith, rather than on the investment of cash." As a land thinker -- "As a land user thinketh, so is he."

Here at Cyprus Bagdad, we are governed

and abide by very strict environmental codes and federal regulations. Compliance with these regulations coupled by efficient multiple land use management on the BLM's part is, in my opinion, sufficient to guarantee absolute minimal disruption of the surrounding ecology. I strongly urge the BLM to remove from consideration the various proposed designations located within the Upper and Lower Burro Creek areas. Thank you.

MS. MARQUIS: Thank you, John.

Jerry Brimhall.

MR. BRIMHALL: My name is Jerry Brimhall. I'm representing the Upper Burro Creek cattle allotment. We have a ranch in Upper Burro Creek. Also a school teacher. And I am also an environmentalist.

I'd like to state at this time that over the last ten years, we have enjoyed an improved -- improving relationship with the BLM. As we started, there was many disagreements. There was many kinds of negotiations that had to be gone through to arrive at our present position with the BLM, but at this moment, period in time, we do have a good relationship with the BLM and we do have -- and I thank them for that. I think they have a

sincere -- they have put forth as much effort as we have to try to get along and cooperate and I think this shows that through cooperation you can accomplish more than through fighting and for disagreeing and all kinds of disruptions of any managerial program.

In response to the Kingman Area Resource Management Plan and Environmental Impact Statement, I would like to submit the following comments:

I recommend the proposal alternative one with the exclusion of the ACEC plan stated in Table II-2 on page 35 of the document. The present management is doing an adequate job and leaves present tax-based land in the use of local citizens. The selection of alternatives to be pursued must take into consideration the following three criteria. These are three criteria that I would suggest that be looked at in developing and selecting any criteria.

First, the criteria selected must hold each party involved in the managerial system personally responsible for his or her decisions. Those with the most to lose are going to be more responsible. In a bureaucratic environment, it's difficult to hold anybody responsible for the

consequences.

Number two, the plan selected must manage the area in a holistic unit -- or as a holistic unit. One species cannot be protected to the detriment of others. We have seen this in many areas.

Number three, the alternative also needs to be supported by the local citizens. They're the ones whose livelihoods will be threatened. No program will be successful without their support.

Alternatives two and three will basically eliminate the cattle and mining industry which are basic sources of lifestyle and income in this area. In comparising -- in comparing the present Burro Creek area management with other which uses multi-use, comparing this with the Arivaipa and San Pedro areas, which do not use multi-use, there is a significant comparison that all three areas are being improved and being developed in the many, many different ways and they are all successful.

So this proves to me that multi-use can be successful. It can be used as a management plan to fulfill the requirements and the development in any area. Any change in management will cause more

problems than it will benefit. For this reason, I support alternative one without the ACEC plan. Thank you.

MS. MARQUIS: Thank you, Jerry.

James Patterson.

MR. PATTERSON: Just about what John Pettit said just covers it all, as far as I'm concerned.

MS. MARQUIS: Okay. Thank you, James.

John, did you know you were speaking for multiple people?

Ted, you're going to have to help me. Is that Eyde?

MR. EYDE: My name is Ted Eyde. And for the benefit of our court recorder, it's a four-letter word, E-y-d-e. I reside at 1235 East Moon Ridge Road in Tucson. My statement is made for myself and the Southwestern Minerals Exploration Association, a group of professional geologists and engineers engaged in mineral exploration in Arizona. My background includes 35 years of professional experience in the exploration and production of industrial minerals. Currently, I'm president of GSA Resources, a family-owned company which produces clays used in dessicants,

fluid retention aids, organolclad clays, and thickeners.

We hold 720 acres of State mineral leases in East Burro Creek and 1680 acres of mining claims on federal land in West Burro Creek. This is a saponite deposit, a very peculiar clay deposit.

About 740 acres at the West Burro Creek deposit were excluded from the Lower Burro Creek WSA. In fact, the boundary was redrawn to exclude the area being explored and mined. Both the Upper Sonoran Final Wilderness Impact Statement and the Mineral Resources of the Lower Burro Creek Wilderness Study Area Mineral Land Assessment Open File Report -- long words -- recognized that the saponite deposit contains an inferred resource of approximately 577,000 tons and has a greatest commercial potential of a mineral deposit in the area.

Since 1983, eight years ago, we and our venture partners have drilled over 100 exploration holes to define the extent and purity of the deposit. In addition, we have done extensive -- and I might add expensive -- analytical work, research and development. The plant runs new

product development. Over $500,000 or half a million dollars has been spent on the project to date.

We ship saponite from Burro Creek to Bentec, Incorporated; Technical Minerals, Incorporated; the R. T. Vanderbilt Company Incorporated; English China Clays. Saponite is used as a viscosifier and thickener for water-based paints and coatings, which is a rapidly growing market because of the EPA-mandated reduction in use of salt and paints. It is used as organolclad clays to recover and stabilize hazardous toxic organic compounds such as PCBs. The most important use, however, is in its application as a fluid retention aide in the processing of recycled fine paper products like this.

The Burro Creek saponite appears to be one of the largest deposits in the world of high-brightness, high-viscosity saponite. The other deposits are in Turkey and the United Republic of Tanzania in East Africa. And I would say that neither of these deposits is in a particularly politically stable area at this moment.

The Lower Burro Creek wilderness area

was released for return to multiple use by the United States Congress; nevertheless, about half of the West Burro Creek deposit and, of course, the East Burro Creek deposit on State land were outside the wilderness study area and could be mined.

It appears we have won the battle and lost the war because alternative two for the Clay Hills research natural area, the ACEC calls for withdrawal of 1,113 acres of mining claims. Clearly, this would be a taking of our West Burro Creek deposit. The proposed land exchange with the State of Arizona would be a taking of the State mineral leases of the Burro Creek deposit. These are being proposed for land swaps of the mineral state.

Alternative two effectively would wipe out our entire investment in the acquisition, exploration, product development of the entire Burro Creek saponite deposit. The mining operation in full production would mine about 30,000 tons of saponite a year. Surface disturbances from such a small operation is minimal. And reclamation would immediately follow the mining operation. The mining operation really would have no impact on either threatened or endangered species. In fact,

past experience has shown that the survival of threatened and endangered species is greatly improved by a corporate -- cooperative program between private companies and government land and wildlife management agencies.

The unavailability of saponite from Burro Creek would not have any devastating economic consequences of a cutoff similar to the cutoff of imported oil supply; nevertheless, the Gulf War which erupted on January 16th is a tragic lesson on the dependence of foreign supplies and minerals and mineral fuels.

Clearly, saponite is available from the United Republic of Tanzania and Turkey; however, the land it cost in east and gulf coast ports is almost $500 a ton or 25 cents a pound. That's for the dried and screened crude product.

The choices are do we want to pay this money to overseas producers when we have minable deposits here in the United States which support our state and local economy, purchase goods and services, and most important, pay taxes to support our educational system? Or are we, as Iran writes, in the new left, the anti-industrial revolution being asked to sacrifice for the sake of seaweeds

and inanimate matter? I certainly hope not. Therefore, we recommend management alternative one, which will allow us to develop this unique mineral resource which has applications in recycling and the treatment of hazardous wastes.

MS. MARQUIS: Thank you, Ted.

Harry Cosner, C-o-s-n-e-r.

MR. COSNER: I'm Harry Cosner, vice-president and general manager for Cyprus Minerals Company at the Bagdad Copper Corporation mine in Bagdad, and I'm speaking on behalf of the company.

I'd like to welcome Elaine Marquis and other representatives of the BLM's Kingman Resource Management Area. We appreciate the opportunity to discuss the alternatives relative to future use of public lands. I also thank the citizens of Bagdad for their participation in this discussion.

Cyprus Bagdad Copper Corporation and Byner Cattle Company have a long-standing record of close and harmonious working relationships with the Bureau of Land Management. We intend to continue in the spirit of cooperation and would like to point out that the 4600 acres that are of greatest concern to us comprise only two-tenths of 1 percent

of the acreage managed by the Kingman Resource Area group. This 4600 acres is critical to us as an economical future tailings area if the Bagdad operation is to survive beyond the next ten years.

Considering our current $30 million annual tax burden and our $20 million annual unburdened payroll, we are making a considerable contribution to the economies of the United States and Arizona. It is critical that we successfully attain permits for new tailings facilities in the Mammoth Wash area.

Alternative one modified biological changes in the desert tortoise management boundary is the only resource management plan that is not a dire threat to the future of our mine beyond the year 2000. Based on our proven ore reserves and at a copper price of 75 cents per pound, we have a minimum 35-year mine life with the expansion of the Mammoth Wash tailings area.

Other Bagdad staff members will present more detail of our current operation and future mining plans. At the conclusion of the prepared statements, we'd encourage audience participation. Thank you.

MS. MARQUIS: Thank you, Harry.

Bob Cunningham.

MR. CUNNINGHAM: My name is Robert Cunningham. I'm manager of administration for Cyprus Bagdad Copper Corporation.

Ladies and gentlemen of the audience, members of the panel, the Cyprus Bagdad mining operation, which is a division of Cyprus Minerals Company, has a significant economic impact upon the Bagdad community, Yavapai County, the State of Arizona, and the U.S. government. Drawing the year end at 12/31/90, Cyprus Bagdad paid property taxes in the amount of $3.4 million to Yavapai County, $7.6 million for various taxes to the State of Arizona, and $23.7 million in federal income taxes. In addition, Cyprus employees' tax payments to federal and state agencies should approximate $3.7 million.

By projecting these annual contributions over the anticipated mine life of 35 years, Cyprus will be paying unescalated dollars, 115 million to Yavapai County, $266 million to the State of Arizona, and $830 million to the federal government, while Cyprus employees would contribute 130 million for state and federal income taxes for the same period.

These projected contributions do not include any indirect impact on the Arizona economy nor direct or indirect purchases of goods and services for the Bagdad operation. For example, the 700 employees on the Bagdad payroll at 12/31/90 resulted in 2254 jobs in the State of Arizona. The largest source of direct spending in this regional economy are the Bagdad purchases.

There are three major types of purchases: Goods and service, smelting and refining, and utilities, which amounted to $159 million in 1990. Over 79 percent or $126 million worth of the purchases were made in Arizona. 15 percent or $25 million directly in Yavapai County with a remaining 6 percent or $9 million occurring outside the state. The forecast for goods and services purchased over the mine life of 35 years can be approximated in current dollars to total $5,600,000,000.

In closing, any changes to the use of public lands which would result in the closing or stoppage of mining and milling activities in the Bagdad operation would have a substantial negative economic impact on the community, Yavapai County, the State of Arizona, and the federal government.

Thank you.

MS. MARQUIS: Thank you, Bob.

Janette Bush.

MS. BUSH: Good evening. My name is Janette Bush. I'm manager of human resources for Cyprus Bagdad Copper Corporation. In that respect, I'm representing Cyprus. I will be speaking on the social, economic, and the employment impact of BLM's current proposal.

Cyprus Bagdad directly employs almost 700 workers. We are considered one of the largest employers within Yavapai County. With a project mine life of 35 years, we can conservatively estimate more than 20,000 person years of high quality, highly paid employment. More realistically, however, is the total life of mine job opportunities which would significantly exceed 30,000 person years of Cyprus Bagdad and statewide employment, as Mr. Cunningham just mentioned.

Our community, Bagdad, evolved from a pioneer mining camp more than a century ago, and it is now a peaceful, family-oriented community hidden away in western Yavapai County.

Our copper deposit has provided jobs to hard-working individuals since the beginning of the

1900s. It is not unusual to see employees retiring after 30 years of service. One recent retiree started working at the mine 42 years ago in 1948. Many of our current employees -- and I see some of you in the audience tonight -- in their 20s, 30s, 40s, and 50s look forward to retiring from Cyprus Bagdad just as their fathers and grandfathers have.

Many individuals also want to move into this beautiful community to build a future for themselves and their families. Each year several hundred people come from areas throughout the United States just for the opportunity to apply for a job hoping that they may be one of the very few selected for employment.

The average weekly earnings including benefits at Cyprus Bagdad along with the rest of the Arizona copper industry are the highest in the state compared with manufacturing, transportation and utilities, public utilities, and government earnings. Annually, payroll and benefits at Cyprus Bagdad are close to $32 million. We can safely project that well over a billion dollars in wages and benefits can be paid out over the next 35 years.

These facts speak for themselves. That's why I found it very unusual that the BLM's draft Resource Management Plan and Environmental Impact Statement totally ignores the potential catastrophic impact that its proposed alternatives could have on jobs and families not only in Bagdad, but throughout the state. By not including the social and economic impacts such a decision would have, makes the EIS inadequate. Thank you.

MS. MARQUIS: Dan Mead.

MR. MEAD: Good evening. My name is Daniel Mead, manager of Byner Cattle Company. We own and operate an active cow, calf and cattle ranch in Mohave and Yavapai Counties. We are speaking here this evening because of the Kingman Resource Area Management Plan and Environmental Impact Statement.

Alternatives two and three will have a negative impact on our operation. Burro Creek splits our ranch, the Bagdad Allotment, in half. One-third of the ranch is now an Upper Burro Creek wilderness area passed by Congress on November 28, 1990. The Bagdad Allotment Ranch has been an active cattle ranch for close to 100 years. Previous owners and operators have always worked

very closely with the BLM in the preservation of its natural resources. Its environmental concerns had always kept it open throughout the years.

Beginning in the early 1970s, the owners and operators of the ranch took a proactive attitude establishing a number of windmills, earthen tanks, drinkers, and salt licks to encourage uniform livestock distribution and ensure proper utilization of the Burro Creek riparian area.

The plan for the livestock grazing through these years of the '70s and '80s was to always stock lightly, never to overstock or take unfair advantage or encourage heavy grazing when years of good vegetation and water were available. The trend from the '70s and '80s has not stopped, but intensified.

In 1987 Byner with the BLM developed additional waters to encourage grazing away from the Burro Creek. Byner, in establishing the new water, has installed solar water pumping units instead of the traditional windmills. The low profile of the solar unit makes it blend with the environment. It's very efficient, which stimulates water conservation, pumping only in daylight

hours. And it is virtually noiseless.

Modern technology is not cheap. The cost to Byner over the last years has been in excess of $25,000 for drilling and installation. The money spent on the ranch from the 1970s to date, with the exception of $1200, has been out of pocket by owner/operator of the ranch. Many, many thousands of dollars.

The practices and attitudes mentioned so far -- and I'd like to restate this, please -- the practices and attitudes mentioned so far is why Burro Creek is what it is today, an area of great desirability by its many different users.

Byner's willingness to work with the BLM is also orchestrated in other forms. We have had extensive land slots, over 3400 acres, traded to the BLM to allow for better management of their land and to control areas that are sensitive.

Example: Six-Mile Crossing on the Burro Creek for recreation and camping, the Carrow Ranch Historical Site at Wikieup on the Big Sandy River in which we traded land and gave historical buildings for preservation. Byner withdrew from grazing on the allotment, over 640 acres, for the preservation of the endangered Arizona cliffrose

plant. An enclosure was built around the acreage, and livestock and burros are now kept from entering the area.

On December 1st, 1989, Byner listened to the proposal for an ACEC in the Burro Creek region. No mention of wild and scenic rivers, no mention of tortoise designation one, two, and three. We were asked by the BLM to have input into ACEC designations on Burro Creek. We did so in person and in writing on January 25, 1990, objecting to the total acreage -- the total ACEC acreage concept and presenting site-specific areas. It was a point of which we -- the BLM and Byner could start from.

We were told we would be contacted after the BLM had reviewed our material. When we left the BLM on January 25th, 1990, to today's date, no further verbal discussions ever occurred. Byner made several contacts with the BLM to see what was going on, but were put off. Our conclusion today is that our input was not needed, and our reply is in the one and three-quarter inch thick book stating alternative two is the most desirable.

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Byner today wishes to express deep concern for the unassessed impact on ranchers by

the highly restrictive management proposed for the ACEC, wild and scenic rivers, and categories one and two, tortoise management areas. Elimination of grazing and vehicular access to wells, springs, and range improvements could put not only Byner but many ranchers out of business. The tortoise habitat is extremely widespread through about 60 percent of Arizona, and there is no valid scientific data indicating that the Sonoran Desert tortoise is threatened or in danger.

The closing of washes to motor vehicles would virtually eliminate access to immense acreages of ranch land effectively establishing huge wilderness, which would join to the north the Upper Burro Creek wilderness area in lands that were designated for multiple use by Congress on November 28, 1990.

On page 1 of the KRA RMP/EIS, the last paragraph, left-hand column, states the RMP and EIS does not address livestock grazing. Because the EIS fails to address the impact on ranching and mining, the two most important industries in the Kingman Resource Area, alternatives two and three are totally unacceptable. Alternative one, with reasonable modification to the proposed categories

one, two, and three, tortoise habitat management, is the only supported alternative. Here again, it requires our input.

We wish to conclude our statements by stating our doors are always open for discussion. Much work could be accomplished on the Burro Creek and Wikieup with Byner and the BLM continuing joint efforts working on water improvements, fencing and grazing, land exchanges, and range improvements. The key to success is through open minds and open communications of both parties. Thank you.

MS. MARQUIS: Thank you, Dan.

Guy Granger.

MR. GRANGER: Thank you.

Good evening. My name is Guy G. Grainger, junior plant department manager for Cyprus Bagdad Copper Corporation. I'd like to speak on behalf of Cyprus Bagdad Copper Corporation. My department is responsible for the operation and maintenance of the tailing storage areas and the reclaim water return systems.

Cyprus Bagdad Copper, as mentioned earlier, has 35 years of ore that's economical to mine and process at 75-cent-a-pound copper prices. Presently, Cyprus Bagdad Copper Corporation has

approximately ten years of storage in Mulholland and Mammoth tailing storage areas. That's the only capacity left in those storage areas; therefore, expansion of present and development of new tailing storage areas will be required for approximately 25 more years of mine production.

The primary concern with this draft Resource Management Plan and Environmental Impact Statement is the land use restrictions specified and implied by alternatives two and three. Category II desert tortoise management areas combined with special management areas proposed by the BLM in alternative two and three have a real potential to reduce mine life from 35 to 10 years due to restrictions on future tailing storage area sites.

If tailing stabilization and reclamation is a concern to the BLM, Cyprus Bagdad has previously demonstrated a willingness and ability to effectively stabilize inactive tailing areas.

During the late 1970s Cyprus Bagdad voluntarily established a self-perpetuating and effective vegetative cover on an area called Kimberly tailing and that has successfully controlled erosion.

If water quality of Burro Creek and its tributaries is a concern to the BLM, Cyprus Bagdad operates a network of collection ponds, pump backs with standby power generators, flood control basins and ditches to prevent process water discharge into surrounding streams. The leach and tailing storage areas are operated as zero discharge system. All process water is recycled back to the leach SXEW and the mill for reuse.

Also Cyprus Bagdad operates leach and tailing storage areas in accordance with our National Pollutant Discharge Elimination System -- that's NPDES -- permit and submits monthly reports to the Environmental Protection Agency, EPA, and Arizona Department of Environmental Quality, ADEQ.

Of the two and a half million acres in the Kingman Resource Area, Cyprus Bagdad requires about 4600 acres or two-tenths of 1 percent for future tailing storage areas. That's for the 35-year mine life plan. Of these 4600 acres, only 2400 acres, which is about a tenth of 1 percent of the two and a half million acres conflict with the special management areas in Category II desert tortoise management areas in alternatives two and three.

In conclusion, Cyprus Bagdad Copper Corporation recommends adoption of alternative one with modifications to the desert tortoise boundaries to insure we have a long-term future. The special management areas in Category II desert tortoise areas proposed by the BLM in alternatives two and three do not adequately address or consider alternative land uses such as tailing storage. Thank you.

MS. MARQUIS: Thank you, Guy.

Kent Watson.

MR. WATSON: Good evening. My name is Kent Watson. I'm a mine manager at Cyprus Bagdad Copper Corporation. My department is responsible for planning and development of the ore reserve and extraction of the ore. In addition, we have the responsibility of maintaining the Francis Creek Water System.

My comments tonight refer to the responsibility of the BLM regarding the stewardship of public lands. In this case, specifically, to encourage mineral exploration and development as mandated by the 1872 Mining Law.

It seems that the BLM recognizes responsibility to the public in the resource

management plan where on page 7 there are listed four more recent acts or policies, and I quote, "that direct the BLM to actively encourage and facilitate the development of public land mineral resources by private industry, to satisfy local and national needs, and provide for economically and environmentally sound exploration, extraction, and reclamation. This policy recognizes that mineral exploration and development can occur while insuring protection of other resource uses and promotes multiple use of public lands." End of quote.

We actively support this philosophy, but it appears that the BLM may not when you consider the very negative implications to Cyprus Bagdad that the BLM's preferred alternatives two and three would have. These alternatives would severely restrict continued economic development of minerals. These alternatives would also curtail exploration and therefore restrict future mineral development. This would hold true not only in the Bagdad area, but could affect other operations within the Kingman Resource Area.

Another aspect of the Bagdad operation the alternatives two and three could have a

potential negative effect upon is our water supply. The special management area as outlined could eventually cut off the mine, the mill, and town site from existing water sources. Both the Francis Creek and Wikieup water lines cross portions of Burro Creek that have been designated as areas of critical environmental concern and nominated for inclusion in the wild and scenic river system under alternatives two and three. The proposed alternatives would not allow necessary access to these systems for required maintenance and/or replacement of various components in these systems.

Further, we are very concerned that if condemnation proceedings took place under the Wild and Scenic Rivers Act, we would lose a critical primary source of water from Francis Creek. To put all this into perspective regarding lost mineral reserves now, that production through the end of the currently anticipated 35 -- excuse me -- 35-year mine life at the Bagdad is estimated to be 6.5 million pounds of copper, 290 million pounds of molybdenum, and 20 million troy ounces of silver.

At today's metals prices, this life of mine production -- keeping in mind we're talking a

35-year life of mine -- would be valued at approximately $8.1 billion. Combined with wages, benefits and taxes, outside purchases, and so forth that you already heard about, you can understand that this represents a significant contribution to local, county, and state economies.

Alternatives two and three would prevent us from extending our mine life by curtailing required exploration of surrounding areas, but most importantly, it could cut the mine life by two-thirds. By restricting the development of tailings disposal area and possibly even more drastic shortening of the mine life would occur if our sources of water were removed.

In conclusion, considering the implications of alternatives two and three, the future metals production of Cyprus Bagdad Copper Corporation and the potential ramifications to our water supplies, alternative one, modified biological changes to the desert tortoise management boundary, is the only plan that would not adversely impact the mine and Bagdad's future. Management -- special management areas and Category II desert tortoise areas proposed under alternatives two and three do not adequately

address or consider alternatives -- alternative land uses such as our existing water supply systems. Thank you.

MS. MARQUIS: Thank you, Kent.

Scott Lewis.

MR. LEWIS: Good evening. My name is Scott Lewis. I'm the environmental coordinator here at Cyprus Bagdad Copper Corporation. I would like to thank the BLM for scheduling this meeting in Bagdad and agreeing to a hearing format followed by an informal question-and-answer period.

During my review of the Kingman Resource Area draft Resource Management Plan and Environmental Impact Statement, I asked myself two questions: First, is the draft EIS adequate, and second, is the BLM's preferred alternative two suitable. Upon completing my review of the document, I was convinced that the draft EIS is not adequate and that both alternatives two and three are unacceptable. Let's explore why I drew these conclusions.

Several of the previous speakers have indicated the draft RMP and EIS is inadequate because it does not address the significant economic and social impacts of alternatives two and

three on the mining industry, livestock industry, Yavapai or Mohave Counties, or the State of Arizona.

C-3

The document is inadequate since it is essentially devoid of technical data required to evaluate and needed to justify alternatives two and three.

The RMP/EIS is also inadequate because it adopts numerous other documents by reference which complicates review, evaluation, and understanding of the document.

Alternatives two and three are not acceptable because multiple, unjustified, and in some areas, conflicting special management area designations occur in the same area.

Now I would like to specifically address the desert tortoise management areas proposed under all three alternatives in the RMP/EIS.

This map to my left essentially is a blowup of the Bagdad area that has a few familiar landmarks. Town site. The pit area. Blue is our existing tailings. Let's look at the blue first.

The Category II desert tortoise area shown in the Kingman Resource Area draft RMP/EIS, which is this red line, include approximately 400

acres of Bagdad's active tailings and an additional 300 acres previously approved for tailings deposition under a plan of operations issued to us by the Arizona State Land Department.

An additional 800 acres of State lands included within the Category II desert tortoise boundaries are being considered for future tailings sites. Most of these 800 acres were previously described and/or shown to the BLM during the public hearings held on the wilderness study areas within the past year. Approximately 5500 acres of existing tailings, pit area, dumps, and town site are included within the Category III desert tortoise boundaries.

Considering these discrepancies, the BLM should, at a minimum, reevaluate the Category I, II, and III boundaries relative to criterion two, "Conflict Resolvability," in the publication titled Desert Tortoise Habitat Management on Public Lands, a Rangewide Plan. Preferably, the BLM should hold off on designating any desert tortoise category boundaries until a decision is made by the U.S. Fish and Wildlife Service on whether to list the Sonoran population of the desert tortoise in Arizona as a threatened species. The reason for

holding off is that there will inevitably be conflicts between critical habitat as defined in the Endangered Species Act and the four criteria used to delineate the I, II, and III areas.

Specifically, the three category delineations are not based on physical or biological features used to define critical habitat. Furthermore, a review of the information available at the BLM's Kingman office revealed that a very limited amount of field data, most of which dates back to 1978, was used in delineating the category boundaries.

C-4

Based upon the sparse amount of transect data available in this area, we believe that insufficient data exists to accurately delineate the Category I, II, and III desert tortoise boundaries in the vicinity of the Bagdad mine. We do recognize and appreciate the concerns related to the management and protection of the desert tortoise, but sound, scientific data must be used in dividing the areas essential to the perpetuation of the species in order to insure multiple use of our public lands.

Another section of the RMP I would like to address is the wild and scenic rivers

nomination. Alternatives two and three of the draft RMP/EIS proposed to nominate Burro Creek and Francis Creek for inclusion in the wild and scenic river system with minimal justification. We do not understand why these two creeks are being nominated for the following reasons:

The majority of the land along Burro and Francis Creeks is federally owned and controlled. The segments of land along these two creeks that are owned by CBC and managed by Byner Cattle Company are grazed in a manner designed to protect and enhance the riparian habitat. Since the BLM has direct control over activities on the federal land along these two creeks, and our operations here at Bagdad are designed to avoid adverse impacts on water quality and avoid alteration of the free-flowing nature of these two creeks, we see no reason for including Burro and Francis Creeks in the wild and scenic river system.

C-5

The majority of the protection of the two creeks afforded under the Wild and Scenics -- Wild and Scenic River Act will be accomplished by implementing the riparian management plan described under alternative one. We are extremely concerned that the visual impact analysis methods used by the

BLM will severely restrict or prohibit the development of future tailing sites within the area visible from these two creeks if designated as wild and scenic rivers; particularly since the Wild and Scenic River Act does not contain the no buffer zone provision included in the Arizona Desert Wilderness Act of 1990.

Another area that I will briefly discuss are the areas of critical environmental concern. The extensive areas of critical environmental concern proposed under alternatives two and three of the RMP/EIS are not acceptable because they have the potential to severely restrict maintenance, operation, and future replacement of existing power lines, gas lines, and water lines that are vitally important to the continued existence of the mine, mill, and town site. The ACEC's limit of off-highway vehicle use to designated roads, trails, and crossings in the Burro Creek and Francis Creek riparian areas are with no definition of, quote, designated roads or delineation of riparian areas on the -- in the maps -- on the maps in the RMP/EIS.

Another designation that I would like to briefly discuss is the special recreation

management area proposed under alternatives two and three. Essentially, what I would like to say is -- look at the map here -- in this Six-Mile Crossing Burro Creek area there are three so-called layers of management prescriptions: Wild and scenic rivers, special recreation, and ACEC raises, I think, a logical question, and that is, how exactly does the BLM intend to manage an area with three potentially conflicting designations?

C-6

In summary, the draft EIS is not adequate to do several important issues that are not addressed. And alternatives two and three of the RMP/EIS are not acceptable because of the multiple, unjustified, overly restrictive, and in some, conflicting special management areas designated in a particular location. Alternative one, with appropriate modifications to the desert tortoise management boundaries, is the only acceptable alternative. Thank you.

MS. MARQUIS: Thank you, Scott.

Phil Blacet.

MR. BLACET: My name is Phil Blacet. I'm senior geologist here at Cyprus Bagdad, and I wish to speak on behalf of not only Bagdad, but I hope a lot of the people in the room.

Only a few months have passed since Congress and the President enacted the historic Arizona Desert Wilderness Act of 1990. After exhaustive deliberation of all the issues and massive documentation of resource data, as well as written comment and testimony given at public hearings throughout the state, our congressional delegation specifically rejected the BLM's recommendation to designate a Lower Burro Creek wilderness area.

Over a two-year period, the Arizona delegation reviewed the facts and considered the expressed opinions of thousands of people on the Burro Creek issue. Their decision to delete the Lower Burro Creek area from the Wilderness Act was based, primarily, on the devastating long-range impact that wilderness designation could have on the Cyprus Bagdad operation, the people of Bagdad, and the state and regional economy.

Cyprus Bagdad is the largest tax-paying employer in Yavapai County. And with a future life expectancy of at least 35 years, the Bagdad mine is developing one of the largest copper deposits in North America. Bagdad's currently active Mammoth Wash tailings facility, as we have heard, will be

full to capacity in about ten years. If unnecessarily restrictive BLM's special management areas are designated in the Burro Creek area, for example, their proposed wild and scenic river ACEC and tortoise habitat management areas, Cyprus Bagdad may be denied the permits needed to construct new tailings facilities, forcing a shutdown in about ten years.

Such a forced mine closure would result in at least 25 years of lost mineral production and a loss to Arizona and the Nation's economy estimated at somewhere between 8 and $9 billion. The total loss of personal income and much-needed tax revenues alone would probably exceed $1 billion.

By rejecting the BLM's recommendation for Lower Burro Creek wilderness and by adding a precedent-setting no buffer zone clause to the 1990 Wilderness Act, Congress has made clear its intent to preserve and protect the vast mineral and economic resources of the Bagdad area.

Now, however, the BLM is recommending a management plan, specifically alternative two of its Kingman Resource Area Resource Management Plan, that would circumvent congressional intent to

protect these resources and could reverse the Wilderness Act's provision that these Lower Burro Creek public lands be returned to multiple-use management. The BLM's preferred course of action, that is, alternative two, is in direct conflict with new federal law established under the 1990 Wilderness Act and appears to defy the expressed will of Congress and the people.

In addition to the BLM's plan under alternatives two and three, the plan which would close large areas to mining and mineral development, they are proposing tortoise habitat management which would outlaw or drastically reduce ranching and mining and recreational use of very large areas within the Bagdad region and elsewhere in Mohave County.

Alternatives two and three and proposed tortoise habitat management are unnecessarily restrictive and do not represent a return to multiple-use land management. Under federal law, the BLM is directed, and I quote, to promote the development of the mining resources of the United States.

The BLM Kingman Resource Area's draft RPM not only fails to adequately address the two

most important resources industries in the region, that is, mining and ranching, but it recommends management changes that would curtail or eliminate mining throughout large areas.

Having served as a resource specialist for the Department of Interior for 16 years, I can appreciate the apparent dilemma facing the BLM. They, no doubt, feel caught between the proverbial rock and a hard spot; multiple land use advocates on one side, environmental proponents on the other. In the case of the Burro Creek area, however, this dilemma has been clearly resolved, at least in my thinking, by the recent congressional decision to return these public lands to multiple-use management.

In conclusion, with the enactment of the 1990 Arizona Desert Wilderness Act subsequent to the publication of the Kingman Resource Area's draft RMP/EIS, the BLM now needs to reevaluate and revise their management proposals, especially alternatives two and three and tortoise habitat to conform to recent congressional mandate and the best interests of the people of Arizona. In their final RMP/EIS, I urge the BLM to address impacts on all of the important resources in the Kingman

Resource Area.

The BLM should be commended for a thorough job in providing special management areas relating to scenic, cultural, and wildlife resources. Unfortunately, management to protect and again to promote the development of the mining resources seems to have been entirely overlooked. Thank you.

MS. MARQUIS: Thank you, Phil.

Manford Swain.

MR. SWAIN: Good evening, ladies and gentlemen and members of the panel. My name is Manford Swain. I'm here this evening as a local resident, a representative of Cyprus Bagdad, and also a member of the Bagdad homeowners.

My main concern is the proposed boundaries of the Category I and Category II desert tortoise management areas; specifically, that area lying north and east of Highway 93 and south of Burro Creek to its intersection for the Burro Creek bridge. What I'd like to do is kind of outline it on this map. We don't have a complete map of the area, but basically, we are covering this area right here.

In the late '50s and early '60s there

were a few old prospectors and other people living out in this area and quite a bit of activity in developing mineral resources and water for the cattle. Roads were constructed to many of these sites and the use of the dry sand washes was extensive. Due to the rugged nature of this terrain, access to land is highly dependent upon these roads and truck trails following these washes. The proposed Category I and II desert tortoise habitat management would outlaw vehicular access along these washes, effectively eliminating access to land and creating a de facto wilderness throughout huge areas west and southwest of Bagdad. Historic access roads, including the old highway to Burro Creek at Six-Mile Crossing could be closed because a major portion of its route is in a dry sand wash. Another item to consider is because of these proposed closings, the only public access to Burro Creek above the high bridge on Highway 93 could be only from the Wikieup area.

At this point in time, I do not understand why the BLM is proposing to outlaw motor access along these washes. They have been and will continue to be very important thoroughfares for access to hundreds of valid mineral mine claims,

most of the windmills, and developed water resources of the area.

If I were a betting man, I'd bet that there is far more impact to the desert tortoise population along Highway 93 than there is in all the sand washes in this area. In 35 years I have been traveling these same washes, and I do not recall ever seeing a desert tortoise in the wash, and to my knowledge, I have never ran over one.

In closing, I urge the BLM to reconsider their preference for alternative two, which would eliminate access to very large areas of multiple-use public land, and in effect, would create wilderness in the same areas that Congress has rejected for wilderness designation. And instead, take another look at alternative one with sensible changes to these Category I and Category II desert tortoise management areas, which I would believe to be a more conservative and level-headed approach. Thank you.

MS. MARQUIS: Thank you, Manford.

Cory Bromley.

MR. BROMLEY: Good evening, ladies and gentlemen. My name is Cory Bromley. I'm from Cyprus Minerals Company out of Inglewood. I have

been asked to come here to add a couple comments on behalf of Cyprus Bagdad, and I really do not have much to add to the previous comments.

I think they have summed up the issues fairly well and the main thing that I would like to do is state for the record that it's Cyprus' position that based on the points presented this evening, that the only supportable alternative presented in the management plan is alternative one with appropriate modifications to the desert tortoise habitat categories and their boundaries. Cyprus feels that the proposed actions of the preferred alternative two or even alternative three is unsuitable in view of BLM's legal mandate to manage federal lands on the basis of a balanced and multiple use and sustained yields.

Further, Cyprus finds inadequate support in the EIS for proceeding with alternative three or alternative two.

Additionally, as a point not yet addressed in any of the earlier speakers' statements, we direct the BLM's attention to the fact that the plan fails to address how the BLM will acquire the private and State lands that is stated as necessary to implement alternative one --

excuse me -- alternative two and alternative three, especially in light of the fact that the Arizona Supreme Court has held that the land exchange or the exchange of State lands is unconstitutional and that the subsequent result of the ballot issue that would allow the exchange of State lands was rejected by the voters of this state.

In summation, Cyprus requests that the BLM reevaluate its plan based on the comments given this evening and place more emphasis on the mandate -- that legal mandate of management for multiple use and encouraging mineral production and to give a more balanced view to the overemphasis on the ecological concerns stated in the management plan as present.

Cyprus would urge that the BLM take into account tonight's comments and conclude that alternative one with the appropriate and logical modifications to the desert tortoise habitat boundaries be the preferred alternative and take into account that the mining interest as stated over and over tonight are something that needs to be addressed in this plan. Thank you.

MS. MARQUIS: Thank you, Cory.

Joe Mortimer.

MR. MORTIMER: Good evening. My name is Joseph Mortimer, and I'm here as a citizen of Bagdad.

And my primary concern is the expansion of the wilderness boundaries as ACEC or desert tortoise habitat. I first looked on the wilderness area several years ago, and I'm sure that it was a wilderness then. The designation of wilderness has changed that area very little. It has always been difficult to penetrate and a very rugged area.

Mining has gone on in the Bagdad area for over 100 years. And has neither this wilderness nor the wildlife nor the desert tortoise been harmed by the mining or ranching in the area.

When I look at Bagdad, I see a community of approximately 2500 people. And they make a productive and worthwhile contribution to the American way of life in Arizona and in the United States. And the town is clean. And the mine is in compliance with all the environmental laws.

And it concerns me and it frightens me even to think that the wilderness programs and wildlife protection programs that are allegedly -- people who are in the programs would threaten to potentially send 2500 people down to the streets of

Phoenix as homeless and a burden on society. And I think it's imperative to prevent this formal designation of a wilderness in the Burro Creek area destroy the American way of life here in Bagdad. Thank you very much.

MS. MARQUIS: Thank you, Joe.

That is the total list that I have for people who have indicated they'd like to speak, but in case there is anyone else that would like to formally speak or make a statement with the court reporter here. I open it up to anybody else that would like to come up and make a statement.

Well, with that, I think we can conclude the formal portion and recorded portion of the meeting, and I thank you all for participating. And I'd like to open it up for informal questions or comments and clarification of any points that you may have.

MR. VAUGHN: I'd like to speak on the behalf of the entire east. I just came from Quartzite. Spent a week down there.

Quartzite retirees bring a lot of money to this state and this area. They use a four-wheel vehicle to look at the country to see their scenic views. If you cut out these roads and these sand

washes from the use of retired people, it's going to cause a hardship on them and hardship on the County.

We have been talking about the money that's coming from the company. I'm talking about the money coming from outside. I think that a wilderness areas is the biggest waste of natural resources you can possibly put -- burden people with. It's very discriminatory -- very discriminatory against aged and cripples and the young people. There is a few people and I have names for them, but I won't tell, they put packs on their back. I did that when I was 25 years younger. But I'm going to be very unhappy with the tortoise when I have to get out of my vehicle and start walking. It's as fat as I am. I think you should look at other things, rather than just the money being lost from the company. You should take a wider look at the people actually using the washes and roads you want to cut off. Thank you.

MS. MARQUIS: Thank you. For your record -- For our record, can we have your name?

MR. VAUGHN: Troy Vaughn, resident of Bagdad for last 42, 43 years.

MS. MARQUIS: V-a-u-g-h-n?

MR. VAUGHN: Yes.

MS. MARQUIS: Thank you. Anyone else wishing to make a statement?

MR. JACKSON: Nate Jackson, resident here for almost ten years. My dad worked for the National Park Service. I know what a pristine area is. It is not an area for roads. It is not an area that has cattle graze on it. Not an area where there is power lines, gas lines, water lines. You can't make a wilderness area, whatever you want to call it. That's what it's turning out to be. You can't make a wilderness area out of something that is not one already. You can't make wilderness. Wilderness has to be there. There is places in the Mogollon Rim, other areas that man has hardly been in there at all, that the only way in is by foot. That's wilderness.

There's been countless trucks and people in that area. It's not a wilderness area, and like he said, it should be open to other people. There is a lot of other things to consider besides -- our concern is our basic, but just to try and make a wilderness area out of something that isn't is something --

MS. MARQUIS: Thank you. Could you

repeat your name, please?

MR. JACKSON: Nate Jackson.

MS. MARQUIS: Nate Jackson?

A SPEAKER: I think I get really disappointed if I get up hiking in a wilderness area. You get a lot of letters from people that thought they were coming from a wilderness area.

MS. MARQUIS: Any other comments before we close off the formal portion?

MR. SIPES: Vernon Sipes, resident for 42 years here in the Bagdad area. I would like to make a statement referring to what someone said about the desert tortoise. I have seen desert tortoises probably from here to Wickenberg, from here to Hillside, past Hillside. Seen them everywhere. Seen a lot of them over on the highways. Never seen one in the washes. So if we are going to shut anything down, we can shut the highways down. That's what's killing the desert tortoises.

MS. MARQUIS: Thank you.

I will address the issue of desert tortoise, their habitat in washes. There seems to be a confusion of the different habitats and I will go through that. And you're right, in this area,

they do not inhabit the washes. And we are not proposing the washes to be shut down. Our OHV, which is off-highway vehicle use in our document -- if you can take a real close look at it -- for this whole area is designated for roads, washes, trails, et cetera that are currently being used for vehicles. And I will be more than happy to explain that even further, but I'd rather wait and just do it informally because we don't need my portion on the record.

MR. COLVILLE: I'm Mike Colville. I'm a concerned citizen. I lived in Bagdad most of my life. I've wandered up and down the Burro Creek area for the last 42 years and I've enjoyed it. I realize Burro Creek has had its ups and downs. There has been floods that have devastated the area. There have been overpopulation of wild burros, quite a bit of damage in the area, also there is very little water available in Lower Burro Creek. I believe now that the beavers have returned to Upper Burro Creek, you will have a hard time finding water, except in very limited pools.

As for the desert tortoise habitat, being an outdoorsman and traveling the washes, roads, and trails, I don't see how -- where the

categories were designated -- information designated these areas as critical areas. I have not seen a concentration of desert tortoise in the Burro Creek area any more so than I have seen them out towards Hillside or anywhere, and as you mentioned, the trails, washes, and things will be designated for travel.

We will make these designations once these regulations go into effect, and also, who will burden the cost of monitoring these areas and policing these areas to see that everything is carried out? I think the areas have done quite well under the present management system.

As far as the riparian areas, 25 years ago or so I very seldom saw an eagle in the Lower Burro Creek area and now every time I visit that area, I have seen eagles. I think that they have increased in population. I think that is due to proper education that these fine birds should not be destroyed when spotted.

MR. MURPHY: My name is Lloyd Murphy. I have been here for 40 years. And I enjoyed Lower Burro Creek crossings, Upper Burro Creek as a kid.

And I'm just wondering how far we are going to go as far as people in taking things away

from us as people. The reason I say that is, if you cut it off to a vehicle, when are you going to cut it off when we can't go in there at all? Are you going to tell us you can't walk in there anymore, you can fly over it? Are you going to take the plane away from us too? I'd just like to see it settled down and be a multiple-use area so we can mine it, we can live it, and enjoy it.

MS. MARQUIS: Thank you.

A SPEAKER: I have been here four years. I work out on a tailing maintenance crew. Our crew's primary work is right there in the desert tortoise habitat, whatever you want to call it. There are between nine or ten members on our crew. Between us we got 75, 80 mining years experience. Between all of us, all the experience we have in the area, we have seen one tortoise. Between all of us in all that time. I don't know where you guys think all these tortoises are. We are out there constantly. We don't see them. You say all these roads in washes and everything are going to be left open for access. I'd like you to tell me how long do you think those roads are going to be accessible.

MS. MARQUIS: Any other comments?

MR. MILLS: Wayne Mills. My main concern is my job. I don't really want to lose it to a bunch of turtles, and I have been in that area a lot. I haven't seen any more turtles there than anywhere else. I also work in the mill. I know how we take care of our water spillage and stuff. I know there is no chance of hurting the turtles. I can drink the water. If it ever came out, I would be willing to come out and drink the water any time because I don't think it hurts them. I don't know where this idea came up from. It looks like someone who just wants to do something against mining and that's the only thing I can justify of the whole deal, so I think it's cutting off the public land basically to the public and taking away our jobs. That's all I have.

MR. RANKA: Mario Ranka (phonetic). From my experience in Idaho as an area of wilderness. I worked for the Forest Service there after wilderness came into effect. I also worked for the Forest Service. It affected how -- what machine we could use. We could not use a chain saw. Many of the people, mostly workers that I talked to did not like the law or the ways we had to work after the law came into effect. When it

came time to fire fighting, it made it difficult. You could hardly lay in the helicopter near the fire fighting because of this law, wilderness. I support all the statements that have been made. Thank you.

MS. MARQUIS: Thank you.

MR. WHITE: My name is Bob White, and I haven't lived here quite as long as these other fine people. I have been here 10 years, and unlike a lot of them, I have seen desert tortoises. As a matter of fact, for ten years every summer I have seen the same one in my backyard. It doesn't seem to appear to be in any danger. I have heard a lot of talk here tonight about endangered species and endangered habitat.

I'd like to make one observation and that is I think the real endangered species and endangered habitat is the Arizona miner and miners of the United States and the endangered habitat is the places we work and live. I would just respectfully like to ask if this wilderness area or environmental area and environmental concerns is not as you said. Thank you.

MS. MARQUIS: Thank you.

A SPEAKER: How many turtles are there

per square acre?

MS. MARQUIS: It varies. The different category -- the categories that are identified in the plan indicate areas that do support -- currently support tortoise. Based on the number of tortoise, they run transects and the number of tortoise per square mile plus the health of the vigor of the habitat plus management capability by BLM, whether we have total acreage or it's very checkerboard will indicate whether it's a Category I, II, or III. Category I is usually where BLM has a solid land pattern, so we have manageability of the area, high numbers of tortoise and good habitat.

Category II is usually an indicator of two things; one, lower number in tortoise and/or very checkerboard about land pattern with state or private.

And Category III is usually a low number of tortoise. We are primarily concerned or focusing our efforts on the Category I habitat. Mainly because we have greater manageability in the area, and two, if we can sustain Category I where there is a large enough population genetically, there is a good pool, there is something good going

on there, we can study that even further to improve that area.

A SPEAKER: Do you have any specifics of how many turtles you tagged?

MS. MARQUIS: In our office, in our files.

A SPEAKER: Is it possible there is more people than we have?

MS. MARQUIS: It could be possible, yes. Yes, ma'am?

A SPEAKER: With the designation, what does that tell you more that you get to do that you can't do now?

MS. MARQUIS: Let me just -- are we done with statements? Are we into the formal question and answer? Don't forget that question. Yes, sir. You want to make a statement?

A SPEAKER: I first came here in 1945, and like some of these other people, I don't think this is a heavily populated area for tortoises, however, you can correct me if I'm wrong, I think tortoises have been around longer than human beings. They're going to be here a lot longer than we are. They have learned how to survive.

MS. MARQUIS: Any other statement before we go to question and answer?

MR. LEWIS: Could I make a brief statement, another one? Just in response to this other question. Let me get this on file here.

The data that I have looked at available from Kingman gives us a relative number of tortoise in this Category II area.

From my review today, it appears to be four transects. It represents the three-mile transect and transects the meandering or straight line over the ground. I don't know the numbers. . There is another transect in here. There were two tortoise. There is another transect, and these are in the premium part of town, south part of Bagdad. No tortoise. The only other transect in this immediate area is till you get down here in the transect by this line, because this is where the State line ends, and the BLM control line begins this area right here. There are no live tortoise in 28. I think that will clarify that.

MS. MARQUIS: Based on not only transects but sightings that are reported to us are also included in our -- in this data and they're all mapped. I don't know if you got a chance to

see that, Scott, or not or just the transects.

MR. LEWIS: What I looked at was -- it was a composite map Betty Berge did, plus it had large circular areas. I got it. I have that with me, if anybody wants to see it.

MS. MARQUIS: We have -- and I don't know why you didn't see that, but we do have a map indicating all sightings, live, dead, hit, sightings by ranchers, by our staff or people out there who call us and tell us they have seen them and we record that on a map also.

A SPEAKER: What are you talking about?

MS. MARQUIS: Sightings of tortoise that's on a map, whether it's by our folks, our ranchers, people just out there who report to us that they have seen tortoises in the area. We record all sightings.

A SPEAKER: Do you think there is a lot more tortoise than what is recorded?

MS. MARQUIS: It depends. It depends. In some areas, yes. In other areas, I think we are pretty secure. We have plots in the resource area where we have done extensive, extensive, just transects one after the other, and we have pretty good data there.

Are we in the question-and-answer period?

MR. GILL: My name is Denton Gill, and I received this in the mail from BLM upon request. I requested it. And the reason why I did was I was firstly concerned about the wilderness area that got passed.

Well, in my opinion, the wilderness area was a rope. Now we got the noose. And the more I look at it, the more it's getting taken away. We got no place to run. We have to fight, stand up for it and keep them out. In this book -- I can't find it at the moment -- but it has people who help out and support and go out where you get your information. There is not a single area in the book from the people of Bagdad. It's Phoenix. It's Kingman is where they're coming from. They got no idea what is up here. There was no concern before all this started. The land was in better condition before everybody else started coming up. The people in Bagdad took care of the property. That's all. Thank you.

MS. MARQUIS: Thank you. Any more statements? Okay. I guess we can officially close this formal portion, and I will open it up to any

questions.

(Whereupon, the proceedings were concluded at 8:50 p.m.)

* * *

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

CERTIFICATE

BE IT KNOWN that the foregoing proceedings were taken before me, Sonia Y. Felix, a Notary Public in and for the County of Maricopa, State of Arizona; that the proceedings were taken down by me in shorthand and thereafter transcribed by a computer under my direction; that the foregoing 68 pages are a true and correct transcript of all proceedings, all done to the best of my skill and ability.

I further certify that I am in no way related to nor employed by any of the parties hereto nor am I in any way interested in the outcome hereof.

Dated at Phoenix, Arizona, this 5th day of February, 1991.

SONIA Y. FELIX
Notary Public

My Commission Expires:
April 24, 1992

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ORIGINAL

1

BUREAU OF LAND MANAGEMENT HEARING

TAKEN ON TUESDAY, MARCH 5, 1991

AT 2475 BEVERLY AVENUE
KINGMAN, ARIZONA

AT 9:05 A.M.

REPORTED BY: JANICE MINER, COURT REPORTER

2

APPEARANCES:

B.L.M. AREA MANAGER:	ELAINE MARQUIS
PHOENIX DISTRICT MANAGER:	HENRY BISSON
ADVISORY BOARD MEMBERS:	ED KELLIS
	FRANK STEPHENS
	MIKE GROSS
	JOHN NEAL
	FRANK HUNT

I N D E X

3

MR. KELLIS: THE ADVISORY BOARD WILL COME TO ORDER. THE FIRST THING WE WOULD LIKE TO DO IS FOR EACH PERSON TO INTRODUCE THEIRSELVES, SO LET'S START RIGHT ON THE FRONT ROW WITH DAN.

MR. MEAD: GOOD MORNING. DANIEL MEAD, BYNER CATTLE COMPANY, BAGDAD, ARIZONA.

MR. NEAL: JOHN NEAL, JOHN NEAL RANCH.

MR. WILSON: BOB WILSON. I'M WITH THE ARIZONA FARM BUREAU.

MR. WILSON: JACK WILSON REPRESENTING THE BAR "S" RANCH.

MR. NEELY: CHUCK NEELY, CANE SPRINGS RANCH.

MS. NIKEL: BEATRICE NIKEL. I'M WITH THE X-ONE RANCH.

MR. CAMPA: MIKE CAMPA WITH THE LAZY "YU" ON THE WALAPAI MOUNTAIN. MY PLACE IS THE SPEAR "X" RANCH OF NIGHT CREEK.

MR. HAMILTON: BILL HAMILTON, QUAIL SPRINGS RANCH.

MR. HUNT: FRANK L. HUNT, MUSIC MOUNTAIN.

MR. KNISELY: DAVE KNISELY, MOUNT TIPTON.

MR. KELLY: CHESTER KELLY, CANE SPRINGS RANCH.

MR. GROSETA: ANDY GROSETA, REPRESENTING YOLO RANCH.

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MR. MENGES: JEFF MENGES, VICE-PRESIDENT OF THE B.L.M. PUBLIC LANDS COMMITTEE OF THE ARIZONA CATTLE GROWERS.

MR. LANE: DOC LANE WITH THE ARIZONA CATTLE GROWERS.

MR. MC REYNOLDS: KEN MC REYNOLDS, COFER RANCH AND MOHAVE COUNTY CATTLE GROWERS.

MR. BOLES: PAT BOLES, STATE LAND DEPARTMENT.

MR. BLANTON: MIKE BLANTON, RANGE CONSERVATIONIST, B.L.M. HERE IN KINGMAN.

MR. DRENNEN: GRANT DRENNEN, RANGE CONSERVATIONIST WITH B.L.M., KINGMAN.

MR. JUDD: JESS JUDD WITH THE B.L.M. HERE IN KINGMAN.

MR. QUERTA: JOEL QUERTA WITH THE HUALAPAI TRIBE.

MR. ELEFRITZ: SCOTT ELEFRITZ. I'M A RANGE CONSERVATIONIST HERE IN KINGMAN.

MR. CALLOWAY: HERB CALLOWAY. I'M ALSO A RANGE CONSERVATIONIST HERE IN KINGMAN.

MR. GRISMAN: KELLY GRISMAN, B.L.M., KINGMAN.

MR. HUNT: FRANK HUNT, B.L.M. ADVISORY BOARD.

MR. NEAL: JOHN NEAL, JOHN NEAL RANCH.

MR. GROSS: MIKE GROSS, GROSS RANCH.

MR. STEPHENS: FRANK STEPHENS, ADVISORY

BOARD.

MR. KELLIS: I'M ED KELLIS.

MR. ASBJORN: BRUCE ASBJORN, B.L.M., KINGMAN.

MS. RUSSELL: DIANE RUSSELL, B.L.M., KINGMAN.

MR. BENTLEY: GORDON BENTLEY, B.L.M., KINGMAN.

MR. BISSON: I'M HENRY BISSON. I'M THE DISTRICT MANAGER FOR THE PHOENIX DISTRICT.

MS. MARQUIS: AND I'M ELAINE MARQUIS, AREA MANAGER FOR THE KINGMAN RESOURCE AREA.

MR. KELLIS: NOW, DO YOU WANT TO INTRODUCE YOURSELF?

COURT REPORTER: DO YOU WANT ME TO?

MR. KELLIS: YEAH. SURE.

COURT REPORTER: OKAY. MY NAME IS JANICE MINER. I'M THE COURT REPORTER HERE TODAY.

MR. BISSON: GREAT.

MR. KELLIS: WE WANT TO WELCOME EVERYONE HERE; AND THE FIRST ORDER OF BUSINESS IS HENRY IS GOING TO GIVE SOME OPENING REMARKS.

HE'S GOT DOWN OPENING REMARKS, SO I GUESS THAT GIVES HIM THE RIGHT TO SAY ANYTHING HE WANTS TO.

MR. BISSON: WELL, THE OPENING REMARKS ARE GOING TO BE REAL SHORT. HERE COMES ANOTHER STRAGGLER. ART ROGERS JUST WALKED IN.

YOU KNOW, THIS IS NOT YOUR ONLY CHANCE TO GET COMMENTS IN TO US. IF YOU'VE GOT SPECIFIC CONCERNS, WE'LL ACCEPT COMMENTS UNTIL APRIL 13TH.

WE, IN FACT, EXTENDED THE COMMENT PERIOD 30 DAYS TO GIVE EVERYBODY A CHANCE TO SPEND THE TIME WITH THE DOCUMENT THAT IT NEEDS GIVEN HOW SIGNIFICANT AND HOW IMPORTANT IT IS TO EVERYBODY.

ELAINE AND HER STAFF OR MYSELF PERSONALLY WILL BE AVAILABLE AND ARE AVAILABLE TO MEET WITH ANYBODY AND EVERYBODY THAT WANTS TO TALK ABOUT THE R.M.P.

THROUGHOUT THE COMMENT PERIOD AND EVEN AFTER WE GET THROUGH THE COMMENT PERIOD, IF--IF SOMETHING STRIKES YOU THAT YOU FORGOT ABOUT OR DIDN'T UNDERSTAND AND WANT SOME MORE CLARIFICATION, I JUST URGE YOU TO COME IN AND TALK WITH ELAINE AND TALK WITH THE STAFF. OKAY.

UNTIL THIS THING GOES FINAL, NOTHING IS SET IN CONCRETE AND EVERYTHING IS OPEN FOR DISCUSSION, AND I WANT YOU ALL TO KNOW THAT.

WHAT WE ANTICIPATE HAPPENING AND THE WAY I WOULD LIKE TO PROCEED WITH THE R.M.P. ONCE THE COMMENT PERIOD IS OVER IS I INTEND FOR ELAINE AND HER STAFF TO SIT DOWN AND TO GO THROUGH ALL THE COMMENTS. TO LOOK AT THEM AND TO LOOK AT THE EXISTING PREFERRED ALTERNATIVE THAT'S IN THE R.M.P. AND THEN MAKE ANY ADJUSTMENTS THAT THEY FEEL ARE APPROPRIATE BASED ON COMMENTS WE'VE RECEIVED.

MR. KELLIS: THIS IS ART ROGERS.

MR. BISSON: WE REALLY HAVE SEVERAL PURPOSES FOR THIS MEETING TODAY, AND I'M EXTREMELY PLEASED THAT WE'RE ABLE TO HOLD THIS MEETING.

WE HAVE A COURT REPORTER HERE TODAY WHO CAN TAKE DOWN THE COMMENTS OF ANYBODY THAT WOULD LIKE TO SAY SOMETHING ABOUT THE KINGMAN R.M.P.

WHAT WE HOPE TO DO IS TO HAVE KIND OF A FORMAL OPPORTUNITY TO RECEIVE COMMENTS FROM THE BOARD IF YOU'RE PREPARED TO DO IT TODAY OR FROM ANYBODY ELSE WHO WOULD LIKE TO PROVIDE US COMMENTS, AND THEN WHAT WE WOULD DO IS CLOSE THE FORMAL PART OF THE MEETING, ED, AND OPEN IT UP TO ANY QUESTIONS ANYBODY MIGHT HAVE ABOUT ANY ASPECT OF THE R.M.P.

I WANT ALL OF YOU TO KNOW THAT WE DIDN'T COME HERE TODAY WITH CLOSED MINDS. WE HAVE OPEN MINDS. WE ARE HONESTLY HERE TO LISTEN TO YOUR CONCERNS.

THE R.M.P. THAT'S OUT RIGHT NOW IS A DRAFT DOCUMENT. IT'S NOT A FINAL. THEY ARE-- YOU KNOW, THERE ARE GOING TO BE SOME CHANGES WHEN WE GO TO THE FINAL. WE CAN ANTICIPATE THAT ALREADY BASED ON COMMENTS THAT WE'VE RECEIVED AND DISCUSSIONS I'VE HAD WITH ELAINE AND STAFF.

WE ANTICIPATE THAT THERE WILL BE SOME CHANGES IN THE R.M.P., SO THIS THING IS NOT SET IN CONCRETE. WE WILL ACCEPT ANY COMMENTS, EITHER VERBAL OR PREFERABLY WRITTEN AFTER THE MEETING.

THEN ELAINE AND I, WE'LL SIT DOWN AND WE'LL GO THROUGH HER RECOMMENDATIONS. I WILL MAKE SOME DECISIONS AS TO WHAT THE FINAL DOCUMENT WILL LOOK LIKE. WE WILL THEN GO AND MEET WITH OUR STATE DIRECTOR, LES ROSENCRANTZ, AND GET HIS BYLAW BEFORE WE GO OUT WITH THE FINAL DOCUMENT.

WHEN WE COME OUT WITH A FINAL DOCUMENT, ALL IS NOT LOST IF YOU STILL HAVE CONCERNS WITH IT; AND FRANKLY, I ANTICIPATE THERE MAY BE SOME CONCERNS WITH SOME PARTS OF IT.

I THINK THAT WHILE WE ANTICIPATE A NUMBER OF CHANGES IN THE DOCUMENT, AS WITH ANY PLANNING DOCUMENT, IT'S NEVER PERFECT IN EVERYBODY'S EYES; AND I ANTICIPATE THERE WILL BE SOME CONCERNS WITH THE FINAL PRODUCT, BUT I SUSPECT THAT THE FINAL PRODUCT WILL COME A LOT CLOSER TO MEETING PEOPLE'S EXPECTATIONS THAN MAYBE IT DOES RIGHT NOW ON ALL SIDES.

AT THAT POINT IN TIME, YOU WILL HAVE AN OPPORTUNITY TO PROTEST AND APPEAL THE DOCUMENT TO THE DIRECTOR OF THE B.L.M.

IT GOES RIGHT OUT OF ARIZONA'S HANDS RIGHT TO THE DIRECTOR'S HANDS AND THERE WILL BE A 30-DAY PERIOD THAT YOU CAN DO THAT IN AND YOU CAN SEND-- WELL, THERE WILL BE ADDRESSES PUT OUT AND YOU CAN APPEAL AND PROTEST THIS DOCUMENT RIGHT TO THE DIRECTOR OF THE B.L.M., SO EVEN AT THAT POINT, IT'S NOT A FINAL DOCUMENT.

THE DIRECTOR IN-- MY EXPERIENCE WITH OTHER

R.M.P.'S IS THE DIRECTOR WILL WORK TO TRY TO RESOLVE THE CONCERNS AND WILL TRY TO REACH SOME COMPROMISES AT THAT POINT. IF IT'S POSSIBLE, BEFORE A RESPONSE TO THE PARTICULAR PROTEST IS ISSUED, BUT THE DIRECTOR'S WORD IS FINAL.

ON THESE PLANNING DOCUMENTS, THE EXPERIENCE IN THE APPEAL'S PROCESS IS THAT IN THE WAY THE REGULATIONS ARE STRUCTURED, THE DIRECTOR HAS THE FINAL SAY ON THE DOCUMENT. IT IS NOT APPEALABLE OR PROTESTABLE TO I.B.L.A. AS OTHER B.L.M. DECISIONS.

I.B.L.A. WON'T DEAL WITH THIS KIND OF DOCUMENT. GOD FORBID WE SHOULD GET TO THAT POINT. IF YOUR--IF THERE'S--IF THERE'S A DISSATISFACTION WITH THE FINAL OUTCOME, THEN AT THAT POINT IN TIME, THIS KIND OF A DOCUMENT OR THE DECISIONS IN THE DOCUMENT WOULD HAVE TO GO RIGHT TO COURT.

THERE'S NO INTERIM PROCESS WITH I.B.L.A. AS YOU MIGHT BE USED TO ON GRAZING DECISIONS AND SO ON.

MR. NEAL: WHAT'S I.B.L.A.?

MR. BISSON: THE INTERIOR BOARD OF LAND APPEALS.

USUALLY WHEN THERE'S A GRAZING DECISION, JOHN, WHEN IT GETS APPEALED, IT GOES BEFORE AN ADMINISTRATIVE LAW JUDGE, AND THEN IF THAT GETS APPEALED-- AND SOME OF YOU ARE FAMILIAR WITH IT, WE DON'T--WE USUALLY GET THINGS WORKED OUT. WE DON'T HAVE MANY DECISIONS GO THAT ROUTE, BUT ONCE

IT GETS TO--TO THE ADMINISTRATIVE LAW JUDGE, IF EITHER PART' IS NOT HAPPY WITH THE DECISION, THEN IT GETS APPEALED TO THE INTERIOR BOARD OF LAND APPEALS AND THEY MAKE THE FINAL DECISION ON IT.

I AM VERY OPTIMISTIC THAT IN 95 TO 99 PERCENT OF THE CASES WHERE WE HAVE CONCERNS ON ALL SIDES WITH THE R.M.P. THAT WE CAN RESOLVE MOST EVERYTHING THAT PEOPLE ARE REALLY CONCERNED ABOUT. I HOPE THAT IN SOME CASES WE'RE ABLE TO REACH SOME COMPROMISES, BUT IN MOST CASES, I THINK WE CAN RESOLVE EVERYTHING.

THERE'S A COUPLE OF DECISIONS IN THERE, AND I DON'T WANT TO KIND OF GET INTO THEM RIGHT NOW, BUT THERE'S A COUPLE OF DECISIONS THAT FRANKLY WE'RE GOING TO BE BACKED INTO A CORNER AND THERE MAY NOT BE ANYBODY HAPPY WITH WHAT WE COME OUT WITH, AND THERE'S JUST-- I DON'T KNOW WHAT WE CAN DO ABOUT IT AT THIS POINT.

IT'S JUST SOMETHING THAT WE HAVE TO DO AND WE HAVE TO PROCEED WITH, BUT BEYOND THAT, I THINK EVERYTHING IS OPEN. EVEN THAT IS OPEN TO THE EXTENT THAT WE CAN OPEN IT AND DEAL WITH IT, SO WITH THAT, ED, WHAT I WOULD PROPOSE THAT WE DO IS PROVIDE AN OPPORTUNITY FOR THE BOARD, EITHER AS MEMBERS OR AS A GROUP, AND THE MEMBERS IN THE AUDIENCE TO PROVIDE US WITH ANY COMMENTS THEY MIGHT WANT TO MAKE ON THE R.M.P.

WE'RE NOT GOING TO HAVE A PRESENTATION ON THE

R.M.P. I WOULD ASSUME EVERYBODY HAS HAD A CHANCE TO LOOK AT IT AND THINK ABOUT IT AND SO WITH THAT, I'LL--I'LL BE QUIET.

MR. KELLIS: ALL RIGHT. YOU HAVE GOT ON "DISCUSSION TOPICS," ELAINE WAS SUPPOSED TO--

MR. BISSON: YEAH.

MR. KELLIS: --DISCUSS.

DO YOU WANT TO SAY SOMETHING BEFORE WE OPEN IT UP?

MS. MARQUIS: THE ONLY THING THAT I WANTED TO SAY, I THINK MOST OF YOU HAVE READ THE DOCUMENT, HAVE HAD SOME QUESTIONS, HAVE ALREADY TALKED TO US OR ATTENDED SOME OF OUR MEETINGS WHERE YOU'VE GOTTEN A SUMMARY OF THE R.M.P., SO I DON'T WANT TO BELABOR THAT POINT HERE.

HOWEVER, I DID WANT TO SAY THAT WHAT I'D LIKE TO DO IS--WE HAVE A COURT REPORTER NOW--IS--IS GIVE EVERYONE AN OPPORTUNITY WHO WANTS TO MAKE A STATEMENT--A FORMAL STATEMENT THAT IS RECORDED, CAN DO SO AT THIS POINT; AND AFTER EVERYONE SPEAKS THAT WANTS TO SPEAK, WE CAN JUST OPEN IT UP TO QUESTIONS AND ANSWERS IF ANY OF YOU HAVE ANY QUESTIONS OR WANT TO DISCUSS ANYTHING AS PART OF THE R.M.P.; AND SO I THOUGHT WE WOULD HAVE THE TWO PORTIONS OF THE R.M.P. DISCUSSION; ONE, THE FORMAL ONE WITH THE COURT REPORTER AND THEN ANY INFORMAL QUESTIONS AND ANSWERS OR DISCUSSION PERIOD AFTER--AFTER THAT.

MR. KELLIS: ALL RIGHT. THE FLOOR IS NOW OPEN FOR THE FORMAL STATEMENTS ON IT, SO ANYONE THAT WANTS

TO MAKE A FORMAL STATEMENT, I'M SURE THE COURT REPORTER WOULD LIKE TO HAVE YOU PREFACE IT WITH YOUR NAME.

(INFORMAL DISCUSSION OFF THE RECORD.)

MR. MEAD: FIRST OF ALL, I'D LIKE TO THANK MR. KELLIS AND THE BOARD AND MR. BISSON AND THE B.L.M. FOR THIS OPPORTUNITY TO SPEAK HERE THIS MORNING.

MY NAME IS DANIEL MEAD, MANAGER OF BYNER CATTLE COMPANY. WE OWN AND OPERATE AN ACTIVE COW/CALF CATTLE RANCH IN MOHAVE AND YAVAPAI COUNTY.

I AM SPEAKING HERE THIS MORNING BECAUSE THE KINGMAN RESOURCE AREA RESOURCE MANAGEMENT PLAN AND ENVIRONMENT--ENVIRONMENTAL IMPACT STATEMENT, ALTERNATIVE 2 AND 3, WILL HAVE A NEGATIVE IMPACT ON OUR OPERATION.

BURRO CREEK SPLITS OUR RANCH, THE BAGDAD ALLOTMENT, IN HALF, AND ONE-THIRD OF THE RANCH IS NOW AN UPPER BURRO CREEK WILDERNESS AREA PASSED BY CONGRESS ON NOVEMBER 28, 1990.

THE BADGAD ALLOTMENT RANCH HAS BEEN AN ACTIVE CATTLE RANCH CLOSE TO 100 YEARS. PREVIOUS OWNERS AND OPERATORS HAVE ALWAYS WORKED VERY CLOSELY WITH THE B.L.M. IN THE PRESERVATION OF ITS NATURAL RESOURCES, ITS ENVIRONMENTAL CONCERNS, AND ALWAYS KEPT IT OPEN TO MULTIPLE USE.

BEGINNING IN THE EARLY 1970'S, THE OWNERS AND OPERATORS OF THE RANCH TOOK A PROACTIVE ATTITUDE IN ESTABLISHING A NUMBER OF WINDMILLS, EARTHEN TANKS, DRINKER'S

AND SALT LICKS TO ENCOURAGE UNIFORM LIVESTOCK DISTRIBUTION AND TO ENSURE PROPER UTILIZATION OF THE BURRO CREEK RIPARIAN AREA.

THE PLAN FOR LIVESTOCK GRAZING THROUGH THESE YEARS OF THE '70'S AND '80'S WAS TO ALWAYS STOCK LIGHTLY, NEVER TO OVERSTOCK OR TAKE UNFAIR ADVANTAGE OR TO ENCOURAGE HEAVY GRAZING WHEN YEARS OF GOOD VEGETATION AND WATER WERE AVAILABLE. THE TREND FROM THE '70'S AND '80'S HAS NOT BEEN STOPPED BUT INTENSIFIED.

IN 1987 BYNER WITH THE B.L.M. DEVELOPED ADDITIONAL WATERS TO ENCOURAGE GRAZING AWAY FROM BURRO CREEK. BYNER IN ESTABLISHING THE NEW WATERS HAS INSTALLED SOLAR WATER PUMPING UNITS INSTEAD OF THE TRADITIONAL WINDMILLS.

THE LOW PROFILE OF THE SOLAR UNITS MAKES IT BLEND WITH THE ENVIRONMENT. IT'S VERY EFFICIENT, WHICH STIMULATES WATER CONSERVATION PUMPING ONLY DURING DAYLIGHT HOURS AND IS VIRTUALLY NOISELESS.

MODERN TECHNOLOGY IS NOT CHEAP. THE COST TO BYNER OVER THE LAST TWO YEARS HAS BEEN IN EXCESS OF $25,000 FOR DRILLING AND INSTALLATION. THE MONEY SPENT ON THE RANCH FROM THE 1970'S TO DATE WITH THE EXCEPTION OF $1,200 HAS BEEN OUT-OF-POCKET BY THE OWNER/OPERATOR OF THE RANCH MANY, MANY THOUSANDS OF DOLLARS.

THE PRACTICES AND ATTITUDES MENTIONED SO FAR, AND I'D LIKE TO RESTATE THIS. THE PRACTICES AND ATTITUDES

COULD START FROM. WHY WEREN'T WE CONTACTED AFTER THE B.L.M. REVIEWED OUR MATERIAL?

WHEN WE LEFT THE B.L.M. ON JANUARY 25, 1990 TO TODAY'S DATE, NO FURTHER VERBAL DISCUSSIONS EVER OCCURRED. BYNER MADE SEVERAL CONTACTS WITH THE B.L.M. TO SEE WHAT WAS GOING ON. BUT WERE PUT OFF. IS THAT OUR INPUT WAS NOT NEEDED?

BYNER TODAY WISHES TO EXPRESS DEEP CONCERN FOR THE UNASSESSED IMPACT ON RANCHERS BY THE HIGHLY RESTRICTIVE MANAGEMENT PROPOSED FOR THE A.C.E.C., WILD AND SCENIC RIVERS AND CATEGORIES 1, 2 AND 3 TORTOISE MANAGEMENT AREAS.

ELIMINATION OF GRAZING AND VEHICULAR ACCESS TO WELLS, SPRINGS AND RANGE IMPROVEMENTS WOULD--WOULD PUT NOT ONLY BYNER BUT MANY RANCHERS OUT OF BUSINESS.

TORTOISE HABITAT IS EXTREMELY WIDESPREAD THROUGHOUT ABOUT 60 PERCENT OF ARIZONA AND THERE IS NO VALID SCIENTIFIC DATA INDICATING THAT THE SONORAN DESERT TORTOISE IS THREATENED OR ENDANGERED.

TORTOISE CATEGORIES OF 1, 2 AND 3 HAVE BEEN MADE IN THE KINGMAN RESOURCE AREA CONSISTING OF SOME 50,000 ACRES. HOW CAN ANY CATEGORIES BE MADE IF SCIENTIFIC DATA IS NOT AVAILABLE SUPPORTING SUCH CATEGORIZATION?

THE CLOSING OF WASHES TO MOTOR VEHICLES WOULD VIRTUALLY ELIMINATE--WOULD VIRTUALLY ELIMINATE ACCESS TO IMMENSE ACREAGES OF LAND. EFFECTIVELY ESTABLISHING HUGE

MENTIONED SO FAR IS WHY BURRO CREEK IS WHAT IT IS TODAY, AN AREA OF GREAT DESIRABILITY BY ITS MANY USERS.

BYNER-- BYNER'S WILLINGNESS TO WORK WITH B.L.M. IS ALSO ORCHESTRATED IN OTHER FORMS. WE HAVE HAD EXTENSIVE LAND SWAPS, OVER 3,400 ACRES TRADED TO THE B.L.M. TO ALLOW FOR BETTER MANAGEMENT OF THEIR LAND AND TO CONTROL AREAS THAT ARE SENSITIVE.

EXAMPLE: SIX-MILE CROSSING ON THE BURRO CREEK FOR RECREATION AND CAMPING; THE CARROW RANCH, HISTORICAL SITE IN WIKIEUP ON THE BIG SANDY RIVER, IN WHICH WE TRADED LAND AND GAVE HISTORICAL BUILDINGS FOR PRESERVATION.

BYNER WITHDREW FROM GRAZING ON THE BAGDAD ALLOTMENT, OVER 640 ACRES, FOR THE PRESERVATION OF THE ENDANGERED ARIZONA CLIFFROSE PLANT. AN EXCLOSURE WAS BUILT AROUND THE ACREAGE AND LIVESTOCK AND BURROS ARE NOW KEPT FROM ENTERING THE AREA.

ON DECEMBER 1, 1989, BYNER LISTENED TO THE PROPOSAL FOR AN A.C.E.C. IN THE BURRO CREEK REGION. NO MENTION OF WILD AND SCENIC RIVERS, NO MENTION OF TORTOISE DESIGNATION 1, 2 AND 3.

WE WERE ASKED BY THE B.L.M. TO HAVE INPUT INTO THE A.C.E.C. DESIGNATIONS ON BURRO CREEK. WE DID SO IN PERSON AND IN WRITING ON JANUARY 25TH, 1990 OBJECTING TO THE TOTAL ACREAGE A.C.E.C. CONCEPT AND PRESENTING SITE SPECIFIC.

IT WAS A POINT OF WHICH WE, THE B.L.M. AND BYNER,

WILDERNESS IN THE KINGMAN RESOURSE AND THE BURRO CREEK AREA WITH BAGDAD ALLOTMENT WOULD JOIN NOW TO THE NORTH THE UPPER BURRO CREEK WILDERNESS AREA AND LANDS THAT WERE DESIGNATED FOR MULTIPLE USE BY CONGRESS ON NOVEMBER 28, 1990.

ON NOVEMBER 28, 1990, CONGRESS SIGNED A WILDERNESS BILL DESIGNATING CERTAIN LANDS IN ARIZONA FOR WILDERNESS. CONGRESS ALSO MANDATED ON THAT DATE THAT ALL THE W.S.A.'S THAT DID NOT MAKE WILDERNESS BE RETURNED TO MULTIPLE USE.

HOW CAN THE B.L.M. NOW INTRODUCE MANAGEMENT PLANS THAT RESTRICT, DICTATE, AND ISOLATE LANDS FROM ALL MULTIPLE USERS? DID CONGRESS SAY TO MANAGE FOR SPECIALIZED GROUPS AND CONCERNS OR FOR ALL PEOPLE TO USE THE LAND ACCORDINGLY?

ON PAGE 1 OF THE K.R.A./R.M.P./E.I.S., THE LAST PARAGRAPH, LEFT-HAND COLUMN STATES: "THE R.M.P. DOES NOT ADDRESS LIVESTOCK GRAZING," BECAUSE THE R.M.P. FAILS TO ADDRESS THE IMPACT ON RANCHING, ONE OF THE KINGMAN RESOURCES--KINGMAN AREA RESOURCE'S MOST IMPORTANT INDUSTRIES IN THE KINGMAN AREA, ALTERNATIVES 2 AND 3 ARE TOTALLY UNACCEPTABLE.

ALTERNATIVE 1, WITH REASONABLE MODIFICATIONS, IS THE ONLY SUPPORTABLE ALTERNATIVE; AND THERE AGAIN, IT REQUIRES EVERYONE'S INPUT.

THANK YOU.

MR. KELLIS: ARE YOU GOING TO PUT THAT--GIVE THAT IN WRITING, TOO, DAN?

MR. MEAD: YES, SIR, I AM, BEFORE THE 15TH OR THE 13TH.

MR. KELLIS: I KNEW THEY WERE GOING TO ASK THAT IN JUST A MINUTE.

MR. MEAD: YES, SIR, I AM.

MR. KELLIS: ANYONE ELSE? THANK YOU.

(INFORMAL DISCUSSION OFF THE RECORD.)

MR. MENGES: I'M JEFF MENGES. I'M VICE-CHAIRMAN OF THE PUBLIC LANDS COMMITTEE FOR THE ARIZONA CATTLE GROWERS ASSOCIATION. I'D LIKE TO JUST MAKE A COUPLE OF BRIEF COMMENTS ON BEHALF OF THE CATTLE GROWERS WHILE--WHILE WE'RE HERE.

FIRST OF ALL, WE'D LIKE TO SAY THAT WE--WE STRONGLY SUPPORT THE IMPLEMENTATION OF THE LIVESTOCK GRAZING E.I.S. INTO THE RESOURCE MANAGEMENT PLAN AND HOPE THAT'LL BECOME PART OF THE FINAL DOCUMENT.

WE-- I ASSUME THAT THAT DOCUMENT'S BEEN UPDATED ON A REGULAR BASIS AND IS BEING KEPT CURRENT SINCE IT ORIGINALLY WAS DRAFTED.

MR. BISSON: WE--WE CAN TALK ABOUT THAT AFTER--

MR. MENGES: OKAY.

MR. BISSON: --AFTER THE FORMAL PART.

MR. MENGES: OKAY. ASSUMING--

MR. BISSON: IT'S--

MR. MENGES: ASSUMING THAT THAT'S BEEN DONE, WELL, WE STRONGLY SUPPORT THE IMPLEMENTATION OF THAT INTO THE--INTO THE R.M.P., BUT BECAUSE OF THE-- WE'VE BRIEFLY LOOKED THROUGH THE DRAFT R.M.P. AND BECAUSE OF THE LENGTH AND THE COMPLEXITY OF THE--THE DOCUMENT, WE WILL BE REQUESTING IN WRITING FROM THE KINGMAN RESOURCE AREA THAT THE B.L.M.--A SUMMARY--A SUMMARY FROM THE B.L.M. OF ANY CHANGES THAT ARE GOING TO OCCUR WITH REGARDS TO GRAZING ON THE AREA IF--IF THE--IF THE DRAFT--THE PROPOSAL OF THE DRAFT WERE IMPLEMENTED, SO THAT'S ALL I HAVE.

MR. KELLIS: ANYONE ELSE IN THE AUDIENCE WANT TO MAKE A FORMAL STATEMENT?

MR. MC REYNOLDS: KEN MC REYNOLDS, COFER RANCH. ON THE DESERT TORTOISE CATEGORY 3, TOWNSHIP 20, RANGE 13 WEST AND TOWNSHIP 19 NORTH, RANGE 13 WEST, THESE AREAS ARE STATE AND PRIVATE LANDS AND WERE INCLUDED IN THE DESERT TORTOISE CATEGORY, AND WE WOULD SURELY HOPE THAT THEY COULD BE REMOVED FROM THE CLASSIFICATION.

THANK YOU.

MR. KELLIS: NEXT.

MR. NEELY: MY NAME IS CHUCK NEELY WITH THE CANE SPRINGS RANCH. ON FEBRUARY 14TH, I SENT A LETTER TO MR. CARTER STATING OUR CONCERNS WITH THE DRAFT THAT WAS SENT TO US.

FOR THE RECORD, I WOULD LIKE TO REITERATE THAT WE

ARE OPPOSED TO THE OFF-VEHICULAR RECREATIONAL AREA. THAT'S BEEN DESIGNATED AT THE RED LAKES AREA, SO OUR LETTER OF THE 14TH--FEBRUARY THE 14TH STATES THAT VERY CLEARLY.

MR. KNISELY: GOOD MORNING, MY NAME IS DAVE KNISELY, MOUNT TIPTON RANCH; AND I'D LIKE IT TO BE KNOWN THAT I'M OPPOSED TO THE ENLARGEMENT OF H.M.A. IN THAT AREA.

THANK YOU.

MR. KELLIS: ANYONE ELSE? WHAT ABOUT THE MEMBERS OF THE ADVISORY BOARD? DO THEY WANT TO MAKE A FORMAL STATEMENT OR ANYTHING ON IT?

MR. HUNT: I DON'T AT THIS TIME.

MR. NEAL: I DO.

MR. KELLIS: OKAY.

MR. NEAL: MY NAME IS JOHN NEAL, AND I WANT TO MAKE IT CLEAR THAT--AND I GUESS MAYBE WE--WE COULD HAVE A VOTE, BUT THE ADVISORY BOARD IS OPPOSED TO THIS DOCUMENT, THE A.M. RANGE--RANGE MANAGEMENT PLAN. WHAT DO YOU CALL IT?

MR. BISSON: RESOURCE MANAGEMENT PLAN.

MR. NEAL: RESOURCE MANAGEMENT PLAN, AND I WOULD LIKE TO ALSO MAKE YOU KNOW THIS-- I GUESS I COULD WAIT AND DO IT LATER, BUT I'M GOING TO GO AHEAD AND ASK IT NOW.

IS-- SHOULDN'T THIS DOCUMENT ANSWER THE QUESTION THAT--THAT THE ORGANIC ACT HAS PLACED ON ALL OF US TO NOT HAVE ANY RANGE MANAGEMENT PLANS WITHOUT COOPERATION AND

COORDINATION AND CONSULTATION?

ALSO, I WOULD LIKE FOR EVERYONE TO LOOK AT THE MAP THAT WE HAVE THAT SHOWS THE PRIVATE LAND AND I DON'T KNOW HOW MANY ALLOTMENTS THERE ARE ON THERE, ELAINE, ABOUT PROBABLY 90, 80, OR HOW MANY?

MR. ASBJORN: EIGHTY.

MR. NEAL: ABOUT 80. WE WANT TO MAKE A FORMAL REQUEST, AND WE'RE VERY CONCERNED ABOUT THE NAME THAT'S GIVEN TO THESE ALLOTMENTS, THESE B.L.M. ALLOTMENTS; AND WE WOULD LIKE TO REQUEST B.L.M. TO CHANGE THAT AND IF THEY--THEY-- I AM SURE THEY HAVE SOME B.L.M. ALLOTMENTS, BUT IF THEY'RE NOT ALL B.L.M. ALLOTMENTS, THEN THEY SHOULD BE NAMED AND ALL THE LITERATURE THAT GOES OUT TO DIFFERENT PEOPLE SHOULD SAY INTERMINGLED ALLOTMENTS WITH PRIVATE AND B.L.M.; AND WE SHOULD USE OUR BASE PROPERTY RIGHT, WHICH IS THE WATERS AND THE IMPROVEMENTS, AS A PART OF THAT ALLOTMENT BECAUSE IT'S REAL MISLEADING TO PEOPLE ALL OVER THE COUNTRY WHEN THEY TALK ABOUT A B.L.M. ALLOTMENT.

OR THEY'LL SAY, "WELL THIS ALLOTMENT IS 70 PERCENT B.L.M." WELL, THAT DOESN'T CONSIDER ALL THE PRIVATE RIGHTS, THE BASE PROPERTY RIGHTS, THE WATER AND THE IMPROVEMENTS; AND I THINK THAT REALLY NEEDS TO BE CLARIFIED AND MAY HELP US A LOT IN THE FUTURE TO KEEP DOWN PROBLEMS.

MR. KELLIS: WAIT--WAIT JUST A MINUTE. I'LL GET BACK TO YOU IN JUST A MINUTE, ART.

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MIKE, DO YOU WANT TO SAY--MAKE A STATEMENT?

MR. GROSS: I WANT TO MAKE A LITTLE STATEMENT TO THE GRAZING SITUATION. I GOT A LITTLE DEAL HERE. I HAVE BEEN TO A LOT OF MEETINGS SITTING AROUND AND LISTENING AND EVERYTHING AND I BELONG TO THE ARIZONA BRANCH OF THE CENTER FOR HOLISTIC RESOURCE MANAGEMENT.

I WANT TO READ A LITTLE DEAL HERE AND I THINK IT'S PRETTY IMPORTANT, AND THIS HAPPENS TO BE RUKIN JELKS. THEY'RE TALKING ABOUT RUKIN JELKS' PLACE AND I WANT TO READ THIS; AND THEN I WANT TO GO ON AND, YOU KNOW, THEN I'M GOING TO LEAD OFF INTO THIS.

"WELL, THE RAINS CAME. A FEW PEOPLE ADMITTED THEY WERE BEGINNING TO LOSE HOPE FOR A WHILE, BUT HERE IS A LESSON WORTH LEARNING. A RANCHER FROM THIS AREA, WHO WOULD PREFER TO REMAIN ANONYMOUS, BUT WHO ACTUALLY IS YOUR STATE BRANCH PRESIDENT, RUKIN JELKS THE THIRD, HAD REALLY MOVED INTO HIGH GEAR WITH ANIMAL IMPACT LAST YEAR.

"WITH HERD CONSOLIDATION, WE WERE FINALLY GETTING TO SEE SOME SOIL DISTRIBUTION AND RESULTS. HOWEVER, AS TIME WENT ON AND NO MOISTURE FELL, MOST OF THE RANCHING INDUSTRY WAS WEARING LONG FACES, TIGHTENING BELTS AND SELLING OFF EXCESS STOCK; NOT RUKIN.

"IT'S GOING TO RAIN SOMEDAY," HE SAID, AND "I'M GOING TO BE READY." IT DID. HE WAS; AND THE RESULT WAS VIRTUALLY NO RUNOFF.

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IN GRAZING IN THESE AREAS, BUT IT'S GOT TO BE WITH MANAGEMENT PLANS.

I HAVE A SYSTEM AND IT'S WORKING OUT REAL WELL. WHEN I STARTED THIS-- WHEN MY FAMILY STARTED THIS, WE HAVEN'T HAD A DECENT RAIN SINCE WE STARTED THIS.

WE HAVE BEEN IN A DROUGHT EVER SINCE I PUT THE FIRST COW ON HOLISTIC RESOURCE MANAGEMENT. I STARTED 40 COWS AND WENT TO 60 HEAD OF COWS, AND I'M MANAGING THEM THROUGH A DROUGHT; AND I'M STILL MANAGING THEM. THINGS ARE LOOKIN' GOOD OUT THERE.

MY--MY COWS STAYED FAIRLY WELL AND IN GOOD CONDITION, SO I KNOW IF--IF--IF WE JUST DO SOME MANAGEMENT, EVERYBODY SITS DOWN AND FIGURE OUT A MANAGEMENT PLAN, EVEN WITH THE A.C.E.C.'S, THE DESERT TORTOISE HABITAT, RIPARIAN AREAS, AND ANY OTHER CRITICAL ENVIRONMENT, I THINK IT CAN BE DONE. I KNOW IT CAN BE DONE.

WE HAVE TO HAVE THE ANIMAL IMPACT TO HEAL THE LAND. THE LANDS ARE REALLY GETTING--I MEAN, JUST GOING TO DESERT DESERTIFICATION. PLANT SPECIES ARE--WE'RE LOSING THEM; AND WHEN WE START LOSING OUR PLANT SPECIES, WE'RE GOING TO LOSE OUR WILDLIFE, OUR WATER CYCLE, AND ALL OF THE OTHER THINGS, YOU KNOW, THAT GOES--GOES--GOES WITH THIS SYSTEM.

THANK YOU.

MR. KELLIS: DID YOU WANT TO SAY ANYTHING?

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"BY ANYBYODY'S ESTIMATION, THE RANCH LOOKS BETTER THAN IT EVER HAS. NEARBY ALLOTMENTS WHO FOLLOWED THE CONSERVATIVE APPROACH AND REDUCED STOCKING RATES HAD NO MEASURE--NO MEANS TO SET UP THE SOIL SURFACE FOR RAIN AND SO MUCH OF THE MOISTURE HAS RUN OFF."

THAT LEADS ME TO THIS PROCESS OF REDUCING NUMBERS AND MANAGING YOUR COWS THROUGH A DROUGHT. IN THIS BOOK, IT DON'T MENTION ALL OF YOUR A.C.E.C.'S AND RIPARIAN AREAS, YOUR DESERT TORTOISE HABITATS AND--AND YOUR OTHER CRITICAL ENVIRONMENT.

THIS BOOK DON'T SAY "LET'S IMPLEMENT GRAZING IN THEM AREAS." I THINK IT'S IMPORTANT. GRAZING HAS TO BE DONE. WE HAVE-- MOST-- SOME OF US HAVE BEEN TO THIS SAVORY (PHONETIC) SCHOOL; AND I THINK AFTER WE COME OUT OF IT, I'M PRETTY WELL CONVINCED WE HAVE TO HAVE GRAZING, AND I THINK WE'VE GOT TO BE A BETTER MANAGEMENT.

WE HAVE TO HAVE MANAGEMENT PLANS. WE CAN GRAZE IN THESE DESERT TORTOISE AREAS. WE CAN GRAZE IN THESE ENVIRONMENT--I MEAN, THESE A.C.E.C.'S RIPARIAN AREAS. WE--WE--WE HAVE TO BE ABLE--TO BE ABLE TO GET THE PLANT

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GROWTH, THE IMPACT AND THE ECOLOGICAL SYSTEM. JUST RECENTLY YOU GUYS GAVE AN AWARD TO THE BRIMHALLS FOR--FOR WHAT THEY DID DOWN THERE IN THE BURRO CREEK AREA WHERE IT'S WASHED OUT REALLY BAD AND THEY WENT IN THERE AND DID SOME MANAGEMENT; AND I THINK WE NEED TO GET IN THIS BOOK TO PUT

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MR. STEPHENS: NO, NOT AT THIS TIME.

MR. KELLIS: FRANK, YOU DIDN'T HAVE ANY STATEMENT TO MAKE?

MR. HUNT: I HAVE NONE. I HAVE A QUESTION I WOULD LIKE TO ASK.

MR. KELLIS: WAIT JUST A MINUTE, FRANK. LET'S GET THESE FORMAL STATEMENTS BEFORE WE START THE QUESTIONS.

MR. HUNT: ALL RIGHT.

MR. KELLIS: ART ROGERS WANTS TO MAKE A FORMAL STATEMENT BACK THERE.

MR. ROGERS: I'M ART ROGERS FROM THE ARRASTRA MOUNTAIN ALLOTMENT, AND GOING THROUGH THIS DRAFT STATEMENT PERTAINING TO THE OLD LEGAL WATER RIGHTS ON THESE RANCHES, THAT'S BEEN THERE FOR CENTURIES, YOU MIGHT SAY, THE IMPROVEMENTS.

TO MY UNDERSTANDING THERE IS FORESEEABLE FORECLOSURE OF GRAZING, AND IS THERE ANY AMOUNT OF RESTITUTION TO BE MADE TO THOSE RANCHERS THAT HAS PUT THEIR LIFEWORK IN DEVELOPING THESE PLACES, DEVELOPING THE WATERS?

SOME OF THEM ARE NEW; SOME OF THEM ARE THE OLD LEGAL RIGHTS GOING BACK TO 1916. I INTEND TO MAKE A WRITTEN COMMENT ON THIS AND PRESENT IT WITHIN THIS TIME PERIOD, AND I THANK YOU VERY MUCH.

MR. KELLIS: DO WE HAVE ANY OTHER FORMAL

STATEMENTS FROM THE AUDIENCE?

MR. WILSON: OKAY. I'M BOB WILSON. I'M WITH THE ARIZONA FARM BUREAU, AND THESE RANCHERS HERE TODAY HAVE A NUMBER OF CONCERNS.

I HAVE NOT HAD A CHANCE TO REALLY LOOK THROUGH THE DOCUMENT TO ASK QUESTIONS. I'LL PROBABLY BE ASKING SOME LATER, BUT I WOULD LIKE TO SAY THAT THE 4,000 MEMBERS IN ARIZONA AND ALMOST 4 MILLION MEMBERS NATIONWIDE ARE VERY CONCERNED ABOUT GOVERNMENT ACTION; AND I--I JUST READ AN EXCERPT FROM OUR POLICY: "WE BELIEVE ANY ACTION BY GOVERNMENT THAT DIMINISHES AN OWNER'S RIGHT TO USE HIS PROPERTY, CONSTITUTES THE TAKING OF THE OWNER'S PROPERTY THEREFORE, THE GOVERNMENT SHOULD PROVIDE DUE PROCESS AND COMPENSATION TO THE EXACT DEGREE THAT AN OWNER'S RIGHT TO USE HIS PROPERTY HAS BEEN DIMINISHED BY GOVERNMENT ACTION," SO WE WILL BE LOOKING AT THIS VERY CLOSELY AND WE'LL PROBABLY BE MAKING A WRITTEN COMMENT ON THE PLAN.

MR. KELLIS: ANY MORE FORMAL STATEMENTS OR COMMENTS? HOW ABOUT YOUR PEOPLE, HENRY, ANY OF THEM WANT TO MAKE A COMMENT?

MR. BISSON: IF THEY DO, I'LL SHOOT THEM.

MR. KELLIS: I THOUGHT MAYBE WE MIGHT DRIVE A WEDGE HERE OR SOMETHING.

MR. BISSON: HOW ABOUT IT? DOES ANYBODY WANT TO MAKE A FORMAL COMMENT? THIS IS YOUR ONE TIME CHANCE.

MR. KELLIS: HENRY WANTS YOU TO SIGN YOUR NAME TO A SHEET JUST BEFORE YOU DO IT, BLANK, THOUGH.

(INFORMAL DISCUSSION OFF THE RECORD.)

MR. KELLIS: NOW, WE'RE--WE'RE GOING TO CLOSE THE COURT RECORDS HERE OR THE COURT REPORTER IS GOING TO CLOSE HER RECORDS--LET'S PUT IT THAT WAY--WITH THE FORMAL COMMENTS; AND WE'RE GOING TO HAVE SOME QUESTIONS AND ANSWER PERIOD, BUT THEY WON'T BE ON A FORMAL RECORD.

NOW, DOES ANYONE ELSE HAVE A FORMAL STATEMENT THAT THEY WANT TO GET INTO THE RECORD?

JUST BE SURE AND SIGN YOUR NAME TO THE LIST THAT'S GOING AROUND AND EVERYBODY THAT MADE A COMMENT BE SURE THAT JANICE GETS YOUR CORRECT NAME AND WHO YOU'RE REPRESENTING TO PUT INTO THE RECORD.

WE'LL HAVE A FIVE-MINUTE RECESS AND YOU CAN GIVE HER THOSE NAMES.

MR. BISSON: BEFORE WE DO THAT, I WANT TO MAKE JUST ONE CLOSING REMARK.

MR. KELLIS: GO AHEAD.

MR. BISSON: AGAIN, I WANT TO REITERATE THAT I SINCERELY APPRECIATE YOU TAKING THE TIME TO COME AND MAKE THESE STATEMENTS.

WE'RE VERY CONCERNED ABOUT THE THINGS YOU'VE SAID. SOME OF THEM I HOPE WE CAN ADDRESS WHEN WE GET INTO THE COMMENT AND ANSWER PERIOD AND MAYBE ALLEVIATE SOME FEARS AND

SOME CONCERNS; AND I'M SURE THAT YOU'LL HAVE A LOT OF QUESTIONS THAT YOU'LL WANT TO ASK US THAT WE CAN--IF WE CAN'T ANSWER THEM TODAY, WE'LL DO THE BEST WE CAN TO GET YOU ANSWERS TO THE QUESTIONS YOU HAVE.

I URGE YOU TO GET COMMENTS IN. I THINK ONE OF THE THINGS THAT YOU NEED TO UNDERSTAND, THAT'S IMPORTANT, IS THAT, IN FACT, WHEN WE GO TO THE FINAL, TO BE ELIGIBLE TO PROTEST THE FINAL, YOU NEED TO HAVE SHOWN SOME PARTICIPATION IN THE PROCESS; AND I THINK ALL OF YOU WHO SHOWED UP TODAY AND WILL SIGN UP CAN EASILY DO THAT.

I THINK THAT IF YOU'RE A MEMBER OF THE RANCHING COMMUNITY, CLEARLY YOU'RE A PARTICIPANT IN THE LAND USE PLANNING PROCESS AND CAN PROTEST YOUR APPEAL AT FINAL DOCUMENT, BUT THOSE INDIVIDUALS, WHETHER THEY'RE ENVIRONMENTAL GROUPS OR ANYBODY ELSE, THAT COME IN AT THE LAST MINUTE WILL BE PRECLUDED FROM PROTESTING IF THEY CAN'T SHOW THAT THEY SOMEHOW PARTICIPATED IN THE PROCESS, SO IT'S REAL IMPORTANT THAT YOU MAKE SURE YOU SIGN THAT SHEET TODAY; AND AGAIN, WE TAKE YOUR CONCERNS AND COMMENTS VERY SERIOUSLY, AND I PROMISE YOU WE'LL CONSIDER EVERYTHING THAT WAS SAID TODAY.

OKAY. THAT'S ALL I HAD, ED.

MR. KELLIS: YOU'RE GOING TO HAVE AN OPPORTUNITY TO DO THAT. WE'RE GOING TO OPEN UP FOR QUESTIONS AND ANSWERS HERE IN A FEW MINUTES, BUT IT WON'T BE

MADE A MATTER OF RECORD.

MR. BISSON: YEAH.

MR. KELLIS: WELL, WE'LL TAKE A FIVE-MINUTE BREAK THEN.

MR. BISSON: OKAY.

(THE TAKING OF THE HEARING WAS CONCLUDED AT 9:46 P.M.)

CERTIFICATE OF REPORTER

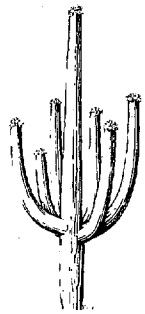
STATE OF ARIZONA)
) SS.
COUNTY OF MOHAVE)

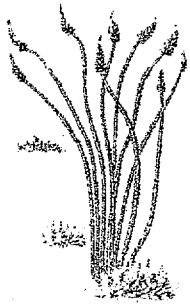
I, JANICE MINER, COURT REPORTER, DO HEREBY CERTIFY THAT I TOOK DOWN IN SHORTHAND (STENOTYPE) ALL OF THE PROCEEDINGS HAD IN THE BEFORE-ENTITLED MATTER AT THE TIME AND PLACE INDICATED, AND THAT THEREAFTER SAID SHORTHAND NOTES WERE TRANSCRIBED INTO TYPEWRITING AT AND UNDER MY DIRECTION AND SUPERVISION AND THE FOREGOING TRANSCRIPT CONSTITUTES A FULL, TRUE AND ACCURATE RECORD OF THE PROCEEDINGS HAD.

IN WITNESS WHEREOF, I HAVE HEREUNTO AFFIXED MY HAND THIS 18TH DAY OF MARCH, 1991.

JANICE MINER, COURT REPORTER

Associated Reporting of Mohave County
PO BOX 1258
LAKE HAVASU CITY, ARIZONA 86403
(602) 855-1366





RESPONSES TO TRANSCRIPTS

C-1 See response 29-3.

C-2 The concerns expressed by the Cyprus Bagdad Copper Corporation and Byner Cattle Company in January 1990 were incorporated into changes in the Burro Creek Area of Critical Environmental Concern boundary. The boundary was moved substantially away from existing and proposed future tailing piles of the Cyprus Bagdad copper mine. The revised area of critical environmental concern boundary was shown on maps in the draft Resource Management Plan published in November 1990.

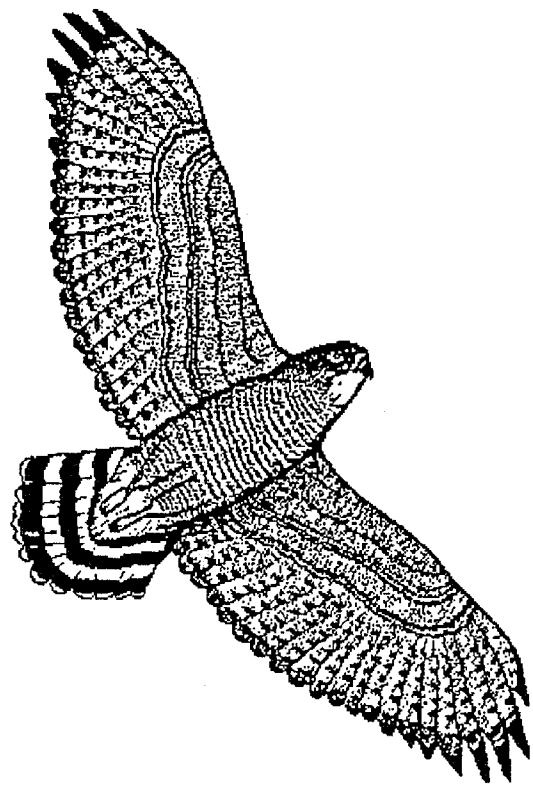
C-3 BLM technical data used in developing the alternatives are found in the Management Situation Analysis, filed in the Kingman Resource Area office and available for public review. The Management Situation Analysis incorporated applicable decisions from the management framework plans. The Management Situation Analysis is incorporated into this document by reference on page 19.

C-4 BLM Manual 1601.05C, 1620.01D and 1622.11A1 require delineation of important wildlife habitat. This is based on existing data in the Kingman Resource Area office files and outlined in the Management Situation Analysis. BLM Manual 1601.08E requires the use of available inventory data in preparing resource management plans.

C-5 The BLM is complying with specific provisions in the Wild and Scenic Rivers Act of 1968 by making eligibility determinations. The BLM does not have the option of not making these determinations.

C-6 Specific provisions in Section 202(C)(3) of the Federal Land Policy and Management Act of 1976 and Section 5(d) of the Wild and Scenic Rivers Act require classification of an area for several unique values. BLM Manual 1623.41A2d requires eligibility determinations and BLM Manual 1601.08C requires the BLM to give priority to identification, designation and protection of areas of critical environmental concern. In the case of a riparian area of critical environmental concern and a wild and scenic river, these values are compatible. The area of critical environmental concern management prescriptions include proposing to Congress that the riparian zone be withdrawn from mineral entry. The several unique values of each area will be addressed when site-specific management plans are completed.

D-1 See response C-2.



L-1

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
025

March 22, 1991

Sandy Naughton
Executive Vice President
Arizona Cattle Growers' Association
1401 N. 24th Street, Suite #4
Phoenix, Arizona 85008

Dear Ms. Naughton:

Thank you for your letter to Henri Bisson, Phoenix District Manager, concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). He has asked me to respond to your questions and the following information is in answer to them. We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The RMP summarizes the decisions in the Cerbat-Black and Hualapai/Aquarius final grazing Environmental Impact Statements. This information is found in Appendix 1, pages 155 through 158 of the draft RMP. Preference on each individual allotment, either active or suspended, is shown in the table on pages 155 and 156, along with information on allotment management plans, base property, management category (management priority in response to resource values), and forage availability (perennial versus ephemeral). Preference will only change in response to monitoring data obtained from utilization and trend studies. This is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

New AMPs will be written according to a schedule to be included in the next updated Range Program Summary (RPS), to be published within a year. Construction of new range improvements will follow schedules built into new and existing Allotment Management Plans (AMP). The presence of Areas of Critical Environmental Concern (ACEC) within allotments will be an important factor in determining priorities for AMP development. Maintenance of existing range improvements will continue to be the responsibility of the party deriving the primary benefit from the improvement, in accordance with BLM policy.

Actions needed to improve access would follow the decisions outlined on page 59 and as shown in Appendix 24. The Bureau's intent is to pursue access acquisitions with the agreement of the private land owner.

Rangeland management actions proposed for the Preferred Alternative, Alternative 2, are summarized on pages 20, 21, and 43 of the draft RMP. Other than being site specific for the individual ACECs, these proposed management actions are "business as usual", as outlined in the grazing EISs.

Specific Management Prescriptions for each ACEC proposed, are shown in Appendix 18. The proposed management prescriptions for each ACEC are designed to protect and enhance important or unique values such as the Joshua tree forest, bighorn sheep, Hualapai Mexican vole, bald eagle, black-hawk, desert tortoise, riparian areas, cultural and paleontological resources, and scenic values. The desired plant communities we plan to reach through grazing management will be tied directly to these unique values. Livestock are a very important component of the public lands and are an extremely important tool in helping us to reach ACEC objectives, since vegetative communities can be improved through proper grazing practices. Most Management Prescriptions in the Preferred Alternative do not exclude livestock, exceptions are the Hualapai Mountain, Carrow-Stephens, and Clay Hills ACECs.

The following are the management prescriptions for each ACEC, which apply to livestock grazing. You will note these prescriptions are in concert with the desired plant community objectives for range management, identified in the grazing EIS documents.

Joshua Tree Forest - Grand Wash Cliffs ACEC (see page 202)

Includes allotments Diamond Bar A (0029) and Gold Basin (0037).

Mgt. Presc. 16. Review current management to assure livestock grazing is in accordance with goals and objectives of the ACEC. Develop desired plant community descriptions for Joshua tree sites and include these in AMP objectives and design grazing management techniques to achieve them.

Black Mountains ACEC (see page 204)

Includes allotments Big Ranch A (0007), Black Mountain A (0010), Fort MacEwen A (0034), Gediondia (0036), Mud Springs (0056), Portland Springs (0061), Thumb Butte (0068), Big Ranch B (0081), and Fort MacEwen B (0082).

Mgt. Presc. 12. Develop desired plant community descriptions for important bighorn sheep habitat and include these in AMP and HMP (Habitat Management Plan) objectives, and design specific management actions to achieve them. Manage livestock grazing to prevent excess utilization.

Mgt. Presc. 13. Review the existing burro Herd Management Area Plan (HMAP) to ensure it conforms with goals and objectives of the ACEC. Keep burro numbers within 320 to 480.

Wright and Cottonwood Creeks Riparian and Cultural ACEC (see page 207)

Includes allotments Crozier Canyon (0026), Hackberry (0042), Truxton Canyon A (0070), and Valentine (0072).

Mgt. Presc. 13. Manage livestock grazing to achieve goals and objectives of the ACEC. Develop desired plant community descriptions for the riparian zone and design grazing management objectives and grazing systems to achieve them.

Cherokee Point Antelope Habitat ACEC (see page 207)

Includes allotment Crozier Canyon (0026).

Mgt. Presc. 8. Manage livestock grazing to achieve goals and objectives of the ACEC. Develop desired plant community descriptions and incorporate these into the AMP. Manage pronghorn antelope habitat at its optimum potential.

Hualapai Mountain Research Natural Area ACEC (see page 208)

Includes allotments Boriana A (0011), Hualapai Peak (0047), Hibernia Peak A (0050), La Cienega (0051), and Yellow Pine (0078).

Mgt. Presc. 10. Exclude livestock from occupied and historic vole habitat (2,114 acres). Note: Occupied sites are currently fenced to exclude grazing. Current rangeland management goals are to restore all riparian areas, which includes historical vole habitats.

Mgt. Presc. 11. Review existing allotment management plans and incorporate objectives designed to protect and enhance watersheds surrounding the ACEC. Develop desired plant community descriptions and design specific management actions to achieve them.

White-Margined Penstemon Reserve ACEC (see page 209)

Includes allotments Boriana A (0011), Happy Jack Wash (0043), and La Cienega (0051).

Mgt. Presc. 10. Develop and implement a livestock management plan to achieve goals and objectives of the ACEC. Develop desired plant community descriptions and include these in the AMP.

Carrow-Stephens Ranches ACEC (see page 210)

Includes allotments Big Sandy (0008) and Diamond Joe (0028).

Mgt. Presc. 6. Fence the ACEC and remove it from consideration of public livestock grazing (1,107 acres). Note: The permittee is currently excluding livestock from the portion of the ACEC east of Highway 93 in order to maintain the historical character of the ranch houses. This action is voluntary, because of their interest in protecting the area, and the permittee agrees with this management prescription.

McCracken Desert Tortoise ACEC (see page 211)

Includes allotments Artillery Range (0003), Bateman Springs (0006), and Chicken Springs (0021).

Mgt. Presc. 10. Develop and implement livestock management plans incorporating desired plant community descriptions to achieve goals and objectives of the ACEC on the following allotments:

Chicken Springs 0021
Bateman Springs 0006
Artillery Range 0003

Mgt. Presc. 11. Manage livestock grazing to ensure adequate and suitable perennial and ephemeral forage and cover for tortoises throughout the year, especially during the spring and late summer-fall.

Mgt. Presc. 12. Conduct tortoise inventory, monitor habitat condition, and assess impacts of livestock grazing. Make necessary adjustments in livestock numbers and grazing season.

Note: These Management Prescriptions are consistent with BLM policy as outlined in the document - Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan and BLM Arizona State and Phoenix District Instruction Memoranda.

Poachie Desert Tortoise Habitat ACEC (see page 212)

Includes allotments Arrastra Mountain (0002), Black Mesa A (0009), Burro Creek Ranch (0014), Greenwood Community (0039), and Black Mesa B (0110).

Mgt. Presc. 10. Develop and implement livestock management plans incorporating desired plant community descriptions to achieve goals and objectives of the ACEC on the following allotments:

Greenwood Community 0039
Burro Creek Ranch 0014
Arrastra Mountain 0002

Mgt. Presc. 11. Manage livestock grazing to ensure adequate and suitable perennial and ephemeral forage and cover for tortoises throughout the year, especially during the spring and late summer-fall.

Mgt. Presc. 12. Conduct tortoise inventory, monitor habitat condition, and assess impacts of livestock grazing. Make necessary adjustments in livestock numbers and grazing season.

Note: These Management Prescriptions are consistent with BLM policy as outlined in the document - Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan and BLM Arizona State and Phoenix District Instruction Memoranda..

Aubrey Peak Bighorn Sheep Habitat ACEC (see page 213)

Includes allotments Artillery Range (0003) and Planet Ranch (Lake Havasu Resource Area).

Mgt. Presc. 13. Develop desired plant community descriptions for bighorn sheep habitat and include these in AMP and HMP objectives, and design management objectives to achieve them. Manage habitat at its optimum potential for bighorn sheep.

Burro Creek Riparian and Cultural ACEC (see page 215)

Include allotments Bagdad (0005), Black Mesa A (0009), Burro Creek (0013), Burro Creek Ranch (0014), Greenwood Community (0039), Greenwood Peak Community (0040), and 7L Cattle Company (0111).

Mgt. Presc. 11. Develop and implement livestock management plans incorporating desired plant community descriptions to achieve goals and objectives of the ACEC on the following allotments:

Bagdad 0005
Greenwood Peak Community 0039
Burro Creek Ranch 0014
Artillery Range 0003

Mgt. Presc. 12. Review the existing burro HMAP to ensure it conforms with goals and objectives of the ACEC. Keep burro numbers within the limits set in the HMAP.

Clay Hills Research Natural Area ACEC (see page 216)

Includes allotment Bagdad (0005).

Mgt. Presc. 8. Continue to exclude grazing by livestock and burros. Note: Much of the ACEC is currently fenced to exclude grazing by livestock.
Mgt. Presc. 9. Monitor the effects of browsing by deer and modify fences if necessary.

Three Rivers Riparian ACEC (see page 217)

Includes allotments Alamo Crossing (0001), Artillery Range (0003), Chicken Springs (0021), DOR (0031), Greenwood Community (0039), Alamo (3001), Palmerita (3063), Primrose (3069), Santa Maria Community (3074), Santa Maria Ranch (5046).

Mgt. Presc. 13. Manage livestock and burro grazing to achieve goals and objectives of the ACEC. Develop desired plant community descriptions and incorporate these into AMPs and HMAPs.

Desired Plant Community (DPC)

I believe it would be helpful for me to explain and define the Desired Plant Community (DPC) concept.

The Bureau of Land Management conducts ecological site inventories to identify ecological sites and the ecological status of the plant communities occurring on them. A particular ecological site may support several unique communities (seral communities), which may be relatively similar, or entirely dissimilar from the potential natural community (PNC), or climax stage of plant community development. At the same time, two seral communities in "early" or "mid" seral status may be as dissimilar to each other as they are to the PNC. Most importantly, these seral plant communities often differ markedly in their relative value for providing cover, habitat, forage, or other desired "products" identified in the land use plan.

The concept of "desired plant communities" takes the "potential natural community", or climax seral stage of Ecological Site, one step further. BLM recognizes it may not always be feasible, or desirable, to manage for a climax seral stage, in order to achieve livestock or other resource management objectives.

BLM defines "desired plant community" as -

> A plant community which produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan goals and activity plan objectives established for the site. The DPC becomes the vegetation management objective for the site and must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.

The RMP calls for a reexamination of perennial - ephemeral allotments, to identify areas producing too small a volume of perennial forage to carry livestock throughout the year. Areas primarily producing ephemeral forage will be designated as ephemeral rangeland, to protect the small population of perennial plants, dependent wildlife, and soil-watershed values. Classification of ephemeral rangelands will be accomplished by collecting Ecological Site Inventory data, utilization and trend data through monitoring studies, and evaluating current grazing practices. All data will be analyzed and the results used to classify rangelands, as mandated in regulations defined in the "Ephemeral Rule." Season of use, livestock preference, and pasture rotation may be affected on some allotments.

We will continue to work closely with the individual permittees, the Kingman Grazing Advisory Board, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and interested environmental groups to prepare new AMPs and update existing AMPs.

I hope this information will help you in preparing your specific comments on the Kingman draft RMP. If you have any further questions please contact me, or Gordon Bentley, at (602) 757-3161.

Sincerely,

/S/ ELAINE F. MARQUIS

Elaine F. Marquis
Area Manager

cc:
Henri Bisson
Ken McReynolds

L-2

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
025
0479r

March 26, 1991

James L. Nelson
Secretary-Treasurer
Grapevine Springs Ranch, Inc.
P.O. Box 1016
Wickenburg, Arizona 85358

Dear Mr. Nelson:

We have received your comments on our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). Thank you for participating in this public document and for your interest in making it the best possible plan for managing the public lands in this resource area for the next 20 years.

The proposed decision in the draft RMP/EIS which deals with acquiring private lands along the Santa Maria River is a management prescription in the proposed Three Rivers Riparian Area of Critical Environmental Concern (ACEC), as shown on page 217. Managment Prescription number 8, states, "Acquire 14,496 acres of private and 3,655 acres of state (surface and subsurface) and close to mineral entry." All proposed actions in the Resource Management Plan are analyzed to determine their impacts on the natural environment of public lands, through the Environmental Impact Statement process. The RMP sets forth general guidelines for the management of public lands for twenty years in the future. Plans for specific actions for each resource will then be developed in activity plans.

This is only a proposed action and does not represent in any way a taking of private property. If the decisions outlined in the draft RMP become the plan for management of public lands in the resource area, nothing would be done without the desire and consent of private land owners. We recognize your rights as a land owner. However, exchange of private and public lands cannot occur in the future, even if both parties desire such an action, if it has not been analyzed in an environmental document and made a part of a resource management plan.

Another management prescription which would affect your livestock grazing operation is Management Prescription number 13, "Manage livestock and burro grazing to achieve goals and objectives of the ACEC. Develop desired plant community descriptions and incorporate these into AMPs (Allotment Management Plans) and (Herd Management Area Plans, for wild horses and burros) HMAPs.' Development of AMPs and HMAPs for livestock and wild horse and burro management along the Santa Maria River is a standard BLM process, which was discussed in our two existing grazing EISs. Decisions in the EISs are being brought forward and made current in the RMP.

The presence of ACECs within an allotment will be an important factor in determining priorities for AMP development and new range improvements. Construction of new range improvements will follow schedules built into new and existing AMPs. Maintenance of existing range improvements will continue to be the responsibility of the party deriving the primary benefit from the improvement, in accordance with BLM policy.

The proposed management prescriptions for the Three Rivers ACEC are designed to protect and enhance important or unique values such as the bald eagle, riparian resources, and scenic values. The desired plant communities we plan to reach through grazing management will be tied directly to these unique values. Livestock are a very important component of the public lands and are an extremely important tool in helping us to reach ACEC objectives, since vegetative communities can be improved through proper grazing practices.

I believe it would be helpful for me to explain and define the Desired Plant Community (DPC) concept.

The Bureau of Land Management conducts ecological site inventories to identify ecological sites and the ecological status of the plant communities occurring on them. A particular ecological site may support several unique communities (seral communities), which may be relatively similar, or entirely dissimilar from the potential natural community (PNC), or climax stage of plant community development. At the same time, two seral communities in "early" or "mid" seral status may be as dissimilar to each other as they are to the PNC. Most importantly, these seral plant communities often differ markedly in their relative value for providing cover, habitat, forage, or other desired "products" identified in the land use plan.

The concept of "desired plant communities" takes the "potential natural community", or climax seral stage of Ecological Site, one step further. BLM recognizes it may not always be feasible, or desirable, to manage for a climax seral stage, in order to achieve livestock or other resource management objectives.

BLM defines "desired plant community" as -

> A plant community which produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan goals and activity plan objectives established for the site. The DPC becomes the vegetation management objective for the site and must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.

We will continue to collect Ecological Site Inventory data and data from utilization and trend monitoring studies, to evaluate the effectiveness of current grazing practices and to propose changes for the future. Season of use, livestock preference, and pasture rotation may be affected on some allotments. Again, this is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

Your comment letter will be published, along with all letters received, in the proposed Resource Management Plan and final Environmental Impact Statement.

After the comment period ends on April 13, 1991, we will analyze all comments. Those comments which provide new information, or address the adequacy of the RMP/EIS or the merits of the alternatives, or both, will be incorporated into the proposed Resource Management Plan and final Environmental Impact Statement. We hope to have this second document completed by late summer.

You will receive a copy of the document when it has been printed and is ready for distribution to the public.

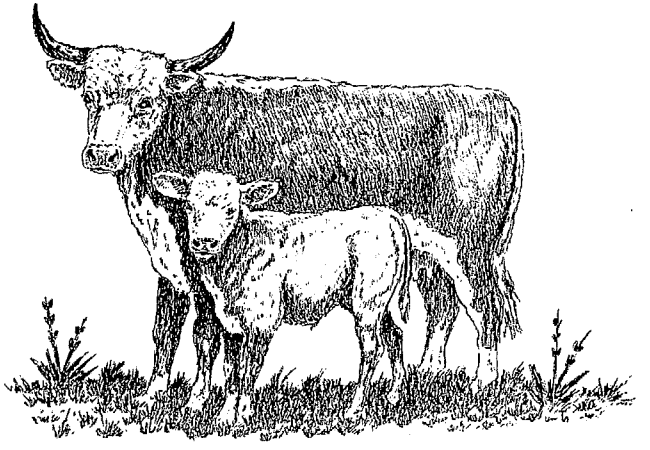
We want to continue to work closely with you and all the other individual permittees, the Kingman Grazing Advisory Board, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and interested environmental groups to properly manage all uses, including livestock grazing, on the public rangelands in the Kingman Resource Area.

I hope this information will help you if you desire to make further comments on the Kingman draft RMP. If you have any further questions please contact me, or any of our range conservationists, or Gordon Bentley, RMP Team Leader, at (602) 757-3161. Again, thank you for your help and interest.

Sincerely,

Elaine F. Marquis

Elaine F. Marquis
Area Manager



L-3

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
1610
025

April 1,1991

Dan Pearson
Senior Co-chairman
The Desert Tortoise Council
5319 Cerritos Avenue
Long Beach, California 90805

Dear Mr. Pearson:

Thank you for your letter concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The following information is in response to your specific comments and questions.

Answers to Comment in First Paragraph

All Areas of Critical Environmental Concern (ACEC), proposed for desert tortoise habitat in the Kingman RMP, contain lands classified as Category I desert tortoise habitat, except for the Western Bajada ACEC. The criterion for Category I classification includes the existence of a habitat area essential to the maintenance of large, viable populations of desert tortoises, and areas where BLM can effectively resolve conflicts. Based on the best available information, the ACECs proposed in the RMP, meet these criteria...they do support viable populations. The ACECs are often adjacent to other tortoise habitats classified in a lower category, due to lower tortoise densities and/or a reduced capability to resolve conflicts, usually due to scattered land ownership patterns.

We have received criticism that we have tried to include too much of the tortoise habitat in our resource area within ACECs. We feel this criticism is not valid. We have attempted to only include the most productive tortoise habitat, where BLM has a high percentage of management authority. On the other hand, we have not left tortoise habitat outside of ACECs without protection. Livestock grazing and other rangeland uses on Category II and III habitat will be managed under specific guidelines outlined in the "Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan", which we are using as a guide when making management decisions on proposed activities in tortoise habitat.

Answers to Comment for Page 47 (Wildlife Corridors)

A map showing the location and width of wildlife corridors will be included in the proposed Plan and final EIS. We do not know where tortoises traditionally migrated before their habitats were fragmented by roads, powerlines, residential developments, and towns. What we have attempted to do in the RMP is to promote wildlife movement corridors connecting major mountain ranges. Corridors were proposed based on topography, land status, and known movement routes for big and small game (animals with existing data). Movement corridor width ranged from one to four miles based on the same factors, with amount of public land being one of the most limiting factors.

Answers to Comment for Page 50 (Candidate Species)

Proposed actions under this RMP focused on federally listed threatened and endangered plants and animals. Actions involving candidate species were less intensive, except for species of particular concern, as identified by the general public, and BLM resource management specialists. Two plant species and the desert tortoise were the only candidate species identified as issues for this RMP.

Answers to Comment for Page 51 (Black Mountains ACEC)

The Black Mountains were proposed as an ACEC because of the extent and quality of habitat for one of Arizona's premier herds of desert bighorn sheep and rare and unique cultural resources. According to the best available information and the experience of our wildlife biologists, this ACEC provides only marginal habitat for desert tortoise. Much of the Black Mountains ACEC, as well as the surrounding area, is non-habitat or classified as Category III tortoise habitat. Most of the southern portion of the original proposed ACEC is now in wilderness, and only the Eastern Bajada area is classified as Category I habitat, which will be well protected by wilderness designation.

Answers to Comment for Page 52 (Western Bajada)

We agree the Management Prescriptions in the Western Bajada ACEC are adequate to protect desert tortoise in this area. The area is used only lightly or not at all by burros. However, we are considering dropping this ACEC in the proposed Plan and final EIS. Additional inventory data collected last summer was more extensive than in the past and resulted in fewer animals and sign. This data caused us to reclassify this area as category II desert tortoise habitat. Again, we believe we can adequately protect the habitat in this area through our normal management procedures. The area is not within a grazing allotment and has not been grazed for many years. Two sections along the Mojave Trail-Beale Road would be designated as a cultural resources ACEC.

Answers to Comment for Page 53 (White-Margined Penstemon)

Because of the checkerboard land status in Dutch Flat, the area is classified as Category II and III habitat. If we had more significant management control and thereby the ability to resolve conflicts, some of the area might have been

classified as Category I. We have designated an expanded area to the west for disposal, using the scattered public land in the disposal area as land suitable for exchange for important tortoise habitat on private land in the Category II area. Once these lands become well-blocked public ownership, they can be reclassified as Category I habitat and possibly considered for ACEC status. Until this time, we will manage the Category II habitat according to Bureau procedures outlined in the tortoise rangewide plan. This area provides the best habitat in the entire resource area for the unique white-margined penstemon and this is why it was considered for ACEC designation.

The Eastern Bajada was originally proposed as an ACEC by BLM wildlife biologists, but managers felt very confident the Warm Springs Wilderness Study Area would be designated wilderness by Congress. Most of the desert tortoise habitat now lies within wilderness. ACEC designation was dropped with the understanding the proposed ACEC goals, objectives and management prescriptions would be incorporated into the Wilderness Management Plans.

Answers to Comment for Page 54 (McCracken ACEC)

OHV use has not been documented as a problem in the McCracken Mountains because of the rugged, steep topography. Within the ACEC very few of the washes are navigable. Also, desert tortoise do not make significant use of the washes in areas where boulders are a significant feature of the environment. The Sonoran population of the desert tortoise is much more dependent on boulder-strewn hillsides and knolls than the Mohave desert population. They are not principally inhabiting wash ecosystems as in the Mohave. There is no evidence of OHV destruction of habitat or tortoises in washes anywhere in the resource area.

Answers to Comment for Poachie ACEC

We are considering dropping the proposed closure of washes in the Poachie ACEC for the reasons given above. We agree that Mining Plans of Operation and mandatory bonding is important for the protection and mitigation of impacts on desert tortoise habitat for all ACECs.

Answers to Comment for Aubrey Peak ACEC

The Aubrey Peak area has not been determined to be "significant" tortoise habitat . The only evidence of tortoise in the Aubrey Peak area is one scat and one carcass reported by BLM and Arizona Game and Fish Department biologists. Transects conducted by BLM tortoise biologists have resulted in no tortoise sign.

Answers to Comment for Page 78 (Closure to Livestock)

We see no need to close ACECs to livestock grazing at this time. Existing research literature does not support damage to desert tortoise habitat when livestock are managed properly. It would be legally impossible for us to restrict livestock completely from desert tortoise habitat without sufficient research evidence that moderate grazing is harmful. On the other hand, we have the laws, regulations, and policy necessary to properly manage livestock grazing in desert tortoise habitat. We also have a large volume of research

and practical application data which points to livestock and wildlife being compatible on rangelands, as long as grazing occurs properly, according to established rules of good grazing principles. Our challenge is to continue to collect scientific data needed to make sound management decisions, and to graze arid rangelands moderately, even during years of exceptional rainfall.

Disposal of "Coversite" Boulders

Both the McCracken and Poachie ACECs are closed to mineral material disposals. This includes a closure to removal of boulders, as well as sand and gravel, and clay.

Answers to Comment for Page 87 (Factors Triggering Review of Management Actions

We agree that downward population trends, increases in mortality, and reductions in forage (i.e., drought, overgrazing, etc.) should trigger a review of management actions in desert tortoise habitat. This wording can be incorporated into the proposed Plan and final EIS.

Answers to Comment for Page 128 (Impacts From Mineral Development)

We will change the wording on page 128, under "IMPACTS TO SPECIAL STATUS SPECIES-from Mineral Development" to include animal species in the last sentences of paragraphs 1 and 2. The sentence would read, "Review and possible modification...causing a plant or animal species to be listed ..."

We agree that mineral development would have long-term cumulative impacts on desert tortoise habitat, but this would occur on very small areas and impacts could be mitigated. This wording can be added to page 128.

Answers to Comment for Page 137 (Alternative 1 Versus Alternative 2)

We do not agree that impacts of mineral development on wildlife under Alternative 2 are "Slightly less" than under Alternative 1. We believe MPOs and mandatory bonding will allow us to mitigate impacts to wildlife and result in significantly less cumulative impacts. We have not singled out any one species in this analysis, but have implied this is true for all wildlife species.

Answers to Comment for Last Paragraph

The RMP is designed to provide general guidance and direction to management, there is not sufficient room in one volume to satisfy the needs of all resources for specific guidance. Specific guidance is provided by activity plans, which adhere to the guidance given in an RMP. The statements on page 34, "Desert Tortoise:" follow the desert tortoise rangewide plan and Arizona State and Phoenix District guidance in Instruction Memoranda. These statements provide adequate guidance to the Area Manager to prepare resource activity plans (e.g., AMPs, burro Herd Management Area Plans (HMAP), and recreation plans), which include protection of desert tortoise habitat.

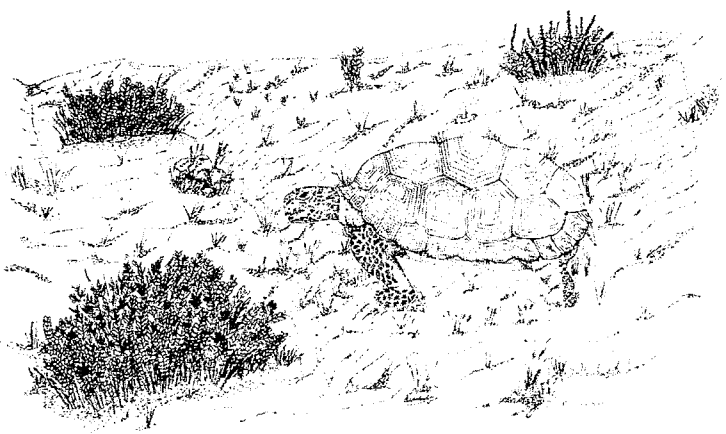
We want to continue to work closely with you and other interested environmental groups, individual permittees, the Kingman Grazing Advisory Board, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and recreation groups to properly manage all uses, including livestock grazing, on the public rangelands in the Kingman Resource Area.

I hope this information will help you better understand the RMP development process and the actions we are proposing for the protection of desert tortoise habitat. If you have any further questions please contact me, or any of our range conservationists, or Gordon Bentley, RMP Team Leader, at (602) 757-3161.

Sincerely,

/S/ ELAINE F. MARQUIS

Elaine F. Marquis
Area Manager



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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
1610
025

March 25, 1991

Lois J. Hubbard
Supervisor, District 4
Chairman, Board of Supervisors
Mohave County
P.O. Box 390
Kingman, Arizona 86402

Dear Ms. Hubbard:

Thank you for your letter expressing concern for the Kingman Resource Management Plan (RMP) and continued livestock grazing as an important use on public lands. I would like to take this opportunity to state that I am also committed to doing all I can, as a public land manager, to ensure the continuation of livestock grazing on allotments within the resource area.

Grazing was not identified by any person or group as an issue, during the public scoping process, at the beginning of the development of the Kingman RMP. Livestock grazing has been identified as impacting other resources and uses and, therefore, has been discussed in the RMP. Council on Environmental Quality (CEQ) regulations and BLM planning manual procedures do not allow us to cover subjects in a proposed Plan and final Environmental Impact Statement, which were not discussed in the draft RMP/EIS.

Through the Federal Land Policy and Management Act (FLPMA) of 1976, as amended, Congress has directed the Secretary of the Interior to:

* promptly develop plans and regulations for the protection of Areas of Critical Environmental Concern (ACEC), see Section 102(a)(11);

* give priority to ACECs in developing and maintaining inventories of the public land, see Section 201(a);

* give priority to the designation and protection of ACECs in developing and revising land use plans, see Section 202(c)(3).

The Bureau of Land Management has incorporated the ACEC regulations in its planning regulations. These regulations require that "...areas having potential for ... ACEC designation and protection management shall be identified and considered throughout the resource management planning (RMP) process...", see 43 CFR 1610.7-2. The BLM's intent is not to identify and designate all areas that have special values, but to focus on those requiring special management attention.

The Arizona Natural Areas Protection Act of 1986 states "It is, therefore, the public policy of the State of Arizona to secure for the people of present and future generations the benefit of an enduring resource of natural areas by establishing a system of natural area preserves, and to provide for the protection of these natural areas." The Governor set up the Riparian Habitat Task Force, Executive Order 89-16, to begin complying with provisions of the Act and begin a Natural Areas Study. The Department of the Interior has four bureau's in the core group of the Natural Areas Study, including the Bureau of Land Management (BLM). Some of the recommendations made by the Study are:

* Additional state statutes including protective policies and mechanisms for the protection of streams, wetlands, and riparian systems, threatened fish and wildlife species and their critical habitats, and endangered plant species are urgently needed.

* Natural areas represent ecological systems that include soil, rocks, minerals, water, air, plants, animals, and human influences. A more holistic educational approach including all aspects of the environment should be implemented, reaching all segments of the public.

The Department of the Interior fully supports the goals of the Arizona Natural Areas Program as stated in the 1989 Arizona Statewide Comprehensive Outdoor Recreation Plan.

The Arizona Riparian Council has stated that Arizona has lost a significant percentage of its original riparian areas and remaining areas are in only fair to poor condition. Protection of riparian areas is extremely important in a state where arid and semi-arid climatic conditions cause streams and wetlands to be jewels in the desert. An extremely high percentage of wildlife indiginous to the desert, or using the desert in the winter, or as a stop on a seasonal flyway, rely heavily upon the water, cover, and forage produced by riparian areas.

BLM has been severely critcized by the General Accounting Office (GAO) for their lack of dynamic leadership in managing riparian areas on public lands, (Public Rangelands - Some Riparian Areas Restored, But Widespread Improvement Will Be Slow GAO/RCED-88-105).

In 1986, Charles H. Callison, Director of the Public Lands Institute of the Natural Resources Defense Council (NRDC) stated, "There are ... many areas of exceptional scenic beauty, or having life-sustaining springs and riparian zones, or holding archaeological or botanic treasures in the arid lands of Arizona ... Yet not a single ACEC has been designated within the 12.2 million acres of BLM lands in Arizona, ..."

The Bureau of Land Management designates ACECs only through its resource management planning process. To be considered in an RMP, a potential ACEC must first pass a screening process by meeting specific criteria of being both relevant and important. This is a public participation process.

The following are the objectives of Areas of Critical Environmental Concern outlined in BLM Manual 1613.02:

* "ACEC designation highlights areas where special management attention is needed to protect, and prevent irreparable damage to, important historic, cultural, and scenic values, fish, or wildlife resources or other natural systems or processes; or to protect human life and safety from natural hazards.";

* "Designation may also support a funding priority."

* "... indicates to the public that the BLM recognizes that an area has significant values and has established special management measures to protect those values.";

* "... serves as a reminder that significant value(s) or resource(s) exist which must be accommodated when future management actions and land use proposals are considered near or within an ACEC." and;

BLM Manual 1613.11A3 states, "A natural process or system (includes) endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features."

Protection of ACECs is accomplished by special management prescriptions which, "... would not be necessary and prescribed if the critical and important features were not present. ... Management prescriptions providing special management attention should include more detail than prescriptions for other areas and should establish priority for implementation." (BLM Manual 1613.12)

"ACECs may be designated within wilderness areas." However, "ACEC designation shall not be used as a substitute for a wilderness suitability recommentation." An ACEC should be able to stand on its own relevance and importance. (BLM Manual 1613.33D)

The Joshua Tree Forest-Grand Wash Cliffs ACEC was proposed by the Phoenix District Advisory Council (multiple use council), a citizens group in Meadview, and BLM biologists, and is supported by the National Park Service - Lake Mead National Recreation Area. In 1967, the area was designated as a National Natural Landmark by the Secretary of the Inerior. The area contains the most outstanding examples of the Joshua tree community.

The Black Mountains ACEC contains outstanding habitat for one of Arizona's premier herds of desert bighorn sheep and extremely rare and important cultural resources. As human activities increase at a tremendous rate, suitable habitat of adequate size for bighorn sheep is becoming very scarce. This ACEC is supported by the Arizona Desert Bighorn Sheep Society, Arizona Game and Fish Department, The Desert Tortoise Council, and The Arizona Nature Conservancy.

The McCracken and Poachie ACECs for desert tortoise have been proposed by The Arizona Nature Conservancy and the Desert Tortoise Council. These areas are classified as category I desert tortoise habitat. The U.S. Fish and Wildlife Service is currently analyzing whether the desert tortoise in Arizona should be listed as threatened or endangered. BLM managers are developing plans to manage desert tortoise habitat to reduce the need for listing.

The proposed ACECs on Wright Creek, Cottonwood Creek, Burro Creek, Big Sandy River, Santa Maria River, and Bill Williams River have been proposed by The Arizona Nature Conservancy and the U.S. Fish and Wildlife Service and are supported by the Maricopa and Prescott Audubon societies and the general public. These areas contain rare and unique riparian areas, rare cultural resources, such threatened and endangered or state listed species as the bald eagle and black-hawk, and unique scenic values.

Kingman Resource Area personnel recognize the importance of livestock grazing in these ACECs. Specific management prescriptions in each ACEC provide for continued grazing through specific grazing prescriptions now existing, or to be developed in future Allotment Management Plans. We are committed to helping in every way possible to ensure grazing operations can continue. We are also committed to protection of natural resources.

In the past several weeks I and my staff have met with Kingman and Bullhead City and Mohave County personnel, Council members from the four Indian Tribes surrounding public lands in our resource area, National Park Service personnel, the Cyprus Bagdad Copper Company, Byner Cattle Company, Kingman Resource Area Grazing Advisory Board, Mohave Livestock Association, and mining industry representatives working in Mohave County.

We have discussed the RMP in detail and through cooperation with all interested parties, we have been able to solve a number of communication problems and clarify confusing language in the RMP. We will continue to seek opportunities to work with user groups and the general public. We have scheduled meetings in the near future with Cyprus Bagdad Copper Company, Byner Cattle Company, several members of the Grazing Advisory Board, and the Mohave Livestock Association to discuss changes in the RMP, as we incorporate the comments we have received.

We appreciate the help we have received from the public to improve our Resource Management Plan. Again, we appreciate your interest in improving management on the public lands in Mohave County. If you have further questions, or would like to discuss this further, please give me a call at 757-3161.

Sincerely,

Elaine F. Marquis

Elaine F. Marquis
Area Manager

L-5

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
025

March 22,1991

Cecil H. Miller, Jr., President
Arizona Farm Bureau Federation
3401 E. Elwood Street
Phoenix, Arizona 85040-1625

Dear Mr. Miller:

Thank you for your letter to Henri Bisson, Phoenix District Manager, concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). He has asked me to respond to your questions and the following information is in answer to them. We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The RMP summarizes the decisions in the Cerbat-Black and Hualapai/Aquarius final grazing Environmental Impact Statements. This information is found in Appendix 1, pages 155 through 158 of the draft RMP. Preference on each individual allotment, either active or suspended, is shown in the table on pages 155 and 156, along with information on allotment management plans, base property, management category (management priority in response to resource values), and forage availability (perennial versus ephemeral). Preference will only change in response to monitoring data obtained from utilization and trend studies. This is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

New AMPs will be written according to a schedule to be included in the next updated Range Program Summary (RPS), to be published within a year. Construction of new range improvements will follow schedules built into new and existing Allotment Management Plans (AMP). The presence of Areas of Critical Environmental Concern (ACEC) within allotments will be an important factor in determining priorities for AMP development. Maintenance of existing range improvements will continue to be the responsibility of the party deriving the primary benefit from the improvement, in accordance with BLM policy.

Actions needed to improve access would follow the decisions outlined on page 59 and as shown in Appendix 24. The Bureau's intent is to pursue access acquisitions with the agreement of the private land owner.

Rangeland management actions proposed for the Preferred Alternative, Alternative 2, are summarized on pages 20, 21, and 43 of the draft RMP. Other than being site specific for the individual ACECs, these proposed management actions are "business as usual", as outlined in the grazing EISs.

Specific Management Prescriptions for each ACEC proposed, are shown in Appendix 18. The proposed management prescriptions for each ACEC are designed to protect and enhance important or unique values such as the Joshua tree forest, bighorn sheep, Hualapai Mexican vole, bald eagle, black-hawk, desert tortoise, riparian areas, cultural and paleontological resources, and scenic values. The desired plant communities we plan to reach through grazing management will be tied directly to these unique values. Livestock are a very important component of the public lands and are an extremely important tool in helping us to reach ACEC objectives, since vegetative communities can be improved through proper grazing practices. Most Management Prescriptions in the Preferred Alternative do not exclude livestock, exceptions are the Hualapai Mountain, Carrow-Stephens, and Clay Hills ACECs.

The following are the management prescriptions for each ACEC, which apply to livestock grazing. You will note these prescriptions are in concert with the desired plant community objectives for range management, identified in the grazing EIS documents.

Joshua Tree Forest - Grand Wash Cliffs ACEC (see page 202)

Includes allotments Diamond Bar A (0029) and Gold Basin (0037).

Mgt. Presc. 16. Review current management to assure livestock grazing is in accordance with goals and objectives of the ACEC. Develop desired plant community descriptions for Joshua tree sites and include these in AMP objectives and design grazing management techniques to achieve them.

Black Mountains ACEC (see page 204)

Includes allotments Big Ranch A (0007), Black Mountain A (0010), Fort MacEwen A (0034), Gediondia (0036), Mud Springs (0056), Portland Springs (0061), Thumb Butte (0068), Big Ranch B (0081), and Fort MacEwen B (0082).

Mgt. Presc. 12. Develop desired plant community descriptions for important bighorn sheep habitat and include these in AMP and HMP (Habitat Management Plan) objectives, and design specific management actions to achieve them. Manage livestock grazing to prevent excess utilization.

Mgt. Presc. 13. Review the existing burro Herd Management Area Plan (HMAP) to ensure it conforms with goals and objectives of the ACEC. Keep burro numbers within 320 to 480.

Wright and Cottonwood Creeks Riparian and Cultural ACEC (see page 207)

Includes allotments Crozier Canyon (0026), Hackberry (0042), Truxton Canyon A (0070), and Valentine (0072).

Mgt. Presc. 13. Manage livestock grazing to achieve goals and objectives of the ACEC. Develop desired plant community descriptions for the riparian zone and design grazing management objectives and grazing systems to achieve them.

Cherokee Point Antelope Habitat ACEC (see page 207)

Includes allotment Crozier Canyon (0026).

Mgt. Presc. 8. Manage livestock grazing to achieve goals and objectives of the ACEC. Develop desired plant community descriptions and incorporate these into the AMP. Manage pronghorn antelope habitat at its optimum potential.

Hualapai Mountain Research Natural Area ACEC (see page 208)

Includes allotments Boriana A (0011), Hualapai Peak (0047), Hibernia Peak A (0050), La Cienega (0051), and Yellow Pine (0078).

Mgt. Presc. 10. Exclude livestock from occupied and historic vole habitat (2,114 acres). Note: Occupied sites are currently fenced to exclude grazing. Current rangeland management goals are to restore all riparian areas, which includes historical vole habitats.

Mgt. Presc. 11. Review existing allotment management plans and incorporate objectives designed to protect and enhance watersheds surrounding the ACEC. Develop desired plant community descriptions and design specific management actions to achieve them.

White-Margined Penstemon Reserve ACEC (see page 209)

Includes allotments Boriana A (0011), Happy Jack Wash (0043), and La Cienega (0051).

Mgt. Presc. 10. Develop and implement a livestock management plan to achieve goals and objectives of the ACEC. Develop desired plant community descriptions and include these in the AMP.

Carrow-Stephens Ranches ACEC (see page 210)

Includes allotments Big Sandy (0008) and Diamond Joe (0028).

Mgt. Presc. 6. Fence the ACEC and remove it from consideration of public livestock grazing (1,107 acres). Note: The permittee is currently excluding livestock from the portion of the ACEC east of Highway 93 in order to maintain the historical character of the ranch houses. This action is voluntary, because of their interest in protecting the area, and the permittee agrees with this management prescription.

McCracken Desert Tortoise ACEC (see page 211)

Includes allotments Artillery Range (0003), Bateman Springs (0006), and Chicken Springs (0021).

Mgt. Presc. 10. Develop and implement livestock management plans incorporating desired plant community descriptions to achieve goals and objectives of the ACEC on the following allotments:

Chicken Springs 0021
Bateman Springs 0006
Artillery Range 0003

Mgt. Presc. 11. Manage livestock grazing to ensure adequate and suitable perennial and ephemeral forage and cover for tortoises throughout the year, especially during the spring and late summer-fall.

Mgt. Presc. 12. Conduct tortoise inventory, monitor habitat condition, and assess impacts of livestock grazing. Make necessary adjustments in livestock numbers and grazing season.

Note: These Management Prescriptions are consistent with BLM policy as outlined in the document - Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan and BLM Arizona State and Phoenix District Instruction Memoranda.

Poachie Desert Tortoise Habitat ACEC (see page 212)

Includes allotments Arrastra Mountain (0002), Black Mesa A (0009), Burro Creek Ranch (0014), Greenwood Community (0039), and Black Mesa B (0110).

Mgt. Presc. 10. Develop and implement livestock management plans incorporating desired plant community descriptions to achieve goals and objectives of the ACEC on the following allotments:

Greenwood Community 0039
Burro Creek Ranch 0014
Arrastra Mountain 0002

Mgt. Presc. 11. Manage livestock grazing to ensure adequate and suitable perennial and ephemeral forage and cover for tortoises throughout the year, especially during the spring and late summer-fall.

Mgt. Presc. 12. Conduct tortoise inventory, monitor habitat condition, and assess impacts of livestock grazing. Make necessary adjustments in livestock numbers and grazing season.

Note: These Management Prescriptions are consistent with BLM policy as outlined in the document - Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan and BLM Arizona State and Phoenix District Instruction Memoranda..

Aubrey Peak Bighorn Sheep Habitat ACEC (see page 213)

Includes allotments Artillery Range (0003) and Planet Ranch (Lake Havasu Resource Area).

Mgt. Presc. 13. Develop desired plant community descriptions for bighorn sheep habitat and include these in AMP and HMP objectives, and design management objectives to achieve them. Manage habitat at its optimum potential for bighorn sheep.

Burro Creek Riparian and Cultural ACEC (see page 215)

Include allotments Bagdad (0005), Black Mesa A (0009), Burro Creek (0013), Burro Creek Ranch (0014), Greenwood Community (0039), Greenwood Peak Community (0040), and 7L Cattle Company (0111).

Mgt. Presc. 11. Develop and implement livestock management plans incorporating desired plant community descriptions to achieve goals and objectives of the ACEC on the following allotments:

Bagdad 0005
Greenwood Peak Community 0039
Burro Creek Ranch 0014
Artillery Range 0003

Mgt. Presc. 12. Review the existing burro HMAP to ensure it conforms with goals and objectives of the ACEC. Keep burro numbers within the limits set in the HMAP.

Clay Hills Research Natural Area ACEC (see page 216)

Includes allotment Bagdad (0005).

Mgt. Presc. 8. Continue to exclude grazing by livestock and burros. Note: Much of the ACEC is currently fenced to exclude grazing by livestock.
Mgt. Presc. 9. Monitor the effects of browsing by deer and modify fences if necessary.

Three Rivers Riparian ACEC (see page 217)

Includes allotments Alamo Crossing (0001), Artillery Range (0003), Chicken Springs (0021), DOR (0031), Greenwood Community (0039), Alamo (3001), Palmerita (3063), Primrose (3069), Santa Maria Community (3074), Santa Maria Ranch (5046).

Mgt. Presc. 13. Manage livestock and burro grazing to achieve goals and objectives of the ACEC. Develop desired plant community descriptions and incorporate these into AMPs and HMAPs.

Desired Plant Community (DPC)

The Bureau of Land Management conducts ecological site inventories to identify ecological sites and the ecological status of the plant communities occurring on them. A particular ecological site may support several unique communities (seral communities), which may be relatively similar, or entirely dissimilar from the potential natural community (PNC), or climax stage of plant community development. At the same time, two seral communities in "early" or "mid" seral status may be as dissimilar to each other as they are to the PNC. Most importantly, these seral plant communities often differ markedly in their relative value for providing cover, habitat, forage, or other desired "products" identified in the land use plan.

The concept of "desired plant communities" takes the "potential natural community", or climax seral stage of Ecological Site, one step further. BLM recognizes it may not always be feasible, or desirable, to manage for a climax seral stage, in order to achieve livestock or other resource management objectives.

BLM defines "desired plant community" as -

> A plant community which produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan goals and activity plan objectives established for the site. The DPC becomes the vegetation management objective for the site and must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.

The RMP calls for a reexamination of perennial - ephemeral allotments, to identify areas producing too small a volume of perennial forage to carry livestock throughout the year. Areas primarily producing ephemeral forage will be designated as ephemeral rangeland, to protect the small population of perennial plants, dependent wildlife, and soil-watershed values. Classification of ephemeral rangelands will be accomplished by collecting Ecological Site Inventory data, utilization and trend data through monitoring studies, and evaluating current grazing practices. All data will be analyzed and the results used to classify rangelands, as mandated in regulations defined in the "Ephemeral Rule." Season of use, livestock preference, and pasture rotation may be affected on some allotments.

Information concerning the extent of public, state, and private land acres in each of our 83 livestock grazing allotments is contained in the file of each individual grazing permittee. The consolidation of this data would place a tremendous workload on my staff. With our current priorities, we cannot provide you with this information at this time. These files are located in the Kingman Resource Area office and they are available for your examination during regular business hours (7:30 a.m. to 4:30 p.m.).

Your request that we delineate and rename the allotments as BLM or co-mingled allotments cannot be accomplished in the RMP process. This would represent a bureauwide change in procedures and can only be initiated by our Director in Washington.

We will continue to work closely with the individual permittees, the Kingman Grazing Advisory Board, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and interested environmental groups to prepare new AMPs and update existing AMPs.

I hope this information will help you in preparing your specific comments on the Kingman draft RMP. If you have any further questions please contact me, or Gordon Bentley, at (602) 757-3161.

Sincerely,

/S/ ELAINE F. MARQUIS

Elaine F. Marquis
Area Manager

cc:
Henri Bisson
Ken McReynolds

L-6

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
025
0488r

April 9, 1991

Robert L. Harrison
Registered Professional Geologist
P.O. Box 7228
Brookings, Oregon 97415

Dear Mr. Harrison:

Thank you for your letter concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

I would like to respond to your specific comments with the intent of clarifying your questions and concerns about our proposed actions affecting mineral development in the resource area.

The specific actions we have proposed in the RMP are consistent with federal laws and Department and Bureau policy. We are responding to our legal mandate to encourage and facilitate the development of public land mineral resources by private industry. The actions proposed in the RMP do meet this mandate and the following information taken from the RMP highlights and summarizes our proposals for better understanding.

Map IV-1 on page 121, shows the location of areas where locatable minerals are expected to have a high potential to occur. Map III-2 on page 98, shows the location of areas where sand and gravel are expected to have a high potential to occur. I would ask you to compare these two maps with the map of Special Management Areas - Alt 2 (see map pockets), showing the boundaries of Areas of Critical Environmental Concern (ACEC), and the specific Management Prescriptions listed for each ACEC in Appendix 18. Let us take the Black Mountains ACEC as an example.

Locatable Minerals

No land within the area of high potential for locatable minerals, in the Black Mountains ACEC, has been withdrawn from mineral entry. Management Prescription number 3, page 203, states "Mining Plans of Operation (MPO) and mandatory bonding would be required for all mineral exploration and development activities." This does not restrain any individual or corporation from continuing their normal mining activities on valid claims on public lands. By requiring an MPO and mandatory bonding on all operations, including those with soil disturbing activities of less than five acres, BLM can better monitor compliance with regulations and ensure rehabilitation is adequate and complete after mining ceases. In our meetings with representatives of the mining industry, we have received no negative comments about the requirement

of MPOs and mandatory bonding for small operations. On the contrary, we have been told by larger operators they are glad of this requirement, because operators who act irresponsibly give the entire industry a bad image. They believe everyone should be required to comply with the same procedures.

The Management Prescriptions for minerals on the Black Mountains ACEC, are not "defacto withdrawal(s) under the guise of protecting a species ..." They are designed to protect the solitude and habitat of bighorn sheep. We agree bighorn sheep are not an endangered species. The relevance and importance statements in the Black Mountains and Aubrey Peak ACECs address only their uniqueness and value as an important natural component of the Arizona desert, worthy of protection and enhancement.

You made no mention of the withdrawals from mineral entry along the stream channels in the several riparian ACECs. An area one-eighth mile on either side of the stream has been proposed for withdrawal from mineral entry in order to protect the riparian habitat from degradation. These areas generally do not have a high potential for occurrence of locatable minerals. One exception is the central portion of Burro Creek, adjacent to the Cyprus Bagdad copper mine. We have tentatively discussed removing this area from our ACEC proposal in the proposed Plan and final EIS.

All withdrawals are subject to valid existing rights.

Saleable Minerals

Map III-2 shows little potential for sand and gravel within the Black Mountains ACEC, but high potential along Detrital Wash and just east of Bullhead City. The Black Mountains do contain areas of sand and gravel, but the deposits in Detrital Wash and near Bullhead City are more extensive and closer to where the material would be used. Management Prescription number 6 for the Black Mountains ACEC, page 204, states "Do not allow new areas for mineral material disposals." However, no restrictions are placed on the removal of mineral materials in Detrital Wash. We have proposed Management Prescription number 6 to prevent unnecessary disturbance to bighorn sheep.

Mineral material disposals would not be allowed in desert tortoise habitat to keep boulders from being removed for urban landscaping. Boulders provide critical habitat for the tortoise and these areas generally have a low potential for sand and gravel. Riparian areas would be closed to mineral material disposals, to protect stream channels and streambank vegetation from destruction caused by sand and gravel removal. Most of these areas do not have a high potential for large deposits of sand and gravel, and other suitable sources are readily available in the same general areas.

Leasable Minerals

The Black Mountains ACEC, as well as the entire resource area, have a low to zero potential for occurrence of oil and gas.

Management Prescription number 4, page 204, states "Mineral leasing would be allowed, subject to the following stipulations designed to protect resource values:

- No activity in lambing grounds from December 1 through May 31.
- To avoid harassment and undue disturbance of bighorn sheep, workers would not be allowed to live on-site."

Other stipulations deal with restricting public access on roads used by drillers and rehabilitating roads no longer needed.

Management Prescription number 5 states "Prohibit oil and gas production facilities inside the boundaries of lambing grounds."

These restrictions are designed to minimize conflicts between people and bighorn sheep and allow lambing to occur in solitude, which is essential for the health and maintenance of bighorn sheep. The lambing grounds are very site specific and small in size, in relation to the rest of the mountain range and other areas open to lease. They should have little negative impact on the oil and gas industry. Extensive oil and gas exploration and development activities occurring in areas of high potential, in states such as Wyoming and New Mexico, have proven these stipulations are not a deterrent to production of oil and gas. As you are well aware, these restrictions do not apply to locatable mineral activities.

As you can see, the proposed actions in the Black Mountains ACEC do not withdraw large areas from lease, or place them under a "no surface occupancy" (NSO) restriction. They do, however, remove the existing 327,000 acre NSO restriction currently covering the Black Mountains.

Riparian zones have a NSO restriction one-eighth mile on either side of the stream channel to protect riparian habitat. Slant drilling for oil and gas can logically occur at this distance. There is no NSO restriction in any other area.

We believe our RMP proposed actions are designed to actively encourage and facilitate "environmentally sound exploration, extraction,..." of mineral resources and "reclamation" of mined lands in the resource area. These ACECs are designed to protect critical resources, while still allowing a multitude of uses such as mining, livestock grazing, camping, hiking, picnicking, swimming, hunting, fishing, OHV use, rights-of-way, to occur on the land.

I am enclosing a table we are preparing for inclusion in the proposed Plan and final EIS, listing the acreages of proposed mineral closures for each ACEC. As you can see, the acreages of withdrawal are small for locatable and leasable minerals. As I pointed out earlier, areas where we will not allow mineral material disposals do not occur in high value areas near major use centers. In addition, we are planning to eliminate the Western Bajada ACEC and its proposed withdrawals, further lowering the acreages shown in the table.

I hope this letter has addressed and clarified your concerns. We are committed to completing a RMP, which accurately reflects the use and protection of the varied resources occurring on the resource area. We are also committed to protecting the valid existing rights of all users of the public lands and encouraging development of public mineral resources.

If you have further questions or want more information, please contact me or Gordon Bentley, to schedule a day and time when we can visit with you. Again, thank you for your interest in management of the public lands and your help in developing the Kingman RMP/EIS.

Sincerely,

/S/ JESSE J. JUEN

Jesse J. Juen
Assistant Area Manager

Enclosure (1)
Mineral Closure Table

Preferred Alternative Mineral Closures by Area of Critical Environmental Concern

	Federal Mineral Estate*				
ACEC Name	Mineral Material Disposals	Withdrawn from Mineral Entry	Mineral Leasing with No Surface Occupancy	Withdrawn from Mineral Leasing	*Total Federal Surface Acres*
Joshua Tree Forest-Grand Wash Cliffs	22,896	5,596	0	0	*39,085*
Black Mountains	95,938	0	0	0	*122,832*
Western Bajada Tortoise & Cultural	8,909	8,909	0	8,909	*15,866*
Wright-Cottonwood Creeks Riparian & Cultural	3,925	3,925	3,925	0	*27,300*
Cherokee Point Antelope Habitat	0	0	0	0	*54,457*
Hualapai Mountain	2,183	2,183	2,183	0	*3,300*
White-Margined Penstemon	13,980	0	0	0	*17,493*
Carrow-Stephens Ranches	1,172	1,172	1,172	0	*1,795*
McCracken Desert Tortoise Habitat	19,039	0	0	0	*22,354*
Poachie Desert Tortoise Habitat	31,388	0	0	0	*32,118*
Aubrey Peak Bighorn Sheep Habitat	2,391	0	0	0	*2,391*
Burro Creek Riparian & Cultural	6,850	6,850	6,850	0	*28,089*
Clay Hills Research Natural Area	1,113	1,113	0	1,113	*1,113*
Three Rivers Riparian	9,880	9,880	9,880	0	*32,089*
Campgrounds	320	320	320	0	*320*
Total Federal Mineral Acres**	**219,984**	**39,948**	**24,330**	**10,022**	
Total Federal Surface Acres					*400,602*

*Acreages *do not* include Closures for Wilderness
**Acreages computed by Geographic Information System (GIS)

L-7

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
025

March 26, 1991

Frank L. Hunt
P.O. Box 58
Peach Springs, Arizona
86434

Dear Mr. Hunt:

Thank you for your letter concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The RMP summarizes the decisions in the Cerbat-Black and Hualapai/Aquarius final grazing Environmental Impact Statements (EIS). This information is found in Appendix 1, pages 155 through 158 of the draft RMP. Preference on each individual allotment, either active or suspended, is shown in the table on pages 155 and 156, along with information on allotment management plans, base property, management category (management priority in response to resource values), and forage availability (perennial versus ephemeral). Preference will only change in response to monitoring data obtained from utilization and trend studies. This is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

The presence of Areas of Critical Environmental Concern (ACEC) within an allotment will be an important factor in determining priorities for AMP development and new range improvements. Construction of new range improvements will follow schedules built into new and existing Allotment Management Plans (AMP). Maintenance of existing range improvements will continue to be the responsibility of the party deriving the primary benefit from the improvement, in accordance with BLM policy.

Actions needed to improve access would follow the decisions outlined on page 59 and as shown in Appendix 24. The Bureau's intent is to pursue access acquisitions with the agreement of the private land owner.

Rangeland management actions proposed for the Preferred Alternative, Alternative 2, are summarized on pages 20, 21, and 43 of the draft RMP. Other than being site specific for the individual ACECs, these proposed management actions are "business as usual", as outlined in the grazing EISs.

We are presently conducting an Ecological Site Inventory throughout the resource area. Using this data, the Bureau will set objectives for desired plant communities. Changes in desired plant communities will be monitored along with the degree of forage utilization. This data will be analyzed and the results will be used to make livestock use adjustments in the future. Season of use, livestock preference, and pasture rotation may be affected on some allotments. Again, this is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

I believe it would be helpful for me to explain and define the Desired Plant Community (DPC) concept.

The Bureau of Land Management conducts ecological site inventories to identify ecological sites and the ecological status of the plant communities occurring on them. A particular ecological site may support several unique communities (seral communities), which may be relatively similar, or entirely dissimilar from the potential natural community (PNC), or climax stage of plant community development. At the same time, two seral communities in "early" or "mid" seral status may be as dissimilar to each other as they are to the PNC. Most importantly, these seral plant communities often differ markedly in their relative value for providing cover, habitat, forage, or other desired "products" identified in the land use plan.

The concept of "desired plant communities" takes the "potential natural community", or climax seral stage of Ecological Site, one step further. BLM recognizes it may not always be feasible, or desirable, to manage for a climax seral stage, in order to achieve livestock or other resource management objectives.

BLM defines "desired plant community" as -

> A plant community which produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan goals and activity plan objectives established for the site. The DPC becomes the vegetation management objective for the site and must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.

Woodcutting would be allowed in areas found suitable for removal of woodland trees, through a site analysis, and after a management plan has been prepared. A management plan will outline program objectives, long-range goals, and mitigation practices needed to minimize resource conflicts and potential resource damage. In other words, the site must contain trees of sufficient size for harvest, be on slopes and soils which will not be damaged and cause deterioration of the watershed, harvest will not create an eyesore to people on well traveled roads, and will not cause damage to cultural resources or to threatened and endangered plants or animals.

Manipulation of vegetation would continue to be considered on areas found suitable for such treatment through site-specific analysis of important site factors such as slope, aspect, climate, soil type and depth, potential natural community, and existing vegetative type. The type of vegetative manipulation treatment suitable for the site would be determined by analyzing the impacts of possible treatment procedures. Prescribed fire, plowing and seeding, chaining, brush-beating, land imprinting, and herbicides are treatments which would be considered. An environmental analysis would be done on each area to determine impacts.

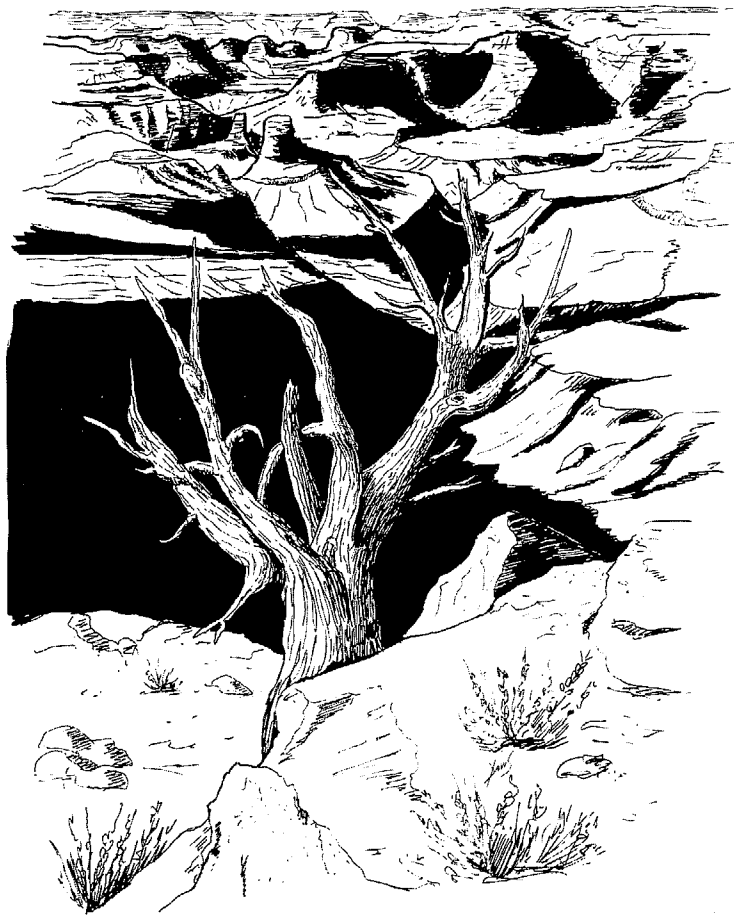
We want to continue to work closely with you and all the other individual permittees, the Kingman Grazing Advisory Board, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and interested environmental groups to properly manage all uses, including livestock grazing, on the public rangelands in the Kingman Resource Area.

I hope this information will help you in preparing your specific comments on the Kingman draft RMP. If you have any further questions please contact me, or any of our range conservationists, or Gordon Bentley, RMP Team Leader, at (602) 757-3161.

Sincerely,

Elaine F. Marquis

Elaine F. Marquis
Area Manager



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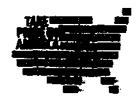

IN REPLY REFER TO:
1610
025

March 22,1991

W J. Robinson
P.O. Box 200 Star Route
Peach Springs, Arizona 86434

Dear Mr. Robinson:

Thank you for your letter to Henri Bisson, Phoenix District Manager, concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). He has asked me to respond to your questions and the following information is in answer to them. We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The RMP summarizes the decisions in the Cerbat-Black and Hualapai/Aquarius final grazing Environmental Impact Statements (EIS). This information is found in Appendix 1, pages 155 through 158 of the draft RMP. Preference on each individual allotment, either active or suspended, is shown in the table on pages 155 and 156, along with information on allotment management plans, base property, management category (management priority in response to resource values), and forage availability (perennial versus ephemeral). Preference will only change in response to monitoring data obtained from utilization and trend studies. This is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

The presence of Areas of Critical Environmental Concern (ACEC) within an allotment will be an important factor in determining priorities for AMP development and new range improvements. Construction of new range improvements will follow schedules built into new and existing Allotment Management Plans (AMP). Maintenance of existing range improvements will continue to be the responsibility of the party deriving the primary benefit from the improvement, in accordance with BLM policy.

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Rangeland management actions proposed for the Preferred Alternative, Alternative 2, are summarized on pages 20, 21, and 43 of the draft RMP. Other than being site specific for the individual ACECs, these proposed management actions are "business as usual", as outlined in the grazing EISs.

Specific Management Prescriptions for each ACEC proposed, are shown in Appendix 18. The proposed management prescriptions for each ACEC are designed to protect and enhance important or unique values such as the Joshua tree forest, bighorn sheep, Hualapai Mexican vole, bald eagle, black-hawk, desert tortoise, antelope habitat, riparian areas, cultural and paleontological resources, and scenic values. The desired plant communities we plan to reach through grazing management will be tied directly to these unique values. Livestock are a very important component of the public lands and are an extremely important tool in helping us to reach ACEC objectives, since vegetative communities can be improved through proper grazing practices.

The Wright and Cottonwood Creeks Riparian and Cultural ACEC and Cherokee Point Antelope Habitat ACEC have been proposed for the Crozier alltoment (0026), see pages 206 and 207 of the draft RMP/EIS. The management prescriptions which most affects your livestock operation are shown as follows:

Wright and Cottonwood Creeks Riparian and Cultural ACEC

Mgt. Presc. 13. Manage livestock grazing to achieve goals and objectives of the ACEC. Develop desired plant community descriptions for the riparian zone and design grazing management objectives and grazing systems to achieve them.

Note: As Walt and I discussed during our meeting with the Mohave Livestock Association on March 20th, these are the same objectives we are currently working on with you, in developing the Crozier allotment AMP.

Cherokee Point Antelope Habitat ACEC

Mgt. Presc. 8. Manage livestock grazing to achieve goals and objectives of the ACEC. Develop desired plant community descriptions and incorporate these into the AMP. Manage pronghorn antelope habitat at its optimum potential.

I believe it would be helpful for me to explain and define the Desired Plant Community (DPC) concept.

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The concept of "desired plant communities" takes the "potential natural community", or climax seral stage of Ecological Site, one step further. BLM recognizes it may not always be feasible, or desirable, to manage for a climax seral stage, in order to achieve livestock or other resource management objectives.

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We will continue to collect Ecological Site Inventory data and data from utilization and trend monitoring studies, to evaluate the effectiveness of current grazing practices and to propose changes for the future. Season of use, livestock preference, and pasture rotation may be affected on some allotments. Again, this is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

We want to continue to work closely with you and all the other individual permittees, the Kingman Grazing Advisory Board, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and interested environmental groups to properly manage all uses, including livestock grazing, on the public rangelands in the Kingman Resource Area.

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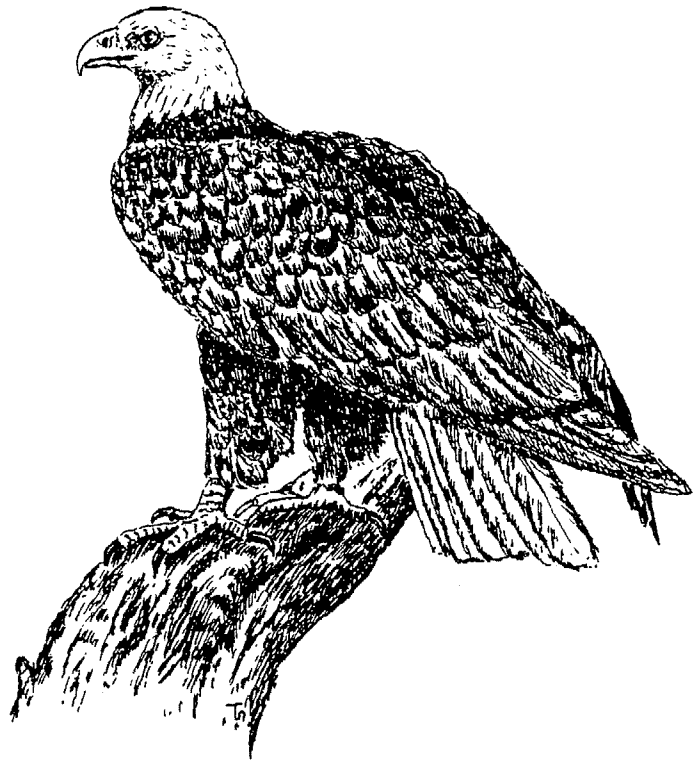
Sincerely,

/S/ ELAINE F. MARQUIS

Elaine F. Marquis
Area Manager

cc:
Henri Bisson
Ken McReynolds



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KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
025

April 1,1991

Howard Grounds
W.F. Cattle Co.
P.O. Box 270
Kingman, Arizona 86402

Dear Mr. Grounds:

Thank you for your letter concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

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The presence of Areas of Critical Environmental Concern (ACEC) within an allotment will be an important factor in determining priorities for AMP development and new range improvements. Construction of new range improvements will follow schedules built into new and existing Allotment Management Plans (AMP). Maintenance of existing range improvements will continue to be the responsibility of the party deriving the primary benefit from the improvement, in accordance with BLM policy.

Actions needed to improve access would follow the decisions outlined on page 59 and as shown in Appendix 24. The Bureau's intent is to pursue access acquisitions with the agreement of the private land owner.

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We are presently conducting an Ecological Site Inventory throughout the resource area. Using this data, the Bureau will set objectives for desired plant communities. Changes in desired plant communities will be monitored along with the degree of forage utilization. This data will be analyzed and the results will be used to make livestock use adjustments in the future.

Season of use, livestock preference, and pasture rotation may be affected on some allotments. Again, this is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

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I hope this information will help you in preparing your specific comments on the Kingman draft RMP. If you have any further questions please contact me, or any of our range conservationists, or Gordon Bentley, RMP Team Leader, at (602) 757-3161.

Sincerely,

/s/Elaine F. Marquis

Elaine F. Marquis
Area Manager

cc:
Ken McReynolds

L-10

United States Department of the Interior

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KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
025

March 28,1991

William L. Nugent
2634 Airway Avenue
Kingman, Arizona 86401

Dear Mr. Nugent:

Thank you for your letter concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The RMP summarizes the decisions in the Cerbat-Black and Hualapai/Aquarius final grazing Environmental Impact Statements (EIS). This information is found in Appendix 1, pages 155 through 158 of the draft RMP. Preference on each individual allotment, either active or suspended, is shown in the table on pages 155 and 156, along with information on allotment management plans, base property, management category (management priority in response to resource values), and forage availability (perennial versus ephemeral). Preference will only change in response to monitoring data obtained from utilization and trend studies. This is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

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The Hualapai Mountain Research Natural Area ACEC has been proposed for the Hibernia Peak A allotment (0050), see page 208 of the draft RMP/EIS. The management prescriptions which most affect your livestock operation are shown as follows:

Hualapai Mountain Research Natural Area ACEC

Mgt. Presc. 10. Exclude livestock from occupied and historic vole habitat (2,114 acres). Note: Occupied sites are currently fenced to exclude grazing. Current rangeland management goals are to restore all riparian areas, which includes historical vole habitats.

Mgt. Presc. 11. Review existing allotment management plans and incorporate objectives designed to protect and enhance watersheds surrounding the ACEC. Develop desired plant community descriptions and design specific management actions to achieve them.

I believe it would be helpful for me to explain and define the Desired Plant Community (DPC) concept.

The Bureau of Land Management conducts ecological site inventories to identify ecological sites and the ecological status of the plant communities occurring on them. A particular ecological site may support several unique communities (seral communities), which may be relatively similar, or entirely dissimilar from the potential natural community (PNC), or climax stage of plant community development. At the same time, two seral communities in "early" or "mid" seral status may be as dissimilar to each other as they are to the PNC. Most importantly, these seral plant communities often differ markedly in their relative value for providing cover, habitat, forage, or other desired "products" identified in the land use plan.

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We want to continue to work closely with you and all the other individual permittees, the Kingman Grazing Advisory Board, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and interested environmental groups to properly manage all uses, including livestock grazing, on the public rangelands in the Kingman Resource Area.

I hope this information will help you in preparing your specific comments on the Kingman draft RMP. If you have any further questions please contact me, or any of our range conservationists, or Gordon Bentley, RMP Team Leader, at (602) 757-3161.

Sincerely,

/s/Elaine F. Marquis
Elaine F. Marquis
Area Manager

cc:
Ken McReynolds

L-11

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
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0486r

April 2, 1991

Charles Earle
Laughlin Land and Cattle Co.
P.O. Box 6303
Kingman, Arizona 86402

Dear Mr. Earle:

Thank you for your letter concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The RMP summarizes the decisions in the Cerbat-Black and Hualapai/Aquarius final grazing Environmental Impact Statements (EIS). This information is found in Appendix 1, pages 155 through 158 of the draft RMP. Preference on each individual allotment, either active or suspended, is shown in the table on pages 155 and 156, along with information on allotment management plans, base property, management category (management priority in response to resource values), and forage availability (perennial versus ephemeral). Preference will only change in response to monitoring data obtained from utilization and trend studies. This is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

The presence of Areas of Critical Environmental Concern (ACEC) within an allotment will be an important factor in determining priorities for AMP development and new range improvements. Construction of new range improvements will follow schedules built into new and existing Allotment Management Plans (AMP). Maintenance of existing range improvements will continue to be the responsibility of the party deriving the primary benefit from the improvement, in accordance with BLM policy.

Actions needed to improve access would follow the decisions outlined on page 59 and as shown in Appendix 24. The Bureau's intent is to pursue access acquisitions with the agreement of the private land owner.

Rangeland management actions proposed for the Preferred Alternative, Alternative 2, are summarized on pages 20, 21, and 43 of the draft RMP. Other than being site specific for the individual ACECs, these proposed management actions are "business as usual", as outlined in the grazing EISs.

Monitoring of water quality is a State of Arizona responsibility. It is the responsibility of each land owner to ensure that runoff or stream discharge from their lands meets quality standards set by the state. As the agency in charge of management of the public lands, BLM is responsible for maintaining the quality of water discharged from public rangelands.

Specific Management Prescriptions for each ACEC proposed, are shown in Appendix 18. The proposed management prescriptions for each ACEC are designed to protect and enhance important or unique values such as the Joshua tree forest, bighorn sheep, Hualapai Mexican vole, bald eagle, black-hawk, desert tortoise, antelope habitat, riparian areas, cultural and paleontological resources, and scenic values. The desired plant communities we plan to reach through grazing management will be tied directly to these unique values. Livestock are a very important component of the public lands and are an extremely important tool in helping us to reach ACEC objectives, since vegetative communities can be improved through proper grazing practices.

The Hualapai Mountain Research Natural Area ACEC has been proposed for the Yellow Pine allotment (0078), see page 208 of the draft RMP/EIS. The management prescriptions which most affect your livestock operation are shown as follows:

Hualapai Mountain Research Natural Area ACEC

Mgt. Presc. 10. Exclude livestock from occupied and historic vole habitat (2,114 acres). Note: Occupied sites are currently fenced to exclude grazing. Current rangeland management goals are to restore all riparian areas, which includes historical vole habitats.

Mgt. Presc. 11. Review existing allotment management plans and incorporate objectives designed to protect and enhance watersheds surrounding the ACEC. Develop desired plant community descriptions and design specific management actions to achieve them.

I believe it would be helpful for me to explain and define the Desired Plant Community (DPC) concept.

The Bureau of Land Management conducts ecological site inventories to identify ecological sites and the ecological status of the plant communities occurring on them. A particular ecological site may support several unique communities (seral communities), which may be relatively similar, or entirely dissimilar from the potential natural community (PNC), or climax stage of plant community development. At the same time, two seral communities in "early" or "mid" seral status may be as dissimilar to each other as they are to the PNC. Most importantly, these seral plant communities often differ markedly in their relative value for providing cover, habitat, forage, or other desired "products" identified in the land use plan.

The concept of "desired plant communities" takes the "potential natural community", or climax seral stage of Ecological Site, one step further. BLM recognizes it may not always be feasible, or desirable, to manage for a climax seral stage, in order to achieve livestock or other resource management objectives.

BLM defines "desired plant community" as -

> A plant community which produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan goals and activity plan objectives established for the site. The DPC becomes the vegetation management objective for the site and must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.

We will continue to collect Ecological Site Inventory data and data from utilization and trend monitoring studies, to evaluate the effectiveness of current grazing practices and to propose changes for the future. Season of use, livestock preference, and pasture rotation may be affected on some allotments. Again, this is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

We want to continue to work closely with you and all the other individual permittees, the Kingman Grazing Advisory Board, Mohave Livestock Association, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and interested environmental groups to properly manage all uses, including livestock grazing, on the public rangelands in the Kingman Resource Area.

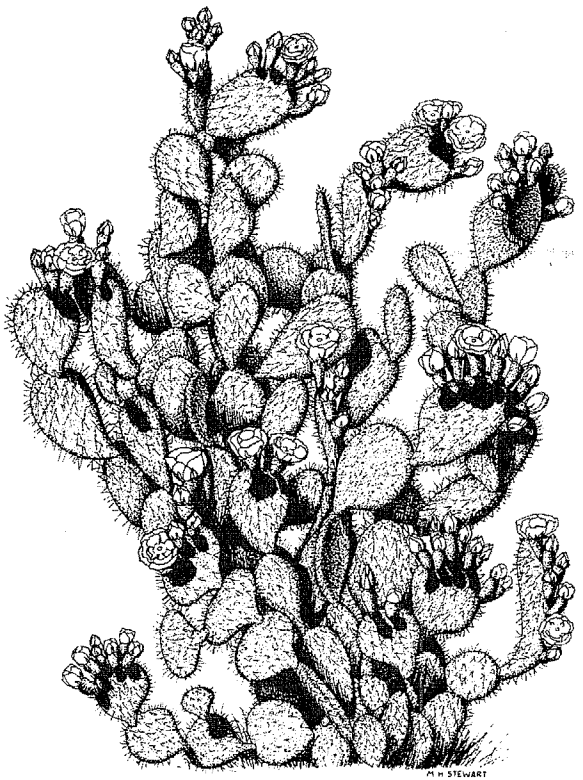
I hope this information will help you in preparing your specific comments on the Kingman draft RMP. If you have any further questions please contact me, or any of our range conservationists, or Gordon Bentley, RMP Team Leader, at (602) 757-3161.

Sincerely,

Bruce M. Asbjorn

Bruce M. Asbjorn
Acting Area Manager

cc:
Ken McReynolds



L-12

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
025
0487r

April 2, 1991

Dave Knisely
P.O. Box 455
Dolan Springs, Arizona
86441

Dear Mr. Knisely:

Thank you for your letter to Henri Bisson, Phoenix District Manager, concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). He has asked me to respond to your questions and the following information is in answer to them. We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The RMP summarizes the decisions in the Cerbat/Black and Hualapai-Aquarius final grazing Environmental Impact Statements (EIS). This information is found in Appendix 1, pages 155 through 158 of the draft RMP. Preference on each individual allotment, either active or suspended, is shown in the table on pages 155 and 156, along with information on allotment management plans, base property, management category (management priority in response to resource values), and forage availability (perennial versus ephemeral). Preference will only change in response to monitoring data obtained from utilization and trend studies. This is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

The presence of Areas of Critical Environmental Concern (ACEC) within an allotment will be an important factor in determining priorities for AMP development and new range improvements. Construction of new range improvements will follow schedules built into new and existing Allotment Management Plans (AMP). Maintenance of existing range improvements will continue to be the responsibility of the party deriving the primary benefit from the improvement, in accordance with BLM policy.

Actions needed to improve access would follow the decisions outlined on page 59 and as shown in Appendix 24. The Bureau's intent is to pursue access acquisitions with the agreement of the private land owner.

Rangeland management actions proposed for the Preferred Alternative, Alternative 2, are summarized on pages 20, 21, and 43 of the draft RMP. Other than being site specific for the individual ACECs, these proposed management actions are "business as usual", as outlined in the grazing EISs.

Monitoring of water quality is a State of Arizona responsibility. It is the responsibility of each land owner to ensure that runoff or stream discharge from their lands meets quality standards set by the state. As the agency in charge of management of the public lands, BLM is responsible for maintaining the quality of water discharged from public rangelands.

We are presently conducting an Ecological Site Inventory throughout the resource area. Using this data, the Bureau will set objectives for desired plant communities. Changes in desired plant communities will be monitored along with the degree of forage utilization. This data will be analyzed and the results will be used to make livestock use adjustments in the future. Season of use, livestock preference, and pasture rotation may be affected on some allotments. Again, this is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

I believe it would be helpful for me to explain and define the Desired Plant Community (DPC) concept.

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The concept of "desired plant communities" takes the "potential natural community", or climax seral stage of Ecological Site, one step further. BLM recognizes it may not always be feasible, or desirable, to manage for a climax seral stage, in order to achieve livestock or other resource management objectives.

BLM defines "desired plant community" as -

> A plant community which produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan goals and activity plan objectives established for the site. The DPC becomes the vegetation management objective for the site and must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.

We want to continue to work closely with all individual permittees, the Kingman Grazing Advisory Board, Mohave Livestock Association, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and interested environmental groups to properly manage all uses, including livestock grazing, on the public rangelands in the Kingman Resource Area.

The Bureau will manage wild horses on the Cerbat Mountains Herd Management Area, to achieve and maintain a thriving natural ecological balance on the public lands, in compliance with the Wild and Free-Roaming Horses and Burro Act of 1971. This thriving ecological balance includes domestic livestock, as well as wildlife and wild horses. We will work with you and other affected permittees to manage livestock and wild horse grazing in accordance with provisions to be outlined in the approved Resource Management Plan (RMP), when it has been accepted and signed by the Arizona BLM State Director. A Herd Management Area Plan (HMAP) will then be completed, finalizing the management specifications necessary to maintain a viable wild horse population. The weight of a viable wild horse herd will not fall entirely on the Mt. Tipton allotment, but it will be an integral part of the herd area. The HMAP will be completed after the RMP is approved.

We will manage wild horses, livestock grazing, and other uses, on the Mount Tipton Wilderness Area in accordance with the Arizona Desert Wilderness Act of 1990 and the Wilderness Act of 1964. We will work with you and other affected permittees to assist, and facilitate movement of livestock and maintenance of waters, fences, and other range improvements within the Mount Tipton Wilderness Area. An Allotment Management Plan (AMP) for your allotment, will be developed in consultation with you, in order to meet the objectives in the Cerbat/Black Mountain Grazing Environmental Statement, the approved RMP, and the wilderness legislation.

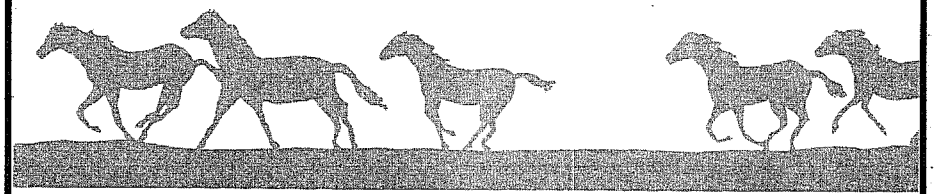
I hope this information will help you to understand the impacts an approved Kingman RMP might have on your cow-calf operation. If you have any further questions please contact me, or any of our range conservationists, or Gordon Bentley, RMP Team Leader, at (602) 757-3161.

Sincerely,

Bruce M. Asbjorn

Bruce M. Asbjorn
Acting Area Manager

cc:
Ken McReynolds



L-13

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
025
0484r

April 2, 1991

Clinton C. and Sandra J. Cofer
Cofer Ranch
H C 30 Box 230
Kingman, AZ 86401

Dear Mr. and Mrs. Cofer:

Thank you for your letter concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The RMP summarizes the decisions in the Cerbat-Black and Hualapai/Aquarius final grazing Environmental Impact Statements (EIS). This information is found in Appendix 1, pages 155 through 158 of the draft RMP. Preference on each individual allotment, either active or suspended, is shown in the table on pages 155 and 156, along with information on allotment management plans, base property, management category (management priority in response to resource values), and forage availability (perennial versus ephemeral). Preference will only change in response to monitoring data obtained from utilization and trend studies. This is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

The presence of Areas of Critical Environmental Concern (ACEC) within an allotment will be an important factor in determining priorities for AMP development and new range improvements. Construction of new range improvements will follow schedules built into new and existing Allotment Management Plans (AMP). Maintenance of existing range improvements will continue to be the responsibility of the party deriving the primary benefit from the improvement, in accordance with BLM policy.

Actions needed to improve access would follow the decisions outlined on page 59 and as shown in Appendix 24. The Bureau's intent is to pursue access acquisitions with the agreement of the private land owner.

Rangeland management actions proposed for the Preferred Alternative, Alternative 2, are summarized on pages 20, 21, and 43 of the draft RMP. Other than being site specific for the individual ACECs, these proposed management actions are "business as usual", as outlined in the grazing EISs.

Monitoring of water quality is a State of Arizona responsibility. It is the responsibility of each land owner to ensure that runoff or stream discharge from their lands meets quality standards set by the state. As the agency in charge of management of the public lands, BLM is responsible for maintaining the quality of water discharged from public rangelands.

We are presently conducting an Ecological Site Inventory throughout the resource area. Using this data, the Bureau will set objectives for desired plant communities. Changes in desired plant communities will be monitored along with the degree of forage utilization. This data will be analyzed and the results will be used to make livestock use adjustments in the future. Season of use, livestock preference, and pasture rotation may be affected on some allotments. Again, this is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

I believe it would be helpful for me to explain and define the Desired Plant Community (DPC) concept.

The Bureau of Land Management conducts ecological site inventories to identify ecological sites and the ecological status of the plant communities occurring on them. A particular ecological site may support several unique communities (seral communities), which may be relatively similar, or entirely dissimilar from the potential natural community (PNC), or climax stage of plant community development. At the same time, two seral communities in "early" or "mid" seral status may be as dissimilar to each other as they are to the PNC. Most importantly, these seral plant communities often differ markedly in their relative value for providing cover, habitat, forage, or other desired "products" identified in the land use plan.

The concept of "desired plant communities" takes the "potential natural community", or climax seral stage of Ecological Site, one step further. BLM recognizes it may not always be feasible, or desirable, to manage for a climax seral stage, in order to achieve livestock or other resource management objectives.

BLM defines "desired plant community" as -

> A plant community which produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan goals and activity plan objectives established for the site. The DPC becomes the vegetation management objective for the site and must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.

We want to continue to work closely with all individual permittees, the Kingman Grazing Advisory Board, Mohave Livestock Association, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and interested environmental groups to properly manage all uses, including livestock grazing, on the public rangelands in the Kingman Resource Area.

I hope this information will help you in preparing your specific comments on the Kingman draft RMP. If you have any further questions please contact me, or any of our range conservationists, or Gordon Bentley, RMP Team Leader, at (602) 757-3161.

Sincerely,

Bruce Asbjorn
Acting Area Manager

L-14

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:
1610
025
0485r

April 2, 1991

Ken and Cristi McReynolds
Cofer Ranch
H C 30 Box 230
Kingman, AZ 86401

Dear Mr. and Mrs. McReynolds:

Thank you for your letter concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The RMP summarizes the decisions in the Cerbat-Black and Hualapai/Aquarius final grazing Environmental Impact Statements (EIS). This information is found in Appendix 1, pages 155 through 158 of the draft RMP. Preference on each individual allotment, either active or suspended, is shown in the table on pages 155 and 156, along with information on allotment management plans, base property, management category (management priority in response to resource values), and forage availability (perennial versus ephemeral). Preference will only change in response to monitoring data obtained from utilization and trend studies. This is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

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Monitoring of water quality is a State of Arizona responsibility. It is the responsibility of each land owner to ensure that runoff or stream discharge from their lands meets quality standards set by the state. As the agency in charge of management of the public lands, BLM is responsible for maintaining the quality of water discharged from public rangelands.

We are presently conducting an Ecological Site Inventory throughout the resource area. Using this data, the Bureau will set objectives for desired plant communities. Changes in desired plant communities will be monitored along with the degree of forage utilization. This data will be analyzed and the results will be used to make livestock use adjustments in the future. Season of use, livestock preference, and pasture rotation may be affected on some allotments. Again, this is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

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The Bureau of Land Management conducts ecological site inventories to identify ecological sites and the ecological status of the plant communities occurring on them. A particular ecological site may support several unique communities (seral communities), which may be relatively similar, or entirely dissimilar from the potential natural community (PNC), or climax stage of plant community development. At the same time, two seral communities in "early" or "mid" seral status may be as dissimilar to each other as they are to the PNC. Most importantly, these seral plant communities often differ markedly in their relative value for providing cover, habitat, forage, or other desired "products" identified in the land use plan.

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We want to continue to work closely with all individual permittees, the Kingman Grazing Advisory Board, Mohave Livestock Association, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and interested environmental groups to properly manage all uses, including livestock grazing, on the public rangelands in the Kingman Resource Area.

I hope this information will help you in preparing your specific comments on the Kingman draft RMP. If you have any further questions please contact me, or any of our range conservationists, or Gordon Bentley, RMP Team Leader, at (602) 757-3161.

Sincerely,

Bruce Asbjorn
Acting Area Manager

L-15

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
KINGMAN RESOURCE AREA
2475 BEVERLY AVENUE
KINGMAN, ARIZONA 86401

IN REPLY REFER TO:

1610
025
0490r

April 9, 1991

Jean Linn
2130 Airway Avenue
Kingman, Arizona
86401

Dear Ms. Linn:

Thank you for your letter concerning our Kingman Resource Area draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). We appreciate your willingness to participate in helping BLM to develop the best possible plan for managing the public lands in Mohave County for the next 20 years.

The RMP summarizes the decisions in the Cerbat/Black and Hualapai-Aquarius final grazing Environmental Impact Statements (EIS). This information is found in Appendix 1, pages 155 through 158 of the draft RMP. Preference on each individual allotment, either active or suspended, is shown in the table on pages 155 and 156, along with information on allotment management plans, base property, management category (management priority in response to resource values), and forage availability (perennial versus ephemeral). Preference, (or livestock numbers allowed to graze on public rangeland) will only change in response to monitoring data obtained from utilization and trend studies. This is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

Rangeland management actions proposed for the Preferred Alternative, Alternative 2, are summarized on pages 20, 21, and 43 of the draft RMP. Other than being site specific for the individual ACECs, these proposed management actions are "business as usual", as outlined in the grazing EISs.

Construction of new range improvements will follow schedules built into new and existing Allotment Management Plans (AMP). Maintenance of existing range improvements will continue to be the responsibility of the party deriving the primary benefit from the improvement, in accordance with BLM policy.

In general, the cost to construct improvements needed to implement land use plans, would probably be born by the federal government, when those projects are necessary to protect and improve natural resources enjoyed by the general public. Maintenance of projects which benefit livestock and allow the permittee to continue to graze livestock on the public lands, would continue to be the responsibility of the permittee. Improvements will be constructed as funding permits. Implementation of land use plans cannot create a burden on the federal government or the land user. This is only general information, given for the purpose of discussing your general questions. Specific decisions will be made at the time an AMP is developed on your allotment.

We will manage livestock grazing, and other uses, on the Wabayuma Peak Wilderness Area in accordance with the Arizona Desert Wilderness Act of 1990 and the Wilderness Act of 1964. We will work with you and other affected permittees to assist, and facilitate movement of livestock and maintenance of waters, fences, and other range improvements within the Wilderness Area. Following priorities set by management, an Allotment Management Plan (AMP) for your allotment, will be developed in consultation with you, in order to meet the objectives in the Hualapai-Aquarius Grazing Environmental Impact Statement, the approved RMP, and the wilderness legislation.

Your allotment does contain category II and III desert tortoise habitat and improvement and maintenance of this habitat will be a consideration in developing objectives for management of livestock grazing. However, the Walnut Creek allotment (0073) does not contain a proposed Area of Critical Environmental Concern (ACEC) for either desert tortoise or the Hualapai Mexican vole.

When an analysis of monitoring data indicates forage utilization exceeds the carrying capacity of forage plants, or if the pattern of utilization is unacceptable, the Area Manager must take action to prevent deterioration of rangeland resources. The manager has several options, depending on the cause(s) of overutilization, including (1) a change in livestock season of grazing, (2) rotation of grazing (including rest from grazing), (3) additional range improvements, (4) a reduction in livestock numbers, or (5) a reduction in big game animals. If, for example, the overutilization of forage is being caused by livestock and wildlife, the number of grazing animals would be reduced in proportion to the population of all such animals.

The number of each kind of grazing animal using the area would be determined through actual count, actual use data supplied by the livestock permittee, or census data provided by the Arizona Game and Fish Department (AGFD). The Area Manager would work with the livestock operator to affect his/her proportion of the total reduction, in a manner causing the least impact to their ranching operation. BLM would then recommend to AGFD that they affect their proportionate share of a reduction in wildlife populations, through the most appropriate methods available to the agency, i.e., hunting, transplant, etc. to achieve a total balanced reduction for the area.

We are presently conducting an Ecological Site Inventory throughout the resource area. Using this data, the Bureau will set objectives for desired plant communities. Changes in desired plant communities will be monitored along with the degree of forage utilization. This data will be analyzed and the results will be used to make livestock use adjustments in the future. Season of use, livestock preference, and pasture rotation may be affected on some allotments. Again, this is standard BLM policy, and is outlined in the grazing EISs and the draft RMP/EIS, with no changes.

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I hope this information will help you to understand the impacts an approved Kingman RMP might have on your specific livestock operation. We want to continue to work closely with you and all the other individual permittees, the *Kingman Grazing Advisory Board*, *Arizona Game and Fish Department*, *U.S. Fish* and Wildlife Service, and interested environmental groups to properly manage all uses, including livestock grazing, on the public rangelands in the Kingman Resource Area.

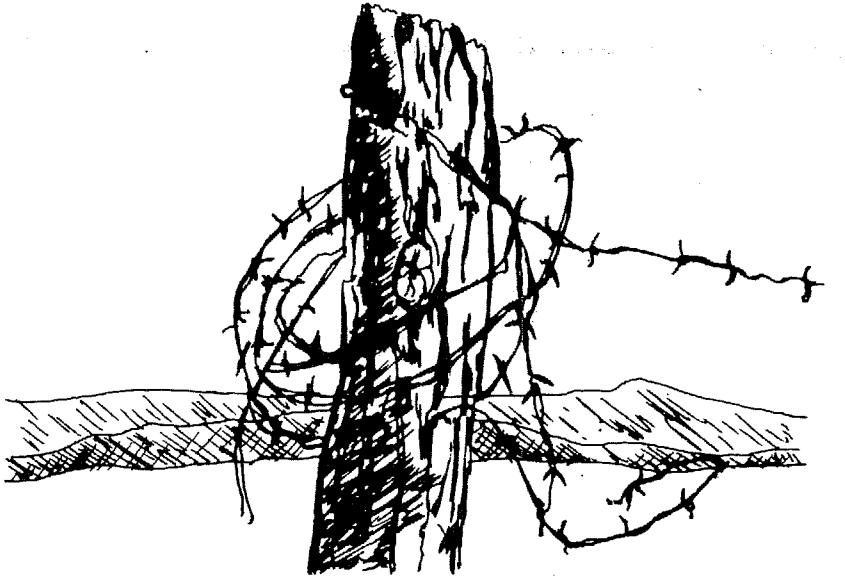
If you have any further questions please contact me, or any of our range conservationists, or Gordon Bentley, RMP Team Leader, at (602) 757-3161.

Sincerely,

/S/ JESSE J. JUEN

Jesse J. Juen
Assistant Area Manager

cc:
Ken McReynolds





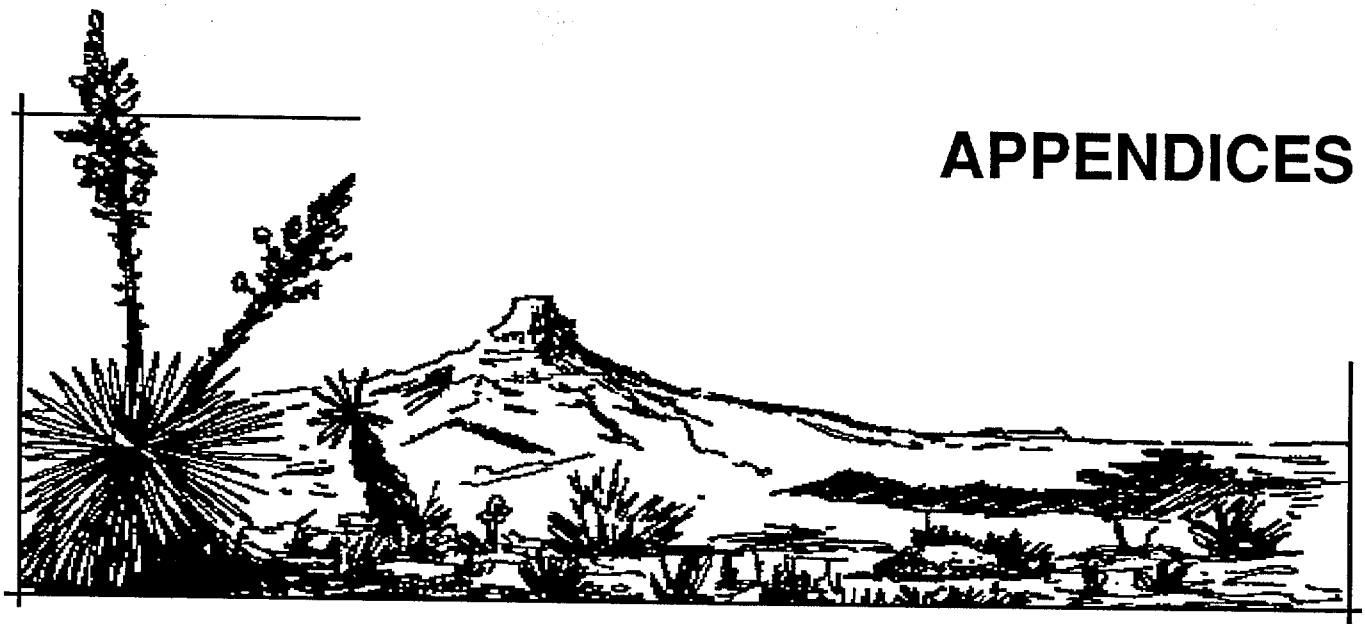

Substantial modifications have been made to the Appendices section of this document. Changes from the 1990 Draft Resource Management Plan are highlighted below. Unless other wise noted, an appendix was not substantially altered.

APPENDIX CHANGES

1. Allotment Status and Summary of Rangeland Program
2. Cultural Resources Management Guidelines
3. **Alternative 1 Public Lands Identified for Disposal**
4. **Alternative 1 Recreation and Public Purposes Disposal Areas**
5. Alternative 1 Communication Sites
6. **Special Status Species**
7. Riparian Areas
8. Alternative 1 Legal Vehicular Access Acquisitions
9. Alternative 1 Resource Acquisitions
10. Alternative 2 Mineral Closure for Special Values
11. Alternative 2 Mineral Closure in Riparian Area
12. **Alternative 2 Proposed Disposal Area**
13. **Alternative 2 Lands Removal from Management Framework Plan Disposal Areas**
14. Public Lands in Coconino County
15. **Withdrawals and Classifications**
16. Public Water Reserves
17. **Alternatives 2 and 3 Proposed Recreation and Public Purposes Disposal Areas**
18. **Alternative 2 Designated Communication Sites**
19. **Allotments and Watershed Categories**
20. **Acquisitions for Resource Values**
21. Acquisitions for Regional Park and Wildlife Corridors
22. **Alternative 2 Acquisitions for Areas of Critical Environmental Concern**
23. **Alternative 2 Legal Vehicular Access Acquisitions**
24. **Alternative 2 Roads and Trails to be Improved**
25. **Alternative 3 Proposed New Disposal Areas**
26. **Alternative 3 Mineral Closures in Riparian Areas**
27. **Alternative 3 Acquisitions for Areas of Critical Environmental Concern**
28. **Mineral Potential Classification System**
29. **Production Totals by Mineral Districts**
30. **Management Framework Plan Decisions with Resource Management Plan Proposals**

Appendices 18 and 22 in the draft document were incorporated into Chapter 2 of this document. Appendix 27 from the draft was deleted. Appendix 30 in this document is new material.



APPENDICES

Appendix 1
Allotment Status and Summary of Rangeland Programs

	ALLOTMENT	Category	Preference-AUMs Active	Preference-AUMs Suspended	Public Acres	Date AMP Signed	Base Property	Forage Availability
0001	Alamo Crossing	I	0	0	21906		W	E
0002	Arrastra Mountain	I	1995	0	24050	08-26-83	W	P/E
0003	Artillery Range	I	4016	0	76171		W	P/E
0005	Bagdad	I	1740	702	26000		W	P/E
0006	Bateman Springs	M	540	660	18646		W	P/E
0007	Big Ranch A	I	5397	363	110542	09-09-82	W	P/E
0081	Big Ranch B	C	0	0	114504		W	E
0008	Big Sandy	I	6084	1901	64913		W	P/E
0009	Black Mesa A & B	I	2712	463	30845	09-01-84	W+L	P/E
0010	Black Mountain A	I	1247	1735	52904	02-05-85	W	P/E
0011	Boriana A	M	2279	0	27570		W	P/E
0079	Boriana B	C	0	0	10220		W	E
0013	Burro Creek	I	880	0	6352	09-12-83	W	P/E
0014	Burro Creek Ranch	I	1674	0	34967		W	P/E
0015	Middle Water	M	553	200	14536		W	P/E
0016	Cane Springs Wash	C	120	69	2310		W	P/E
0017	Canyon Ranch	I	1822	0	18419		W	P/E
0018	Castle Rock	I	297	0	5128	08-17-82	W	P/E
0019	Cedar Canyon	M	3797	0	44958		W	P/E
0020	Cerbat	I	1953	0	19086	09-01-80	W	P/E
0021	Chicken Springs	I	3456	1763	94953		W	P/E
0022	Chino Springs	I	0	0	18992		W	E
0023	Clay Springs	M	406	0	6770		W	P
0024	Cook Canyon	I	269	0	4583		W	P/E
0026	Crozier Canyon	I	14439	0	106175	10-01-80	W	P
0027	Curtain	I	195	0	3250	09-01-81	W	P/E
0028	Diamond Joe	I	1404	917	16223		W	P/E
0029	Diamond Bar A	I	3088	390	63073	08-19-82	W	P/E
0080	Diamond Bar B	C	0	0	0		W	E
0030	Dolan Springs	M	1752	0	37222	09-10-82	W	P/E
0031	DOR	C	0	0	1269		W	E
0032	Feldspar	C	72	0	640		W	P/E

(continued)

Appendix 1 (continued)
Allotment Status and Summary of Rangeland Programs

	ALLOTMENT	Category	Preference-AUMs Active	Preference-AUMs Suspended	Public Acres	Date AMP Signed	Base Property	Forage Availability
0032	Feldspar	C	72	0	640		W	P/E
0035	Francis Creek	I	9750	0	77948		W	P/E
0036	Gediondia	M	552	221	13643		W	P/E
0037	Gold Basin	I	2592	0	48153	08-19-82	W	P/E
0038	Gray Wash	I	373	0	8887		W	P/E
0039	Greenwood Community	I	993	0	15842		W	P/E
0040	Greenwood Peak Comm	I	2080	0	36180		W	P/E
0041	Groom Peak	I	265	0	4861		W	P/E
0042	Hackberry	I	3781	0	32881	03-01-83	W	P/E
0043	Happy Jack Wash	C	1082	0	21343		W	P/E
0046	Hot Springs	C	52	0	1057		W	P/E
0047	Hualapai Peak	I	2052	432	24914	08-26-83	W	P
0050	Hibernia Peak A	I	380	0	14600	11-20-84	W	P
0083	Hibernia Peak B	C	120	0	335		W	P/E
0051	La Cienega	I	2400	4353	72877	07-07-89	W	P/E
0052	Lazy Yu A	M	941	0	12852		W	P/E
0054	Los Molinos	I	2256	564	17600		W	P/E
0055	Mineral Park	I	824	0	11123	09-01-81	W	P/E
0056	Mud Springs	I	1564	627	30998	08-08-83	W	P/E
0057	Music Mountain	I	1824	627	18664	09-01-80	W	P
0058	Mt. Tipton	I	618	63	8564		W	P
0059	Peacock Mountain	C	132	0	1169		W	P
0060	Pine Springs	I	583	0	6601	08-13-82	W	P/E
0062	Quail Springs	I	2614	0	31304	09-01-81	W	P/E
0064	Sandy	C	60	138	1524		W	P/E
0066	Stockton Hill	M	444	108	2912	09-01-81	W	P/E
0067	Turkey Track	C	62	0	713		W	P/E
0068	Thumb Butte	C	0	0	18050		W	E
0070	Truxton Canyon A	I	294	294	5645		W	P
0088	Truxton Canyon B	C	18	0	414		W	P
0071	Upper Music Mtn	I	2503	0	43677	09-01-80	W	P/E
0072	Valentine	M	648	0	5160		W	P
0074	West Peacock	C	204	0	1849		W	P
0076	Wikieup	I	684	0	8446		W	P/E
0077	Walapai Ranch	C	1020	0	10794		W	P/E
0078	Yellow Pine	I	5940	0	58506		W	P/E
0087	Little Cane	C	372	0	5542		W	P/E
0086	Cane Springs	I	2661	2164	40590	09-01-81	W	P/E
0101	C. O. Bar	C	792	0	5265		L	P
0102	Chambers Lease	C	132	0	852		L	P
0103	Gibson Cattle Co.	M	1968	0	16784		L	P/E
0104	Globe Ranch	C	240	0	1274		L	P
0105	JJJ Corporation	C	24	36	29017		L	P/E
0107	Kellis Lease	C	48	216	1745		L	P/E
0111	7L Cattle Co.	M	1800	0	9688		L	P/E
0115	Yolo Ranch Lease	C	564	0	3704		L	P/E
0116	Byner Cattle Co.	C	564	312	3928		L	P/E
0034	Fort Mac Ewen A	I	1796	726	34929	09-01-80	W	P/E
0082	Fort Mac Ewen B	C	0	0	31174		W	E
0061	Portland Springs	C	0	0	8709		W	E
0073	Walnut Creek	I	5843	2026	79701		W	P/E

I = Improve C = Custodial M = Maintain E = Ephemeral only P/E = Perennial/Ephemeral
P = Perennial only W = Water Base L = Land Base
Source: Kingman Resource Files

The Rangeland Program in the Cerbat-Black Mountains Planning Unit

A final environmental impact statement for this area was prepared and made available to the public in September 1978. It analyzed several alternative courses of action and selected *Alternative B* as the most realistic and workable to achieve the stated multiple-use objectives. The objectives were to:

- sustain livestock production by providing more and better quality forage
- improve wildlife habitat by providing more forage, cover and water
- reduce soil erosion and increase water infiltration by increasing vegetative ground cover and litter
- enhance recreational values by increasing the abundance and vigor of vegetation

The actions to be carried out to achieve the above objectives were:

- initial adjustments to stocking rates based on range survey
- reviewing and rewriting the proposed allotment management plans
- building range improvements as needed
- limiting grazing use on key species to 50 percent of the current year's growth

By September 1980, grazing use adjustments had been completed on 26 allotments in the Cerbat-Black Mountains Planning Unit, either as proposed in the range survey or through agreement on a different number based on additional field review. Three additional allotments retained their ephemeral designation (Portland Spring, Thumb Butte and Silver Creek) and eight additional allotments were placed in custodial management, without adjustments to grazing use (Cook Canyon, Jones Spring, Valentine, Walapai Ranch, Feldspar, Long Mountain, Peacock Mountain and West Peacock).

Sixteen allotment management plans on 19 grazing allotments were written and signed in the years from 1980 to 1985. Grazing permits were cancelled on the Silver Creek, Jones Spring and Long Mountain grazing allotments. The Middle Water, Big Ranch B, Diamond Bar B, Fort Mac Ewen B and Truxton Canyon B allotments were created as a result of subdividing existing allotments. An active land exchange program has substantially altered landownership patterns and caused numerous changes to grazing preference.

A change in BLM range management policy in the early 1980s required categorization of grazing allotments to facilitate prioritizing them for management. Currently there are 21 Improve category allotments, 7 Maintain allotments and 11 Custodial allotments (see table preceding this appendix).

Numerous range improvement projects have been constructed on public lands to facilitate implementation of allotment management plans.

Monitoring studies have been installed on all Improve and Maintain category allotments within the Cerbat-Black Mountains Planning Unit, with the purpose of detecting changes in vegetation composition, measuring levels of grazing use and determining distribution patterns of livestock grazing.

The Rangeland Program in the Hualapai-Aquarius Planning Unit

A final grazing environmental impact statement for this area was made available to the public in August 1981. It analyzed five alternatives for grazing management and selected the Proposed Action as the alternative which best met the planning areas' social, economic and environmental needs. The objectives of the proposed grazing management program were to:

- improve range and watershed condition and water quality
- increase forage production and ensure long-term stability of public lands livestock operators
- protect wild burro and wildlife habitat and riparian communities
- protect special status species habitat and areas of special natural, scenic, historic, cultural and scientific value

The actions to be carried out to achieve the above objectives were:

- allocation of vegetation to livestock, wildlife, burros, watershed protection, recreation and plant maintenance based on a 1979-80 rangeland inventory, management framework plan recommendations, additional field studies and consultation with affected interests
- limiting grazing use on key forage plants from 40 to 60 percent
- designation of 51 grazing allotments into one of four levels of grazing management
- development of allotment management plans on 28 high priority allotments
- development of range improvements to meet management objectives on individual allotments
- use of mitigation and resource enhancement measures in the range program
- monitoring to document condition and trend and to evaluate management programs
- consideration of proposals under the experimental stewardship program
- cooperation with livestock operators, the Soil Conservation Service, the Arizona State Land Department, the Arizona Range Research Task Force, the University of Arizona Extension Service and other affected interests

Changes in the Code of Federal Regulations and the issuance of a new BLM grazing management policy in 1982 caused two important changes to the proposed action in the final environmental impact statement. The first was that livestock numbers would not be adjusted solely on the basis of the range survey, but would be based on rangeland monitoring over time. The second was that grazing allotments would not be managed according to the four levels proposed in the environmental impact statement, but would be placed into one of three selective management categories.

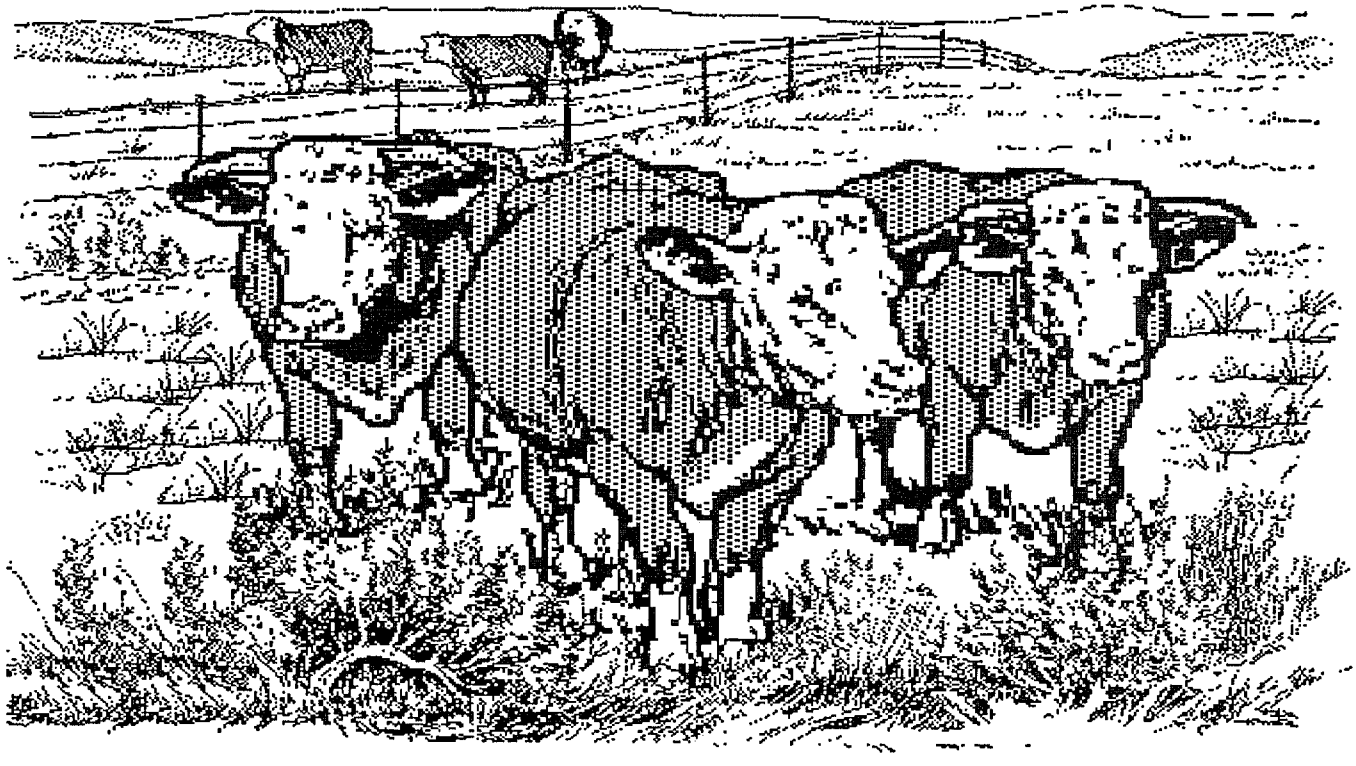
By September 1983, 47 grazing use adjustments had been completed. Shortly thereafter, four more grazing use adjustments were finalized, three of which were settled before an administrative law judge.

All allotments were placed into selective management categories in 1983, with there being 2 Maintain category allotments, 25 Improve allotments and 23 Custodial allotments.

An active land exchange program in the Kingman Resource Area has substantially altered landownership patterns and caused numerous changes to grazing preference. Allotment boundary adjustments and public land losses resulting from exchange have caused several allotments to be eliminated (Fancher Mountain, Kayser Wash, Round Valley, Trout Creek, White Hills, Bottleneck Wash, Yellow Pine B, Cane Springs Wash B and Sandy B). Lazy YU B allotment was cancelled, pending land exchange proposals. Presently, there are 5 Maintain allotments, 24 Improve allotments and 12 Custodial allotments in the Hualapai-Aquarius Planning Unit.

Six allotment management plans on seven grazing allotments have been completed and signed (Arrastra Mountain, Burro Creek, Haulapai Peak, Black Mesa/Lines, Hibernia Peak and La Cienega). Of these, only the Burro Creek Plan has been implemented. Numerous range improvement projects have been constructed on public lands to facilitate implementation of plans.

Monitoring studies have been installed on all Improve and Maintain allotments within the Hualapai/Aquarius Planning Unit, with the purpose of detecting changes in vegetative composition, measuring levels of grazing use and determining distribution patterns of grazing livestock.



Manage For Information Potential

Cultural resources included under this objective are capable of contributing useful scientific, historic or management information. This information potential is to be protected to the extent needed, by physical or administrative means, until the potential has been realized through appropriate study.

Cultural resources which would be managed for their information potential have one or both of the following characteristics.

-- They are suitable for scientific study using currently available research techniques, including study that would result in their physical alteration.

-- They are suitable for controlled experimental studies which would aid in the management of other cultural properties -- studies, for example, that are aimed at understanding the effects of natural or human-caused impacts to cultural properties, effectiveness of protection or monitoring efforts and similar objectives.

Cultural properties to be managed for their information potential may be studied for one or more of the following.

-- They are suitable for study to satisfy the needs of an academic research proposal.

-- They are suitable for short- or long-term establishment of archaeological field schools.

-- They are subjects of data recovery designed to mitigate the impacts of a competing land use.

-- They are suitable for monitoring the effects of natural or human-caused impacts to cultural properties.

Such studies must be in accordance with BLM-approved research designs, data recovery plans and recordation standards. BLM and non-BLM personnel using cultural resources for this purpose must comply with the provisions of the Archaeological Resources Protection Act of 1979. Uses which will affect National Register-listed or -eligible properties will require consultation in accordance with 36 CFR 800 and applicable memoranda of agreement.

The information potential of cultural resources managed under this objective will be protected through monitoring of selected geographical areas or high-value sites and occasional monitoring of others. Stabilization, fencing, signing, electronic and aerial and ground surveillance as well as public awareness efforts will be employed to achieve this objective.

Manage for Conservation

Cultural resources included under this objective have overriding scientific, prehistoric and/or historic importance. Because of scarcity, a research potential that surpasses the current state-of the-art, singular historical or architectural interest or comparable reasons, such resources are not considered appropriate subjects of studies which would result in their physical alteration. They will be managed to maintain their present condition and protect them from potentially conflicting land or resource uses.

The National Register-listed archaeological site known as Bighorn Cave will partially be managed under the conservation objective. The site has been altered both authorized research and by vandalism, but it is believed that intact deposits remain that with advanced methods of data collection and analysis may yield new information that has potential to advance knowledge of the Archaic to Formative transition time periods.

At least some archaeological sites from selected classes of cultural properties representing transition time periods may be identified in future activity plans to create a data bank to be managed under this objective. The purpose is to preserve some of these sites for future study when analytical techniques are more sophisticated and the research contributions of these resources can be maximized. Management emphasis will be placed on protecting these resources with their cultural material in place. Only nondestructive studies and analysis will be permitted.

The management objective for these cultural properties may be changed from conservation to information potential upon determining that their research values can be realized through state-of-the-art methods of data collection and analysis. Such studies would then be subject to the standards and provisions identified under management for information potential.

Cultural properties of this class may be managed under the public values objective if their information potential has been achieved to the point where educational, recreational and other public values would not result in the loss of important scientific values. Interpretive efforts such as trails, signs and brochures may be considered for Bighorn Cave after any additional test excavations have been completed and access to the interior of the site has been controlled. Other interpretive efforts for cultural properties under this management category may be considered but would not have a high priority.

Measures to conserve these cultural resources for the future will include, but not be limited to, high-priority status for monitoring (electronic, aerial and ground) and evaluating access that does not conflict with other resource uses. Stabilization efforts, such as erosion control, will be implemented as needed.

(continued)

Manage for Public Values

Cultural resources included under this objective are particularly useful for their sociocultural, educational, recreational or other public values. Their locations will be managed in a manner that gives adequate consideration to these values.

Cultural resources which would generally be managed for public values possess one or both of the following characteristics.

-- They are perceived by a social and/or cultural group as having attributes which contribute to maintaining the heritage or existence of that group. Locations of traditional cultural or religious importance to Native Americans or historical sites connected with living pioneer descendants, for example, would be of this kind.

-- They are appropriate for interpretive development as exhibits in place for educational and recreational uses by the general public. Cultural resources of this kind which have been identified in the Resource Management Plan area are the Carrow-Stephens ranches, the Neal petroglyphs, the Dolan Springs petroglyphs and the Mineral Park historic mining area.

Accessibility, public demand, public sensitivity, cost-effectiveness and feasibility will be considered, among other factors, in managing cultural properties of this kind for educational or recreational use. Management might include signs, self-guided interpretive trails, brochures, supervised archaeological excavation, mapping and other forms of recordation, stabilization, visitor facilities, on-site public tours and long-term group stewardships.

Cultural resources identified by contemporary social and/or cultural groups would take into account the concerns and sensitivities of the groups involved. Information on such resources would be protected from public disclosure to the extent allowed by statute.

Management of cultural resources for public values will be carried out with an awareness of any information potential such resources might possess. Any development of a cultural property for educational or recreational use will be done in such a manner as to safeguard important scientific information and will be subject to the requirements of appropriate laws and regulations.

Cultural Resource Plans

Cultural resources in the Resource Management Plan area will be allocated to specific uses in the subsequent cultural resource management plan. Project plans containing detailed management prescriptions for selected cultural properties will be developed after use allocations have been made. Cultural properties to be managed for conservation will receive the highest priority for project planning. Areas for which project plans will be prepared are, in priority order, Bighorn Cave, Carrow-Stephens ranches, Bullhead City/Western Bajada including the Beale-Mojave Road, Black Mountains, Dolan Springs petroglyphs, Burro Creek, Wright Creek, Joshua Tree/Grand Wash Cliffs, Neal petroglyphs and Mineral Park historic area.

Classes of Cultural Properties in the Area

I. Habitation (includes, not limited to):
   A. Houses
      1) pithouses (prehistoric Indian: Amacava and Cohonina)
      2) rock (Prescott Culture pueblos, early mining, ranching)
      3) wood (historic mining, ranching, homesteads and towns)
      4) log (historic mining, homesteads)
      5) brush (prehistoric and historic Indian: Cerbat, Hualapai, Paiute, Yavapai and Mojave)
      6) adobe (historic mining, ranching, homesteads and towns)
      7) metal (corrugated tin for historic mining, ranching, homesteads and towns)
   B. Camps (often with cleared areas for wickiups, tents and sleeping)
   C. Rock shelters and caves
II. Agriculture (includes, not limited to):
   A. Fields
   B. Irrigation canals
   C. Aqueducts
   D. Dams
   E. Terraces
   F. Orchards
III. Resource Utilization (includes, not limited to):
   A. Artifact scatters
   B. Mines and/or mills
   C. Quarries
   D. Roasting pits
   E. Trash middens
   F. Isolated bedrock grinding slicks
   G. Storage cists
IV. Sociocultural
   A. Transportation and Trade
      1) trails (prehistoric and historic)
      2) roads
      3) railroads
         a) standard gauge
         b) narrow gauge
   B. Rock art
   C. Historic inscriptions
   D. Community rooms (kivas, schoolhouses, town halls, etc.)
   E. Mortuary (cemeteries, cremation areas, etc.)
   F. Shrines

Appendix 3
Alternative 1 Public Lands Identified for Disposal

Township and Range	Section	Subdivision	Acreage
Meadview Area			
T. 30 N., R. 17 W.,	24	All	640
	26	All	640
	34	All	640
	36	All	640
T. 30 N., R. 16 W.,	30	W1/2	320
T. 29 N., R. 17 W.,	2	All	640
	10	All	640
	12	All	640
	14	All	640
T. 29 N., R. 16 W.,	6	W1/2	320
Black Mountains/Detrital Valley Area			
T. 27 N., R. 21 W.,	24	E1/2; W1/2SW1/4	400
	36	NE1/4NE1/4	40
T. 27 N., R. 20 W.,	16	N1/2NE1/4; SE1/4NE1/4	120
	18	All	633
	28	All	640
	30	All	635
White Hills Area			
T. 27 N., R. 19 W.,	16	All	640
	20	All	640
Dolan Springs Area			
T. 26 N., R. 18 W.,	4	All	640
	6	All	632
	8	SW1/4	160
	10	All	640
	18	All	637
	20	All	640
	30	E1/2; E1/2W1/2	480
T. 26 N., R. 19 W.,	12	All	640
	14	All	640
	22	All	640
	24	All	640
	26	All	640
	28	All	640
	32	All	640
	34	S1/2; S1/2N1/2; NE1/4NE1/4; N1/2NW1/4	600
T. 25 N., R. 20 W.,	4	SE1/4	160
	8	All	640
	10	N1/2	320
	12	N1/2; SE1/4	480
	16	All	640
	20	All	640
	22	All	640

(continued)

Appendix 3 (continued)
Alternative 1 Public Lands Identified for Disposal

Township and Range	Section	Subdivision	Acreage
T. 25 N., R. 20 W., (cont.)	24	W1/2	320
	26	All	640
	28	All	640
	32	All	640
	34	All	640
	36	All	640
T. 25 N., R. 19 W.,	4	W1/2	320
	6	N1/2; N1/2SW1/4	395
	10	All	640
	12	All	640
	14	All	640
	16	N1/2NW1/4; N1/2SW1/4NW1/4; E1/2SW1/4NW1/4; SE1/4SW1/4NW1/4; SW1/4; SE1/4	475
	22	All	640
	26	All	640
	28	All	640
	32	N1/2; SW1/4	480
T. 24 N., R. 20 W.,	4	All	566
	10	SE1/4	160
	12	N1/2; E1/2SW1/4; SE1/4	560
	14	NW1/4; S1/2	480
	15	W1/2NE1/4; NE1/4NW1/4	120
	16	All	640
	22	All	640
	24	All	640
	28	All	640
	34	W1/2	320
	36	All	640
T. 24 N., R. 19 W.,	8	SW1/4NW1/4; S1/2	360
	18	All	604
	20	All	640
	30	All	606
Golden Valley			
T. 22 N., R. 19 W.,	12	All	640
	14	All	640
	20	All	640
	22	All	640
	28	All	640
	30	NE1/4; N1/2NW1/4; E1/2SE1/4NW1/4; NE1/4NE1/4SW1/4	270
T. 21 N., R. 18 W.,	8	W1/2NW1/4; portion of E1/2NE1/4	140
West of McConnico			
T. 20 N., R. 18 W.,	12	N1/2;N1/2S1/2; Portions of S1/2S1/2	510
T. 20 N., R. 17 W.,	6	Lots 8, 19-27, 35-37, 45-46; S1/2SE1/4; portion of N1/2SE1/4	961
	8	West of I-40	38
Shingle Canyon			
T. 19 N., R. 18 W.,	8	All	640

(continued)

Appendix 3 (continued)
Alternative 1 Public Lands Identified for Disposal

Township and Range	Section	Subdivision	Acreage
Walnut Creek			
T. 18 N., R. 18 W.,	2	All	624
T. 19 N., R. 17 W.,	30	West of I-40	139
Hualapai Valley			
T. 26 N., R. 16 W.,	10	All	640
	14	All	640
	16	All	640
	22	All	640
	24	All	640
	26	All	640
	34	All	640
	36	All	640
T. 26 N., R. 15 W.,	30	All	638
	32	All	640
T. 25 N., R. 16 W.,	2	All	640
	12	All	640
T. 25 N., R. 15 W.,	4	All	637
	6	All	638
	8	All	640
	10	All	630
	14	All	640
	18	All	63
	20	All	640
	22	All	640
	24	All	640
	26	All	640
	30	All	640
	34	All	640
T. 24 N., R. 16 W.,	16	All	640
	20	All	640
	30	All	1,018
	32	All	640
T. 24 N., R. 15 W.,	4	All	716
	8	All	640
	10	All	640
	12	All	640
	13	N1/2NW1/4; SE1/4NW1/4; NE1/4SW1/4	160
	14	All	640
	22	All	640
	24	All	640
	26	E1/2	320
	28	All	640
T. 24 N., R. 14 W.,	18	All	640
	20	E1/2	320
	30	All	640
	32	N1/2NE1/4	80

(continued)

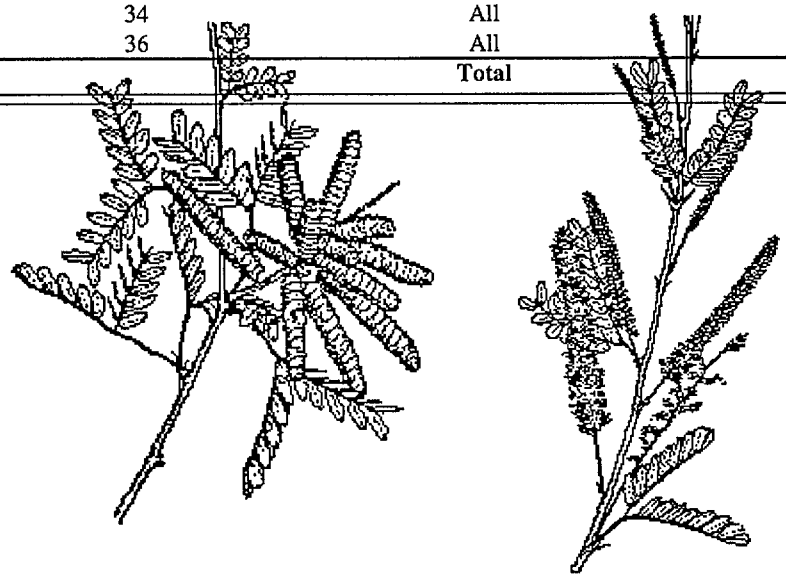
Appendix 3 (continued)
Alternative 1 Public Lands Identified for Disposal

Township and Range	Section	Subdivision	Acreage
T. 23 N., R. 17 W.,	24	East of Stockton Hill Road	44
	25	East of Stockton Hill Road	13
T. 23 N., R. 16 W.,	20	NE1/4NE1/4	40
Kingman Area			
T. 22 N., R. 17 W.,	2	East of Stockton Hill Road	223
	11	Portions of NW1/4NW1/4 and SW1/4NW1/4 East of Stockton Hill Road; SE1/4NW1/4	69
	14	S1/2SW1/4; SW1/4SE1/4	120
	26	All	640
T. 22 N., R. 15 W.,	34	S1/2NE1/4	80
T. 21 N., R. 16 W.,	13	North of I-40	360
East of Fort Mohave			
T. 19 N., R. 21 W.,	20	SW1/4SW1/4NW1/4NW1/4; W1/2SW1/4NW1/4; W1/2NE1/4SW1/4NW1/4; SE1/4NE1/4SW1/4NW1/4; SE1/4SW1/4NW1/4; SW1/4SE1/4NW1/4; S1/2SE1/4SE1/4NW1/4; N1/2NW1/4NE1/4SW1/4; NE1/4NE1/4SW1/4; NE1/4SE1/4NE1/4SW1/4; NW1/4NW1/4SE1/4; NW1/4SW1/4NW1/4SE1/4	85
	28	NE1/4	160
	29	S1/2N1/2; S1/2	480
	30	S1/2NE1/4; E1/2SE1/4NW1/4; S1/2SW1/4SE1/4NW1/4; E1/2SW1/4; SE1/4	325
T. 18 N., R. 21 W.,	6	S1/2SE1/4	80
	7	E1/2	320
	18	E1/2	320
	19	NE1/4; E1/2SE1/4	240
T. 16 1/2 N., R. 20 1/2 W.,	22	E1/2	330
	23	All	670
	25	All	640
	26	All	640
	27	E1/2	314
	34	E1/2	313
	35	All	640
T. 16 1/2 N., R. 20 W.,	30	All	617
	32	All	640
T. 16 N., R. 20 1/2 W.,	1	All	640
	3	E1/2	311
	10	E1/2	310
	11	N1/2; N1/2SW1/4; SE1/4SW1/4; SE1/4	600
	12	All	640
T. 16 N., R. 20 W.,	6	All	619
	15	North of I-40	356
T. 16 N., R. 19 W.,	18	North of I-40	156

(continued)

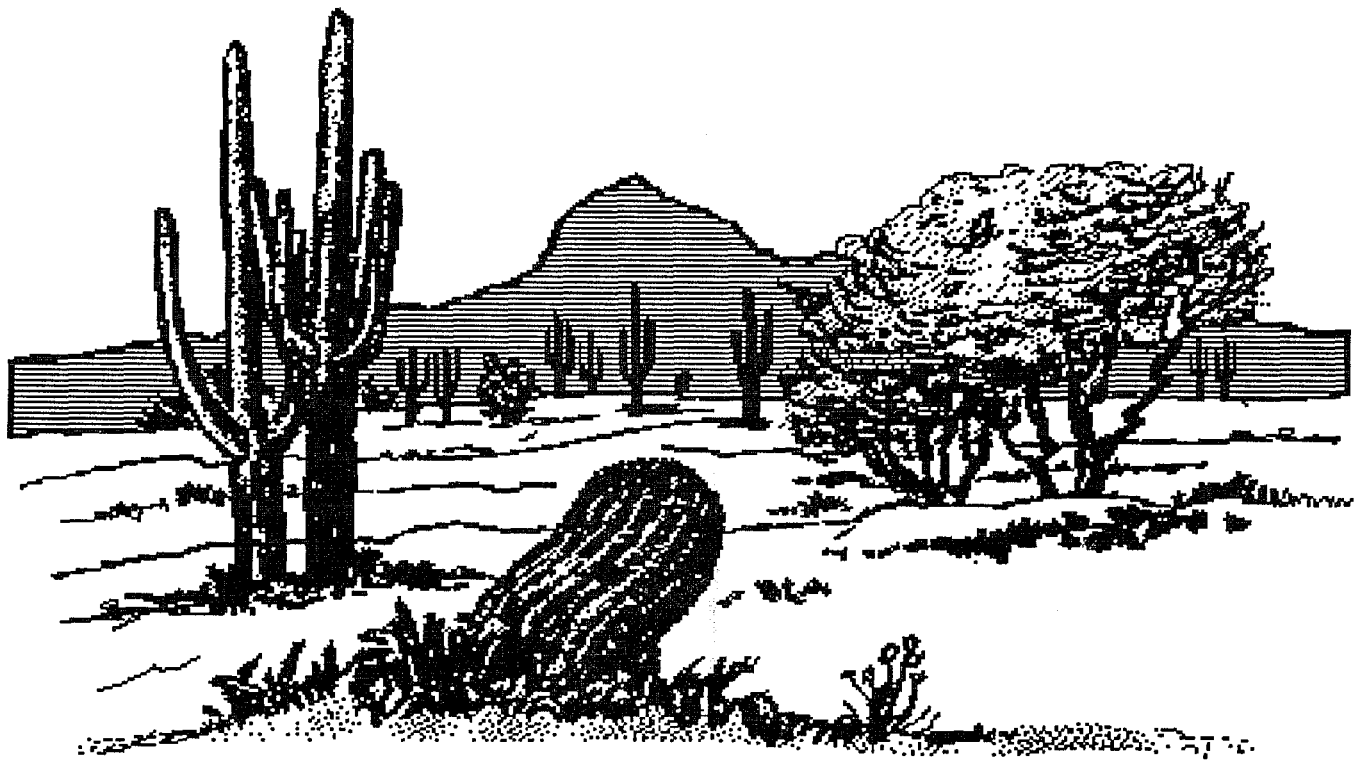
Appendix 3 (continued)
Alternative 1 Public Lands Identified for Disposal

Township and Range	Section	Subdivision	Acreage
Yucca Area			
T. 18 N., R. 18 W.,	24	East of I-40	343
	36	East of I-40	520
T. 18 N., R. 17 W.,	20	All	640
	28	All	640
	30	All	1,114
	32	All	640
	34	All	640
T. 17 N., R. 18 W.,	1	Lots 1, 2; S1/2NE1/4; N1/2N1/2SE1/4; SW1/4NW1/4SE1/4	210
T. 17 N., R.17 W.,	2	All	636
	4	All	637
	8	All	640
	10	All	640
	14	All	640
	16	All	640
	20	All	640
	22	All	640
	24	All	640
	26	All	640
	28	All	640
	30	All	1,118
	32	All	640
	34	All	640
	36	All	640
T. 17 N., R. 16 W.,	18	All	640
	20	All	640
	30	All	639
	32	All	640
T. 16 1/2 N., R. 18 W.,	22	All	532
	24	All	518
	26	All	640
	34	All	640
	36	All	640
		Total	**102,547**



Appendix 4
Alternative 1 Recreation and Public Purposes Disposal Areas

Township and Range	Section	Subdivision	Acreage
Golden Valley			
T. 22 N., R. 18 W.,	8	W1/2NW1/4,E1/2NE1/4	160
Dolan Springs			
T. 26 N., R. 18 W.,	8	SW1/4	160
T. 25 N., R. 19 W.,	10	S1/2	320
Yucca			
T. 17 N., R. 17 W.,	28	All	640
Detrital Valley			
T. 27 N., R. 19 W.,	16	All	640
Hualapai Valley			
T. 24 N., R. 14 W.,	18	All	640
Meadview			
T. 29 N., R. 17 W.,	14	All	640
		Total	**3,200**



Appendix 5
Alternative 1 Communication Sites

Township and Range	Section	Subdivision	Acreage
Oatman			
T. 19 N., R. 20 W.,	13	SW1/4NW1/4; NW1/4SW1/4	.72*
	14	SE1/4NE1/4	1.68*
Getz Peak			
T. 20 N., R. 15 W.,	17	NE1/4SE1/4	.84*
	17	SE1/4SE1/4	2.28*
Potato Patch II			
T. 20 N., R. 15 W.,	19	SW1/4SE1/4	6.80
Potato Patch I			
T. 20 N., R. 15 W.,	30	NW1/4NE1/4; SW1/4SE1/4	10.00
Hayden Peak			
T. 20 N., R. 15 W.,	30	SW1/4SE1/4	22.50
Windy Point			
T. 24 N., R. 18 W.,	36	SW1/4SW1/4NE1/4,SE1/4SE1/4NW1/4,NW1/4NW1/4SE1/4	20.0*
North Mount Perkins			
T. 25 N., R. 21 W.,	3	NW1/4NE1/4, E1/2SE1/4, W1/2SW1/4	5.76*
Mount Perkins			
T. 25 N., R. 21 W.,	10	SE1/4NE1/4	.038*
Willow Beach			
T. 27 N., R. 21 W.,	16	NW1/4SW1/4NW1/4	2.50*
Patterson Slope			
T. 29 N., R. 17 W.,	34	E1/2NW1/4NW1/4	10.00*

*Acreage is estimated until a communication site plan and/or site environmental analysis determines area of development.

Appendix 6

SPECIAL STATUS SPECIES

Federally Listed, Proposed and Candidate Species of known or possible occurrence

Common Name (Scientific Name)	[1]Status	General Distribution	Suitable Habitat on Public Lands	[2]Presence	Remarks
Plant Species					
Arizona cliffrose *(Purshia subinteqra)*	E	Four sites across central Arizona	Near Burro Creek at Six-Mile Crossing	Conf	Occurs on limy tuff soils of Tertiary freshwater lakebed deposits on rolling hills of the Sonoran Desert
White-margined penstemon *(Penstemon albomarginatus)*	C-2	Three sites, one each in Arizona, California and Nevada	Near Yucca	Conf	One extended population in Arizona on sandy washes and alluvial terraces
Two-color beard-tongue *(Penstemon bicolor ssp. roseus)*	C-2	Black Mountains west to southern Nevada	Black Mountains and Wilson Ridge	Conf	Mohave Desert, dry washes in volcanic hills
Peach Springs freckled milkvetch *(Astragalus lentiginosus var. (ambiguus))*	C-2	Peach Springs vicinity	Truxton Valley	Pot	Great Basin grassland on limestone-derived soils
Frazier's wild buckwheat *(Eriogonum ripleyi)*	C-2	Known from two widely separated areas near Aubrey Valley and Horseshoe Reservoir	Between Peach Springs and Valentine	Pot	Tertiary calcareous clay hills
Parish Indian mallow *(Abutilon parishii)*	C-2	Santa Catalina, Tucson and Mazatzal mountains and near Little Ship Wash (Yavapai County)	Granitic hills in the Aquarius Mountains	Pot	Occurs in widely scattered, small populations
Welsh phacelia *(Phacelia welshii)*	C-2	Western Painted Desert	Near Gray Mountain	Conf	Chinle Formation badlands; type locality on BLM
Fickeisen Navajo cactus *(Pediocactus peeblesianus var. fickeiseniae)*	C-1	Arizona Strip southeast to Grand Canyon and western Painted Desert	Near Gray Mountain	Conf	Great Basin grassland in the Navajo Desert
Aquarius milkvetch *(Astragalus newberryi var. aquarii)*	SS	Only one site, with Arizona cliffrose	Near Burro Creek at Six-Mile Crossing	Conf	Same as described above for Arizona cliffrose
Nevin birdsbeak *(cordylanthus nevinii)*	SS	Southern California, Transverse and Peninsular ranges and rare in west central Arizona	Hualapai Mountains and Hualapai and Hayden peaks areas	Conf	Ponderosa pine forest
Crownless milkweed vine *(Cynanchum utahense)*	SS	Southwestern Utah, southern Nevada and southern California and scattered in western Arizona	Near Wickieup, Dolan Springs, Yucca and Hardyville	Conf	Sandy loam uplands with creosotebush, rayless goldenhead and big galleta in the Mohave Desert
Mohave sandpaper bush *(Petalonyx nitidus)*	SS	Eastern California, southern Nevada and rare in west central Arizona	Black Mountains, Lost Cabin Wash and near Franconia	Conf	Rhyolite outcrops

(continued)

Appendix 6 (continued)
SPECIAL STATUS SPECIES
Federally Listed, Proposed and Candidate Species of known or possible occurrence

Common Name (Scientific Name)	[1]Status	General Distribution	Suitable Habitat on Public Lands	[2]Presence	Remarks
Plant Species (continued)					
Shrubby senna *(Senna armata)*	SS	Southern California, southern Nevada and rare in west central Arizona	West side of Black Mountains at Willow Beach and Cottonwood Valley on Lake Mead NRA	Pot	Gravelly washes and fan terraces in lower Mohave Desert: reported near Yucca
Striped horsebrush *(Tetradymia argyraea)*	SS	Eastern California and rare in southern Nevada and northwestern Arizona	Cerbat Pinnacles above Dolan Springs	Conf	Rocky slopes with pinyon pine on andesite outcrops
Mohave cottonthorn *(Tetradymia argyraea)*	SS	Southern California, southern Nevada and rare in northwestern Arizona	Detrital Valley on east side of Black Mountains	Conf	Ballenas and upper fan terraces with blackbrush in the Mohave Desert
Three-hearts *(Tricardia watsonii)*	SS	Southern California northeast to Nevada and Utah and scattered in northwestern Arizona	Sacramento Valley southwest of Kingman	Pot	Creosotebush scrub and Joshua tree woodland in the Mohave Desert
California flannelbush *(Fremontodendron californica)*	SS	California chaparral; scattered in central Arizona mountain	Sam Spring in the Aquarius Mountains	Conf	Shrub in the interior chaparral on rocky slopes
Animal Species					
Bald eagle *(Haliaeetus leucocephalus)*	E(E)	Winter migrants statewide near lakes and streams; nests along Salt and Verde rivers and Bill Williams drainage	Alamo Lake, Burro Creek, Francis Creek and tributaries	V	Occupied breeding area; BLM-managed livestock, mining and wild burros
			Burro Creek, Francis Creek and tributaries	V	Recently discovered breeding area in Burro Creek: important wintering areas
Peregrine falcon *(Falco peregrinus)*	E(C)	Statewide in migration; resident in areas near tall cliffs and water	Black Mountains	P	Breeding known on adjacent National Park Service lands
			Burro Creek	P	Suitable habitat, breeding status unknown
			Cerbats and Pinnacles	P	Very high prairie falcon density; one recently discovered peregrine aerie
			Grand Wash Cliffs	P	Excellent cliff habitat; breeding documented
			Alamo Lake	P	Peregrines repeatedly observed during breeding season

(continued)

Appendix 6 (continued)
SPECIAL STATUS SPECIES
Federally Listed, Proposed and Candidate Species of known or possible occurrence

Common Name (Scientific Name)	[1]Status	General Distribution	Suitable Habitat on Public Lands	[2]Presence	Remarks
Animal Species (continued)					
Hualapai Mexican vole (*Microtus mexicanus hualpaiensis*)	E(E)	Known only from a few isolated spring sites in the Hualapai Mountains, principally in mixed conifer and ponderosa pine forests	Hualapai Mountains	V	Habitat severely damaged by livestock grazing and erosion
			Music Mountain	P	Unverified, but possible
Arizona southwest toad (*Bufo microscapho microscaphus*)	C-2	Occurs sporadically throughout northern Arizona	Burro and Francis creeks	V	No realistic handle on the status of this species
Yavapai leopard frog (*Rana yavapaiensis*)	C-2	Recent taxonomic split of species statewide	Burro and Francis creeks and Bill Williams River		Much concern over statewide decline
Desert tortoise (*Gopherus agassizi*)	C-2 (C)	Typically in Sonoran desertscrub and semidesert grassland; occurs primarily on rocky slopes and less often on lower bajadas and flats; also in extreme eastern Mohave Desert in northwest/central Arizona	Paloverde-mixed cacti cresosotebush-bursage communities throughout the resource area	V	Suitable habitat abundant; distribution and habitat categorization data recently acquired
Mexican garter snake (*Thamnophis eques*)	C-2	Central and southeastern Arizona	1904 recorded in Mohave Valley; now extirpated from Mohave County		Historic location on the Colorado River
White-faced ibis (*Plegadis chihi*)	C-2	Occurs as vagrant statewide	Dirt tanks, Alamo Lake		
Ferruginous hawk (*Buteo regails*)	C-2 (T)	Uncommon, but widely distributed summer resident of grassy plains; fairly common winter resident in northern and southeastern Arizona	Grassland communities in Hualapai Valley and Bozarth and Goodwin mesas	V	More common in recent years; does not breed in Arizona
				V	Extremely rare as a breeder; widely distributed winter resident
California black rail (*Laterallus jamaicensis coturniculus*)	C-1	Bill Williams River, Mittry Lake	Alamo Lake	P	Unlikely to occur in the resource area
Mountain plover (*Charadrus montanus*)	C-2	Statewide or migrant	Resource area-wide	P	Possible as migrant; unverified
Long-billed curlew (*Mumenius americanus*)	C-2	Sporadic Arizona distribution	Dirt Tanks, Alamo Lake, ponds and streams	V	Uncommon, but verified

(continued)

Appendix 6 (continued)
SPECIAL STATUS SPECIES
Federally Listed, Proposed and Candidate Species of known or possible occurrence

Common Name (Scientific Name)	[1]Status	General Distribution	Suitable Habitat on Public Lands	[2]Presence	Remarks
Animal Species (continued)					
Spotted owl (*Strix occidentalis*)	C-2 (T)	Breeds locally in steep, wooded canyons of mountain and high mesas, principally in northeastern half of Arizona	Hualapai Mountains	V	Very rare; no recent breeding records
Southwestern willow flycatcher (*Empidonax traillii extimus*)	C-2	Likely to occur as migrant statewide	Unknown in the resource area	P	Unverified in the resource area
Mexican long-tongued bat (*Choenycteris mexicana*)	C-2	Arizona distribution unknown	Unknown	P	Unverified in the resource area
California leaf-nosed bat (*Myotis lucifugus*)	C-2	Common in western Arizona	Burro Creek, Black Mountains	V	Commonly encountered in mine shafts
Occult little brown bat (*Myotis lucifugus occultus*)	C-2	Central, eastern Arizona	Possible in eastern part of Cerbat and Aquarius Planning Units	P	Unverified
Southwestern cave myotis (*Myotis velifer brevis*)	C-2	Includes central Arizona	Unknown	P	Taxonomic questions exist
Spotted bat (*Euderma maculatum*)	C-2	Yuma to the Kaibab Plateau, sparsely distributed	Unknown	P	Unverified
Greater western mastiff bat (*Eumops perotis californicus*)	C-2	Includes western Arizona	Secret Pass, Black Mountains, Hualapai-Aquarius Planning Unit	V	
Hualapai pocket gopher (*Thomomys umbrinus hualpaiensis*)	C-2	Known only from the Hualapai Mountains, Mohave County	Hualapai Mountains	P	No recent records
Yavapai Arizona pocket mouse (*Perognathus amplus amplus*)	C-2	Includes west-central Arizona	Lower Big Sandy River and Alamo Lake areas	V	
MacNeill sooty wing skipper (*Hesperopsis gracielae*)	C-2	Extreme western Arizona	Unknown	P	Feeds only on *Atriplex lentiformes*, Quail-bush
Wandering skipper (*Pseudocopaeodes eunus eunus*)	C-2	Unknown	Unknown	P	Suspected in Arizona; prefers seeps, desert saltgrasses
Kingman springsnail	C-2	Black Mountains	Burns Spring	V	Endemic species
Common black-hawk (*Buteo anthracinus anthracinus*)	(C)	Locally distributed; summer resident along some perennial streams with well developed broadleaf forest stands	Burro and Francis creeks	V	Highest breeding assemblage in North America.

(continued)

Appendix 6 (continued)
SPECIAL STATUS SPECIES
Federally Listed, Proposed and Candidate Species of known or possible occurrence

Common Name (Scientific Name)	[1]Status	General Distribution	Suitable Habitat on Public Lands	[2]Presence	Remarks
Animal Species (continued)					
Osprey (*Pandion haliaetus carolinensis*)	(T)	As a migrant it may appear almost anywhere; nests below Mogollon Rim; rare summer and uncommon winter resident along Colorado River	Burro Creek and Alamo Lake	V	Uncommon migrant; no documented breeding on resource area
Colorado River roundtail chub (*Gila robusta robusta*)	(E)	Streams of west-central Arizona; Arizona Game and Fish Commission "Threatened Native Wildlife in Arizona"	Burro and Francis creeks	V	Population trend unknown
Great egret (*Casmerodius albus*)	(E)	Breeding colonies are principally restricted to a few sites along the Colorado River below Bullhead City	Bill Williams drainage (Alamo Lake, Burro Creek and Bill Williams River)	V	Uncommon migrant; no documented breeding activity
Snowy egret (*Egretta thula*)	(T)	Breeding colonies very local; largely restricted to a few sites along the Colorado River below Bullhead City	Bill Williams drainage (Alamo Lake, Burro Creek and Bill Williams River)	V	Uncommon migrant; no documented breeding activity
Northern goshawk (*Accipiter gentilis*)	(C)	Nests locally in coniferous forests of the mountains and high mesas in the eastern half of Arizona	Hualapai Mountains	V	Rare breeder
Clark's grebe (*Aechmophorus clarkii*)	(C)	Breeding colonies restricted to two locations on the Colorado River	Alamo Lake	V	No breeding records
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	(T)	Nests along wooded streams primarily in central and southern parts of Arizona; extirpated from most lower Sonoran areas	Big Sandy River and Burro Creek	V	Very rare; last recorded in 1979; taxonomic questions on validity of monotypic species status

[1] Status - E - Federally endangered (E) State endangered
P - Federally proposed
(T) - State threatened
C1 - Category 1 candidate
C2 - Category 2 candidate
(C) - State candidate
(SS) - BLM-sensitive species proposed to and/or recommended from the Arizona Game and Fish Nongame Data Management system

[2] Presence - Conf - Confirmed
Pot - Potential
V - Verified
P - Probable

Source: Kingman Resource Area Files

Appendix 7
Riparian Areas

Stream Name	Approximate Length (miles)	Approximate Acreage	**RACE Inventory (fiscal year)
Adjacent to			
Grapevine Springs	0.9	23	88
Alamo Lake	5.5	138	89
Antelope Wash	6.6	165	88
Aquarius Canyon	2.5	63	92
Bar Wash	7.5	190	92
Beecher Well	3.6	90	90
Big Sandy River	34.9	871	90
Bill Williams River *	6.5	163	89
Blue Tank	13.9	348	91
Boulder Creek	12.3	308	88
Bull Canyon	12.9	323	91
Burro Creek	50.5	1263	89
Burro Springs	2.8	70	90
Cane Springs	12.6	315	92
Cataract Creek	4.9	123	92
Cedar Wash	4.9	123	88
Cholla Spring Canyon	2.2	55	92
Conger Bull Creek	7.3	183	88
Cottonwood Canyon	2.4	60	90
Cottonwood Creek	2.8	70	91
Cottonwood Creek	1.9	48	89
Cow Creek	4.6	115	90
Creamery Canyon	2.7	68	91
Crow Canyon	7.1	178	90
Crozier Wash	5.4	135	88
Deluge Wash	6.5	163	89
Devil's Canyon	14.8	370	90
Dugwell Canyon	2.4	60	91
Francis Creek	18.9	472	90
Grand Springs	0.5	13	90
Grapevine Canyon	1.4	35	88
Grapevine Wash	3.1	78	88
Grave Yard Wash	6.0	150	92
Groom Spring Wash	5.7	143	92
Hair Clipper	6.5	163	92
Hibernia Canyon	10.9	273	91
Horse Canyon	3.9	98	90
Santa Maria River *	12.0	300	89
Kaiser Spring	2.0	50	89
Moss Wash	5.2	130	88
Pipeline Springs	2.5	63	90
Sawmill Creek	2.8	70	90
Silver Creek	2.4	60	92

Appendix 7 (continued)
Riparian Areas

Stream Name	Approximate Length (miles)	Approximate Acreage	**RACE Inventory (fiscal year)
Soap Canyon	2.5	63	88
Stone Spring Canyon	3.0	75	91
Sycamore Creek	17.7	443	90
Tanker Wash	6.5	163	92
Tompkins Canyon	2.4	60	92
Trout Creek	14.8	370	92
Truxton Wash	12.8	320	88
Unnamed	0.6	15	92
Unnamed (Adjacent to Union Pass)	0.8	20	91
Unnamed (East of Finger Butte)	1.7	43	92
Unnamed (East of Mount Nutt)	2.1	53	92
Unnamed (North of Standard Mine)	1.9	48	90
Unnamed (North of Thimble Mountains)	0.9	23	90
Unnamed (South of Century Mine)	2.1	53	90
Unnamed (South of Hibernia Canyon)	0.5	13	91
Wagon Wheel	3.6	90	90
Walnut Creek	7.2	180	92
Wheeler Wash	6.8	170	88
Wilder Creek	2.2	55	92
Willow Creek	2.7	68	92
Willow Creek	1.5	38	92
Wright Creek	9.5	238	88
Yellow Flower	2.8	70	92
Total	**432.9**	**10,462**	

* Denotes streams that form resource area boundaries
** Denotes riparian area condition evaluation
Source: Kingman Resource Area Files

Appendix 8
Alternative 1 Legal Vehicular Access Acquisitions

Name	Township and Range	Section
Antelope Spring	T. 26 N., R. 18 W.,	8, 16, 17, 21, 28, 34
Antelope Well	T. 19 N., R. 13 W.,	19, 20, 28, 29
Aubrey Peak	T. 15 N., R. 14 W.,	8
Bar I-L Wash	T. 17 N., R. 16 W.,	15, 27
Barth	T. 20 N., R. 20 W.,	23
Basin Well	T. 22 N., R. 20 W.,	2, 3, 15, 27
Big Sandy with spur	T. 17 N., R. 13 W.,	14, 26
Black Rock	T. 19 N., R. 17 W.,	15
Buck Mountain	T. 16 N., R. 18 W., T. 16.5 N., R. 18 W.,	3, 15 27
Burro Loop with spurs	T. 13 N., R. 13 W., T. 14 N., R. 13 W.,	3 5, 15, 17, 21, 23, 29, 33
Butcher Camp	T. 27 N., R. 18 W., T. 27 N., R. 19 W., T. 28 N., R. 19 W.,	7, 9, 15, 23 1, 2, 3, 5 31, 33, 35
Cactus Mountain	T. 17 N., R. 17 W.,	9,18
Cave Spring	T. 21 N., R. 19 W.,	33
Cedar Spring	T. 25 N., R. 15 W., T. 25 N., R. 16 W.,	15, 19, 21 25
Chapin Wash	T. 11 N., R. 13 W., T. 12 N., R. 13 W.,	4, 6, 11 31, 32, 33
Clay Springs	T. 26 N., R. 15 W., T. 27 N., R. 15 W.,	5, 7 15, 21, 33
Cliff Wash	T. 23 N., R. 14 W.,	1, 11
Copper Spring	T. 17 N., R. 16 W.,	3
Copperville	T. 17 N., R. 14 W., T. 17 N., R. 15 W., T. 17 N., R. 16 W.,	3, 4, 5, 7, 9, 11, 13 13, 15, 17 23
Corral	T. 14 N., R. 14 W.,	7, 17
Cottonwood Canyon	T. 19 N., R. 20 W.,	3
Coyote	T. 25 N., R. 20 W., T. 25 N., R. 21 W.,	21, 29, 31 35

Appendix 8 (continued)
Alternative 1 Legal Vehicular Access Acquisitions

Name	Township and Range	Section
Creamy Canyon with spur	T. 16 N., R. 16 W.,	2, 11, 14, 15, 22, 27
	T. 16.5 N., R. 16 W.,	21, 23, 25, 35, 36
Crescent	T. 23 N., R. 14 W.,	5
	T. 24 N., R. 14 W.,	31
Crozier Spring	T. 24 N., R. 13 W.,	5, 26, 27
Detrital Wash	T. 23 N., R. 19 W.,	7, 18
	T. 23 N., R. 20 W.,	1
	T. 24 N., R. 20 W.,	7, 17, 21, 26, 27, 35
Devil's Canyon	T. 28 N., R. 16 W.,	34, 35
Eagle Rock Well	T. 15 N., R. 14 W.,	7, 8
	T. 16 N., R. 15 W.,	36
Falls Spring	T. 20 N., R. 15 W.,	5, 6
	T. 21 N., R. 15 W.,	32
Fig Spring	T. 19 N., R. 18 W.,	6
	T. 19 N., R. 19 W.,	1, 2, 3
	T. 20 N., R. 19 W.,	3, 9, 15, 21, 27, 33
	T. 21 N., R. 19 W.,	29, 33, 34
Flattop with spur	T. 16 N., R. 16 W.,	18, 19, 20, 28
	T. 16 N., R. 17 W.,	3, 5, 11, 13, 15
	T. 16.5 N., R. 17 W.,	31
	T. 16.5 N., R. 18 W.,	21, 23, 25, 27
Getz Peak	T. 20 N., R. 15 W.,	20
Goldbug Mine	T. 13 N., R. 13 W.,	17
Goldroad Well	T. 19 N., R. 19 W.,	21
Goodwin Mesa	T. 16 N., R. 11 W.,	22
Granite Peak	T. 16.5 N., R. 15 W.,	19, 29, 33
	T. 17 N., R. 15 W.,	33
Grapevine Canyon	T. 30 N., R. 15 W.,	33
	T. 30 N., R. 16 W.,	13, 25
Grapevine Spring	T. 24 N., R. 13 W.,	5, 29
Hibernia Canyon	T. 18 N., R. 14 W.,	2, 10, 11, 14, 15, 16, 17, 19
	T. 18 N., R. 15 W.,	11, 13, 15
Hualapai Canyon	T. 20 N., R. 15 W.,	9
	T. 21 N., R. 15 W.,	28
Little Cottonwood	T. 23 N., R. 13 W.,	27, 29, 33, 36
Lost Cabin Spring	T. 24 N., R. 20 W.,	17

Appendix 8 (continued)
Alternative 1 Legal Vehicular Access Acquisitions

Name	Township and Range	Section
McConnico	T. 20 N., R. 17 W.,	9
McCracken	T. 14 N., R. 15 W.,	14, 15, 21
Middle	T. 25 N., R. 20 W.,	7, 15, 19, 21
	T. 25 N., R. 21 W.,	1
Mount Perkins	T. 25 N., R. 21 W.,	1
	T. 26 N., R. 21 W.,	22
Mud Spring	T. 16 N., R. 16 W.,	4, 9, 13, 14, 15
	T. 16.5 N., R. 16 W.,	29, 33
	T. 17 N., R. 16 W.,	35
North Tank	T. 28 N., R. 15 W.,	29
Old Camp Well	T. 19 N., R. 16 W.,	33
Old Trails	T. 18 N., R. 17 W.,	19, 21
	T. 18 N., R. 18 W.,	25
Pearson Falls	T. 17 N., R. 13 W.,	2, 10, 11
Pilgrim Mine	T. 23 N., R. 19 W.,	2
Pine Lake	T. 20 N., R. 15 W.,	20, 21
Pipeline	T. 16.5 N., R. 18 W.,	21
	T. 17 N., R. 17 W.,	5, 17, 18, 19, 31
	T. 18 N., R. 17 W.,	29
	T. 21 N., R. 16 W.,	28, 32
Porter Mine	T. 26 N., R. 21 W.,	3
Portland Mine	T. 23 N., R. 21 W.,	14, 15
	T. 24 N., R. 21 W.,	25
Potts Mountain with spur	T. 11 N., R. 14 W.,	4, 9
	T. 12 N., R. 14 W.,	28
Red Horn Spring	T. 24 N., R. 12 W.,	19
Roadside Tank	T. 15 N., R. 15 W.,	21, 29, 31
Rock Creek	T. 17 N., R. 17 W.,	15
	T. 18 N., R. 17 W.,	9, 11
Secret Pass	T. 21 N., R. 19 W.,	29
Senator Mine	T. 27 N., R. 19 W.,	5, 7
	T. 27 N., R. 20 W.,	13
	T. 28 N., R. 19 W.,	3, 11, 14, 15, 16, 21, 29

Appendix 8 (continued)
Alternative 1 Legal Vehicular Access Acquisitions

Name	Township and Range	Section
Senator Mountain	T. 29 N., R. 19 W.,	23, 25, 35
	T. 27 N., R. 20 W.,	15, 16, 21
	T. 28 N., R. 20 W.,	13, 25, 35
Shot Up Tank	T. 15 N., R. 16 W.,	5, 7
	T. 16 N., R. 16 W.,	27, 28, 33
Shot Up Well	T. 14 N., R. 17 W.,	3, 10, 15, 16
	T. 15 N., R. 17 W.,	7, 17, 29, 33
	T. 16 N., R. 17 W.,	7, 19, 31
	T. 16.5 N., R. 17 W.,	19, 31
	T. 16.5 N., R. 18 W.,	24
	T. 17 N., R. 17 W.,	17, 20, 29, 33
Stone Corral	T. 24 N., R. 14 W.,	23, 27, 29
Stouts Well	T. 14 N., R. 15 W.,	3, 11
	T. 15 N., R. 14 W.,	8
	T. 15 N., R. 15 W.,	35
Sugarloaf Mountain	T. 21 N., R. 20 W.,	16
	T. 22 N., R. 20 W.,	31
	T. 22 N., R. 21 W.,	25, 35
Thumb Butte	T. 20 N., R. 20 W.,	27, 28
	T. 21 N., R. 20 W.,	28, 29, 32, 33
Township Line	T. 14 N., R. 15 W.,	5
	T. 14 N., R. 17 W.,	1, 3, 5
	T. 15 N., R. 15 W.,	31, 33
	T. 15 N., R. 16 W.,	31, 33, 35
	T. 15 N., R. 17 W.,	31, 33, 35
Twin Mills	T. 21 N., R. 19 W.,	2, 11
	T. 22 N., R. 19 W.,	18, 19, 29, 33, 34, 35
	T. 22 N., R. 20 W.,	2, 13
	T. 23 N., R. 20 W.,	9, 11, 23, 27, 35
Vock Canyon	T. 23 N., R. 17 W.,	3, 4, 5, 8, 9
	T. 24 N., R. 17 W.,	35, 36
Wabayuma Peak	T. 18 N., R. 16 W.,	11
Walnut Creek	T. 19 N., R. 16 W.,	7
	T. 19 N., R. 17 W.,	7, 15, 18
Water Tank	T. 15 N., R. 16 W.,	23, 27, 29, 31, 33
Willow Creek with spur	T. 16 N., R. 17 W.,	1
	T. 16.5 N., R 17 W.,	35
Various unnamed roads	T. 16.5 N., R. 18 W.,	27, 33
	T. 20 N., R. 16 W.,	2, 5, 8, 9, 10, 11, 15, 27, 28, 29

Appendix 9
Alternative 1 Acquisitions by Resource Activity

Township and Range	Section	Subdivision	Acreage
WILDERNESS			
T. 20 N., R. 20 W.,	23	SW1/4; S1/2NW1/4; NW1/4NW1/4; W1/2SW1/4SE1/4	300
T. 18 N., R. 16 W.,	11	N1/2N1/2; N1/2SW1/4NW1/4; E1/2 SE1/4SW1/4NW1/4; SE1/4NW1/4	225
T. 12 N., R. 11W.,	16	Mining Claim	16
T. 25 N., R. 18 W.,	17	NW1/4; N1/2NE1/4; SE1/4NE1/4	280
T. 16 N., R. 10 W.,	25	Mining Claim	5
T. 25 N., R. 18 W.,	4	SW1/4NW1/4	40
T. 25 N., R. 18 W.,	20	SE1/4SE1/4	40
T. 20 N., R. 20 W.,	35	Mining Claim	5
T. 19 N., R. 20 W.,	2	Mining Claim	5
T. 25 N., R. 18 W.,	33	All	640
T. 24 N., R. 18 W.,	9	All	640
T. 18 N., R. 16 W.,	5	S1/2SW1/4	80
T. 18 N., R. 16 W.,	8	NW1/4NW1/4	40
T. 18 N., R. 16 W.,	15	NE1/4SE1/4; SW1/4NW1/4; NW1/4SE1/4 NW1/4; W1/2NW1/4SW1/4; W1/2NE1/4SW1/4	210
T. 18 N., R. 16 W.,	17	N1/2NW1/4; SW1/4; W1/2SE1/4; W1/2NE1/4 SE1/4; SE1/4SE1/4	380
T. 18 N., R. 16 W.,	21	NW1/4NW1/4; SE1/4SE1/4	80
T. 18 N., R. 16 W.,	23	NE1/4NW1/4	40
T. 18 N., R. 16 W.,	27	S1/2SW1/4	80
T. 18 N., R. 16 W.,	29	SE1/4NE1/4	40
T. 18 N., R. 16 W.,	31	W1/2NE1/4	80
		Total	**3,226**
RECREATION			
T. 29 N., R. 17 W.,	25	All	640
T. 29 N., R. 17 W.,	35	N1/2	320
T. 20 N., R. 19 W.,	33	All	640
T. 20 N., R. 20 W.,	2	All	525
T. 20 N., R. 20 W.,	3	SE1/4SW1/4; N1/2SW1/4; SE1/4	280
T. 14 N., R. 12 W.,	23	All	640
T. 14 N., R. 12 W.,	24	W1/2	320
T. 28 N., R. 17 W.,	3	All	640
T. 29 N., R. 16 W.,	19	NW1/4NW1/4	40
T. 18 N., R. 15 W.,	7	N1/2, N1/2S1/2; SW1/4SW1/4; SW1/4SE1/4	560
T. 29 N., R. 17 W.,	27	All	640
T. 30 N., R. 16 W.,	23	All	640
T. 29 N., R. 16 W.,	29	All	640
T. 29 N., R. 16 W.,	31	S1/2	320
T. 30 N., R. 16 W.,	31	E1/2	320
T. 30 N., R. 16 W.,	29	All	640
		Total	**7,805**
WILDLIFE			
Pine Peak			
T. 17 N., R. 15 W.,	3	All	643
	9	All	640
	11	All	640

(continued)

Appendix 9 (continued)
Alternative 1 Acquisitions by Resource Activity

Township and Range	Section	Subdivision	Acreage
WILDLIFE (continued)			
Union Pass			
T. 21 N., R. 20 W.,	11	All	640
	12	N1/2	298
Hualapai Foothills II			
T. 20 N., R. 17 W.,	19	East of I-40 right-of-way	310
	28	Mining claim in SW1/4NW1/4	20
	29	NW1/4; S1/2	480
T. 17 N., R. 16 W.,	1	NW1/4NW1/4; SE1/4NE1/4	80
	3	S1/2NE1/4; SE1/4; S1/2SW1/4; NE1/4SW1/4	360
	8	All	640
	9	N1/2	320
	15	All	640
	17	All	640
T. 16.5 N., R. 17 W.,	25	All	640
T. 16.5 N., R. 16 W.,	19	All	521
	21	All	521
	23	All	522
	25	All	640
	27	All	640
	29	All	640
	31	All	636
	32	SW1/4; SW1/4SE1/4	200
	33	All	640
	35	All	640
	36	NW1/4NW1/4	40
T. 16.5 N., R. 15 W.,	31	All	623
T. 16 N., R. 16 W.,	1	All	639
	2	All	638
	3	All	637
	4	All	638
	5	All	638
	6	All	635
	8	All	640
	9	All	640
	10	All	640
	11	All	640
	12	All	640
	13	All	640
	14	All	640
	15	All	640
	17	All	640
	20	All	640
	21	All	640
	22	All	640
	23	All	640
	24	All	640
	25	All	640
	26	All	640
	27	All	640
	35	All	640
	36	E1/2; W1/2SW1/4; N1/2NW1/4; SW1/4NW1/4	520

(continued)

Appendix 9 (continued)
Alternative 1 Acquisitions by Resource Activity

Township and Range	Section	Subdivision	Acreage
WILDLIFE (continued)			
T. 16 N., R. 15 W.,	5	W1/2; W1/2E1/2; NE1/4NE1/4; E1/2SE1/4	598
	6	All	622
	7	All	623
	8	All	640
	9	All	640
	17	All	640
	19	All	622
	21	All	640
	29	All	640
	31	All	625
	33	All	640
	36	All	640
T. 16 N., R. 14 W.,	27	All	640
T. 15 N., R. 15 W.,	1	SE1/4NW1/4	160
	2	All	638
	3	All	638
	5	All	639
	7	All	629
	9	All	640
	11	All	640
	14	SE1/4	160
	15	All	640
	17	All	640
	19	All	632
	21	All	640
	23	E1/2; E1/2W1/2; NW1/4NW1/4; W1/2SW1/4	600
	35	All	640
T. 15 N., R. 14 W.,	1	N1/2; W1/2SW1/4	399
	4	All	638
	5	S1/2; S1/2NE1/4	300
	7	All	627
	8	All	640
	9	All	640
	13	W1/2NW1/4	80
	17	SE1/4SE1/4	40
	19	All	
	23	SW1/4NW1/4	40
	30	W1/2NW1/4	74
T. 15 N., R. 13 W.,	19	SW1/4	154
	24	W1/2NE1/4; W1/2SE1/4; E1/2	480
	25	SW1/4	160
	27	All	640
	29	S1/2; S1/2N1/2	480
	33	All	640
	35	All	640
T. 14 N., R. 12 W.,	5	N1/2	323
	7	All	633
	9	All	640
	17	S1/2	320
	19	All	634
	21	All	640
	27	E1/2	320
	29	N1/2; SW1/4; NE1/4NE1/4; S1/2SE1/4	600
	31	All	636
	33	All	640

(continued)

Appendix 9 (continued)
Alternative 1 Acquisitions by Resource Activity

Township and Range	Section	Subdivision	Acreage
WILDLIFE (continued)			
T. 18 N., R. 17 W.,	9	S1/2N1/2; W1/2SW1/4; NE1/4SW1/4	280
	11	All	640
	35	All	640
T. 18 N., R. 16 W.,	31	W1/2NE1/4; NW1/4NW1/4	120
T. 17 N., R. 16 W.,	19	All	638
	31	All	640
T. 16.5 N., R. 17 W.,	23	All	516
McCracken Mountains			
T. 14 N., R. 14 W.,	19	All	632
	31	All	634
T. 14 N., R. 15 W.,	3	All	637
	9	All	640
	11	All	640
	13	All	640
	23	All	640
	25	All	640
	27	All	640
	35	All	640
T. 13 N., R. 15 W.,	3	S1/2	320
	11	All	640
	13	W1/2; NE1/4NE1/4	360
	15	All	640
	23	W1/2	320
T. 13 N., R. 14 W.,	5	All	640
Pine Flat			
T. 18 N., R. 15 W.,	7	N1/2; N1/2S1/2; N1/2SE1/4; SW1/4SE1/4; N1/2 SW1/4; SW1/4SW1/4	543
Black Mtns HMP	22	All	640
T. 26 N., R. 21 W.,	33	NE1/4	160
	36	All	640
T. 25 N., R. 22 W.,	25	All	640
	27	All	640
T. 25 N., R. 21 W.,	1	Mining Claims in N1/2	120
T. 24 N., R. 21 W.,	9	All	640
	33	NW1/4SW1/4	40
T. 23 N., R. 20 W.,	21	All	640
	33	All	640
T. 22 N., R. 20 W.,	4	SE1/4SE1/4	40
	9	E1/2	320
	15	All	640
	17	All	640
	19	All	637
	21	All	640
	29	All	640
	31	N1/2; N1/2S1/2	478
	33	All	640
T. 22 N., R. 21 W.,	13	All	640
	25	All	640

(continued)

Appendix 9 (continued)
Alternative 1 Acquisitions by Resource Activity

Township and Range	Section	Subdivision	Acreage
WILDLIFE (continued)			
T. 20 N., R. 20 W.,	2	All	685
	3	SE1/4; E1/2SW1/4; NW1/4SW1/4	280
	23	SW1/4; W1/2SW1/4SE1/4; S1/2NW1/4; NW1/4NW1/4	300
T. 20 N., R. 19 W.,	21	All	640
	33	All	640
T. 19 N., R. 19 W.,	21	All	640
Cerbat Mountains Herd Management Area			
T. 28 N., R. 16 W.,	11	NW1/4SW1/4	40
T. 23 N., R. 13 W.,	5	All	639
T. 23 N., R. 14 W.,	3	All	640
	9	N1/2; SE1/4; E1/2SW1/4	560
	11	All	640
T. 24 N., R. 14 W.,	11	All	640
	13	All	364
	17	All	640
	21	All	640
	23	All	640
	25	All	365
T. 24 N., R. 16 W.,	7	All	1017
T. 25 N., R. 14 W.,	9	All	640
	11	All	640
	25	All	640
	31	All	640
	35	All	640
T. 25 N., R. 15 W.,	27	All	640
	28	All	640
	29	All	640
	36	All	640
T. 25 N., R. 18 W.,	4	SW1/4NW1/4	40
Hualapai Mountains			
T. 20 N., R. 15 W.,	9	NW1/4NE1/4; NE1/4NW1/4; Mining Claims	135
	16	All	640
	21	S1/2SW1/4	80
T. 13 N., R. 16 W.,	23	All	640
	25	All	640
	26	SE1/4; SW1/4NE1/4; SE1/4NW1/4; E1/2SW1/4	320
	27	All	640
	35	All	640
T. 13 N., R. 15 W.,	29	*All*	*640*
	31	All	639
		Total	**101,022**
		Total Alternative 1 Acquisitions	**112,053**

Appendix 10
Alternative 2 Mineral Closures to Protect Critical Resources

Township and Range	Section	Subdivision	Acreage
JOSHUA TREE HABITAT			
Federal Minerals to be Closed to Mineral Entry			
T. 29 N., R. 17 W.,	24	All	640
	26	All	640
	34	E1/2	320
	35	S1/2	320
	36	All	640
T. 29 N., R. 16 W.,	18	All	638
	20	All	640
	30	All	639
	32	All	640
T. 28 N., R. 17 W.,	10	N1/2N1/2NE1/4; N1/2NW1/4	120
T. 28 N., R. 16 W.,	6	N1/2	167
		Total	**5,404**
Acquire Non-federal Minerals - Close to Mineral Entry			
T. 29 N., R. 17 W.,	25	All	640
	27	E1/2	320
	35	N1/2	320
T. 29 N., R. 16 W.,	7	E1/2	320
	19	All	638
	21	All	640
	29	All	640
	31	All	640
T. 28 N., R. 17 W.,	1	N1/2N1/2	162
	2	All	642
	3	All	640
	11	N1/2N1/2N1/2	80
		Total	**5,682**
CULTURAL AND HISTORICAL			
Federal Minerals to be Closed to Mineral Entry			
T. 17 N., R. 13 W.,	36	W1/2SW1/4	80
T. 16.5 N., R. 13 W.,	21	W1/2; SW1/4SE1/4	276
	22	E1/2; E1/2W1/2	414
	27	E1/2; NW1/4; NW1/4SW1/4	520
	28	SW1/4NE1/4; NW1/4; N1/2SW1/4	280
		Total	**1,570**
Acquire Non-federal Minerals - Close to Mineral Entry			
T. 20 N., R. 20 W.,	33	All	640
T. 17 N., R. 13 W.,	35	SE1/4	160

(continued)

Appendix 10 (continued)
Alternative 2 Mineral Closures to Protect Critical Resources

Township and Range	Section	Subdivision	Acreage
CULTURAL AND HISTORICAL (continued)			
T. 16.5 N., R. 13 W.,	21	NE1/4; N1/2SE1/4; SE1/4SE1/4	235
	22	W1/2W1/2	138
	27	NE1/4SW1/4	40
	28	N1/2NE1/4; SE1/4NE1/4	120
		Total	**1,333**
Federal Minerals to be Closed to Mineral Entry			
T. 20 N., R. 21 W.,	34	All	640
	35	All	640
T. 19 N., R. 21 W.,	2	All	641
	4	All	645
	6	All	641
	8	All	640
	10	All	640
	14	All	640
	22	All	640
	24	All	640
	26	All	640
	28	E1/2; S1/2NW1/4; SW1/4	560
	34	All	640
	36	All	640
		Total	**8,887**
Acquire Non-federal Minerals - Close to Mineral Entry			
T. 20 N., R. 21 W.,	32	S1/2	320
	33	All	640
T. 19 N., R. 21 W.,	3	All	507
	5	All	497
	7	E1/2; NW1/4; N1/2SW1/4	562
	9	All	640
	11	All	640
	15	All	640
	23	All	640
	25	All	640
	27	All	640
	33	All	640
	35	All	640
		Total	**7,646**
THREATENED AND ENDANGERED SPECIES HABITAT			
Federal Minerals to be Closed to Mineral Entry			
T. 20 N., R. 15 W.,	32	All	640
T. 19 N., R. 15 W.,	4	W1/2NW1/4; SW1/4; W1/2SE1/4	321
	6	E1/2E1/2	161
	28	All	640
T. 17 N., R. 15 W.,	2	W1/2	321

(continued)

Appendix 10 (continued)
Alternative 2 Mineral Closures to Protect Critical Resources

Township and Range	Section	Subdivision	Acreage
THREATENED AND ENDANGERED SPECIES HABITAT (continued)			
Federal Minerals to be Closed to Mineral Entry			
T. 14 N., R. 11 W.,	1	All	639
	2	SE1/4	160
	11	NE1/4	160
	12	N1/2N1/2	160
		Total	**3,202**
Acquire Non-federal Minerals - Close to Mineral Entry			
T. 20 N., R. 15 W.,	33	NW1/4	160
T. 19 N., R. 15 W.,	5	All	644
T. 17 N., R. 15 W.,	3	All	643
		Total	**1,447**
		Total Federal Minerals to be Closed to Mineral Entry	**19,063**
		Total Non-Federal Minerals to be Acquired-Not Open to Mineral Entry	**16,108**

Appendix 11
Alternative 2 Mineral Closures in Riparian Areas

Wright Creek Riparian Area of the Wright and Cottonwood Creeks ACEC

Township and Range	Section	Subdivision	Acreage
Federal Minerals to Be Closed to Mineral Entry			
T. 24 N., R. 13 W.,	36	NE1/4; NW1/4; SW1/4; N1/2SE1/4	560
T. 23 N., R. 12 W.,	6	E1/2; E1/2NW1/4	400
	8	NE1/4; NW1/4; NE1/4SW1/4; SE1/4	520
	9	W1/2SW1/4	80
	10	NE1/4, NW1/4; N1/2SW1/4; SE1/4	560
	14	SW1/4NE1/4; NW1/4; SW1/4; SE1/4	520
	23	NW1/4NE1/4; SE1/4NE1/4	80
	24	SW1/4NE1/4; NW1/4; NE1/4SW1/4;NW1/4SW1/4; SE1/4SW1/4; SE1/4	480
	36	E1/2NE1/4	80
T. 23 N., R. 11 W.,	30	Lots 6, 7, 18, 19	188
		Total	**3,468**
Acquire Non-federal Minerals - Close to Mineral Entry			
T. 24 N., R. 12 W.,	31	S1/2NW1/4; SW1/4; W1/2SE1/4; SE1/4SE1/4	351
T. 23 N., R. 12 W.,	5	SW1/4	160
	9	S1/2N1/2; E1/2SW1/4; N1/2SE1/4	320
	15	NE1/4	160
	23	N1/2NE1/4; SE1/4NE1/4	120
	25	W1/2	320
T. 23 N., R. 11 W.,	31	Lots 6, 7, 15, 16, 17, 18, 19, 20, 21, 22	430
		Total	**1,861**

Cottonwood Creek Riparian Area of the Wright and Cottonwood Creeks ACEC

Federal Minerals to Be Closed to Mineral Entry			
T. 23 N., R. 13 W.,	22	NE1/4SW1/4; N1/2SE1/4	120
	24	S1/2N1/2; S1/2	480
T. 23 N., R. 12 W.,	19	S1/2NW1/4	81
	28	S1/2SW1/4	80
	30	NE1/4; NE1/4NW1/4; N1/2SE1/4	594
	32	N1/2NE1/4	80
		Total	**1,435**
Acquire Non-federal Minerals - Close to Mineral Entry			
T. 23 N., R. 13 W.,	23	S1/2N1/2; N1/2S1/2	320
T. 23 N., R. 12 W.,	19	W1/2SW1/4; S1/2SE1/4	159
	29	S1/2NW1/4; S1/2	400
	33	W1/2E1/2; W1/2	480
		Total	**1,359**

Burro Creek Riparian Area of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
Federal Minerals to Be Closed to Mineral Entry			
T. 14 N., R. 11 W.,	12	SE1/4SE1/4	40
	13	NE1/4NE1/4; SW1/4NE1/4; SE1/4NE1/4; NW1/4; N1/2S1/2	440

Appendix 11 (continued)
Alternative 2 Mineral Closures in Riparian Areas

Township and Range	Section	Subdivision	Acreage
Burro Creek Riparian Area of Critical Environmental Concern (Continued)			
T. 14 N., R. 11 W.,	14	N1/2; SW1/4; W1/2SE1/4; NE1/4SE1/4	600
	15	S1/2S1/2; NE1/4SE1/4	200
	16	NW1/4SE1/4; S1/2S1/2	200
	17	SW1/4NE1/4; S1/2NW1/4; S1/2	440
	18	SE1/4NE1/4; E1/2SE1/4	120
	19	NE1/4; E1/2NW1/4; SW1/4; W1/2SE1/4; NE1/4SE1/4	480
	20	N1/2; NW1/4SW1/4	360
	21	N1/2; N1/2SW1/4	400
	22	N1/2; N1/2SW1/4; NW1/4SE1/4	440
	23	NW1/4NE1/4; NW1/4	200
	30	W1/2NE1/4; NW1/4; NW1/4SW1/4	280
T. 14 N., R. 12 W.,	10	SE1/4SW1/4; S1/2SE1/4	120
	11	SW1/4SW1/4	39
	14	SW1/4NE1/4; NW1/4; SW1/4; W1/2SE1/4; SE1/4SE1/4	480
	15	N1/2; N1/2S1/2	480
		Total	**5,279**
Acquire Non-federal Minerals - Close to Mineral Entry			
T. 15 N., R. 10 W.,	29	SE1/4SW1/4; SW1/4SE1/4	80
	32	All	640
T. 14 N., R. 10 W.,	5	NE1/4NE1/4; W1/2NE1/4; NW1/4; SW1/4	441
	7	SW1/4NE1/4; SE1/4NW1/4; SW1/4	232
	8	NW1/4	160
	18	NW1/4NE1/4	40
T.14 N., R. 12 W.,	13	SW1/4SW1/4	40
	23	N1/2N1/2; SE1/4NE1/4; NE1/4SE1/4	240
		Total	**1,873**
Three Rivers Riparian Area of Critical Environmental Concern			
Federal Minerals to Be Closed to Mineral Entry			
T. 14 N., R. 13 W.,	22	SE1/4SE1/4	40
	24	N1/2; W1/2SW1/4	400
	26	E1/2NE1/4; SW1/4NE1/4; S1/2NW1/4; NW1/4SW1/4; N1/2SE1/4; SW1/4SE1/4	360
	34	SE1/4SW1/4	40
	35	S1/2SW1/4; NE1/4SW1/4	120
T. 13 N., R. 13 W.,	2	W1/2NW1/4; NW1/4SW1/4	120
	4	E1/2SE1/4	80
	10	W1/2NE1/4; NE1/4NE1/4: NW1/4; N1/2SW1/4; SW1/4SW1/4	400
	16	NE1/4; E1/2W1/2; N1/2SE1/4; SW1/4SE1/4	440
	22	SW1/4NW1/4; W1/2SW1/4	120
	26	S1/2NW1/4; SW1/4	240
	28	NE1/4	160
	34	E1/2E1/2	160
	35	W1/2; S1/2SE1/4	400
	36	S1/2SW1/4	80

Appendix 11 (continued)
Alternative 2 Mineral Closures in Riparian Areas

Three Rivers Riparian Area of Critical Environmental Concern (Continued)

Township and Range	Section	Subdivision	Acreage
Federal Minerals to Be Closed to Mineral Entry			
T. 12 N., R. 13 W.,	2	E1/2; NW1/4; SE1/4SW1/4	368
	3	NE1/4	84
	11	E1/2; E1/2W1/2; SW1/4NW1/4; NW1/4SW1/4	560
	12	SW1/4; SW1/4SE1/4	120
	13	NE1/4; N1/2NW1/4; SE1/4NW1/4; N1/2SE1/4	360
T. 12 N., R. 12 W.,	17	SW1/4NW1/4; W1/2SW1/4	120
	18	S1/2NE1/4; W1/2; SE1/4	554
	19	E1/2; E1/2W1/2	480
	20	W1/2W1/2	160
	28	W1/2SW1/4	80
	29	NW1/4NW1/4; S1/2NW1/4; S1/2	440
	30	E1/2; E1/2NW1/4; NE1/4SW1/4	440
	31	NE1/4NE1/4	40
	32	N1/2; N1/2SE1/4; SE1/4SE1/4	440
	33	W1/2E1/2; W1/2	480
T. 11 N., R. 14 W.,	32	SE1/4SW1/4; S1/2SE1/4	126
T. 11 N., R. 13 W.,	12	SE1/4SW1/4; E1/2SE1/4; SW1/4SE1/4	160
	13	All	640
	14	S1/2NE1/4; SE1/4SW1/4; SE1/4	280
	22	S1/2SW1/4; SE1/4	240
	23	E1/2; E1/2W1/2; SW1/4NW1/4; NW1/4SW1/4	560
	24	N1/2; N1/2S1/2; S1/2SW1/4	560
	25	SE1/4NE1/4; W1/2NW1/4; E1/2SW1/4; SE1/4	360
	26	N1/2; SW1/4; W1/2SE1/4	560
	27	E1/2; E1/2W1/2	480
	34	W1/2NE1/4; E1/2NW1/4; SW1/4; W1/2SE1/4	400
	35	NW1/4	160
T. 11 N., R. 12 W.,	4	W1/2E1/2; W1/2	420
	5	E1/2E1/2	140
	7	SE1/4NE1/4; S1/2	355
	8	NE1/4NE1/4; S1/2N1/2; S1/2	520
	9	NE1/4	160
	10	S1/2NW1/4; N1/2SE1/4; SE1/4SE1/4	200
	11	S1/2S1/2	320
	12	S1/2S1/2	320
	13	Portion north of river	170
	14	Portion north of river	110
	15	SE1/4SW1/4; SE1/4SE1/4	80
T. 11 N., R. 11 W.,	7	S1/2S1/2	158
	8	S1/2S1/2	160
	10	S1/2S1/2	160
	11	S1/2S1/2	160
	12	SE1/4NE1/4; S1/2SW1/4; SE1/4	280

Appendix 11 (continued)
Alternative 2 Mineral Closures in Riparian Areas

Three Rivers Riparian Area of Critical Environmental Concern (Continued)

Township and Range	Section	Subdivision	Acreage
Federal Minerals to Be Closed to Mineral Entry			
T. 11 N., R. 11 W., (continued)	13	SW1/4; W1/2SE1/4	240
	14	S1/2	320
	15	N1/2; N1/2S1/2	480
	16	NE1/4; N1/2NW1/4	240
	17	N1/2S1/2	160
	18	S1/2NW1/4NE1/4; NW1/4	176
T. 11 N., R. 10 W.,	3	NW1/4NE1/4; NW1/4; W1/2SW1/4	280
	4	SE1/4NE1/4; S1/2SW1/4; S1/2SE1/4; NE1/4SE1/4	240
	5	S1/2	320
	6	S1/2SW1/4; SE1/4	228
	7	NE1/4; W1/2	458
	8	N1/2N1/2	160
	9	N1/2	320
T. 12 N., R. 10 W.,	25	S1/2SE1/4; NE1/4SE1/4	120
	34	SE1/4SW1/4; SE1/4	200
	35	S1/2NE1/4; SE1/4NW1/4; S1/2	440
	36	N1/2; SW1/4	480
T. 12 N., R. 9 W.,	19	S1/2SE1/4	80
	20	SW1/4SW1/4	40
	29	S1/2NE1/4; NW1/4; N1/2S1/2	354
	30	E1/2; SW1/4	474
	31	NW1/4	160
T. 10 N., R. 15 W.,	3	SE1/4SE1/4; S1/2	360
T. 10 N., R. 14 W.,	4	SE1/4NW1/4; E1/2SW1/4; W1/2SE1/4	200
	5	N1/2NE1/4; N1/2NW1/4; SW1/4NW1/4	198
	6	NE1/4; S1/2NW1/4	236
	9	S1/2NE1/4; NW1/4NE1/4; E1/2NW1/4; NE1/4SW1/4; N1/2SE1/4SE1/4SE1/4	360
	10	W1/2SW1/4; SE1/4SW1/4; SW1/4SE1/4	160
	13	N1/2	324
	14	N1/2	320
	15	NE1/4; N1/2NW1/4; SE1/4NW1/4	280
T. 10 N., R. 13 W.	1	NE1/4; W1/2; N1/2SE1/4	561
	2	All	643
	3	All	642
	4	E1/2SW1/4; SE1/4	240
	7	S1/2NE1/4; NE1/4NE1/4; NE1/4SW1/4; S1/2SW1/4; N1/2SE1/4;SW1/4SE1/4	363
	8	N1/2; N1/2SW1/4	400
	9	NE1/4; N1/2NW1/4; SE1/4NW1/4	280
	10	N1/2	320
	18	W1/2NW1/4NE1/4NW1/4	127
		Total	**28,109**

Appendix 11 (continued)
Alternative 2 Mineral Closures in Riparian Areas

Three Rivers Riparian Area of Critical Environmental Concern (Continued)

Township and Range	Section	Subdivision	Acreage
Acquire Non-federal Minerals - Close to Mineral Entry			
T. 14 N., R. 13 W.,	23	E1/2E1/2; S1/2SW1/4; SW1/4SE1/4	280
	24	E1/2SW1/4; SE1/4	240
	25	N1/2NW1/4; SW1/4NW1/4	120
	26	NW1/4NE1/4; N1/2NW1/4; SW1/4SW1/4	160
	27	E1/2; SE1/4NW1/4; E1/2SW1/4	440
	34	E1/2	320
	35	W1/2NE1/4; NW1/4; NW1/4SW1/4	280
T. 13 N., R. 13W.,	3	All	641
	9	E1/2	320
	21	W1/2NE1/4; SE1/4NE1/4; W1/2NW1/4; NE1/4SW1/4; SE1/4	400
	27	W1/2NE1/4; SE1/4NE1/4; NW1/4; N1/2SE1/4; SE1/4SE1/4	400
T. 12 N., R. 9 W.,	29	Mining Claims in E1/2	46
T. 11 N., R. 13 W.,	24	S1/2SE1/4	80
	25	W1/2NE1/4; E1/2NW1/4	160
	26	E1/2SE1/4	80
	34	E1/2E1/2	160
	35	E1/2; SW1/4	480
	36	All	640
T. 11 N., R. 12 W.,	9	NW1/4; S1/2	480
	10	SW1/4; SW1/4SE1/4	200
	13	N1/2 south of river; S1/2SW1/4; E1/2SE1/4	300
	14	S1/2NE1/4; NW1/4; E1/2SE1/4	320
	15	N1/2; W1/2SW1/4; NE1/4SW1/4; W1/2SE1/4; NE1/4SE1/4	120
	16	All	640
	17	All	640
	18	E1/2SE1/4; SW1/4SE1/4	360
	19	All	640
	20	N1/2; N1/2SW1/4	400
	21	NW1/4	160
	29	SW1/4; SW1/4SE1/4	200
	30	All	633
	31	N1/2; N1/2S1/2	476
	32	NW1/4; N1/2SW1/4	240
T. 11 N., R. 11 W.,	15	S1/2S1/2	160
	16	S1/2NW1/4; S1/2	400
	17	N1/2	320
	18	NE1/4NE1/4	40
T. 10 N., R. 15 W.,	1	SW1/4NW1/4; S1/2	356
	2	S1/2N1/2; S1/2	480
	11	NE1/4NE1/4	40
	12	N1/2N1/2	160
T. 10 N., R. 14 W.,	4	SW1/4NW1/4; W1/2SW1/4	120
	5	S1/2NE1/4; SE1/4NW1/4; N1/2S1/2	280
	6	SW1/4; N1/2SE1/4; SW1/4SE1/4	276
	9	NW1/4NW1/4	40
	14	N1/2S1/2	160
	15	N1/2SE1/4	80
T. 10 N., R. 13 W.,	11	N1/2	320
	12	NW1/4	160
		Total	**14,448**
		Federal Minerals Closed to Mineral Entry	**38,291**
		Non-federal Minerals Acquired - Close to Mineral Entry	**19,541**

Appendix 12
Alternative 2 Proposed Disposal Areas

Township and Range	Section	Subdivision	Acreage*
Meadview Area			
T. 30 N., R. 17 W.,	24	All	640
	26	All	640
	36	All	640
T. 30 N., R. 16 W.,	30	W1/2	320
T. 29 N., R. 17 W.,	2	All	640
	10	All	640
	12	All	640
	14	All	640
T. 29 N., R. 16 W.,	6	W1/2	320
Detrital Valley Area			
T. 27 N., R. 21 W.,	24	NE1/4; W1/2SW1/4	240
	36	NE1/4NE1/4	40
T. 27 N., R. 20 W.,	16	N1/2NE1/4; SE1/4NE1/4	120
	18	All	633
	28	All	640
	30	All	635
White Hills Area			
T. 27 N., R. 19 W.,	16	S1/2	320
	20	All	640
Dolan Springs Area			
T. 27 N., R. 18 W.,	26	All	640
	28	All	640
	34	All	640
	36	All	640
T. 26 N., R. 18 W.,	4	All	640
	6	All	632
	8	SW1/4	160
	10	All	640
	18	All	637
	20	All	640
	30	E1/2; E1/2W1/2	480
T. 26 N., R. 19 W.,	12	All	640
	14	All	640
	22	All	640
	24	All	640
	26	All	640
	28	All	640
	32	All	640
	34	S1/2; S1/2N1/2; NE1/4NE1/4; N1/2NW1/4	600
T. 25 N., R. 20 W.,	4	SE1/4	160
	8	All	640
	10	N1/2	320
	12	N1/2; SE1/4	480

(continued)

Appendix 12 (continued)
Alternative 2 Proposed Disposal Areas

Township and Range	Section	Subdivision	Acreage*
T. 25 N., R. 20 W., (continued)	16	All	640
	20	All	640
	22	All	640
	24	W1/2	320
	26	All	640
	28	All	640
	32	All	640
	34	All	640
	36	All	640
T. 25 N., R. 19 W.,	4	W1/2	320
	6	N1/2; N1/2SW1/4	395
	12	All	640
	14	All	640
	16	N1/2NW1/4; N1/2SW1/4NW1/4; E1/2SW1/4NW1/4; SE1/4SW1/4NW1/4; SW1/4; SE1/4	475
	22	All	640
	26	All	640
	28	All	640
	32	N1/2; SW1/4	480
T. 24 N., R. 20 W.,	4	All	566
	10	SE1/4	160
	12	N1/2; E1/2SW1/4; SE1/4	560
	14	NW1/4; S1/2	480
	15	W1/2NE1/4; NE1/4NW1/4	120
	16	All	640
	22	All	640
	24	All	640
	28	All	640
	34	W1/2	320
	36	All	640
T. 24 N., R. 19 W.,	4	All	495
	8	SW1/4NW1/4; S1/2	360
	18	All	604
	20	All	640
	30	All	606
Golden Valley Area			
T. 23 N., R. 19 W.,	13	All	616
	23	All	640
	24	All	624
	26	All	640
	34	All	640
	36	All	637
T. 23 N., R. 18 W.,	3	All federal	180
	4	All federal, except lots 3, 16, 17, 18, 20 and SE1/4NW1/4	406
	5	All federal	471
	8	All	640
	9	S1/2SW1/4; SE1/4	240
	10	All federal	455
	16	All	640
	20	All	640
	27	E1/2NE1/4	80

(continued)

Appendix 12 (continued)
Alternative 2 Proposed Disposal Areas

Township and Range	Section	Subdivision	Acreage*
T. 23 N., R. 18 W., (continued)	28	All	640
	30	All	640
	32	All federal	360
	34	All	640
T. 22 N., R. 19 W.,	2	All	676
	10	All	640
	12	All	640
	14	All	640
	16	All	640
	20	All	640
	30	NE1/4; N1/2NW1/4; E1/2SE1/4NW1/4; NE1/4NE1/4SW1/4	270
[1]T. 22 N., R. 18 W.,	3	All	691
	5	All	677
	6	All	670
	7	All	637
	8	All	640
	9	All	640
	15	All	640
	16	All	640
	17	All	640
	18	All	637
	19	All	636
	20	All	640
	21	All	640
	22	All	640
	26	All	640
	27	All	640
	28	All	640
	29	All	640
	30	All	636
	32	All	640
	33	All	640
	34	All	640
	35	All	640
T. 21 N., R. 19 W.,	4	All	641
	5	All	641
	8	All	640
	9	All	640
	16	W1/2	320
	17	All	640
	20	All	640
Southwest of McConnico			
T. 20 N., R. 18 W.,	12	N1/2; N1/2S1/2; Portions of S1/2S1/2	510
T. 20 N., R. 17 W.,	4	Lots 1, 5-10; S1/2	574
	6	Lots 8, 19-27, 35-37, 45-46	801
	8	Lots 1-4, E1/2; SE1/4NW1/4; E1/2SW1/4	480
	9	NW1/4NE1/4; W1/2SW1/4; SE1/4SW1/4	160
	17	All	640
	18	Lots 21, 24, 25, 27, 30, SE1/4SE1/4	149
Shingle Canyon			
T. 19 N., R. 18 W.,	8	All	640

[1] Primarily for exchange to the state of Arizona

(Continued)

Appendix 12 (continued)
Alternative 2 Proposed Disposal Areas

Township and Range	Section	Subdivision	Acreage*
Walnut Creek			
T. 18 N., R. 18 W.,	2	All	624
T. 19 N., R. 17 W.,	30	West of I-40	139
Hualapai Valley			
T. 26 N., R. 16 W.,	10	All	640
	14	All	640
	16	All	640
	22	All	640
	24	All	640
	26	All	640
	34	All	640
	36	All	640
T. 26 N., R. 15 W.,	30	All	638
	32	All	640
T. 25 N., R. 16 W.,	2	All	640
	12	All	640
T. 25 N., R. 15 W.,	4	All	637
	6	All	638
	8	All	640
	10	All	630
	14	All	640
	18	All	639
T. 24 N., R. 16 W.,	2	NE1/4NE1/4; NW1/4NE1/4; SW1/4NE1/4; NW1/4; NE1/4SW1/4; NW1/4SW1/4; SW1/4SW1/4	400
	4	All	640
	8	All	640
	16	All	640
	20	All	640
	30	All	1,018
	32	All	640
T. 24 N., R. 15 W.,	4	All	716
	8	All	640
	10	All	640
	12	All	640
	13	N1/2NW1/4; SE1/4NW1/4; NE1/4SW1/4	160
	14	All	640
	22	All	640
	24	All	640
	26	E1/2	320
	28	All	640
T. 24 N., R. 14 W.,	18	All	640
	20	E1/2	320
	30	N1/2	320
	32	N1/2NE1/4	80
T. 23 N., R. 17 W.,	24	East of Stockton Hill Road	44
	25	East of Stockton Hill Road	13
T. 23 N., R. 16 W.,	20	NE1/4NE1/4	40

(continued)

Appendix 12 (continued)
Alternative 2 Proposed Disposal Areas

Township and Range	Section	Subdivision	Acreage*
T. 22 N., R. 17 W.,	2	East of Stockton Hill Road	223
	11	Portions of NW1/4NW1/4 and SW1/4NW1/4 East of Stockton Hill Road, SE1/4NW1/4	69
	26	All	640
T. 22 N., R. 15 W.,	34	S1/2NE1/4	80
T. 21 N., R. 16 W.,	13	North of I-40	360
Mohave Valley			
T. 19 N., R. 21 W.,	[2]4	All	640
	[2]5	All	640
	[2]6	All	640
	[1]7	NE1/4; NW1/4; N1/2SW1/4; SE1/4	560
	[1]8	All	640
	[1]9	All	640
East of Fort Mohave			
T. 19 N., R. 21 W.,	20	SW1/4SW1/4NW1/4NW1/4; W1/2SW1/4NW1/4; W1/2NE1/4SW1/4NW1/4; SE1/4NE1/4SW1/4NW1/4; SE1/4SW1/4NW1/4; SW1/4SE1/4NW1/2; S1/2SE1/4SE1/4NW1/4; N1/2NW1/4NE1/4SW1/4; NE1/4NE1/4SW1/4; NE1/4SE1/4NE1/4SW1/4; NW1/4NW1/4SE1/4; NW1/4SW1/4NW1/4SE1/4	85
	29	S1/2N1/2; S1/2	480
	30	S1/2NE1/4; E1/2SE1/4NW1/4; S1/2SW1/4SE1/4NW1/4; E1/2SW1/4; SE1/4	325
T. 18 N., R. 21 W.,	7	SE1/4	160
	[1]8	All	640
	[1]9	All	640
	[1]16	All	640
	[1]17	All	640
	18	E1/2	320
	19	NE1/4; E1/2SE1/4	240
	[1]20	All	640
	[1]21	All	640
	[1]28	All	640
	[1]29	All	640
	[1]33	All	640
[1]T. 17 N., R. 21 W.,	[1]4	All	519
	[1]9	All	640
T. 16.5 N., R. 20.5 W.,	22	E1/2	330
	23	All	670
	25	All	640
	26	All	640
	27	E1/2	314
	34	E1/2	313
	35	All	640
T. 16.5 N., R. 20 W.,	30	All	617
	32	All	640

[1] Primarily for exchange to the state of Arizona
[2] For exchange to the state of Arizona only

(continued)

Appendix 12 (continued)
Alternative 2 Proposed Disposal Areas

Township and Range	Section	Subdivision	Acreage*
T. 16 N., R. 20.5 W.,	1	All	640
	3	E1/2	311
	10	E1/2	310
	11	N1/2; N1/2SW1/4; SE1/4SW1/4; SE1/4	600
	12	All	640
	13	North of I-40	440
T. 16 N., R. 20 W.,	6	All	619
	15	North of I-40	356
	17	North of I-40	320
	18	North of I-40	347
T. 16 N., R. 19 W.,	18	North of I-40	156
Yucca Area			
T. 18 N., R. 18 W.,	24	East of I-40	343
	36	East of I-40	520
T. 18 N., R. 17 W.,	20	All	640
	30	All	1,114
	32	All	640
T. 17 N., R. 18 W.,	1	Lots 1, 2; S1/2NE1/4; N1/2N1/2SE1/4; SW1/4NW1/4SE1/4	210
T. 17 N., R.17 W.,	4	All	637
	8	All	640
	20	All	640
	28	All	640
	30	All	1,118
	32	All	640
	34	All	640
Dutch Flat Area			
T. 16.5 N., R. 18 W.,	22	All	532
	24	All	518
	26	All	640
	34	All	640
	36	All	640
[3]T. 16.5 N., R. 17 W.,	20	All	519
	28	All	640
	30	All	626
	32	All	640
	34	All	640
[3]T. 16 N., R. 18 W.,	2	All	640
	4	All	640
	10	All	640
	12	All	640
	14	All	640
[3]T. 16 N., R. 17 W.,	2	S1/2NW1/4; SW1/4	240

[3] Public lands in the Dutch Flat area would be exchanged only for state and private lands in the Hualapai Mountains, Dutch Flat and McCracken Mountains containing important habitat for desert tortoise or Hualapai Mexican vole. If all Santa Fe lands can be acquired, these lands would be dropped from disposal.

(continued)

Appendix 12 (continued)
Alternative 2 Proposed Disposal Areas

Township and Range	Section	Subdivision	Acreage*
[3]T. 16 N., R. 17 W., (continued)	4	All	640
	6	All	627
	8	All	640
	10	All	640
	12	All	640
	14	All	640
	16	All	640
	18	All	627
	20	All	640
	22	All	640
	24	All	640
	26	All	640
	28	All	640
	30	All	629
	32	E1/2	320
	34	All	640
	36	SE1/4NE1/4; W1/2; S1/2SE1/4	440
[3]T. 16 N., R. 16 W.,	32	All	640
[3]T. 15 N., R. 17 W.,	2	All	641
	4	All	641
	6	All	629
	8	All	640
	10	All	640
	12	All	640
	14	All	640
	16	All	640
	18	All	629
	20	All	640
	22	All	640
	24	All	640
	26	All	640
	28	All	640
	30	All	630
	32	All	640
	34	All	640
	36	All	640
[3]T. 15 N., R. 16 W.,	2	S1/2	320
	4	All	638
	6	All	636
	8	All	640
	10	All	640
	12	S1/2	320
	14	All	640
	16	All	640
	18	All	640
	20	All	640
	22	All	640
	24	All	640
	26	All	640
	28	All	640
	30	All	640

[3] Public lands in the Dutch Flat area would be exchanged only for state and private lands in the Hualapai Mountains, Dutch Flat and McCracken Mountains containing important habitat for desert tortoise or Hualapai Mexican vole. If all Santa Fe lands can be acquired, these lands would be dropped from disposal.

(continued)

Appendix 12 (continued)
Alternative 2 Proposed Disposal Areas

Township and Range	Section	Subdivision	Acreage*
[3]T. 15 N., R. 16 W.,	32	All	640
	34	All	640
	36	All	640
[3]T. 14 N., R. 17 W.,	2	All	640
	4	All	641
	6	All	631
	8	All	640
	12	All	640
	16	N1/2; W1/2SW1/4; SW1/4SW1/4;W1/2SE1/4	500
	18	All	632
		Total	**179,599**

Appendix 13
Alternative 2 Lands Removed from Management Framework Plan Disposal Areas

East of Fort Mohave			
T. 19 N., R. 21 W.,	28	NE1/4	160
Kingman Area			
T. 22 N., R. 17 W.,	14	S1/2SW1/4; SW1/4SE1/4	120
Hualapai Valley			
T. 25 N., R.15 W.,	20	All	640
	22	All	640
	24	All	640
	26	All	640
	30	All	640
	34	All	640
Yucca Area			
T. 18 N., R.17 W.,	28	All	640
	34	All	640
T. 17 N., R.17 W.,	2	All	636
	10	All	640
	14	All	640
	16	All	640
	22	All	640
	24	All	640
	26	All	640
	36	All	640
T. 17 N., R. 16 W.,	18	All	637
	20	All	640
	30	All	639
	32	All	640
		Total	**13,072**

[3] Public lands in the Dutch Flat area would be exchanged only for state and private lands in the Hualapai Mountains, Dutch Flat and McCracken Mountains containing important habitat for desert tortoise or Hualapai Mexican vole. If all Santa Fe lands can be acquired, these lands would be dropped from disposal. Acreages may not be exact.

[4] May be used for sale if there is no interest in exchange.

Appendix 14
Public Lands in Coconino County [1]

Township and Range	Section	Subdivision	Encumbrances	Acreage
T. 18 N., R. 11 E.,	23	Lot 1	None	40.60
T. 23 N., R. 10 E.,	36	All	Recreation and Public Purposes Act Lease (AZA-22307)	640.00
T. 24 N., R. 11 E.,	8	Lots 1-4	Powersite withdrawal	114.59
		NW1/4; E1/2SW1/4	Powersite withdrawal	240.00
	20	Lot 1	Powersite withdrawal	29.95
T. 25 N., R. 11 E.,	18	Lots 1-4	Powersite withdrawal	145.43
	30	Lots 1-4	Powersite withdrawal	121.69
		E1/2W1/2; SW1/4SE1/4	Powersite withdrawal	200.00
	32	Lots 1-4	Powersite withdrawal	151.72
		SW1/4SW1/4	Powersite withdrawal	40.00
T. 26 N., R. 10 E.,	4	Lots 1-6	* CAP withdrawal	197.42
		S1/2NW1/4; SW1/4	CAP withdrawal	240.00
	8	E1/2	CAP withdrawal	320.00
	22	Lots 1-4	CAP withdrawal	138.57
	28	All	CAP withdrawal NE1/4NE1/4, Powersite withdrawal	640.00
	34	Lots 1-4	CAP and powersite withdrawal	178.21
		SW1/4SE1/4	CAP and powersite withdrawal	40.00
		E1/2NW1/4	Powersite withdrawal	80.00
T. 27 N., R. 9 E.,	24	All	None	640.00
T. 27 N., R. 10 E.,	4	Lots 1-4	CAP withdrawal	162.88
		S1/2N1/2; S1/2	CAP withdrawal	480.00
		(Lot 1; SE1/4NE1/4; E1/2SE1/4)	CAP and powersite withdrawal	
	8	All	CAP withdrawal	640.00
	10	Lots 1-3	Powersite withdrawal	61.30
	16	E1/2NE1/4	Powersite withdrawal	80.00
	22	Lots 1-4	CAP and powersite withdrawal	165.80
		NW1/4, W1/2SW1/4	CAP and powersite withdrawal except W1/2NW1/4	240.00
	28	Lots 1-5	CAP and powersite withdrawal	173.49
		NE1/4NW1/4; SW1/4 NW1/4	CAP and powersite withdrawal	80.00
		NW1/4SW1/4; SE1/4 SW1/4	CAP and powersite withdrawal	80.00
		NW1/4NW1/4; SW1/4 SW1/4	CAP withdrawal	80.00
	34	Lot 1	Powersite withdrawal	1.82
T. 30 N., R. 1 E.,	7	Lots 1-4; E1/2W1/2; E1/2	None	633.60
	8	All	None	640.00
			Total	**7,717.07**

* CAP - Central Arizona Project

[1] Public lands under withdrawal will be available for exchange if and when withdrawals are terminated.

Appendix 15
Existing Withdrawals and Classifications

Withdrawals to be Retained for the Hualapai Reservation	Acreage
Executive Order 01368	60.90
Executive Order 12/30/74	160.90
Executive Order-12/22/1898	645.30
Total	**867.10**

Withdrawals to be Retained if Justified	Acreage
Public Land Order for Peacock Substation	155.30
Public Land Order 492 for Alamo Dam	19,403.12
AR-035844 Application to Expand Public Land Order 492	1,394.76
A-13456 Public Water Reserve 107 (See Appendix 16)	220.00
A-17960 Public Water Reserve 107 (See Appendix 16)	40.00
A-17962 Public Water Reserve 107 (See Appendix 16)	100.00
Total	**21,623.18**

Classifications to be Terminated if Not Needed	Acreage
Public Land Order 5788 for Burro Creek Campground	310.00
A-17944 Classification Order for Recreation and Public Purposes	12.50
A-17945 Classification Order for Recreation and Public Purposes	9.90
AR-034452 Classification Order for Recreation and Public Purposes	53.90
Total	**76.30**

Withdrawals to be Revoked (See Appendix 16)	Acreage
A-17962 Public Water Reserve 107	10.00
Total	**10.00**

CAP Withdrawals to be Revoked

T. 26 N., R. 10 E.,	4	Lots 1-6	Central Arizona Project	197.42
		S1/2NW1/4; SW1/4	Central Arizona Project	240.00
	8	E1/2	Central Arizona Project	320.00
	22	Lots 1-4	Central Arizona Project	138.57
	28	All	Central Arizona Project NE1/4NE1/4 - Powersite	640.00
	34	Lots 1-4	Central Arizona Project and Powersite	178.21
		SW1/4SE1/4	Central Arizona Project and Powersite	40.00
T. 27 N., R. 10 E.,	4	Lots 1-4	Central Arizona Project	162.88
		S1/2N1/2; S1/2	Central Arizona Project	480.00
		Lot 1; SE1/4NE1/4; E1/2SE1/4	Central Arizona Project and Powersite	
	8	All	Central Arizona Project	640.00
	22	Lots 1-4	Central Arizona Project and Powersite	165.80
		NW1/4; W1/2SW1/4	Central Arizona Project and Powersite,	160.72
			except W1/2NW1/4	240.00
	28	Lots 1-5	Central Arizona Project and Powersite	173.49
		NE1/4NW1/4; SW1/4NW1/4	Central Arizona Project and Powersite	80.00
		NW1/4SW1/4; SE1/4SW1/4	Central Arizona Project and Powersite	80.00
		NW1/4NW1/4; SW1/4SW1/4	Central Arizona Project	80.00
			Total	**4,017.09**

Appendix 16
PUBLIC WATER RESERVE WITHDRAWALS

Public Water Reserve 107 Withdrawals to Be Revoked

Township and Range	Section	Subdivision	Acreage
T. 20 N., R. 20 W., A-17962 (WL Spring)	13	SW1/4SE1/4SW1/4	10

Public Water Reserve 107 Withdrawals to Be Modified

Township and Range	Section	Subdivision	Acreage
Change:			
T. 22 N., R. 18 W.,	1	SE1/4SW14	
To:			
T. 22 N., R. 18 W., A-17960 (Little Sweetwater Spring)	1	SW1/4SE1/4	40
Change:			
T. 24 N., R. 21 W.,	21	NW1/4NE1/4NE1/4	
To:			
T. 24 N., R. 21 W., A-17962 (Master Spring)	21	NE1/4NW1/4NE1/4	10
Change:			
T. 19 N., R. 15 W., (Antelope Canyon)	4	NE1/4NE1/4	
To:			
T. 19 N., R. 15 W., A-13456 (New Year's Cabin Spring)	4	NW1/4NE1/4	40
Change:			
T. 20 N., R. 15 W.,	9	W1/2SE1/4SE1/4	
To:			
T. 20 N., R. 15 W., A-13456 (Midway Spring)	9	W1/2NE1/4SE1/4	20
		Total	**110**

Public Water Reserve 107 Withdrawals to Be Retained

Township and Range	Section	Subdivision	Acreage
T. 17 N., R. 19 W., A-17962 (Metate Spring)	6	NW1/4NE1/4NW1/4	10
T. 20 N., R. 19 W., A-17962 (Trough Spring)	6	SW1/4SE1/4	40
T. 25 N., R. 21 W., A-17962 (White Rock Spring)	4	SE1/4SW1/4	40
T. 19 N., R. 15 W., A-13456 (Timber Spring)	4	SW1/4SW1/4	40
T. 20 N., R. 15 W., A-13456 (Sand Bee Spring)	8	NW1/4NE1/4	40
T. 20 N., R. 15 W., A-13456 (Dean Mine Spring)	9	SW1/4NE1/4	40
T. 20 N., R. 15 W., A-13456 (Eagle Spring)	10	SW1/4SW1/4	40
		Total	**250**

Appendix 17
Alternatives 2 and 3 Proposed Recreation and Public Purposes Disposal Areas

Township and Range	Section	Subdivision	Acreage
Detrital Valley			
T. 27 N., R. 21 W.,	24	SE1/4	160
White Hills			
T. 28 N., R. 19 W.,	16 (surface only)	N1/2	320
Golden Valley			
T. 21 N., R. 19 W.,	16	E1/2	320
T. 21 N., R. 18 W.,	8	E1/2NE1/4,W1/2NW1/4	160
T. 22 N., R. 18 W.,	31 (surface only)	All	640
Antares			
T. 24 N., R. 14 W.,	30	S1/2	320
Meadview			
T. 30 N., R. 17 W.,	34	All	640
Mohave Valley			
T. 18 N., R. 21 W.,	4	All	640
	6	S1/2N1/2SW1/4SE1/4; S1/2SW1/4SE1/4; SE1/4SE1/4	70
	7 (surface only)	NE1/4	160
T. 17 N., R. 21 W.,	5 (surface only)	Lots 1-4; S1/2NE1/4;SE1/4NW1/4; E1/2SW1/4; SE1/4	518
	22	S1/2	320
Truxton			
T. 24 N., R. 12 W.,	10	NW1/4	160
Chloride			
T. 23 N., R. 18 W.,	4	Lots 3,16,17,18,20; SE1/4NW1/4	159
Oatman			
T. 19 N., R. 20 W.,	23	Lots 7,10,15	62
	27	Lots 4,7,8,9; SW1/4NW1/4; N1/2SW1/4	216
Dolan Springs			
T. 25 N., R. 19 W.,	10	All	640
Wikieup			
T. 16 N., R. 13 W.,	21	SE1/4	160
	28	NE1/4	160
Yucca/Gem Acres			
T. 17 N., R. 18 W.,	12	W1/2W1/2; NE1/4NW1/4	30
	36	SE1/4	130
McConnico			
T. 20 N., R. 17 W.,	6	SE1/4	160
So Hi			
T. 22 N., R. 17 W.,	25	SE1/4SE1/4SE1/4	10
Hualapai Indian Tribe Cemetery(to be disposed of only to tribe)			
T. 23 N., R. 13 W.,	22	SW1/4NW1/4SW1/4	10
		Total	**6,165**

Appendix 18
Alternative 2 Designated Communication Sites

Township and Range	Section	Subdivision	Acreage
Hayden Peak			
T. 20 N., R. 15 W.,	30	SW1/4SE1/4	22.50
Potato Patch I			
T. 20 N., R. 15 W.,	30	NW1/4NW1/4NE1/4	10.00
Potato Patch II			
T. 20 N., R. 15 W.,	19	SW1/4SW1/4SE1/4SE1/4SE1/4SW1/4	10.00
Getz Peak			
T. 20 N., R. 15 W.,	8	NE1/4SE1/4	10.00[1]
	17	SE1/4SE1/4	10.00[1]
Oatman			
T. 19 N., R.20 W.,	13	W1/2	2.50[1]
	14	NE1/4	15.00[1]
Mount Perkins			
T. 25 N., R. 21 W.,	10	E1/2SW1/4NE1/4W1/2SE1/4NE1/4	1.25[1]
North of Mount Perkins			
T. 25 N., R. 21 W.,	3	NW1/4NW1/4SW1/4	2.50[1]
Willow Beach			
T. 27 N., R. 21 W.,	16	NW1/4SW1/4NW1/4	2.50[1]
	17		
Windy Point			
T. 24 N., R. 18 W.,	36	SW1/4SW1/4NE1/4; SE1/4SE1/4NW1/4NW1/4NW1/4SE1/4	20.00[1]
Patterson Slope			
T. 29 N., R. 17 W.,	34	E1/2NW1/4NW1/4	10.00[1]
Cherum Peak			
T. 23 N., R. 17 W.,	7	E1/2SE1/4NW1/4	2.50[1]
		Total	**118.75**

[1]Acreage is estimated until a communication site plan and/or site environmental analysis determines area of development.

Appendix 19

GRAZING ALLOTMENTS AND WATERSHED MANAGEMENT CATEGORIES

Allotment Name	[1]MLRA	Watershed Condition	Erosion	Category
Alamo Crossing	30-2	S	LV	I
Arrastra Mountain	40-3	S	LV	I
Artillery Range	30-2	S	LV	I
Bagdad	40-3	S	LV	I
Bateman Springs	30-2	S	LV	I
Big Ranch A	30-3	S**	LV	I
Big Ranch B	30-3	S	LV	I
Big Sandy	40-3	S	HV	II
Black Mesa A and B	40-3	S	LV	I
Black Mountain A	30-3	S	LV	I
Boriana A	30-3	S	LV	I
Boriana B	30-3	S	LV	I
Burro Creek	40-3	S	LV	I
Burro Creek Ranch	40-3	S	LV	I
Middle Water	30-3	S	LV	I
Cane Springs Wash	40-3	S**	HV	II
Canyon Ranch	30-3	S	HV	II
Castle Rock	30-3	S	LV	I
Cedar Canyon	30-3	S**	HV	II
Cerbat	30-3	S*	HV	II
Chicken Springs	30-3	S	HV	II
Chino Springs	40-3	S	LV	I
Clay Springs	30-3	S	LV	I
Cook Canyon	30-3	S	LV	I
Crozier Canyon	35-1	U	HR	IV
Curtain	30-3	S	LV	I
Diamond Joe	40-3	S	HV	II
Diamond Bar A	30-3	S**	HV	II
Diamond Bar B	30-3	S	LV	I
Dolan Springs	30-3	S	LV	I
DOR	40-3	S	LV	I
Feldspar	30-3	S	LV	I
Francis Creek	39-4	S	HV	II
Gediondia	30-2	S	LV	I
Gold Basin	30-3	S**	HV	II
Gray Wash	30-3	U	LR	III
Greenwood Community	30-2	S	LV	I
Greenwood Peak Community	40-3	S	LV	I
Groom Peak	40-3	S	LV	I
Hackberry	30-3	S**	HV	II
Happy Jack Wash	30-3	S	LV	I
Hot Spring	40-3	S	LV	I
Hualapai Peak	30-3	S	HV	II
Hibernia Peak A	39-4	S	HV	II
Hibernia Peak B*				
La Cienega	30-3	S**	HV	II

Appendix 19 (continued)
GRAZING ALLOTMENTS AND WATERSHED MANAGEMENT CATEGORIES

Allotment Name	[1]MLRA	Watershed Condition	Erosion	Category
Lazy YU A	30-3	S	LV	I
Los Molinos	40-3	S	HV	II
Mineral Park	30-3	S	LV	I
Mud Springs	30-3	S**	HV	II
Music Mountain	39-2	S**	HV	II
Mount Tipton	39-4	S	LV	I
Peacock Mountain	30-3	S	LV	I
Pine Spring	30-3	S**	LV	I
Quail Springs	30-3	S	HV	II
Sandy	40-3	S	LV	I
Stockton Hill	39-4	S	LV	I
Turkey Track	30-3	S	LV	I
Thumb Butte	30-2	S	LV	I
Truxton Canyon A	30-3	S	LV	I
Truxton Canyon B*				
Upper Music Mountains	39-2	S**	HV	II
Valentine	35-1	S	LV	I
West Peacock	30-3	S	LV	I
Wikieup	40-3	S	LV	I
Walapai Ranch	30-3	S**	HV	II
Yellow Pine	39-4	S	HV	II
Little Cane	40-3	S	LV	I
Cane Springs	30-3	S	HV	II
7 L Cattle Co	35-1	S	LV	I
Fort Mac Ewen A	30-3	U	HR	I
Fort Mac Ewen B	30-2	S	LV	I
Portland Springs	30-2	S	LV	I
Walnut Creek	30-3	S	HV	II
CO Bar*				
Chambers Lease*				
Gibson*				
Globe Ranch*				
JJJ*				
Kellis Lease*				
Yolo Ranch*				
Byner*				

[1] Major land resource area

*These allotments were not rated because public land acreage involved is relatively small and parcels are isolated and unmanageable.

S Watershed conditions on the allotment are satisfactory (see glossary).
S** Watershed conditions on the allotment are mostly satisfactory, but there are localized problem areas.
U Watershed conditions on the allotment are unsatisfactory (see glossary).
LV Soils on the allotment generally have a low vulnerability to erosion.
HV Soils on the allotment generally have a high vulnerability to erosion.
LR Soils on the allotment generally have a low responsiveness to treatment for erosion problems.
HR Soils on the allotment generally have a high responsiveness to treatment for erosion problems.

Township and Range	Priority	Section	Subdivision	Acreage
Acquire Mineral Estate on Lands Identified for Recreation and Public Purposes				
T. 27 N., R. 19 W.,		16	N1/2	320
T. 22 N., R. 18 W.,		31	ALL	640
T. 18 N., R. 21 W.,		7	NE1/4	160
T. 17 N., R. 21 W.,		5	Lots 1-4; S1/2NE1/4; SE1/4NW1/4; SE1/4SW1/4; SE1/4	518
			Total	**1,638**
CULTURAL ACQUISITION				
Carrow-Stephens Ranches				
T. 16.5 N., R. 13 W., (Area 1)	1	28	W1/2NW1/4NE1/4; SE1/4NW1/4NE1/4; S1/2NE1/4NW1/4NE1/4	35
Barth (Bighorn Cave)				
T. 20 N., R. 20 W.,	2	23	W1/2	320
Neal Petroglyphs				
T. 24 N., R. 16 W.,	3	7	All	1017
X-Bar-1 Petroglyphs				
T. 22 N., R. 13 W.,	4		All	721
Carrow-Stephens Ranches(Area 2)				
T. 17 N., R. 13 W.,	5	35	SE1/4	160
T. 16.5 N., R. 13 W.,		21	Lots 1, 2; N1/2SE1/4SE1/4	235
		22	Lot 4; W1/2SW1/4	138
		28	E1/2NE1/4	80
		27	NE1/4SW1/4	40
			Total	**2,746**
RECREATION ACQUISITION				
T. 29 N., R. 17 W.,	1	25	All	640
T. 29 N., R. 17 W.,	2	35	N1/2	320
T. 20 N., R. 19 W.,	3	33	All	640
T. 20 N., R. 20 W.,	4	2	All	525
T. 20 N., R. 20 W.,	5	3	SE1/4SW1/4; N1/2SW1/4; SE1/4	280
T. 14 N., R. 12 W.,	6	23	All	640
T. 14 N., R. 12 W.,	7	24	W1/2	320
T. 28 N., R. 17 W.,	8	3	All	640
T. 29 N., R. 16 W.,	9	19	NW1/4NW1/4	40
T. 18 N., R. 15 W.,	10	7	N1/2; N1/2S1/2; SW1/4SW1/4; SW1/4SE1/4	560
T. 29 N., R. 17 W.,	11	27	All	640
T. 30 N., R. 16 W.,	12	23	All	640
T. 29 N., R. 16 W.,	13	29	All	640
T. 29 N., R. 16 W.,	14	31	S1/2	320
T. 30 N., R. 16 W.,	15	31	E1/2	320
T. 30 N., R. 16 W.,	16	29	All	640
			Total	**7,805**
WILDERNESS ACQUISITION				
T. 20 N., R. 20 W.,	1	23	SW1/4; S1/2NW1/4; NW1/4NW1/4; W1/2SW1/4SE1/4	300
T. 18 N., R. 16 W.,	2	11	N1/2N1/2; N1/2SW1/4NW1/4; E1/2SE1/4SW1/4NW1/4; SE1/4NW1/4	225
T. 12 N., R. 11 W.,	3	16	Mining Claim	16
T. 25 N., R. 18 W.,	4	17	NW1/4; N1/2NE1/4; SE1/4NE1/4	280
T. 16 N., R. 10 W.,	5	25	Mining Claim	5
T. 25 N., R. 18 W.,	6	4	SW1/4NW1/4	40
T. 25 N., R. 18 W.,	7	20	SE1/4SE1/4	40
T. 20 N., R. 20 W.,	8	35	Mining Claim	5
T. 19 N., R. 20 W.,	9	2	Mining Claim	5
T. 25 N., R. 18 W.,	10	33	All	640
T. 24 N., R. 18 W.,	11	9	All	640
T. 18 N., R. 16 W.,	12	5	S1/2SW1/4	80
	13	8	NW1/4NW1/4	40
	14	15	NE1/4SE1/4; SW1/4NW1/4; NW1/4SE1/4NW1/4; W1/2 NW1/4SW1/4; W1/2NE1/4SW1/4	210
	15	17	N1/2NW1/4; SW1/4; W1/2SE1/4; SE1/4SE1/4	380

Appendix 20 (continued)
Alternative 2 Acquisitions by Resource Activity

Township and Range	Priority	Section	Subdivision	Acreage
WILDERNESS ACQUISITION (continued)				
T. 18 N., R. 16 W.	16	21	NW1/4NW1/4; SE1/4SE1/4	80
	17	23	NE1/4NW1/4	40
	18	27	S1/2SW1/4	80
	19	29	SE1/4NE1/4	40
	20	31	W1/2NE1/4	80
WILDLIFE ACQUISITION			**Total**	**3,226**
HUALAPAI MOUNTAINS				
T. 18 N., R. 15 W.,	1	7	N1/2; N1/2S1/2; SW1/4SE1/4; SW1/4SW1/4	543
T. 17 N., R. 15 W.,	1	3	All	643
		9	All	640
		11	All	640
			Total	**2,466**
UNION PASS CROSSOVER				
T. 21 N., R. 20 W.,	2	11	All	640
			N1/2	320
			Total	**960**
DESERT TORTOISE HABITAT CATEGORY I				
Eastern Bajada	3	23	N1/2; N1/2SE1/4; SW1/4SE1/4	440
T. 19 N., R. 19 W.,		21	All	640
McCracken Mountains				
T. 14 N., R. 14 W.,	3	19	All	632
		31	All	634
T. 14 N., R. 15 W.,		3	All	638
		9	All	640
		11	All	640
		13	All	640
		14	S1/2	320
		15	All	640
		21	All	640
		23	All	640
		25	All	640
		27	All	640
		35	All	640
T. 13 N., R. 15 W.,		3	S1/2	320
		11	All	640
		13	W1/2; NE1/4NE1/4	360
		15	All	640
		23	W1/2	320
T. 13 N., R. 14 W.,		5	All	640
Poachie				
T. 13 N., R. 13 W.,	3	21	NE1/4	160
		27	N1/2	320
T. 13 N., R. 12 W.,		7	All	638
T. 13 N., R. 10 W.,		2	SW1/4	160
		3	SW1/4	160
			Total	**13,422**
DESERT TORTOISE HABITAT CATEGORY II				
T. 20 N., R. 17 W.,	4	19	East of I-40 right-of-way	316
		28	Mining claim in SW1/4NW1/4	20
		29	NW1/4; S1/2	480

Township and Range	Priority	Section	Subdivision	Acreage
WILDLIFE ACQUISITION (continued)				
DESERT TORTOISE HABITAT CATEGORY II (CONTINUED)				
T. 19 N., R. 17 W.,	4	15	S1/2; NW1/4	80
		21	SW1/4SW1/4	40
T. 18 N., R. 17 W.,		9	S1/2N1/2; W1/2SW1/4; NE1/4SW1/4	280
		11	All	640
		21	All	640
		27	All	640
		35	All	640
T. 18 N., R. 16 W.,		5	S1/2SW1/4	80
		8	NW1/4NW1/4	40
		17	N1/2NW1/4; SW1/4	240
		31	W1/2NE1/4; NW1/4NW1/4	119
T. 18 N., R. 15 W.,		1	All	640
		3	N1/2; SW1/4; N1/2SE1/4	560
		5	All	640
		7	N1/2; N1/2S1/2; SW1/4SW1/4; SW1/4SE1/4	560
		9	All	640
		11	NW1/4NE1/4; SE1/4NE1/4; NE1/4S21/4; SW1/4; SW1/4SE1/4	320
		13	NW1/4N1/4; N1/2NW1/4; SE1/4NW1/4; E1/2 SW1/4; SE1/4SE1/4	280
		15	All	640
		17	NE1/4; S1/2NW1/4; NE1/4NW1/4; S1/2	600
		19	All	640
		21	All	640
		23	NE1/4NE1/4; NW1/4; SW1/4; W1/2SE1/4	200
		25	W1/2NE1/4; NE1/4NW1/4; W1/2SW1/4; N1/2 SE1/4	280
		26	W1/12NE1/4; SE1/4NW1/4	120
		27	All	640
		29	All	640
		31	All	640
		33	All	640
		35	N1/2NE1/4; SE1/4NE1/4; W1/2; S1/2SE1/4	520
T. 17 N., R. 16 W.,		3	SW1/4SW1/4	40
		8	All	640
		9	N1/2	320
		15	All	640
		17	All	640
		19	All	638
		21	All	640
		23	All	640
		25	All	640
		27	All	640
		29	All	640
		31	All	640
		33	All	640
		35	All	
T. 17 N., R. 15 W.,		19	SW1/4	160
		31	All	639
T. 17 N., R. 14 W.,		**4**	**SW1/4NE1/4; SW1/4SW1/4**	**80**
		5	**All**	**640**
		6	**SE1/4SE1/4**	**40**
		7	**E1/2NE1/4; NW1/4; N1/2SW1/4; SE1/4SW1/4; SW1/4SE1/4**	**400**
		9	**All**	**640**
		17	**N1/2; N12/2SE1/4; SE1/4SE1/4**	**440**
		18	**All**	**176**

Township and Range	Priority	Section	Subdivision	Acreage
WILDLIFE ACQUISITION (continued)				
DESERT TORTOISE HABITAT CATEGORY II (CONTINUED)				
T. 17 N., R. 15 W.,	**4**	**1**	**All**	**640**
		3	**All**	**640**
		5	**All**	**640**
		7	**All**	**640**
		9	**All**	**640**
		11	**All**	**640**
		12	**All**	
		13	**W1/2; All non-federal**	**320**
		15	**All**	**640**
		17	**All**	**640**
		21	**All**	**640**
		23	**All**	**640**
		27	**All**	**640**
		29	**NE1/4; NE1/4NW1/4; SW1/4SW1/4; SE1/4SE1/4**	**320**
		33	**All**	**640**
T. 16.5 N., R. 17 W.,		23	All	516
		25	All	640
T. 16.5 N., R. 16 W.,		19	All	511
		21	All	521
		23	All	522
		25	All	640
		27	All	640
		29	All	640
		31	All	636
		32	SW1/4; SW1/4SE1/4	200
		33	All	640
		35	All	640
			NW1/4NW1/4	40
T. 16.5 N., R. 15 W.,		19	SW1/4SW1/4	36
		31	All	622
T. 16.5 N., R. 15 W.,		**21**	**S1/2**	**320**
		29	**All**	**640**
		33	**All**	**640**
T. 16 N., R. 16 W.,		1	All	639
		2	All	638
		3	All	637
		4	All	638
		5	All	638
		6	All	595
		8	All	640
		9	All	640
		10	All	640
		11	All	640
		12	All	640
		13	All	640
		14	All	640
		15	All	640
		17	All	640
		21	All	640

Township and Range	Priority	Section	Subdivision	Acreage
WILDLIFE ACQUISITION (continued)				
DESERT TORTOISE HABITAT CATEGORY II (CONTINUED)				
T. 16 N., R. 16 W.,	4	22	All	640
		23	All	640
		24	All	640
		25	All	640
		26	All	640
		27	All	640
		35	All	640
		36	E1/2; W1/2W1/2; NE1/4NW1/4	520
T. 16 N., R. 15 W.,		5	W1/2; SE1/4; W1/2NE1/4; SE1/4NE1/4	600
		6	All	622
		7	All	623
		8	All	640
		9	All	640
		17	All	640
		19	All	622
		21	All	640
		29	All	640
		31	All	625
		33	All	640
		36	All	640
T. 16 N., R. 14 W.,		27	All	640
T. 15 N., R. 16 W.,		1	All	639
T. 15 N., R. 15 W.,		1	SE1/4NW1/4	40
		2	All	638
		3	All	638
		5	All	639
		7	All	629
		9	All	640
		11	All	640
		14	SE1/4	160
		15	All	640
		17	All	640
		19	All	632
		21	All	640
		23	E1/2; E1/2W1/2; E1/2SW1/4; NW1/4SW1/4	600
		35	All	640
T. 15 N., R. 14 W.,		1	N1/2; W1/2SW1/4	399
		4	All	638
		5	S1/2; S1/2NE1/4	400
		7	All	627
		8	All	640
		9	All	640
		13	W1/2NW1/4	80
		17	SE1/4SE1/4	40
		23	SW1/4NW1/4	160
		30	W1/2NW1/4	75
T. 15 N., R. 13 W.,		19	SW1/4	160
		24	W1/2NE1/4; W1/2SE1/4; E1/2SW1/4	240
		25	All	640
		27	S1/2; S1/2N1/2	480
		29	All	640
		33	All	640
		35	All	640
T. 15 N., R. 12 W.,		29	SW1/4	160

Appendix 20 (continued)
Alternative 2 Acquisitions by Resource Activity

Township and Range	Priority	Section	Subdivision	Acreage
WILDLIFE ACQUISITION (continued)				
DESERT TORTOISE HABITAT CATEGORY II (CONTINUED)				
T. 14 N., R. 12 W.,		5	N1/2	323
		7	All	633
		9	All	640
		17	S1/2	320
T. 14 N., R. 12 W.,	4	19	All	634
		21	All	640
		27	E1/2	320
		29	N1/2; SW1/4; NE1/4SE1/4; S1/2SE1/4	600
		31	All	636
		33	All	640
T. 14 N., R. 13 W.,		1	W1/2	307
		3	All	612
		11	All	640
		13	All	640
		24	SE1/4; E1/2SW1/4	240
		25	E1/2	320
T. 13 N., R. 10 W.,		19	All	642
		28	SW1/4	160
		29	SE1/4	160
			Total	**68,152**
HISTORIC VOLE				
T. 20 N., R. 15 W.,	5	16	All	640
		21	S1/2SW1/4	80
		9	**Total**	**720**
BIGHORN SHEEP BLACK MOUNTAINS				
T. 26 N., R. 21 W.,	6	22	All	640
		33	NE1/4	160
		36	All	640
T. 25 N., R. 22 W.,		25	All	640
		27	All	640
T. 24 N., R. 21 W.,		9	All	640
		33	NW1/4SW1/4	40
T. 23 N., R. 20 W.,		21	All	640
		33	All	640
T. 22 N., R. 20 W.,		4	SE1/4SE1/4	40
		9	E1/2	320
		15	All	640
		17	All	640
		19	All	637
		21	All	640
		29	All	640
		31	N1/2; N1/2S1/2	478
		33	All	640
T. 22 N., R. 21 W.,		13	All	640
		25	All	640
T. 21 N., R. 20 W.,		11	All	640
		16	All	640
T. 20 N., R. 20 W.,		2	All	525
		3	SE1/4; E1/2SW1/4; NW1/4SW1/4	280
		23	SW1/4; W1/2SW1/4SE1/4; S1/2NW1/4; NW1/4NW1/4	300
T. 20 N., R. 19 W.,		21	All	640
		33	All	640
T. 19 N., R. 19 W.,		21	All	640
			Total	**14,940**

Appendix 20 (continued)
Alternative 2 Acquisitions by Resource Activity

Township and Range	Priority	Section	Subdivision	Acreage
WILDLIFE ACQUISITION (continued)				
CASTANEDA HILLS				
T. 13 N., R. 16 W.,	7	23	All	640
		25	All	640
		26	SE1/4; SW1/4NE1/4; SE1/4NW1/4; E1/2SW1/4	320
		27	All	640
		35	All	640
T. 13 N., R. 15 W.,		29	All	640
		31	All	639
			Total	4,159
CERBAT MOUNTAINS HMP				
T. 23 N., R. 13 W.,		5	All	639
T. 23 N., R. 14 W.,	8	3	All	640
			N1/2; SE1/4; E1/2SW1/4	560
			All	640
T. 24 N., R. 14 W.,		11	All	640
		13	All	364
		17	All	640
		21	All	640
		23	All	640
		25	All	366
T. 24 N., R. 16 W.,		7	All	1,017
T. 25 N., R. 14 W.,		9	All	640
		11	All	640
		25	All	640
		31	All	640
		35	All	640
T. 25 N.,R. 15 W.,		27	All	640
		28	All	640
		29	All	640
		36	All	640
			Total	12,546
HUALAPAI MOUNTAINS				
T. 20 N., R. 15 W.,		9	NW1/4NE1/4; NE1/4NW1/4; Mining Claims	135
		16	All	640
		21	S1/2SW1/4	80
T. 13 N., R. 16 W.,		23	All	640
		25	All	640
		26	SW1/4NE1/4; SE1/4NW1/4; E1/2SW1/4; SE1/4	320
		27	All	640
		35	All	640
T. 13 N., R. 15 W.,		29	All	640
		31	All	639
			Total	5,014
			Total for Wildlife	**144,554**
SPECIAL STATUS SPECIES ACQUISITION (Plants)				
T. 17 N., R. 17 W.,	1	11	All	640
		13	All	640
		15	All	640
		23	All	640
		25	All	640
T. 17 N., R. 16 W.,		17	All	640
		19	All	638
		21	All	640
		26	All	640
		27	All	640
		31	All	640

Appendix 20 (continued)
Alternative 2 Acquisitions by Resource Activity

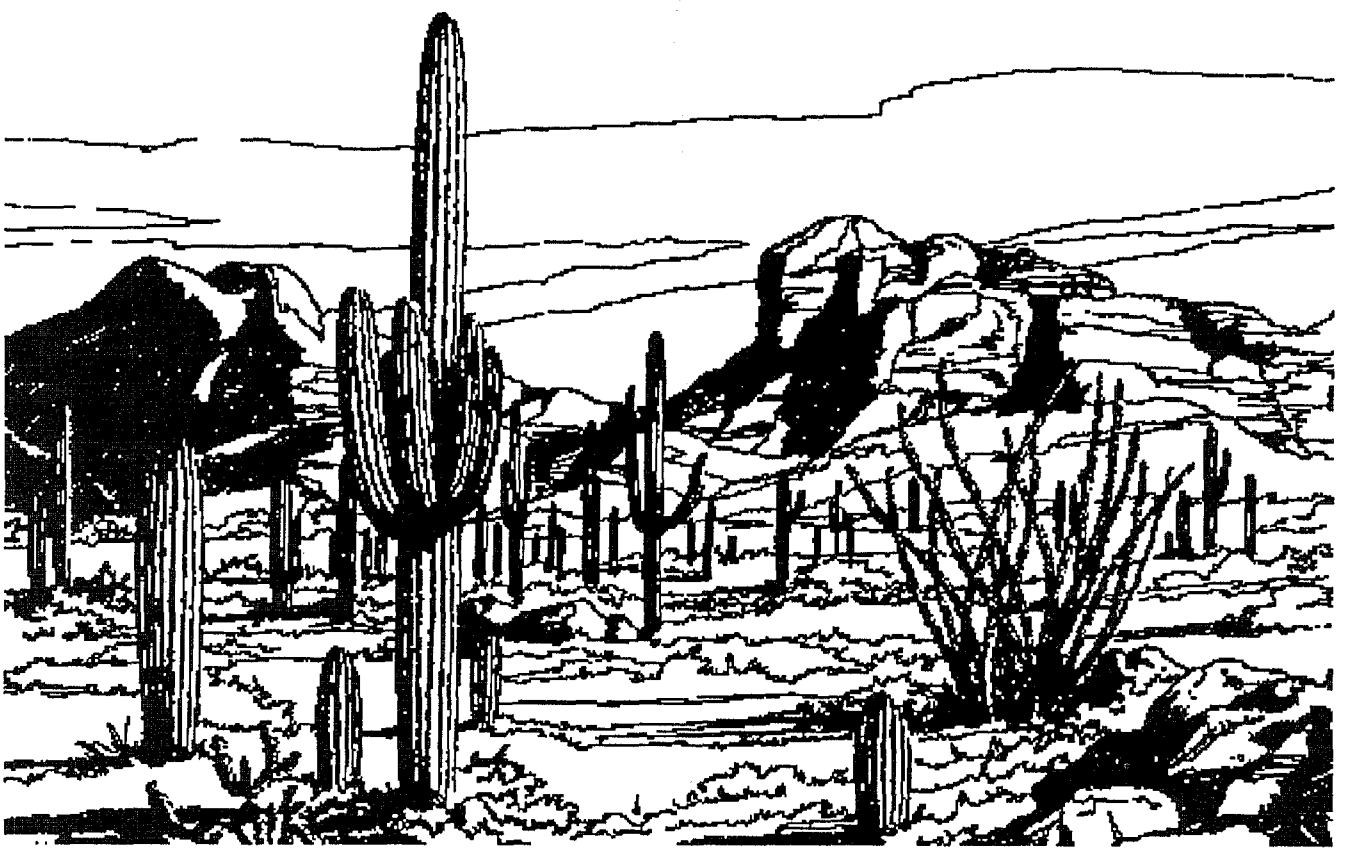
Township and Range	Priority	Section	Subdivision	Acreage
SPECIAL STATUS SPECIES ACQUISITION (Plants) (continued)				
T. 17 N., R. 16 W.,		33	All	640
		35	All	640
T. 16.5 N., R. 17 W.,		23	All	516
		25	All	640
T. 16.5 N., R. 16 W.,		19	All	511
		21	All	521
		27	All	640
		29	All	640
		31	All	636
		32	SW1/4; SW1/4SE1/4	200
		33	All	640
		35	All	640
T. 16 N., R. 16 W.,		1	All	639
		2	All	638
		3	All	637
		4	All	638
		5	All	638
		6	All	595
		8	All	640
		9	All	640
		10	All	640
		11	All	640
			Total	**20,887**
RIPARIAN ACQUISITION				
BURRO CREEK				
T. 15 N., R. 10 W.,	1	26	S1/2SW1/4	80
		27	NW1/4; SE1/4; N1/2SW1/4; SE1/4SW1/4	440
		28	E1/2NW1/4; NW1/4SW1/4; NE1/4	280
		29	SW1/4	160
		32	All	640
T. 14 N., R. 10 W.,		5	W1/2; W1/2NE1/4	400
		7	N1/2; SE1/4; E1/2SW1/4; NW1/4SW1/4	596
		8	W1/2NW1/4	80
T. 14 N., R. 12 W.,		9	S1/2	320
		10	Mining claims	
		11	Mining claims	49
		14	Mining claims	
		15	Mining claims	
		17	S1/2	320
		19	All	634
		23	N1/2	320
		24	All	640
			Total	**4,959**
BILL WILLIAMS				
T. 10 N., R. 13 W.,	2	18	Mining claims	88
T. 10 N., R. 14 W.,		4	W1/2SW1/4; SW1/4NW1/4	120
		5	S1/2NE1/4; SE1/4NW1/4; N1/2SE1/4; SW1/4	360
		6	S1/2	316
		9	W1/2NW1/4	80
		14	S1/2	320
		15	S1/2	320

Appendix 20 (continued)
Alternative 2 Acquisitions by Resource Activity

Township and Range	Priority	Section	Subdivision	Acreage
RIPARIAN ACQUISITION (continued)				
T. 10 N., R. 15 W.,		1	All	627
		2	All	640
		10	All	640
		11	All	640
		12	All	627
			Total	**3,174**
BIG SANDY RIVER FROM COE WITHDRAWAL TO SIGNAL				
T. 13 N., R. 13 W.,	3	21	All	640
		27	All	640
			Total	**1,280**
SIGNAL TO HIGHWAY BRIDGE				
T. 14 N., R. 13 W.,	4	1	W1/2	307
		12	NE1/4SW1/4; NW1/4SE1/4	80
		13	All	640
		23	SE1/4SE1/4	40
		24	E1/2SW1/4; NW1/4SE1/4	120
			Total	**1,187**
T. 15 N., R. 13 W.,		2	SE1/4SE1/4	40
		11	NE1/4; E1/2SE1/4	240
		12	SW1/4	160
		13	All	640
		24	W1/2NE1/4; E1/2SW1/4; W1/2SE1/4	240
		25	All	640
		35	All	640
			Total	**2,907**
SANTA MARIA				
T. 11 N., R. 10 W.,	5	2	All	641
T. 11 N., R. 11 W.,		15	S1/2S1/2	160
		16	S1/2; S1/2NW1/4	400
		17	N1/2	320
		18	NE1/4NE1/4	40
			Total	**1,561**
BIG SANDY SIGNAL TO HIGHWAY BRIDGE				
T. 13 N., R. 13 W.,	6	3	All	641
		9	All	640
T. 14 N., R. 13 W.,		26	NW1/4NE1/4; N1/2NW1/4	640
		27	All	120
		34	E1/2	320
		35	N1/2SE1/4; NW1/4SW1/4	520
			Total	**2,881**
WRIGHT CREEK				
T. 23 N., R. 12 W.,	7	15	NE1/4	160
			Total	**160**
COTTONWOOD CREEK				
T. 23 N., R. 12 W.,	8	29	W1/2SW1/4	80
T. 23 N., R. 13 W.,		22	N1/2	320
			Total	**400**

Appendix 20 (continued)
Alternative 2 Acquisitions by Resource Activity

Township and Range	Priority	Section	Subdivision	Acreage
RIPARIAN ACQUISITION (continued)				
UPSTREAM FROM WSA BOUNDARY - BURRO CREEK				
T. 17 N., R. 9 W.,	9	25	E1/2	320
		35	E1/2	320
		36	N1/2	320
T. 16.5 N., R. 9 W.,		22	Portion of NW1/4	16
		23	All	545
		28	All	640
		32	E1/2	320
		33	W1/2	320
			Total	**4,405**
UPPER BURRO CREEK				
T. 16 N., R. 9 W.,		5	All	639
		7	All	621
		8	NW1/4	160
		18	W1/2	303
		20	W1/2	320
			Total	**2,043**
MISCELLANEOUS SPRINGS				
T. 28 N., R. 16 W.,	10	11	NW1/4SW1/4	40
T. 25 N., R. 18 W.,		4	SW1/4NW1/4	40
T. 17 N., R. 16 W.,		1	NW1/4NW1/4; SE1/4NE1/4	80
		3	S1/2NE1/4; SE/4; S1/2SW1/4; NE1/4SW1/4	360
			Total	**520**
			Total For Riparian	**25,170**
			Total Alternative 2 Acquisition	**183,201**



Appendix 21
Alternative 2 Acquisitions for Kingman Regional Park

Township and Range	Section	Subdivision	Acreage
T. 21 N., R. 17 W.,	8	S1/2NE1/4; SW1/4NW1/4; SW1/4 SW1/4SE1/4	254
	9	All	628
	10	E1/2	320
	11	NW1/4	160
	16	All	625
	17	All	640
	22	W1/2NE1/4; W1/2; SE1/4	560
	27	SW1/4	160
	29	N1/2NW1/4	80
	33	E1/2	317
	34	NE1/4NW1/4	40
		Total	**3,784**

Alternative 2 Acquisitions for Wildlife Corridors

Township and Range	Section	Subdivision	Acreage
T. 27 N., R. 18 W.,	11	All	640
	13	All	640
	23	All	640
	25	All	640
T. 27 N., R. 17 W.,	19	All	633
	29	All	640
	31	All	633
T. 25 N., R. 21 W.,	35	All	640
T. 24 N., R. 21 W.,	9	All	640
T. 24 N., R. 19 W.,	35	All	640
T. 24 N., R 13 W.,	13	All	640
T. 24 N., R. 12 W.,	17	All	640
	19	All	626
T. 21 N., R. 20 W.,	11	All	640
	12	N1/2	298
T. 21 N., R. 17 W.,	8	S1/2NE1/4; SW1/4NW1/4; SW1/4;SW1/4SE1/4	254
	9	All	628
	16	All	625
	17	All	640
	26	S1/2	320
	27	SW1/4	160
	33	W1/2	320
	34	NE1/4; NE1/4NW1/4; SW1/4SW1/4; SE1/4SW1/4; SE1/4	360
	35	All	640
	36	All	640
T. 20 N., R. 17 W.,	2	Lots 1-12; S1/2	799
	3	Lots 1-12; S1/2	812

(continued)

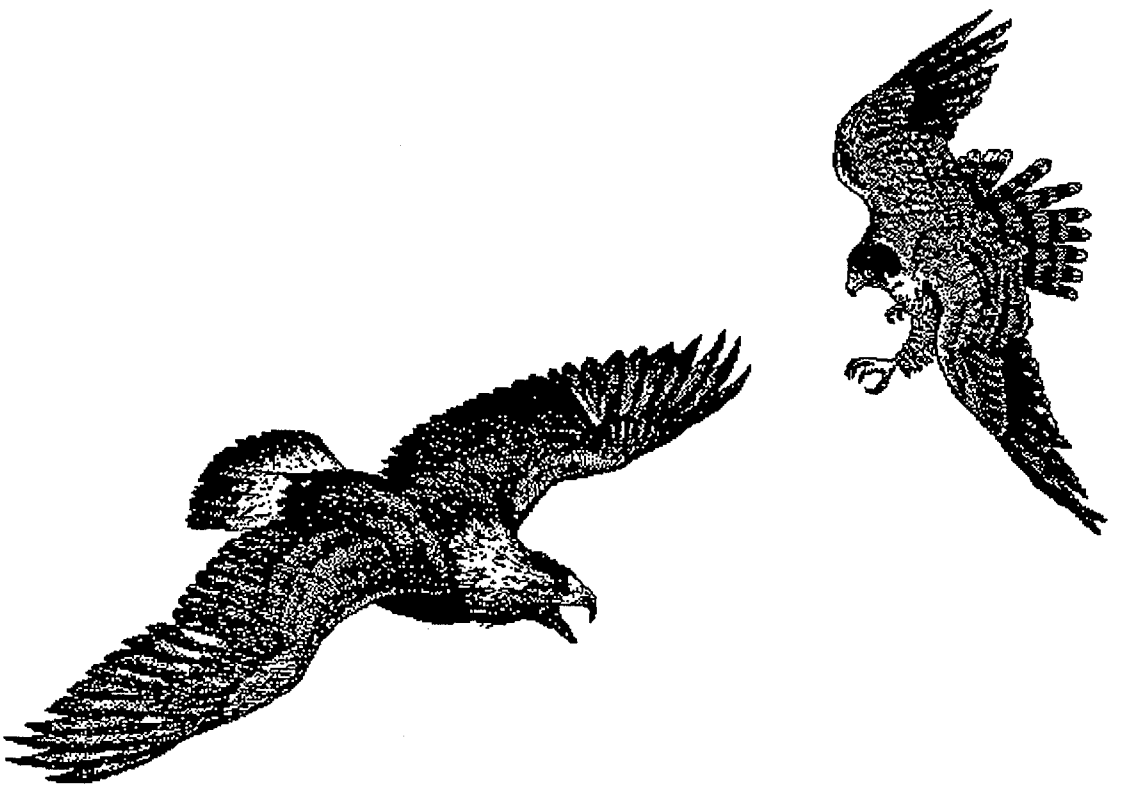
Appendix 21 (continued)
Alternative 2 Acquisitions for Wildlife Corridors

Township and Range	Section	Subdivision	Acreage
T. 18 N., R. 18 W.,	11	All	640
	13	All	640
	15	All	640
T. 17 N., R. 13 W.,	35	W1/2NE1/4; SE1/4	240
T. 16.5 N., R. 19 W.,	25	All	640
T. 16.5 N., R. 18 W.,	19	All	646
	31	W1/2; S1/2SE1/4	381
T. 16.5 N., R. 13 W.,	21	Lots 1, 2; N1/2 SE1/4; SE1/4SE1/4	235
	22	Lot 4; W1/2SW1/4	138
	27	NE1/4SW1/4	40
	28	E1/2NE1/4; W1/2NW1/4NW1/4; SE1/4NW1/4NE1/4; S1/2NE1/4NW1/4NE1/4	115
T. 16 N., R. 18 W.,	7	N1/2	311
T. 15 N., R. 15 W.,	35	All	640
T. 14 N., R. 15 W.,	3	All	638
	9	All	640
	11	All	640
	13	All	640
	14	S1/2	320
	15	All	640
	17	All	640
	19	All	634
	21	All	640
	23	All	640
	25	All	640
	27	All	640
	29	All	640
	31	All	634
	33	All	640
	35	All	640
T. 14 N., R. 14 W.,	7	All	632
	17	All	640
	19	All	632
	21	All	640
	29	All	640
	31	All	634
T. 14 N., R. 12 W.,	24	E1/2	320
	25	All	640
	35	All	640
	36	All	640

(continued)

Appendix 21 (continued)
Alternative 2 Acquisitions for Wildlife Corridors

Township and Range	Section	Subdivision	Acreage
T. 13 N., R. 16 W.,	23	All	640
	25	All	640
	26	SW1/4NE1/4; SE1/4NW1/4; E1/2SW1/4; SE1/4	320
	27	All	640
	35	All	640
T. 13 N., R. 15 W.,	3	S1/2	320
	5	All	639
	7	All	636
	9	All	640
	11	All	640
	15	All	640
	17	All	640
	29	All	640
	31	All	639
T. 13 N., R. 10 W.,	19	All	642
	28	SW1/4	160
	29	SE1/4	160
		Total	**46,252**



Appendix 22
Alternative 2 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
Joshua Tree Forest-Grand Wash Cliffs			
Surface and Minerals			
T. 30 N., R. 16 W.,	23	All	640
	29	All	640
	31	E1/2	320
T. 29 N., R. 17 W.,	21	E1/2	320
	25	All	640
	27	All	640
	35	N1/2	320
T. 29 N., R. 16 W.,	19	NW1/4NW1/4	40
	29	All	640
	31	S1/2	320
T. 28 N., R. 17 W.,	3	All	640
		Total	**5,160**
Non-federal Minerals			
T. 30 N., R. 16 W.,	9	All	640
	11	SW1/4; W1/2SE1/4	240
	15	All	640
	17	All	640
	19	E1/2	320
	21	All	640
	27	All	640
	33	All	640
	35	All	640
T. 29 N., R. 16 W.,	3	All	639
	5	All	639
	7	E1/2	320
	9	All	640
	11	All	640
	15	All	640
	17	All	640
	19	E1/2; S1/2NW1/4; NE1/4NW1/4; SW1/4	639
	21	All	640
	23	All	640
	31	N1/2	320
	33	All	640
T. 28 N., R. 17 W.,	1	All	642
	2	All	642
	11	All	640
	13	N1/2; SW1/4; N1/2SE1/4	560
T. 28 N., R. 16 W.,	5	N1/2NE1/4; NW1/4; W1/2SW1/4	320
	7	W1/2	309
		Total	**15,199**

(continued)

Appendix 22 (continued)
Alternative 2 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
Black Mountains			
Surface and Minerals			
T. 26 N., R. 21 W.,	22	All	640
	33	NE1/4	160
	36	All	640
T. 25 N., R. 22 W.,	25	All	640
	27	All	640
T. 24 N., R. 21 W.,	9	All	640
	25	S1/2NE1/4; W1/2NW1/4; NE1/4SW1/4; SE1/4	360
	33	NW1/4SW1/4	40
T. 22 N., R. 20 W.,	4	SE1/4SE1/4	40
	9	E1/2	320
	17	All	640
	19	All	637
	27	All	640
	29	All	640
	31	N1/2; N1/2S1/2	478
	33	All	640
T. 21 N., R. 20 W.,	11	All	640
	12	N1/2	320
	16	All	640
T. 20 N., R. 20 W.,	2	All	525
	3	SE1/4; E1/2SW1/4; NW1/4SW1/4	280
	23	SW1/4; W1/2SW1/4SE1/4; S1/2NW1/4NW1/4	200
		Total	**10,400**
Non-federal Minerals			
T. 26 N., R. 21 W.,	19	All	634
	21	All	640
	31	All	636
	33	SE1/4	160
T. 25 N., R. 22 W.,	1	All	640
	3	All	640
	11	All	640
	13	All	640
	15	All	640
	23	All	640
T. 25 N., R. 21 W.,	1	N1/2; SW1/4; S1/2SW1/4	561
	3	N1/2NE1/4; W1/2; S1/2SE1/4; NW1/4SE1/4	522
	5	All	642
	7	All	639
	9	All	640
	11	All	640
	13	NW1/4NE1/4; W1/2; S1/2SE1/4	440
	15	All	640
	17	All	640
	19	All	638

(continued)

Appendix 22 (continued)
Alternative 2 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
T. 25 N., R. 21 W., (continued)	23	SE1/4SW1/4; S1/2SE1/4	120
	27	SW1/4	160
T. 24 N., R. 21 W.,	1	All	567
	3	All	569
	5	All	577
	15	W1/2	320
	17	All	640
	21	All	640
	27	All	640
	29	All	640
	33	E1/2; NW1/4; E1/2SW1/4; NW1/4SW1/4	600
	35	All	640
T. 24 N., R. 20 W.,	31	All	622
T. 23 N., R. 21 W.,	1	All	640
	3	All	636
	11	E1/2; NW1/4	480
	13	All	640
	15	W1/2	320
	23	All	640
	25	All	640
T. 22 N., R. 21 W.,	1	All	642
T. 22 N., R. 20 W.,	5	All	642
	7	All	633
T. 20 N., R. 20 W.,	32	All	640
T. 19 N., R. 20 W.,	29	S1/2S1/2	160
	30	S1/2S1/2	161
	31	NW1/4; S1/2	486
	36	All	640
T. 18 N., R. 20 W.,	2	All	626
T. 16.5 N., R. 19 W.,	19	All	652
		Total	**27,925**

Wright and Cottonwood Creeks Riparian and Cultural
Surface and Minerals

T. 24 N., R. 12 W.,	31	NE1/4NE1/4	40
T. 23 N., R. 13 W.,	13	All	640
	22	N1/2	320
	27	NW1/4SE1/4	40
	36	All	640
T. 23 N., R. 12 W.,	15	NW1/4	160
	19	W1/2SW1/4	79
	30 and 31	Mining Claims	76
	31	E1/2NE1/4; E1/2SW1/4; SE1/4; mining claims	315
	33	NE1/4NE1/4	40
	35	SE1/4SE1/4	40

(continued)

Appendix 22 (continued)
Alternative 2 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
T. 23 N., R. 11 W.,	31	Lot 6	48
T. 22 N., R. 13 W.,	1	S1/2SW1/4	80
	2	All	724
		Total	**3,242**
Non-federal Minerals			
T. 24 N., R. 12 W.,	31	NW1/4NE1/4; S1/2NE1/4; NW1/4; S1/2	588
T. 23 N., R. 13 W.,	23	All	640
	25	N1/2; N1/2SW1/4; NW1/4SE1/4	440
	27	All	640
	35	S1/2	320
T. 23 N., R. 12 W.,	5	S1/2	320
	7	All	635
	9	N1/2; E1/2SW1/4; SE1/4	560
	11	W1/2	320
	13	NW1/4; W1/2SW1/4	240
	15	NW1/4; S1/2	480
	17	All	640
	19	E1/2SW1/4; SE1/4; E1/2NE1/4	320
	21	All	640
	23	NE1/4NE1/4SW1/4NE1/4; NW1/4; NE1/4SW1/4; N1/2SE1/4	360
	25	All	640
	27	All	640
	29	All	640
	33	S1/2NE1/4; NW1/4NE1/4; NW1/4; S1/2	600
	35	N1/2; SW1/4; N1/2SE1/4; SW1/4SE1/4	600
T. 23 N., R. 11 W.,	31	Lots 3-5, 7-10, 15-22	989
		Total	**11,252**

Hualapai Mountain Research Natural Area

Surface and Minerals

T. 17 N., R. 15 W.,	3	All	643
T. 18 N., R. 15 W.,	7	N1/2; W1/2SW1/4; NE1/4SW1/4; N1/2SE1/4; NE1/4SE1/4	543
		Total	**1,186**
Non-federal Minerals			
T. 20 N., R. 15 W.,	33	NW1/4	40
T. 19 N., R. 15 W.,	5	All	644
	29	W1/2	320
		Total	**1,004**

(continued)

Appendix 22 (continued)
Alternative 2 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
White-Margined Beard-tongue Reserve			
Surface and Minerals			
T. 18 N., R. 17 W.,	35	All	640
T. 18 N., R. 16 W.,	31	W1/2NE1/4; NW1/4NW1/4 (surface only)	119
T. 17 N., R. 17 W.,	1	All	638
	11	All	640
	13	All	640
	15	All	640
	23	All	640
	25	All	640
T. 17 N., R. 16 W.,	8	All (surface only)	640
	9	N1/2	320
	17	All	640
	19	All	638
	21	All	640
	27	All	640
	29	All	640
	31	All	640
	33	All	640
T. 16.5 N., R. 17 W.,	23	All	516
	25	All	640
T. 16.5 N., R. 16 W.,	19	All	507
	21	All	518
	29	All	640
	31	All	627
	32	SW1/4; SW1/4SE1/4	200
	33	All	640
T. 16 N., R. 16 W.,	3	All	637
	4	All	638
	5	All	638
	6	All	636
	9	All	640
	10	All	640
		Total	**18,152**
Non-federal Minerals			
T. 17 N., R. 17 W.,	2	All	636
	16	All	640
	36	All	640
T. 17 N., R. 16 W.,	7	All	637
	9	S1/2	320
	32	All	640
		Total	**3,513**

(continued)

Appendix 22 (continued)
Alternative 2 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
Carrow-Stephens Ranches			
Surface and Minerals			
T. 16.5 N., R. 13 W.,	21	Lot 2; NW1/4SE1/4	98
	28	S1/2NE1/4NW1/4NE1/4; W1/2NW1/4NE1/4	35
		Total	**133**
McCracken Desert Tortoise Habitat			
Surface and Minerals			
T. 14 N., R. 15 W.,	3	All	638
	9	All	640
	11	All	640
	13	All	640
	14	S1/2	320
	15	All	640
	17	E1/2	320
	21	E1/2	320
	23	All	640
	25	All	640
	27	All	640
	35	All	640
T. 14 N., R. 14 W.,	19	All	632
	31	All	634
T. 13 N., R. 15 W.,	3	S1/2	320
	9	SE1/4	160
	11	All	640
	13	NE1/4NE1/4; W1/2	360
	15	All	640
	21	NE1/4; N1/2SE1/4; SE1/4SE1/4	280
	23	W1/2	320
T. 13 N., R. 14 W.,	5	All	640
		Total	**11,344**
Non-federal Minerals			
T. 13 N., R. 15 W.,	1	All	641
	3	N1/2	321
	21	W1/2; SW1/4SE1/4	360
	23	E1/2	320
T. 13 N., R. 14 W.,	7	All	636
	17	All	640
	19	E1/2E1/2	160
	29	NE1/4; W1/2; E1/2SE1/4	560
		Total	**3,638**

(continued)

Appendix 22 (continued)
Alternative 2 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
Poachie Desert Tortoise Habitat			
Surface and Minerals			
T. 13 N., R. 12 W.,	7	All	638
T. 13 N., R. 10 W.,	2	SW1/4	160
	3	SE1/4	160
	1, 2, 11, 12	Mining Claims	189
		Total	**1,147**
Non-federal Minerals			
T. 13 N., R. 12 W.,	5	All	637
		Total	**637**
Aubrey Peak Bighorn Sheep Habitat			
Non-federal Minerals			
T. 12 N., R. 14 W.,	17	SE1/4NE1/4NW1/4; W1/2NE1/4NW1/4; NW1/4NW1/4	70
		Total	**70**
Burro Creek Riparian and Cultural			
Surface and Minerals			
T. 17 N., R. 9 W.,	24	That portion of SE1/4 south of Baca Float (surface only)	260
	25	All	640
	35	All (surface only)	680
	36	N1/2	320
T. 16.5 N., R. 9 W.,	21	All (surface only)	546
	22	All (surface only)	546
	23	All	545
	27	All	640
	28	All (surface only on W1/2)	640
	29	All (surface only)	640
	32	All	640
	33	All	640
T. 16 N., R. 9 W.,	4	NW1/4NW1/4 (surface only)	40
	5	All	639
	6	All	615
	7	All	621
	8	NW1/4NE1/4; NW1/4	200
	18	W1/2 (surface only)	303
	19	W1/2 (surface only)	304
T. 15 N., R. 10 W.,	1	SE1/4 (surface only)	160
T. 14 N., R. 12 W.,	11	N1/2; N1/2SW1/4; SW1/4; SE1/4 (surface only)	600
	13	All	640
	23	All	640
	24	All (surface and minerals on SE1/4)	640

(continued)

Township and Range	Section	Subdivision	Acreage
T. 14 N., R 12 W., (continued)	25	All (surface only)	640
		Total	**12,769**
Non-federal Minerals			
T. 16 N.,. R. 10 W.,	1	SW1/4NW1/4; SW1/4; W1/2SE1/4	280
		Total	**280**

Three Rivers Riparian

Big Sandy
Surface and Minerals

T. 14 N., R. 13 W.,	23	All	640
	24	E1/2SW1/4; SE1/4	240
	25	All	640
	26	NW1/4NE1/4; N1/2NW1/4; SW1/4SW1/4; E1/2SW1/4	240
	27	All	640
	33	All	640
	34	E1/2	320
	35	E1/2; NW1/4; NW1/4SW1/4	520
T. 13 N., R. 13 W.,	1	W1/2NE1/4; NW1/4; SW1/4; SE1/4	560
	3	All	640
	9	All	640
	11	N1/2	320
	17	All	640
	21	All	640
	27	All	640
		Total	**7,960**

Alamo Lake Area
Surface and Minerals

T. 11 N., R. 13 W.,	24	S1/2SE1/4	80
	25	NE1/4NE1/4; W1/2NE1/4; E1/2NW1/4; W1/2SW1/4	280
	26	E1/2SE1/4	80
	34	E1/2E1/2	160
	35	NE1/4; S1/2	480
T. 11 N., R. 12 W.,	9	W1/2; SE1/4	480
	10	SW1/4; SW1/4SE1/4	200
	14	S1/2NE1/4; E1/2NW1/4; NE1/4SE1/4	200
	17	NW1/4; NW1/4SW1/4	200
	18	NE1/4SE1/4; S1/2SE1/4	120
	19	N1/2; SW1/4	472
		Total	**2,752**

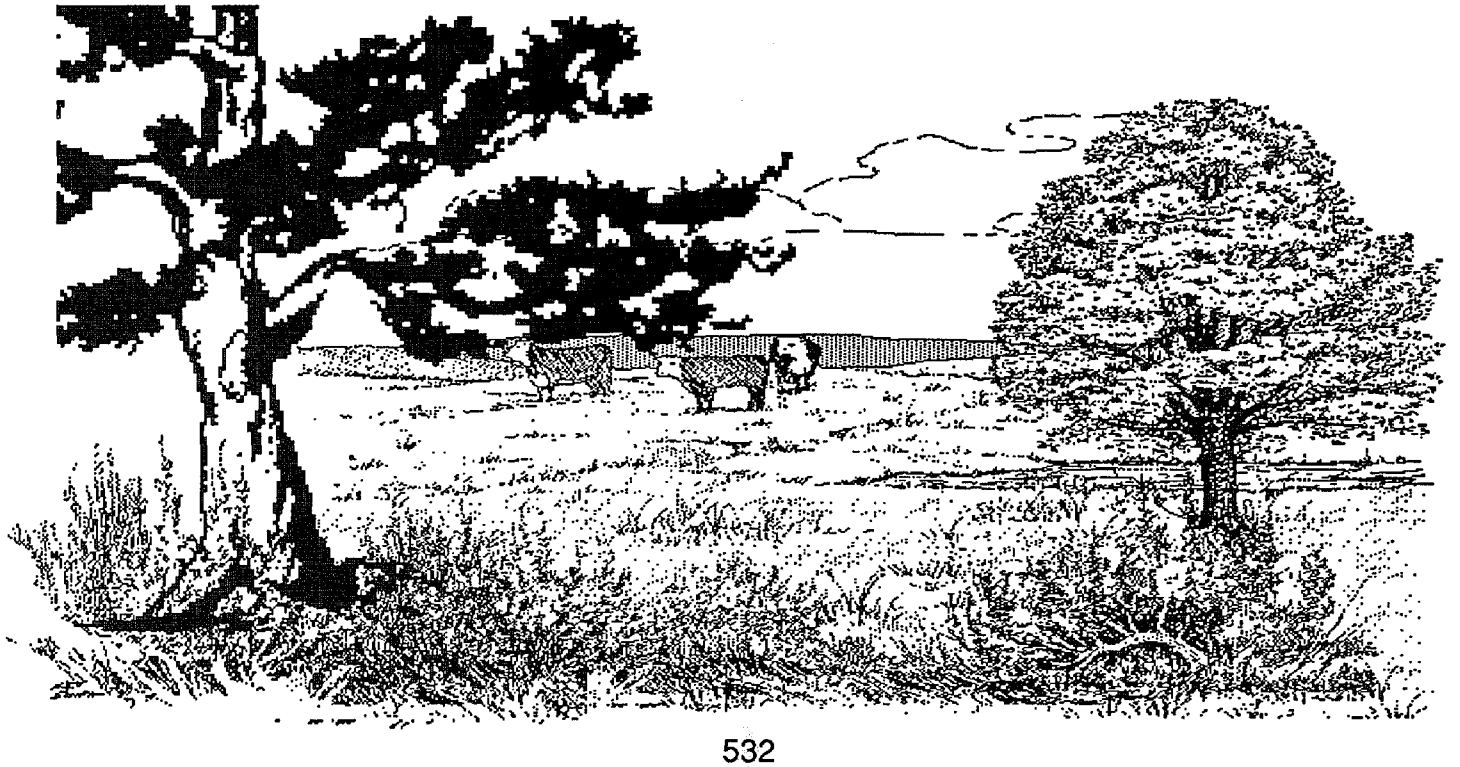
Santa Maria
Surface and Minerals

T. 12 N., R. 9 W.,	29	Mining Claims in E1/2	46

(continued)

Appendix 22 (continued)
Alternative 2 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
T. 11 N., R. 11 W.,	15	S1/2S1/2	160
	16	S1/2NW1/4; S1/2	400
	17	N1/2	320
	18	NE1/4NE1/4	40
T. 11 N., R. 10 W.,	2	All	641
		Total	**1,567**
Bill Williams **Surface and Minerals**			
T. 10 N., R. 15 W.,	1	All	627
	2	All	640
	10	All	640
	11	All	640
	12	All	627
T. 10 N., R. 14 W.,	4	SW1/4NW1/4; W1/2SW1/4	120
	5	S1/2NE1/4; SE1/4NW1/4; SW1/4; N1/2SE1/4	360
	6	S1/2	316
	9	W1/2NW1/4	80
	14	S1/2	320
	15	S1/2	320
T. 10 N., R. 13 W.,	17 and 18	Mining Claims	182
		Total	**4,872**
		Total for Surface and Minerals	**80,624**
		Total for Non-federal Minerals	**63,518**



Appendix 23
Alternative 2 Legal Vehicular Access Acquisitions

Legal access would be acquired across private and state lands for administrative and public vehicular use on the following roads and trails. Only administrative vehicular access would be acquired on Black Butte and Pine Lake.

Name	Township and Range	Section
Black Butte	T. 16 N., R. 7 W.,	7, 18, 19, 20
	T. 16 N., R. 8 W.,	2, 11, 12
Black Inky Springs	T. 19 N., R. 16 W.,	5
	T. 20 N., R. 16 W.,	2, 10, 11, 15, 29
Blye Canyon	T. 24 N., R. 11 W.,	7, 19
	T. 24 N., R. 12 W.,	10
Boulder Springs	**T. 20 N., R. 17 W.,**	**8, 16, 17, 21**
Bull Canyon	T. 16.5 N., R. 12 W.,	29, 31
Burch Peak	T. 16.5 N., R. 15 W.,	23, 26
	T. 17 N., R. 15 W.,	29, 33
	T. 17 N., R. 16 W.,	15, 17, 25, 27
Canyon Station Spring	**T. 23 N., R. 17 W.,**	**26, 27, 35**
Devil's Canyon	T. 28 N., R. 16 W.,	34, 35
Goodwin Mesa	T. 16 N., R. 11 W.,	22
Grapevine Canyon	T. 30 N., R. 16 W.,	25
	T. 30 N., R. 15 W.,	33
Groom Peak	T. 15 N., R. 14 W.,	1
Little Cottonwood	T. 23 N., R. 13 W.,	27, 29, 33, 36
Pilgrim Mine	T. 23 N., R. 19 W.,	2
Pine Lake	T. 20 N., R. 15 W.,	20, 21
Portland Mine	T. 23 N., R. 21 W.,	14, 15
	T. 24 N., R. 21 W.,	25
Red Horn Spring	T. 24 N., R. 12 W.,	19
Rock Creek	T. 18 N., R. 17 W.,	9
	T. 19 N., R. 17 W.,	15
Six-Mile Crossing	T. 14 N., R. 10 W.,	17, 18, 20
	T. 15 N., R. 12 W.,	25, 27
Squaw Peak	T. 28 N., R. 21 W.,	4
	T. 29 N., R. 20 W.,	30
	T. 29 N., R. 21 W.,	34, 35, 36
Thumb Butte	T. 20 N., R. 20 W.,	27, 28
	T. 21 N., R. 20 W.,	28, 29, 32, 33
Walnut Creek	T. 19 N., R. 16 W.,	7
	T. 19 N., R. 17 W.,	7, 15, 18

(continued)

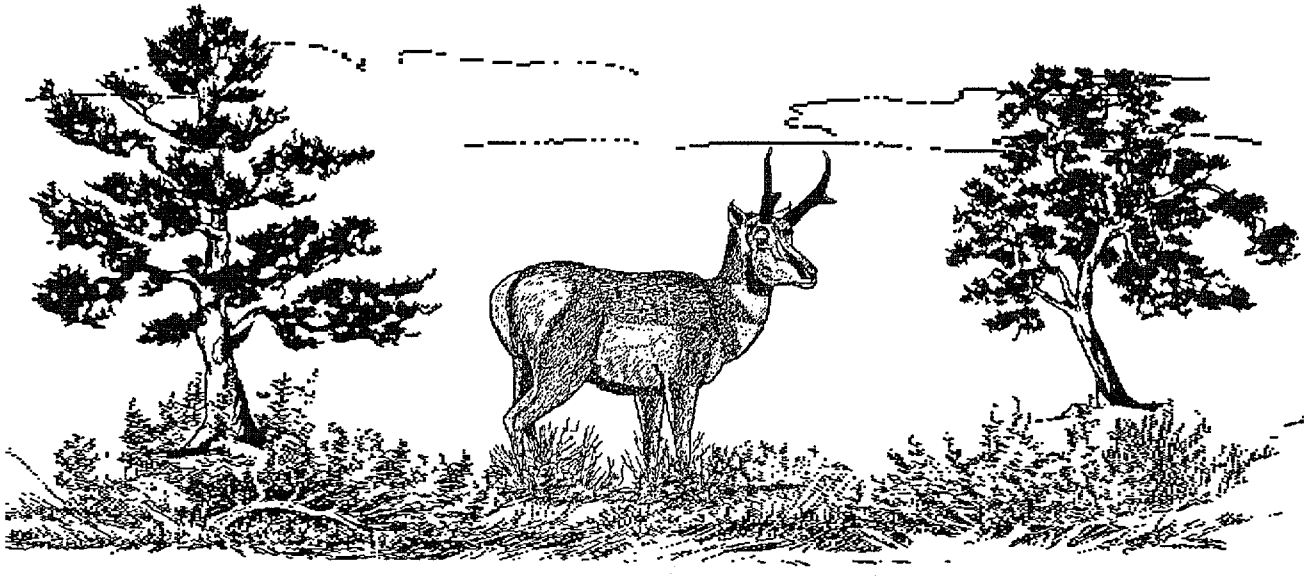
Appendix 23 (continued)
Alternative 2 Legal Vehicular Access Acquisitions

Name	Township and Range	Section
East Warm Springs	T. 16 N., R. 19 W.,	5, 8, 9
	T. 16.5 N., R. 19 W.,	29
West Warm Springs	T. 16.5 N., R. 20 W.,	23, 27, 28, 31, 33
	T. 16.5 N., R. 20.5 W.,	36
Vock Canyon	T. 23 N., R. 17 W.,	3, 4, 5, 9
	T. 24 N., R. 17 W.,	35, 36

Appendix 24
Alternative 2 Roads and Trails To Be Improved

The following roads and trails would be improved at the locations noted.

Name	Township and Range	Section	Miles
Bull Canyon	T. 16.5 N., R. 11 W.,	19, 20, 29, 30	
	T. 16.5 N., R. 12 W.,	21, 24	3
Burro Creek Campground	T. 14 N., R. 11 W.,	18, 19	2.5
Devil's Canyon	T. 28 N., R. 16 W.,	35	1
Goodwin Mesa	T. 16 N., R. 11 W.,	2, 11, 14, 15	
	T. 16.5 N., R. 11 W.,	26, 27, 35	7
Grapevine Canyon	T. 30 N., R. 15 W.,	33	
	T. 30 N., R. 16 W.,	36	1
Hualapai Ridge	T. 17 N., R. 16 W.,	2, 3, 9	
	T. 18 N., R. 15 W.,	6, 7, 18	
	T. 18 N., R. 16 W.,	12, 13, 24, 25, 26, 35	
	T. 19 N., R. 15 W.,	4, 5, 6, 7, 8, 19, 20	20
Iron Basin	T. 28 N., R. 16 W.,	9	.5
Pinky Tank	T. 16 N., R. 10 W.,	2, 3, 4, 8, 9	4
Red Lake	T. 16 N., R. 10 W.,	5, 6, 8, 16	
	T. 16 N., R. 11 W.,	1, 2	5



Appendix 25
Alternative 3 Proposed Changes in Disposal Areas

Township and Range	Section	Subdivision	Acreage
Additions			
T. 22 N., R. 18 W.,	11	All	640
	14	All	640
	23	All	640
	25	All except SE1/4SE1/4SE1/4	630
		Total Additions	2,550
Deletions			
T. 22 N., R. 19 W.,	**20**	**All**	**640**
	30	**NE1/4; N1/2NW1/4; E1/2SE1/4NW1/4; NE1/4NE1/4SW1/4**	**270**
T. 21 N., R. 19 W.,	**4**	**All**	**641**
	5	**All**	**641**
	8	**All**	**640**
	9	**All**	**640**
	16	**W1/2**	**320**
	17	**All**	**640**
	20	**All**	**640**
T. 19 N., R. 21 W.,	**4**	**All**	**640**
	5	**All**	**640**
	6	**All**	**640**
	7	**NE1/4; NW1/4; N1/2SW1/4; SE1/4**	**560**
	8	**All**	**640**
	9	**All**	**640**
		Total Deletions	**8,832**
		Net Loss from Alternative 2	**6,282**

Appendix 26
Alternative 3 Mineral Closures in Riparian Areas

Wright Creek Riparian Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
Federal Minerals to Be Closed to Mineral Entry			
T. 24 N., R. 13 W.,	36	NE1/4; NW1/4; SW1/4; N1/2SE1/4	560
T. 23 N., R. 12 W.,	6	E1/2; E1/2NW1/4	400
	8	NE1/4; NW1/4; NE1/4SW1/4; SE1/4	520
	9	W1/2SW1/4	80
	10	NE1/4; NW1/4; N1/2SW1/4; SE1/4	560
	14	SW1/4NE1/4; NW1/4; SW1/4; SE1/4	520
	23	NW1/4NE1/4; SE1/4NE1/4	80
	24	SW1/4NE1/4; NW1/4; NE1/4SW1/4; NW1/4SW1/4; SE1/4SW1/4; SE1/4	480
	36	E1/2NE1/4	80
T. 23 N., R. 11 W.,	30	Lots 6, 7, 18, 19	188
		Total	**3,468**

(continued)

Appendix 26 (continued)
Alternative 3 Mineral Closures in Riparian Areas

Township and Range	Section	Subdivision	Acreage
Acquire Non-federal Minerals - Close to Mineral Entry			
T. 24 N., R. 12 W.,	31	S1/2NW1/4; SW1/4; W1/2SE1/4; SE1/4SE1/4	351
T. 23 N., R. 12 W.,	5	SW1/4	160
	9	S1/2N1/2; E1/2SW1/4; N1/2SE1/4	320
	15	NE1/4	160
	23	N1/2NE1/4; SE1/4NE1/4	120
	25	W1/2	320
T. 23 N., R. 11 W.,	31	Lots 6, 7, 15-22	430
		Total	**1,861**

Cottonwood Creek Riparian Area of Critical Environmental Concern

Federal Minerals to Be Closed to Mineral Entry

T. 23 N., R. 13 W.,	22	NE1/4SW1/4; N1/2SE1/4	120
	24	S1/2N1/2; S1/2	480
T. 23 N., R. 12 W.,	19	S1/2NW1/4	81
	28	S1/2SW1/4	80
	30	NE1/4; NE1/4NW1/4; N1/2SE1/4	594
	32	N1/2NE1/4	80
		Total	**1,435**

Acquire Non-federal Minerals - Close to Mineral Entry

T. 23 N., R. 13 W.,	23	S1/2N1/2; N1/2S1/2	320
T. 23 N., R. 12 W.,	19	W1/2SW1/4; S1/2SE1/4	159
	29	S1/2NW1/4; S1/2	400
	33	W1/2E1/2; W1/2	480
		Total	**1,359**

Burro Creek Riparian Area of Critical Environmental Concern

Federal Minerals to Be Closed to Mineral Entry

T. 15 N., R. 10 W.,	27	NW1/4; N1/2SW1/4	240
	28	N1/2; W1/2SW1/4	400
	29	E1/2E1/2	160
T. 14 N., R. 10 W.,	6	E1/2E1/2	160
	7	SW1/4SW1/4	39
	18	W1/2NW1/4	77
T. 14 N., R. 11 W.,	12	SE1/4SE1/4	40
	13	NE1/4NE1/4; SW1/4NE1/4; SE1/4NE1/4; NW1/4; N1/2S1/2	440
	14	N1/2; SW1/4; W1/2SE1/4; NE1/4SE1/4	600
	15	S1/2S1/2; NE1/4SE1/4	200
	16	NW1/4SE1/4; S1/2S1/2	200
	17	SW1/4NE1/4; S1/2NW1/4; S1/2	440

(continued)

Appendix 26 (continued)
Alternative 3 Mineral Closures in Riparian Areas

Township and Range	Section	Subdivision	Acreage
T. 14 N., R. 11 W., (continued)	18	SE1/4NE1/4; E1/2SE1/4	120
	19	NE1/4; E1/2NW1/4; SW1/4; W1/2SE1/4; NE1/4SE1/4	480
	20	N1/2; NW1/4SW1/4	360
	21	N1/2; N1/2SW1/4	400
	22	N1/2; N1/2SW1/4; NW1/4SE1/4	440
	23	NW1/4NE1/4; NW1/4	200
	30	W1/2NE1/4; NW1/4; NW1/4SW1/4	280
T. 14 N., R. 12 W.,	10	SE1/4SW1/4; S1/2SE1/4	120
	11	SW1/4SW1/4	39
	14	SW1/4NE1/4; NW1/4; SW1/4; W1/2SE1/4; SE1/4SE1/4	480
	15	N1/2; N1/2S1/2	480
		Total	**5,279**

Acquire Non-federal Minerals - Close to Mineral Entry

T. 15 N., R. 10 W.,	29	SE1/4SW1/4; SW1/4SE1/4	80
	32	All	640
T. 14 N., R. 10 W.,	5	NE1/4NE1/4; W1/2NE1/4; NW1/4; SW1/4	441
	7	SW1/4NE1/4; SE1/4NW1/4; SW1/4	232
T. 14 N., R. 10 W.,	8	NW1/4	160
	18	NW1/4NE1/4	40
T. 14 N., R. 12 W.,	13	SW1/4SW1/4	40
	23	N1/2N1/2; SE1/4NE1/4; NE1/4SE1/4	240
		Total	**1,873**

Big Sandy Riparian Area of Critical Environmental Concern

Federal Minerals to be Closed to Mineral Entry

T. 14 N., R. 13 W.,	22	SE1/4SE1/4	40
	24	N1/2; W1/2SW1/4	400
	26	E1/2NE1/4; SW1/4NE1/4; S1/2NW1/4; NW1/4SW1/4; N1/2SE1/4; SW1/4SE1/4	360
	34	SE1/4SW1/4	40
	35	S1/2SW1/4; NE1/4SW1/4	120
T. 13 N., R. 13 W.,	2	W1/2NW1/4; NW1/4SW1/4	120
	4	E1/2SE1/4	80
	10	W1/2NE1/4; NE1/4NE1/4: NW1/4; N1/2SW1/4; SW1/4SW1/4	400
	16	NE1/4; E1/2W1/2; N1/2SE1/4; SW1/4SE1/4	440
	22	SW1/4NW1/4; W1/2SW1/4	120
	26	S1/2NW1/4; SW1/4	240
	28	NE1/4	160
	34	E1/2E1/2	160
	35	W1/2; S1/2SE1/4	400
	36	S1/2SW1/4	80

(continued)

Appendix 26 (continued)
Alternative 3 Mineral Closures in Riparian Areas

Township and Range	Section	Subdivision	Acreage
T. 12 N., R. 13 W.,	2	E1/2; NW1/4; SE1/4SW1/4	368
	3	NE1/4	84
	11	E1/2; E1/2W1/2; SW1/4NW1/4; NW1/4SW1/4	560
	12	SW1/4; SW1/4SE1/4	120
		Total	**3,852**

Acquire Non-federal Minerals - Close to Mineral Entry

T. 14 N., R. 13 W.,	23	E1/2E1/2; S1/2SW1/4; SW1/4SE1/4	280
	24	E1/2SW1/4; SE1/4	240
	25	N1/2NW1/4; SW1/4NW1/4	120
	26	NW1/4NE1/4; N1/2NW1/4; SW1/4SW1/4	160
	27	E1/2; SE1/4NW1/4; E1/2SW1/4	440
	34	E1/2	320
	35	W1/2NE1/4; NW1/4; NW1/4SW1/4	280
T. 13 N., R. 13 W.	3	All	641
	9	E1/2	320
	21	W1/2NE1/4; SE1/4NE1/4; W1/2NW1/4 NE1/4SW1/4; SE1/4	400
	27	W1/2NE1/4; SE1/4NE1/4; NW1/4; N1/2SE1/4; SE1/4SE1/4	400
		Total	**3,601**

Santa Maria Riparian Area of Critical Environmental Concern

Federal Minerals to Be Closed to Mineral Entry

T. 11 N., R. 11 W.,	8	S1/2S1/2	160
	10	S1/2S1/2	160
	11	S1/2S1/2	160
	12	SE1/4NE1/4; S1/2SW1/4; SE1/4	280
	13	SW1/4; W1/2SE1/4	240
	14	S1/2	320
	15	N1/2; N1/2S1/2	480
	16	NE1/4; N1/2NW1/4	240
	17	N1/2S1/2	160
T. 11 N., R. 10 W.,	3	NW1/4NE1/4; NW1/4; W1/2SW1/4	280
	4	SE1/4NE1/4; S1/2SW1/4; S1/2SE1/4; NE1/4SE1/4	240
	5	S1/2	320
	6	S1/2SW1/4; SE1/4	228
	7	NE1/4; W1/2	458
	8	N1/2N1/2	160
	9	N1/2	320
T. 12 N., R. 10 W.,	25	S1/2SE1/4; NE1/4SE1/4	120
	34	SE1/4SW1/4; SE1/4	200
	35	S1/2NE1/4; SE1/4NW1/4; S1/2	440
	36	N1/2; SW1/4	480
T. 12 N., R. 9 W.,	19	S1/2SE1/4	80
	20	SW1/4 SW1/4	40

(continued)

Appendix 26 (continued)
Alternative 3 Mineral Closures in Riparian Areas

Township and Range	Section	Subdivision	Acreage
T. 12 N., R. 9 W., (continued)	29	S1/2NE1/4; NW1/4; N1/2S1/2	354
	30	E1/2; SW1/4	474
	31	NW1/4	160
		Total	**6,554**
Acquire Non-federal Minerals - Close to Mineral Entry			
T. 12 N., R. 9 W.,	29	Mining claims in E1/2	46
T. 11 N., R. 11 W.,	15	S1/2S1/2	160
	16	S1/2NW1/4; S1/2	400
	17	N1/2	320
		Total	**926**
Bill Williams Riparian Area of Critical Environmental Concern			
Federal Minerals to Be Closed to Mineral Entry			
T. 11 N., R. 14 W.,	32	SE1/4SW1/4; S1/2SE1/4	126
T. 10 N., R. 15 W.,	3	SE1/4SE1/4, S1/2	360
T. 10 N., R. 14 W.,	4	SE1/4NW1/4; E1/2SW1/4; W1/2SE1/4	200
	5	N1/2NE1/4; N1/2NW1/4; SW1/4NW1/4	198
	6	NE1/4; S1/2NW1/4	236
	9	S1/2NE1/4; NW1/4NE1/4; E1/2NW1/4; NE1/4SW1/4; N1/2SE1/4; SE1/4SE1/4	360
	10	W1/2SW1/4 SE1/4SW1/4; SW1/4SE1/4	160
	13	N1/2	324
	14	N1/2	320
	15	NE1/4; N1/2NW1/4; SE1/4NW1/4	280
T. 10 N., R. 13 W.,	7	S1/2NE1/4; NE1/4NE1/4 NE1/4SW1/4; S1/2SW1/4; N1/2SE1/4; SW1/4SE1/4	363
	8	N1/2; N1/2SW1/4	400
	18	W1/2NW1/4W1/4	127
		Total	**3,454**
Acquire Non-federal Mineral - Close to Mineral Entry			
T. 10 N., R. 15 W.,	1	SW1/4NW1/4; S1/2	356
	2	S1/2N1/2; S1/2	480
	11	NE1/4NE1/4	40
	12	N1/2N1/2	160
T. 10 N., R. 14 W.,	4	SW1/4NW1/4; W1/2SW1/4	120
	5	S1/2NE1/4; SE1/4NW1/4; N1/2S1/2	280
	6	SW1/4; N1/2SW1/4; SW1/4SE1/4	276
	9	NW1/4NW1/4	40
	14	N1/2S1/2	160
	15	N1/2SE1/4	80
		Total	**1,992**
		Total Federal Minerals Closed to Mineral Entry	**24,101**
		Total Non-federal Minerals Acquired-Not Open to Entry	**11,612**

Appendix 27
Alternative 3 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
Joshua Tree Forest-Grand Wash Cliffs			
Surface and Minerals			
T. 29 N., R. 17 W.,	25	All	640
	27	All	640
	35	N1/2	320
T. 29 N., R. 16 W.,	29	All	640
	31	S1/2	320
T. 28 N., R. 17 W.,	3	All	640
		Total	**2,880**
Non-federal Minerals			
T. 29 N., R. 16 W.,	7	E1/2	320
	19	E1/2; S1/2NW1/4; NE1/4NW1/4; SW1/4	639
	21	All	640
	31	N1/2	320
T. 28 N., R. 17 W.,	1	N1/2N1/2	162
	2	All	642
	11	N1/2N1/2	160
		Total	**2,883**
Black Mountains			
Surface and Minerals			
T. 26 N., R. 21 W.,	33	NE1/4	160
T. 24 N., R. 21 W.,	9	All	640
	25	S1/2NE1/4; W1/2NW1/4; NE1/4SW1/4; SE1/4	360
T. 22 N., R. 20 W.,	4	SE1/4SE1/4	40
	9	E1/2	320
	17	All	640
	19	All	637
	21	All	640
	27	All	640
	29	All	640
	33	All	640
T. 19 N., R. 19 W.,	16	SE1/4SW1/4	40
	17	All (surface only)	640
	21	W1/2 (surface only)	320
		Total	**6,357**
Non-federal Minerals			
T. 26 N., R. 21 W.,	21	All	640
	33	SE1/4	160

(continued)

Appendix 27 (continued)
Alternative 3 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
T. 25 N., R. 22 W.,	1	All	641
	11	S1/2	320
	13	All	640
	15	All	640
	23	All	640
T. 25 N., R. 21 W.,	3	N1/2NE1/4; W1/2; S1/2SE1/4; W1/2SE1/4	522
	5	All	642
	7	All	639
	9	All	640
	15	All	640
	17	All	640
	19	All	638
T. 24 N., R. 21 W.,	3	S1/2	320
	5	S1/2	320
	15	W1/2	320
	17	All	640
	21	All	640
	27	All	640
	29	All	640
	33	N1/2	320
	35	All	640
T. 24 N., R. 20 W.,	31	All	622
T. 23 N., R. 21 W.,	1	All	642
	11	E1/2; NW1/4	480
	13	All	640
	25	E1/2	320
T. 22 N., R. 21 W.,	1	E1/2	321
T. 22 N., R. 20 W.,	5	All	642
	7	All	633
		Total	**16,822**

Silver Creek

Non-federal Minerals

T. 20 N., R. 20 W.,	32	All	640
		Total	**640**

Western Bajada Cultural Resource

Non-federal Minerals

T. 19 N., R. 21 W.,	3	All	644
	5	All	644
	7	E1/2; NW1/4; N1/2SW1/4	560
	9	All	640
	11	All	640
	15	All	640
	23	All	640
	25	All	640

(continued)

Township and Range	Section	Subdivision	Acreage
T. 19 N., R. 21 W., (continued)	27	All	640
	33	All	640
	35	All	640
		Total	**6,968**

Wright Creek Riparian

Surface and Minerals

T. 24 N., R. 12 W.,	31	NE1/4NE1/4	40
T. 23 N., R. 12 W.,	15	NE1/4	160
T. 23 N., R. 11 W.,	31	Lot 6	48
		Total	**248**

Non-federal Minerals

T. 24 N., R. 12 W.,	31	NW1/4NE1/4; S1/2NE1/4; NW1/4; S1/2	588
T. 23 N., R. 12 W.,	5	S1/2	320
	7	E1/2	320
	9	N1/2; E1/2SW1/4; SE1/4	560
	11	W1/2	320
	15	SE1/4	160
	23	SE1/4NE1/4	40
	25	All	640
T. 23 N., R. 11 W.,	31	Lots 3-5, 7-10, 15-22	623
		Total	**3,571**

Cottonwood Creek Riparian

Surface and Minerals

T. 23 N., R. 13 W.,	22	N1/2	320
T. 23 N., R. 12 W.,	19	W1/2SW1/4	79
	30, 31	Mining Claims	76
	33	NE1/4NE1/4	40
		Total	**515**

Non-federal Minerals

T. 23 N., R. 13 W.,	23	All	640
T. 23 N., R. 12 W.,	19	E1/2NE1/4; E1/2SW1/4; SE1/4	320
	29	All	640
	33	W1/2NE1/4; SE1/4NE1/4; W1/2SE1/4	600
		Total	**2,200**

(continued)

Appendix 27 (continued)
Alternative 3 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
Cottonwood Mountains Cultural			
Surface and Minerals			
T. 22 N., R. 13 W.,	1	S1/2SW1/4	80
	2	All	724
		Total	**804**
Cherokee Point Antelope Habitat			
Non-federal Surface and Minerals			
T. 24 N., R. 12 W.,	15	South of Sante Fe Right-of-Way	320
	17	South of Sante Fe Right-of-Way	15
	21	S1/2NW1/4; NE1/4SE1/4	120
	36	E1/2	320
T. 23 N., R. 11 W.,	7	NE1/4NE1/4	40
	9	SE1/4SW1/4	40
	10	E1/2	320
	29	SE1/4SE1/4	40
		Total	**1,587**
Non-federal Minerals			
T. 24 N., R. 12 W.,	23	All	640
	21	NE1/4; N1/2NW1/4; SW1/4; W1/2SE1/4; SE1/4SE1/4	520
	23	All	640
	25	All	640
	27	All	640
	29	All	640
	33	All	640
T. 24 N., R. 11 W.,	1	S1/2	293
	3	S1/2	292
	5	S1/2	295
	7	E1/2; Lots 1-5, 8-24	1,213
	29	N1/2; SW1/4; N1/2SE1/4; SW1/4SE1/4	600
T. 23 N., R. 12 W.,	1	All	624
	13	E1/2E1/2	160
T. 23 N., R. 11 W.,	2	All	634
	4	All	633
	7	All	1,309
	8	All	640
	10	N1/2; N1/2SW1/4; SW1/4SW1/4; SE1/4	600
	16	All	640
	19	All	1,308
	20	All	640
	22	All	640
	29	N1/2; SW1/4; N1/2SE1/4; SW1/4SE1/4	600
	31	E1/2; Lots 1, 2, 11-14, 23, 24	640
	33	All	640
		Total	**19,747**

(continued)

Appendix 27 (continued)
Alternative 3 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
Hualapai Mountain Research Natural Area			
Surface and Minerals			
T. 18 N., R. 15 W.,	7	N1/2; W1/2SW1/4; NE1/4SW1/4; N1/2SE1/4; NE1/4SE1/4	543
T. 17 N., R. 15 W.,	3	All	643
		Total	**1,186**
Non-federal Minerals			
T. 20 N., R. 15 W.,	33	NW1/4	40
T. 19 N., R. 15 W.,	5	All	644
	29	W1/2	320
		Total	**1,004**
White-Margined Beard-tongue Reserve			
Surface and Minerals			
T. 18 N., R. 17 W.,	35	All	640
T. 18 N., R. 16 W.,	31	W1/2NE1/4; NW1/4NW1/4 (surface only)	119
T. 17 N., R. 17 W.,	1	All	638
	11	All	640
	13	All	640
	15	All	640
	23	All	640
	25	All	640
T. 17 N., R. 16 W.,	8	All (surface only)	640
	9	N1/2	320
	17	All	640
	19	All	638
	21	All	640
	27	All	640
	29	All	640
	31	All	640
	33	All	640
T. 16.5 N., R. 17 W.,	23	All	516
	25	All	640
T. 16.5 N., R. 16 W.,	19	All	507
	21	All	518
	29	All	640
	31	All	627
	32	SW1/4; SW1/4SE1/4	200
	33	All	640
T. 16 N., R. 16 W.,	3	All	637
	4	All	638
	5	All	638
	6	All	636

(continued)

Appendix 27 (continued)
Alternative 3 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
T. 16 N., R. 16 W., (continued)		9	All 640
	10	All	640
		Total	**18,152**
Non-federal Minerals			
T. 17 N., R. 17 W.,	2	All	636
	16	All	640
	36	All	640
T. 17 N., R. 16 W.,	7	All	637
	9	S1/2	320
	32	All	640
		Total	**3,513**
Carrow-Stephens Ranches			
Surface and Minerals			
T. 16.5 N., R. 13 W.,	21	Lots 1, 2; N1/2SE1/4; SE1/4SE1/4	240
	22	Lot 4; W1/2SW1/4	138
	28	W1/2NW1/4NE1/4; S1/2NE1/4NW1/4NE1/4; NE1/4SE1/4; E1/2NE1/4; SE1/4NW1/4NE1/4	113
		Total	**491**
McCracken Desert Tortoise Habitat			
Surface and Minerals			
T. 14 N., R. 15 W.,	3	All	638
	9	All	640
	11	All	640
	13	All	640
	14	S1/2	320
	15	All	640
	17	E1/2	320
	21	E1/2	320
	23	All	640
	25	All	640
	27	All	640
	35	All	640
T. 14 N., R. 14 W.,	19	All	632
	31	All	634
T. 13 N., R. 15 W.,	3	S1/2	320
	9	SE1/4	160
	11	All	640
	13	NE1/4NE1/4; W1/2	360
	15	All	640
	21	NE1/4; N1/2SE1/4; SE1/4SE1/4	280
	23	W1/2	320
T. 13 N., R. 14 W.,	5	All	640
		Total	**11,344**

(continued)

Appendix 27 (continued)
Alternative 3 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
Non-federal Minerals			
T. 13 N., R. 15 W.,	1	All	641
	3	N1/2	321
	21	W1/2; SW1/4SE1/4	360
	23	E1/2	320
T. 13 N., R. 14 W.,	7	All	636
	17	All	640
	19	E1/2E1/2	160
	29	NE1/4; W1/2; E1/2SE1/4	560
		Total	**3,638**
Poachie Desert Tortoise Habitat			
Surface and Minerals			
T. 13 N., R. 12 W.,	7	All	638
T. 13 N., R. 10 W.,	2	SW1/4	160
	3	SE1/4	160
	1, 2, 11, 12	Mining Claims	189
		Total	**1,147**
Non-federal Minerals			
T. 13 N., R. 12 W.,	5	All	637
		Total	**637**
Aubrey Peak Bighorn Sheep Habitat			
Non-federal Minerals			
T. 12 N., R. 14 W.,	17	SE1/4NE1/4NW1/4; W1/2NE1/4NW1/4; NW1/4NW1/4	70
		Total	**70**
Burro Creek Riparian and Cultural			
Surface and Minerals			
T. 15 N., R. 10 W.,	26	S1/2SW1/4 (surface only)	80
	27	NW1/4; NW1/4SW1/4; E1/2SW1/4; SE1/4 (surface only)	440
	28	NE1/4; E1/2NW1/4 (surface only); NW1/4SW1/4	280
	29	SE1/4NE1/4; SE1/4SW1/4; SW1/4SE1/4; NE1/4SE1/4	160
	32	All	640
T. 14 N., R. 12 W.,	11	N1/2; N1/2SW1/4SE1/4SE1/4 (surface only)	600
	13	All	640
	23	All	640
	24	All (surface and minerals on SE1/4)	640
	25	All (surface only)	640
T. 14 N., R. 10 W.,	5	NE1/4NE1/4; W1/2NE1/4; W1/2	441
	7	E1/2; NW1/4; NW1/4SW1/4; E1/2SW1/4	596

(continued)

Appendix 27 (continued)
Alternative 3 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
T. 14 N., R. 10 W., (continued)	8	W1/2	320
	17	W1/2	320
	18	E1/2; S1/2NW1/4; SW1/4	560
		Total	**6,993**
Three Rivers Riparian			
Big Sandy			
Surface and Minerals			
T. 14 N., R. 13 W.,	23	All	640
	24	E1/2SW1/4; SE1/4	240
	25	All	640
	26	NW1/4NE1/4; N1/2NW1/4; SW1/4SW1/4; E1/2SW1/4	240
	27	All	640
	33	All	640
	34	E1/2	320
	35	E1/2; NW1/4; NW1/4SW1/4	520
T. 13 N., R. 13 W.,	1	W1/2NE1/4; NW1/4; SW1/4; SE1/4	560
	3	All	640
	9	All	640
	11	N1/2	320
	17	All	640
	21	All	640
	27	All	640
		Total	**7,960**
Santa Maria			
Surface and Minerals			
T. 12 N., R. 9 W.,	29	Mining Claims in E1/2	46
T. 11 N., R. 11 W.,	15	S1/2S1/2	160
	16	S1/2NW1/4; S1/2	400
	17	N1/2	320
	18	NE1/4NE1/4	40
T. 11 N., R. 10 W.,	2	All	641
		Total	**1,607**
Bill Williams			
Surface and Minerals			
T. 10 N., R. 15 W.,	1	All	627
	2	All	640
	10	All	640
	11	All	640
	12	All	627
T. 10 N., R. 14 W.,	4	SW1/4NW1/4; W1/2SW1/4	120
	5	S1/2NE1/4; SE1/4NW1/4; SW1/4; N1/2SE1/4	360
	6	S1/2	316

(continued)

Appendix 27 (continued)
Alternative 3 Acquisitions for Areas of Critical Environmental Concern

Township and Range	Section	Subdivision	Acreage
T. 10 N., R. 14 W., (continued)	9	W1/2NW1/4	80
	14	S1/2	320
	15	S1/2	320
T. 10 N., R. 13 W.,	17 and 18	Mining Claims	182
		Total	**4,872**
		Total for Surface and Minerals	**64,396**
		Total for Non-federal Minerals	**63,280**

Appendix 28
Mineral Potential Classification System

Level of Potential

O. The geologic environment, the inferred geologic processes and the lack of mineral occurrences do not indicate potential for accumulation of mineral resources.

L. The geologic environment and the inferred geologic processes indicate low potential for accumulation and preservation of mineral resources.

M. The geologic environment and the inferred geologic processes and the reported occurrences of valid geochemical/ geophysical anomaly indicate moderate potential for accumulation and preservation of mineral resources.

H. The geologic environment, the inferred geologic processes and the reported occurrences or valid geochemical/ geophysical anomaly and the known mines or deposits indicate high potential for accumulation of mineral resources. The "known mines and deposits" do not have to be within the area that is being classified, but have to be within the same type of geologic environment.

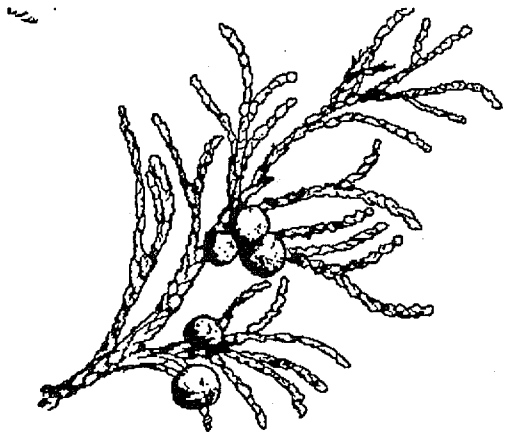
Level of Certainty

B. The available data provide indirect evidence to support or refute the possible existence of mineral resources.

C. The available data provide direct evidence but are quantitatively minimal to support or refute the possible existence of mineral resources.

D. The available data provide abundant direct and indirect evidence to support or refute the possible existence of mineral resources.

For the determination of no potential, use O/D. This class shall be seldom used, and when used it should be for a specific commodity only. For example, if the available data show that the surface and subsurface type of rock in the respective area is batholithic (igneous intrusive), one can conclude, with reasonable certainty, that the area does not have potential for coal. As used in this classification, "potential" refers to potential for the presence (occurrence) of a concentration of one or more energy and /or mineral resource. It does not refer to or imply potential for development and /or extraction of the mineral resource(s). It does not imply that the potential concentration is or may be economic.



Appendix 29
Production Totals by Mineral Districts

Mineral District	County	Copper (lbs)[1]	Lead (lbs)	Zinc (lbs)	Molybdenum (lbs)	Gold (oz)[2]	Silver (oz)	Manganese (lbs)	Tungsten (st)[3]	Uranium (lbs)	Other (specify)
Aquarius Mtns	Mohave									3.33	0.032 st (Mn)
Artillery	Mohave					*	0.6	95,108.0			
Artillery Peak	LaPaz-Mohave										.243. + (MN)
Black Burro	Mohave	331.0								0.006	0.820 +(MN); 0.029.+ (U)
Bonegas	Mohave				15.0						0.049 + (MN)
Boriana	Mohave	408.0				0.1	12.5		121.3		
Buck Mountains	Mohave	0.3	20.0			3.6	6.0				
Cedar Valley	Mohave		0.6			0.7	6.0				
Chemehuevis	Mohave	0.5	27.0			1.0	3.0		0.15		
Cleopatra	Mohave	480.0	0.5			2.0	12.0				
Cotton Wood	Mohave	457.	0.5			3.0	6.0		0.032		
Cyclopic	Mohave	0.6	10.0			6.11	4.0				
Diamond Joe	Mohave	60.0	40.0	0.3		0.1	30.0				
El Dorado Pass	Mohave	2.0	7.0			7.5	6.0				
Emerald Isle	Mohave	22.167[4]				*	0.4				
Fluorescent	Mohave								0.132		
Garnet Mtn.	Mohave										0.010 st(W)
Gold Basin[5]	**Mohave**	**0.4**	**34.0**			**9.4**	**2.9**				
Gold Hill	**Mohave**					**.040**	**+**				
Greenwood	Mohave	0.4	1.0			1.0	0.6				
Hackberry	Mohave	11.0	150.0	22.0		0.4	81.0				
Hackberry	**Mohave**					**5.0**	**560.0**				
Hualapai	Mohave	7,247.0	897.0	11.40[4]		0.7	99.0				
Kaaba	Mohave	0.2	41.0			0.7	0.55				
Lead Pill	Mohave	28.0	405.0			0.5	2.0				
Lost	Mohave					*	*		0.005		
Lost Basin	Mohave	5.0									
Madril Peak	Mohave	0.6				*					
Maynard	Mohave	12.0	87.0			0.4	100.0			0.270	0.088
McConnico	Mohave	0.2				3.6	1.8				
McCracken	Mohave	10.0	3,031.0	43.0	0.1	0.1	699.0				

Appendix 29
Production Totals by Mineral Districts (continued)

Mineral District	County	Copper (lbs) [1]	Lead (lbs)	Zinc (lbs)	Molybdenum (lbs)	Gold (oz) [2]	Silver (oz)	Manganese (lbs)	Tungsten (st) [3]	Uranium (lbs)	Other (specify)
McCracken (pre-1911)	**Mohave**						**700.0**				
Mesa	Mohave							40.0-80.0			0.3 + (MN)
Minnesota	Mohave	14.0	0.4			0.4	6.0				
Music Mountain	Mohave	3.0	38.0			4.5	12.0				
Oatman	Mohave	60.				1,966	1,147		0.036		
Ophir	Mohave										
Owens	Mohave	3.0	63.0			0.1	10.0				
Pilgrim	Mohave					48.0	72.0				
Pine Peak	Mohave	9.0	178.0	231.0		0.9	13.0				
Rawhide	Mohave	11.0	260.0			*	8.0				
Silverado	Mohave	3.0	39.0				5.0				
Topock	Mohave	3.0				0.1	0.1				
Triple H	Mohave								reserves		
Union Pass/Katherine	Mohave					128.0	313.0				
Virginia	Mohave	1.0	3.0			17.8	17.7				
Walapai	Mohave	666.14[4]	80.10[4]	126.491	53.18[4]	151.0	11.54[4]				
Walapai Hist.	**Mohave**		**10.52**			**41.0**					
Wheeler Wash	Mohave								5.6		
White Hills	Mohave	3.0	12.0			0.4	78.0				
Willow Beach	Mohave					+	+				
Yellow Jacket	Mohave	4.0	0.2	95.0		*	1.0				
Unknown/ Unnamed Districts	Mohave	218.0	326.0	42.0		1.6	42.0				
Cameron	Coconino								1,216.0		289.2 + (U) 213.4 (V_2O_5)
Francis	Coconino	730.0	0.5			0.1	4.0				
Heber	Coconino							996.0			1.1 + (MN)
Johnson & Hayden	Coconino							171.0			0.312 t (MN)
Long Valley	Coconino							4,214.0			4.7 + (MN)
Valle	Coconino	25.0					*				

Appendix 29
Production Totals by Mineral Districts (continued)

Mineral District	County	Copper (lbs) [1]	Lead (lbs)	Zinc (lbs)	Molybdenum (lbs)	Gold (oz) [2]	Silver (oz)	Manganese (lbs)	Tungsten (st) [3]	Uranium (lbs)	Other (specify)
Unkn/ Unnamed Districts	Coconino	20.0					0.07				
Camp Wood	Yavapai					+	*		8.7		
Copper Ridge	Yavapai										
Crosby	Yavapai	21.0	8.5			5.0	4.7				
Eureka (Bagdad)	Yavapai	1.306[4]	7.87[4]	3.62[4]	16.54	67.0	4,691.		reserves	0.116	0.021 + (MN) 0.013 lbs (V_2O_5)
Date Creek	Yavapai									33.0	10.8 st (U) 10.1lb (V_2O_5)
Old Dick	Yavapai	106.40[4]	3.04[4]	306.60[4]		3.5	652.0				
Seligman Iron	Yavapai										(iron)
Tungstonia	Yavapai								7.5		
Zannaropolis	Yavapai								0.110		0.010t(W)
Alamo	La Paz	38.0	16.0			0.1	0.3				

Source Keithnard and others, 1983; USGS MRDS files; Welty and others, 1985.

* = under 100, + = 10 or under

**All figures in thousands

Bold face entries are estimates based on data in Elsing and Heineman (1936)

Bagdad and Mineral Park have been in ongoing production since 1979. Production for 1980 through present is not reflected in these totals.

1--lbs - pounds
2--oz - ounces
3--st - short tons
4--Figures are in millions
5--Also includes Goat camp, O.K., Excelsior, Golden Rule

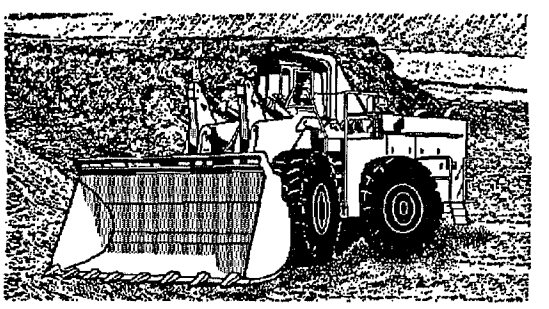
Appendix 30

Hualapai/Aquarius MFP
Minerals

Management Framework Plan (MFP) Decisions	Resource Management Plan (RMP) Proposals
M-1.1 The entire planning area, except for withdrawn areas, will remain open to oil and gas leasing.	Decision would be modified by closing the Clay Hills ACEC to mineral leasing.
M-1.2 Prepare an energy leasing EA for identification of sensitive areas in the planning area by FY 83.	Decision dropped.
M-2.1 The entire planning area, except for withdrawn areas, will remain open to mineral location.	Decision would be modified by closing all or part of five ACECs to mineral entry (see Table 11).
M-3.1 Inventory existing sand and gravel pits in the planning area and determine their feasibility for future use. This would be for both free use and material sales.	Decision brought forward unchanged.
M-3.2 Coordinate with state and federal transportation agencies to identify areas of future road construction and begin early designation of materials sites for road construction and maintenance.	Decision brought forward unchanged.
M-3.3 Provide Kingman, Wikieup and Bagdad with a 10-acre community sand and gravel pit for each by FY 84.	Decision dropped.
M-3.4 Leave the planning area open to mineral material disposal, except for the areas recommended for wilderness designation.	Decision would be modified by not allowing mineral material disposals on all or part of five ACECs (see Table 11).
M-3.5 Perform a mineral material trespass inventory on a four-year cycle beginning in FY 81.	Decision brought forward unchanged.

Cerbat/Black Mountains MFP
Minerals

MFP Decisions	RMP Proposals
Keep national resource lands (NRL) open to mining location and mineral leasing.	Decision would be modified by closing all or part of one ACEC (see Table 11).



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Appendix 30 (continued)
Hualapai Aquarius MFP
Lands

MFP Decisions	RMP Proposals
L-1.1 Sell or exchange 480 acres in T. 17 N., R. 18 W., secs. 1 and 24 near Yucca to provide for additional commercial and industrial growth in the area.	Sec. 1 is identified in Appendix 12 for disposal. Section 24 has been dropped from disposal.
L-1.2 Sell or exchange 400 acres in T. 20 N., R. 17 W., sec. 8 near McConnico to provide for additional commercial and industrial growth in the area.	Sec. 8 along with an additional 1,523 acres has been identified in Appendix 12 for disposal.
L-2.1 Modified or accepted six right-of-way corridor recommendations.	Continue designation of five utility corridors as shown on Map 14 as follows: No. 2 - Mead to Phoenix powerline corridor - one mile wide No. 3 - Davis to Prescott powerline corridor - two miles wide No. 5 - San Juan Crossover Line corridor - one mile wide No. 7 - Bagdad Lateral corridor - one mile wide No. 9 - El Paso corridor - two miles wide The MFP identified six corridors, however, two corridors were combined to make one.
L-2.2 Acquire private lands within the corridor boundary segments where public lands predominate.	Decision not accepted.
L-5.1 Initiate revocation procedures on Power Site Project No. 767 dated February 19, 1927.	Through the withdrawal review process, determine what Alamo Lake withdrawals may be revoked. Establish a cooperative management agreement among all agencies involved, i.e., Corps of Engineers, Arizona Game and Fish, State Parks, etc., to designate management of resources and strive for multiple use management.
L-6.1 Develop and pursue a land tenure adjustment program for ownership consolidation for better land resource management and local economic planning and development in the checkerboard areas of the planning area.	Adjust landownership patterns through disposal of lands identified in Appendix 12 for lands high in resource values. Must provide public benefit. Lands have been identified and reserved in Appendix 17 for Recreation and Public Purposes.
L-7.1 Dispose of seven tracts of public land.	Decision not accepted.

Black Mountains MFP
Lands

R-1 Retain national resource lands (NRLs) outside disposal areas and acquire via exchange the remaining private and state lands to consolidate federal ownership.	Retain and acquire where possible public lands not identified in Appendix 12.
R-2 Dispose of NRLs in disposal areas by state selection, Recreation and Public Purposes leases and conveyances and private or state exchange.	Dispose of public land identified in Appendix 12 for land high in resource values. Must provide public benefit.
R-3 NRLs reserved for future R&PP acquisition for Mohave County community uses.	Lands identified in Appendix 17 shall be reserved for Recreation and Public Purpose disposals to meet community needs. In addition, disposal areas identified in Appendix 12 may be available for Recreation and Public Purposes.

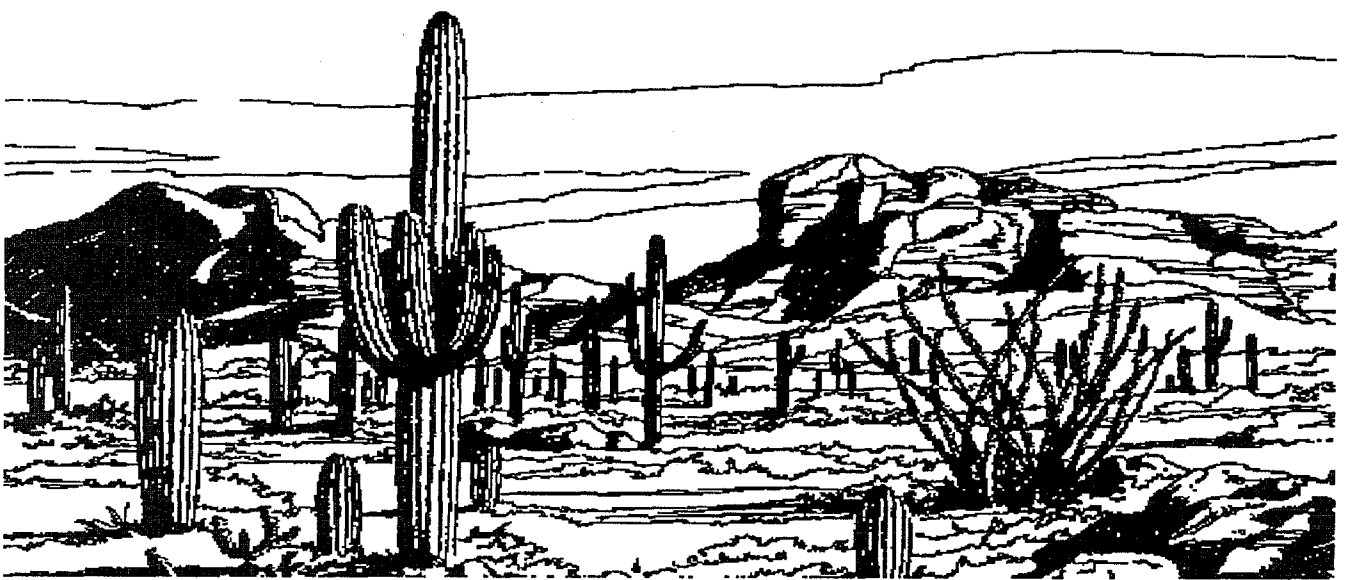
(continued)

Appendix 30 (continued)
Black Mountains MFP
Lands (continued)

MFP Decisions	RMP Proposals
R-4 Cancel Lake Mead exchange classification A-676.	No longer valid.
R-5 Set aside land along U.S. Highway 66 to serve as a scenic corridor and buffer zone.	Decision not accepted.
R-7 Establish two areas as potential communications sites and allow future applications only in these areas.	Continue designation of Willow Beach and Oatman communication sites and designate two additional sites in the Mount Perkins area.
R-8 Revoke the two major withdrawals in the unit: E.O. 5339, 4/25/1930 and E.O. 1/20/1955.	No longer valid.
R-9 Conduct field study to determine if unauthorized uses and occupancy exist.	Request survey, upon funding, to identify and resolve unauthorized use in the town of Oatman.
R-10 Retain the lands for future state selection or exchange programs.	Lands within disposal areas, as shown in Appendix 12, have been identified for state exchange.

Cerbat Mountains MFP
Lands

R-2 Dispose of NRLs in these areas.	Dispose of lands as identified in Appendix 12 for lands with high resource values. Must provide public benefit. Lands identified in Appendix 17 have been identified and reserved for Recreation and Public Purposes.
R-3 Not allow communication sites in the retention areas until a study and written communication site plan has been completed.	Prepare communication site plans for all designated communication sites prior to substantial development, as identified for each site.
R-4 Confine future transmission type rights-of-way to the defined corridors to the maximum extent feasible.	Designate utility corridors as shown on Map 15. Major rights-of-way will be restricted to these corridors as much as technically possible.



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Appendix 30 (continued)
Hualapai/Aquarius MFP
Watershed Management

MFP Decisions	RMP Proposals
W-1.1 Incorporate a program for intensive soils management into the planned allotment management plans on the 12 allotments which contain soils in the critical or moderate condition classes by FY 85.	Brought forward with changes. All grazing allotments are categorized according to current watershed condition, their vulnerability to erosion and their potential for improvement. This rating will form one of the criteria used in establishing priorities for activity plan development. The activity plan will address treatment to insure proper soil management.
W-3.2 Initiate the following special studies:	
a. Search for additional voucher specimens of *Amsonia palmeri* deposited in all herbaria in New Mexico and Texas. Completion date should be FY 82.	a. Dropped. No longer a valid decision. No longer a species of concern.
b. Obtain locality data from all herbaria in the states where *Opuntia pulchella* occurs (Utah, Idaho, Nevada, California) and visit documented localities. Completion date should be FY 82.	b. Dropped. No longer a valid decision. No longer a species of concern.
c. Determine the viability and germination requirements of *Amsonia palmeri* seeds. Study should begin by FY 82.	c. Dropped. No longer a valid decision. No longer a species of concern.
d. Carry out a fecal analysis of samples collected throughout the Burro Creek population of *Cowania subintegra* in T. 14 N., R. 11 W., sec. 1. Study should begin by FY 82.	d. Dropped. No longer a valid decision. Study was completed as planned.
e. Determine the viability and germination requirements of *Cowania subintegra* seeds. Study should begin in FY 82.	e. Brought forward, dropping the 1982 date requirement.
f. Sample and identify the soils found at both known localities of *Cowania subintegra* in T. 14 N., R. 11 W., sec. 1 and in T. 3 S., R. 20 E. and T. 2 S., R. 20 E., sec. 23. Study should begin in FY 82.	f. Brought forward, dropping the 1982 date requirement.
g. Determine the viability and germination requirements of *Sophora arizonica* seeds. Study should begin in FY 82.	g. Dropped. No longer a valid decision. No longer a species of concern.
h. Long-term monitoring studies of exclosed and unfenced populations of *Coryphantha vivipara var. buoflama, Amsonia palmeri, Cowania subintegra, Opuntia curvospina, Opuntia littoralis var.martiniana and Sophora arizonica* should begin by FY 82. These studies will provide data on the plants' population biology, including demography, phenology and productive ecology (pollination, seed dispersal, seed ecology and seedling ecology). Impacts of herbivores, parasites and diseases of various human activities will be documented. These studies should begin by FY 82.	h. Brought forward with changes. With the exception of *Cowania subintegra*, none of the species listed are identified as special status plants. Monitoring of the *Cowania* population will continue.
W-3.3 Continue inventory of additional areas that provide suitable habitat for *Coryphantha vivipara var. buoflama, Amsonia palmeri, Cowania subintegra, Opuntia littoralis var. martiniana, Opuntia curvospina and Opuntia pulchella.*	Brought forward with changes. With the exception of *Cowania subintegra*, these are no longer species of concern. Inventory of suitable habitat for *Cowania* will continue.

(continued)

Appendix 30 (continued)
Hualapai/Aquarius MFP
Watershed Management (continued)

MFP Decision	RMP Proposal
W-4.2 Reduce livestock numbers on the Burro Creek Allotment to bring grazing in line with current forage production. Develop an allotment management plan for livestock and a habitat management plan for wildlife in concert, each of which will be designed to resolve site-specific problems within the allotment and limit utilization, on any one pasture, in the Hualapai-Hayden-Aspen-Dean peak and Antelope Wash areas to 60%.	Decision brought forward with changes. Actions have been partially accomplished through proper livestock and wildlife habitat management.
W-4.3 Protect threatened and endangered plants by acquiring land in the following areas: a. Secs. 5,6,7 and 18 in T. 16 N., R. 9 W., sec. 36 in T. 16 N., R. 10 W., secs. 2,21,22,27,28,29 and 32 in T. 15 N., R. 10 W. and secs. 5,7,8 and 18 in T. 14 N., R. 10 W. along the Burro Creek drainage. Negotiations should be initiated by FY 82.	a. Brought forward with changes. Some parcels have already been acquired for riparian values. Others are identified as priority acquisitions.
b. Sec. 5 in T. 19 N., R. 15 W. along Antelope Wash, secs. 15, 16 and 17 in T. 20 N., R. 15 W. in the Dean Peak area and sec. 31 in T. 20 N., R. 15 W. near Hualapai Peak.	b. Brought forward without change. Sec. 16, T. 20 N., R. 15 W. is identified in the RMP as a priority acquisition for wildlife reasons. All other parcels listed here have already been acquired by the BLM.
W-4.4 Maintain the pristine condition of the vegetation on the unnamed mesa in sec 4 of T. 15 N., R. 11 W., Wabayuma Peak and in upper Yellow Flower and Horse canyons.	Brought forward unchanged.
W-4.5 Continue field studies in the Burro Creek, Goodwin Mesa, Burro Creek Mesa, Yellow Flower-Horse canyons, Antelope Wash, Wabayuma Peak, Hualapai-Hayden—Aspen-Dean peaks, Aubrey Peak and Yucca-Dinosphere areas.	Brought forward unchanged.
W-5.1 Contract for a report to interpret the USGS Bill Williams water quality study in light of BLM needs in FY 85.	Action has been accomplished.
W-5.2 Set up a water quality monitoring system for surface waters within the watershed at the old USGS water quality stations. A contract for a study similar to but with a greater emphasis on BLM needs (W-5.1) than that made for the Bill Williams study, can be made with USGS by FY 85.	Brought forward with changes. The RMP states that the BLM will monitor water quality on public lands in general. Emphasis on water quality is provided in ACEC prescriptions.
W-5.3 Conduct an instream flow study on the Burro Creek Watershed. Critical and optimal flows for habitat maintenance will be determined.	Actions have been accomplished.
W-6.1 Post warning signs of potential excesses of standards for partial body contact recreation along the creek in the area of the campground. Warnings only need to be posted in times when excessive fecal coliform bacteria are expected.	Brought forward unchanged.

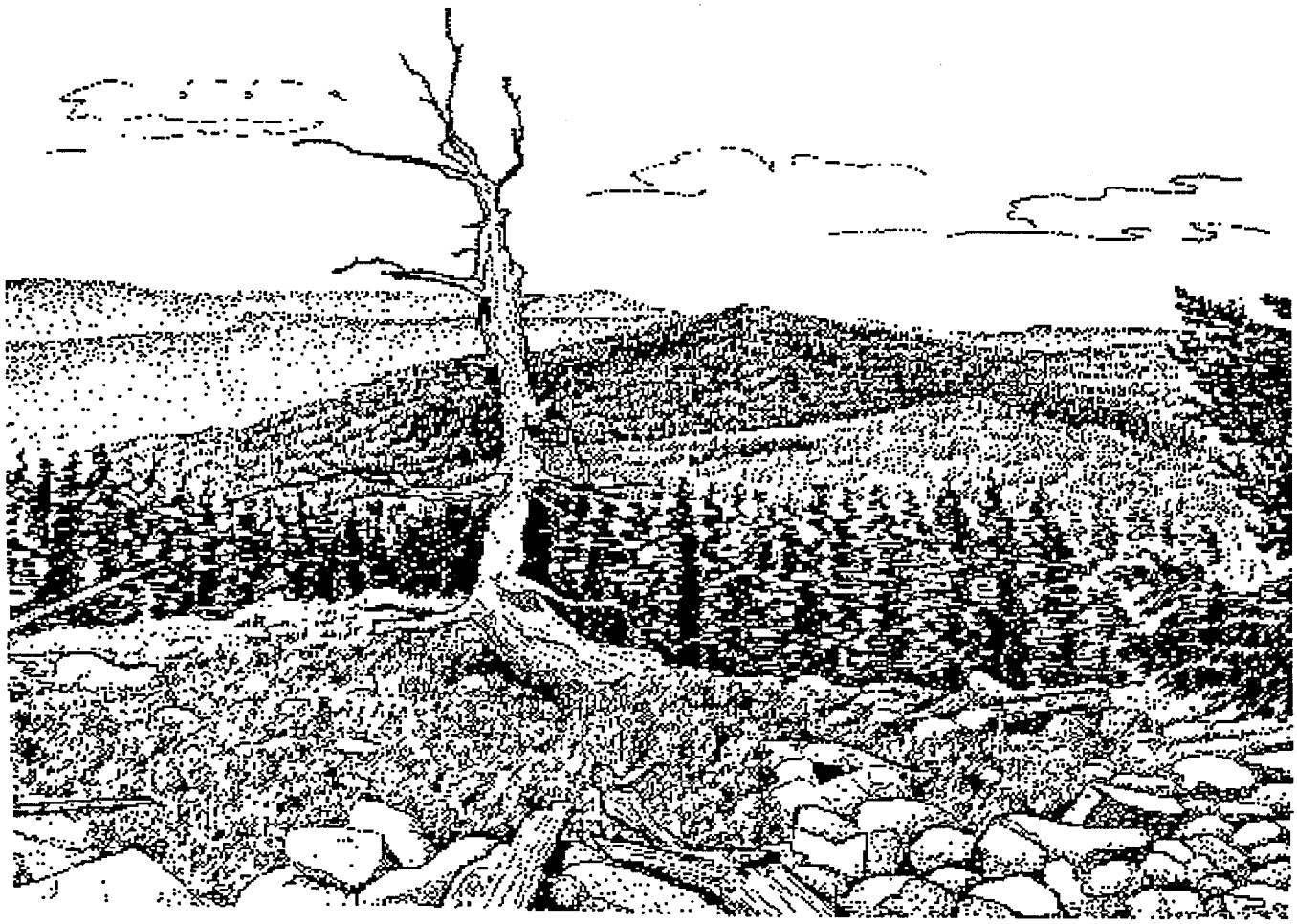
(continued)

Black Mountains Planning Unit
Watershed Management

MFP Decisions	RMP Proposals
Implement grazing management systems with proper livestock numbers and adequate rest to meet the physiological requirements of the vegetation.	Brought forward with minor changes. Watershed conditions could potentially be improved or maintained by implementing one of several types of activity plans (watershed, wildlife, grazing, etc.)

Cerbat Mountains Planning Unit
Watershed Management

MFP Decisions	RMP Proposals
Implement allotment management plans on all R-1 (retention) lands.	Brought forward with some change. Allotment management plans will be developed on allotments in the BLM Improve and Maintain selective management categories.



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Appendix 30 (continued)

Hualapai/Aquarius MFP
Vegetative Products

MFP Decisions	RMP Proposals
F-1.1: Develop and implement an agreement and schedule with Prescott National Forest to provide regular surveillance for observing changes in the natural balance of disease and insect populations in the ponderosa pine stand on Pine Creek in T. 17 N., R. 8 W. Agreement to be developed by 1985. Subject to availability of personnel and funding.	Dropped. No longer a valid decision.
F-1.2: Set up and implement a schedule of inspections by BLM personnel of the Kingman Resource Area to observe changes in the natural balance of disease and insect populations in the ponderosa pine stands in the Hualapai Mountains area. Implement inspection by 1985. Subject to availability of personnel and funding.	Dropped. No longer a valid decision.
F-2.1: Develop and implement an agreement with Prescott National Forest to provide surveillance and initial attack on all fires in the forested area on Pine Creek in T. 17 N., R. 8 W.	Dropped. No longer a valid decision.
F-2.2: Continue the fast initial attack and maximum suppression policy of the Phoenix District as related to the Hualapai Mountains area.	Dropped. No longer a valid decision.
F-3.1: Require that all plants disturbed during land clearing operations be salvaged.	Brought forward without change in all alternatives in "Vegetative Products" section.
F-4.1: Train BLM personnel to observe, recognize and report any activity that might indicate plants are being removed from public lands.	Dropped. No longer a valid decision. The subject is, however, discussed under Law Enforcement in "Support Services."
F-4.2: Initiate a program to inform and educate the public of the unlawfulness, under both federal and state laws, of removing native plants without legal permits.	Brought forward unchanged.
F-5.1: Restrict *Yucca schidigera* cutting to an area south of the south section lines of secs. 19 through 24, T. 20 N., R. 17 W. and to the east of the Hualapai Mountains.	Brought forward with changes. Harvest of this plant will be subject to review of compatibility with other resource values and the ability to harvest on a sustained yield basis.
F-6.1: Delineate and patrol areas designated for free use wood permits. The harvest areas would need to be located on the ground each year.	Dropped. No longer a valid decision.

(continued)

Hualapai/Aquarius MFP
Vegetative Products

MFP Decisions	RMP Proposals
F-7.1: Mark, delineate and patrol areas for Christmas tree cutting (pinyon pine only). Specific areas will be marked each year.	Brought forward with changes. The harvest of Christmas trees would be treated similar to any other harvest demand. It is subject to review of compatibility with other resource values and the ability to harvest on a sustained yield basis.
F-8.1: Develop a fire management program to reduce the underbrush in the ponderosa pine stand in the Hualapai Mountains area. Some areas have heavy stands of old chaparral that should be considered for prescribed burns also.	Dropped. No longer a valid decision. Discussion under Fire Management in the "Management Guidance" section addresses both fuel management and prescribed fire. Fire as a range improvement tool is also possible as part of activity plan (AMP, HMP) development.

Black Mountains Planning Unit
Vegetative Products

MFP Decisions	RMP Proposals
Do not allow commercial sale or the free permit harvesting of juniper tree fence posts or Christmas trees in the unit.	Brought forward with changes. Do not allow the sale or free-use permit harvesting of juniper or pinyon pine trees.
Allow other legal native plants to be made available for local government and non-profit association landscaping use.	The harvest of landscape plants would be allowed only through salvage where vegetation is destined for destruction because of surface disturbance. This salvage program is open to the general public as well as organizations.
Provide for commercial sale of *Yucca schidigera* in management areas.	Dropped. No longer a valid decision. The commercial harvest of any vegetative product from public lands would first be subject to review of compatibility with other resource values and the ability to harvest on a sustained yield basis.

Cerbat Mountains Planning Unit
Vegetative Products

MFP Decisions	RMP Proposals
MFP II Recommendation	
Allow no commercial harvest of woodland species and no free or commercial Christmas tree harvest.	Dropped. No longer a valid decision. The commercial harvest of any vegetative product from public lands would first be subject to review of compatibility with other resource values and the ability to harvest on a sustained yield basis.
Allow fence post cutting and dead firewood gathering for family use.	
Allow commercial sale of yucca in geographic areas 1, 4, 5, 6 and 7.	

(continued)

Black Mountains/Cerbat Planning Unit
Range Management

MFP Decision	Cerbat/Black Mtns. FES	*RPS Update	RMP Proposal
Black Mountains MFP Decision -- Implement allotment management plans and/or grazing systems on all R-1 (retention) lands except in the Boundary Cone, McHeffy and Warm Springs areas that have previously been reserved for wildlife and excluded from livestock grazing. Cerbat MFP II Recommendation -- Implement allotment management plans on all R-1 (retention) lands, except for the Mt. Wilson Wildlife Management Area where livestock grazing will be excluded for the benefit of the desert bighorn sheep.	The proposed allotment management plans, as described in the FES, will be reviewed and rewritten to provide for less complex and less costly plans based on site-specific conditions. This revision will be made in cooperation with the allottees, the Kingman Grazing Advisory Board, the State Land Department, the State Game and Fish Department and other concerned individuals. The AMPs will be dynamic documents, changing as necessary in response to the special conditions of each allotment.	Sixteen of the proposed AMPs were written and signed between 1980 and 1985. Grazing allotments were classified according to the BLM's selective management category criteria. This resulted in there being 21 "I" allotments, 7 "M" allotments and 11 "C" allotments in the planning area. Itemized listing of these allotments can be found in the 1989 Rangeland Program Summary Update for the Cerbat/Black Mountains Planning Area or in the Kingman Resource Management Plan. Category "I" and "M" allotments receive priority for intensive grazing management, so these are the ones which are now planned for AMP development. The Silver Creek, Thumb Butte, Portland Spring and Turkey Track allotments which were scheduled for AMP development in the FES are no longer being considered.	AMP development: Decision carried forward without change. AMPs will be written or revised on all "I" and "M" allotments in the planning area. Priority for AMP development will be based on resource issues present on the allotment. Livestock exclusion in Mount Wilson Range: This refers to the Cerbat mountains MFP-II recommendation to close 24,000 acres to livestock grazing in critical bighorn sheep habitat. This recommendation has not been carried forward into the RMP. The area lies within an allotment currently classified as ephemeral and, lacking water, is unsuitable for grazing as is.
Black Mountains MFP Decision -- Designate the allotments that qualify for ephemeral-perennial and ephemeral range classification.			Allotment classification: This refers to the Black mountains MFP decision to classify allotments as either ephemeral or perennial/ephemeral based on forage availability. This decision is carried forward without change. The results of the ongoing ecological site inventory will provide the information for allotment classification.

Black Mountains/Cerbat Planning Unit
Range Management

MFP Decision	Cerbat/Black Mtns. FES**	*RPS Update	RMP Proposal
Cerbat MFP II Recommendation -- R-2 disposal lands will be interimly managed and licensed for livestock grazing management until their disposal. No new BLM range improvements will be installed on these disposal lands.			Grazing management on disposal lands: This refers to the Cerbat Mountains MFP-II recommendation to manage R-2 disposal lands for grazing until disposal occurs. Lands identified for disposal have changed and are addressed in the Lands and Realty section of this document. The recommendations made for interim grazing management pending disposal are carried forward without change in the RMP.
Cerbat MFP II Recommendation -- Initiate pinon-juniper thinning and seeding projects in geographic areas 1 and 2 for the purpose of increasing forage production.	Range improvements will be constructed in line with the specific management requirements identified for each allotment. The BLM may construct some range improvements on private and state-owned lands when the improvements are essential to the success of grazing systems, when benefits to resources on public lands will result and when the necessary easements and cooperative agreements can be obtained. Construction will start immediately and continue to completion as funds become available.		Pinon-juniper thinning and seeding: This refers to the Cerbat mountains MFP-II recommendation to conduct pinon and juniper eradication in areas on the Music Mountain and Crozier Canyon grazing allotments for the purpose of increasing forage production. The Cerbat/Black Mountains FES stated that range improvements will be constructed to meet management requirements identified for each grazing allotment. Pinon-juniper thinning and seeding as a valid range improvement technique can be initiated following NEPA review. This recommendation is dropped from the RMP, since it is covered elsewhere. Range improvements: The decision to construct range improvements, made in the Cerbat/Black Mountains Grazing FES, is carried forward without change.

Black Mountains/Cerbat Planning Unit
Range Management

MFP Decision	Cerbat/Black Mtns. FES	*RPS Update	RMP Proposal
	The initial stocking rate for the ES area will be 75,188 animal unit months (AUMs), a net reduction of 16,444 AUMs from the current allowable use. Adjustments will range from an 18% increase to a 56% decrease or an average 18% decrease for the ES area.	Stocking rates were established on all allotments in the planning area, either as proposed by range survey or through mutual agreement between the BLM and permittees. Further adjustments to stocking rates in the planning area would be determined by monitoring rangeland use and condition.	Adjustments to stocking rates: Decision carried forward without change. Stocking rates for allotments will be adjusted, if necessary, on the basis of integrated rangeland and habitat monitoring.
	Utilization of key species will be limited to 50% except in allotments containing uncontrolled lands. In these cases, adjustments will be determined using the formula on page I-21 of the ES. Annual adjustments in stocking numbers may be made on the basis of actual use experience acquired in reaching the 50% utilization level of the current year's growth of key species within sample areas. If required, adjustments will be made in authorized livestock grazing use during the subsequent billing period.		Utilization limitations: Limits for utilization of key forage species by grazing livestock within the Cerbat/Black Mountains Planning Unit will remain as described in the FES. This decision is carried forward without change.

*Range Program Summary **Final Environmental Statement

Hualapai/Aquarius Planning Unit
Range Management

MFP/EIS	RPS Updates	RMP Proposal
RM-1.1: Manage 27 allotments (see Table RM-1a) in accordance with the BLM's selective management categories "Improve" and "Maintain." Develop AMPs for these allotments to improve range condition and increase forage for livestock, burros and wildlife. AMPs will specify actions necessary to improve forage conditions while protecting and improving terrestrial and aquatic habitats.	There are now 29 allotments managed in either the "Improve" or "Maintain" categories. The Chino Springs and Alamo Crossing allotments, although ephemeral, were moved to the "Improve" category because of the presence of riparian resources and threatened and endangered species habitat.	No change.
Happy Jack Allotment 0043 should be managed as a custodial allotment due to its low resource value, potential for improvement and the large amount of subdivided private lands.	Action has been accomplished.	
Develop activity plans (AMPs, HMPs, HMAPs) in close coordination with users and resource specialists. Range improvements will be installed as needed to obtain management objectives.	No change.	No change.
Possible wilderness designation could prevent the BLM and the allottees involved from implementing grazing management on the Arrastra Mountain, Artillery Range, Bagdad, Bateman Spring, Burro Creek Ranch, Greenwood Community, Greenwood Peak Community and Black Mesa allotments.	The Arrastra Mountain, Artillery Range, Bagdad, Bateman Spring, Burro Creek Ranch, Greenwood Community, Greenwood Peak Community and Black Mesa allotments remain subject to AMP development.	No change.
Forage allocations will be determined by BLM monitoring studies, which include actual use, utilization, trend in condition and climate. The forage needs for dependent wildlife and a viable herd of 140 burros shall be given priority in making forage allocations. Table RM-1b shows proposed allocations for wildlife, burros		Brought forward with changes. Integrated habitat monitoring would be initiated to determine forage allocations necessary to support a thriving natural ecological balance among all ungulates. Available forage would be allocated for each species.

(continued)

Hualapai/Aquarius Planning Unit
Range Management

MFP/EIS	RPS Updates	RMP Proposal
and livestock. These proposed allocations will be used in conjunction with monitoring data in issuing decisions which adjust livestock numbers. Until present numbers of burros are reduced, the BLM faces a potential over-allocation of forage on some of its public rangelands. If monitoring studies show that forage is being over-allocated on allotments with wild burros, the BLM will temporarily reduce livestock numbers further to compensate for the excess burros. These additional reductions will remain in force until burro numbers are reduced to recommended levels. Future increases in forage production will be allocated first to wildlife, burros will remain at the same levels (140 animals) and any remaining forage will be allocated to livestock.		
Utilization, condition and trend studies should be initiated as soon as possible on selected allotments or at the time of AMP implementation.	Action has been accomplished.	
If the proposed intensive grazing management does not provide the needed improvement and protection of riparian and aquatic habitat, different methods must be found to accomplish this goal. This could include elimination of livestock grazing where it is determined to be an inherent cause of habitat degradation.	No change.	No change.
Initiate monitoring in 1983.	No change.	No change.
Implement AMP development and allocate forage between 1983 and 1991.	AMP development and forage allocation based on results of monitoring will exceed the projected end date of 1991.	No change.

(continued)

Hualapai/Aquarius Planning Unit
Range Management

MFP/EIS	RPS Updates	RMP Proposal
Utilization should not exceed an average 60% and generally range between 40% and 60%.	No change.	No change.
Allotments are listed on Table RM-1a by priority for AMP implementation.	No change.	The priority listing for AMP development shown in the RPS Updates has been targeted in the RMP as needing re-evaluation. A new priority listing will reflect consideration for resource values not identified earlier.
RM-1.2: Designate the allotments listed in Table RM-2a for ephemeral use only and manage as "Custodial" under the BLM's Selective Management Policy. Limited monitoring will be carried out such as some trend studies and utilization during periods of use. Federal investment in range improvements will be minimal. Supervision will occur only during periods of use. AMPs will not be developed.	The Chino Springs and Alamo Crossing allotments were given ephemeral designation. However, in 1989 these two allotments were placed in the "Improve category" because of the presence of riparian resources and T/E species habitat on the allotments.	Brought forward with change. The Chino Springs Allotment would be removed from consideration for any livestock grazing if the Proposed Alternative were selected.
RM-1.3: Manage the allotments listed on Table RM-3a as "Custodial." These allotments will not usually require an AMP but range condition, trend and utilization would be observed through scheduled supervision visits. Monitoring studies may be initiated on a case-by-case basis to assess changes observed through use supervision. Livestock management and supervision will largely be the responsibility of the permittee, along with improvement work. Federal investment will be minimal. AMPs will not usually be prepared unless the permittee desires.	Allotments, taken from Table RM-3a, which continue to be managed Custodially, include Byner Cattle Company 0116, JJJ 2105, Kellis 0107, Hibernia 'B' 0083 (formerly Kent's Cane Spring 'B') and Yolo 0115 (formerly Sweetmilk). The Bottleneck Wash, Fancher Mountain, Round Valley, Cane Spring Wash 'B', Yellow Pine 'B', Trout Creek, Kayser Wash, White Springs and Lazy YU 'B' allotments were cancelled because of land exchange actions.	Brought forward without change.

(continued)

Hualapai/Aquarius Planning Unit
Range Management

MFP/EIS	RPS Updates	RMP Proposal
Allocate forage on the public lands to existing numbers of wildlife with the remainder going to livestock. Table RM-3b shows proposed allocations for wildlife and livestock. These proposed allocations will be used as a basis for grazing agreements, and in conjunction with monitoring data in issuing livestock adjustment decisions.		Decision changed to read, "Integrated habitat monitoring would be initiated to determine forage allocations necessary to support a thriving natural ecological balance among all ungulates. Available forage would be allocated for each ungulate species."
RM-1.4: Develop a fire management program complementary to and coordinated with the range management program. This should include selection of prescribed burn areas, modified suppression areas and intensive control areas.	No change.	Dropped. No longer a valid decision. Identification of prescribed burn areas will be identified during activity plan development to meet resource objectives. Wildfire suppression is covered under the Phoenix District Fire Management Activity Plan and is discussed under the Management Guidance section of the RMP.
RM-1.5: In conjunction with AMP implementation, initiate range studies to provide site-specific information regarding climate, soils and vegetation in the planning area. This would include construction of exclosures on the important range sites in the planning area to assess the impact of various grazing treatments on the vegetation. Studies such as actual use, utilization, condition and trend, phenology, fecal analysis and climate should be implemented.	No change.	No change.
RM-1.6: Test and evaluate, on a small scale, prescribed burns and land treatments in the oakbrush-ceanothus chaparral area for potential rangeland benefits.	No change.	Dropped. No longer a valid decision. This action has already been undertaken.

(continued)

Hualapai/Aquarius Planning Unit
Range Management

MFP/EIS	RPS Updates	RMP Proposal
RM-1.7: Manage the four allotments listed in Table RM-4a as Custodial. These allotments will not usually require an AMP but range condition, trend and utilization would be observed through scheduled supervision visits. Monitoring studies may be initiated on a case-by-case basis to assess changes observed through use supervision. Livestock management and supervision will largely be the responsibility of the permittee, along with improvement work. Federal investment will be minimal. AMPs will not usually be prepared unless the permittee desires.	The Little Cane 0082, Sandy 0064, Cane Springs Wash 0016 and Hot Springs 0046 allotments continue to be managed Custodially.	Brought forward without change.
Allocate forage on the public lands to existing numbers of wildlife with the remainder going to livestock. Table RM-4b shows proposed allocations for wildlife and livestock. These proposed allocations will be used as a basis for grazing agreements and in conjunction with monitoring data in issuing livestock adjustment decisions.		Decision changed to read, "Integrated habitat monitoring would be initiated to determine forage allocations necessary to support a thriving natural ecological balance among all ungulates. Available forage would be allocated for each ungulate species."
RM 2.2: Dispose of these tracts of public lands on allotments listed below by exchanging for lands which would block up public lands elsewhere or which has higher resource value. Retain and protect any of these lands which have significant wildlife, botanical, watershed, mineral, recreational or cultural values.	No change.	Brought forward with considerable change. Public lands identified for disposal or exchange have been expanded upon. This should be addressed in the Lands/Realty Summary.

(continued)

Hualapai/Aquarius Planning Unit
Range Management

MFP/EIS	RPS Updates	RMP Proposal
Public lands to be considered for disposal: **Allotment — Acres** **Aquarius — 80** **Cane Springs — 800** **Round Valley — 640** **Fancher Mountain — 3,150** **Francis Creek — 79.71** **Trout Creek — 640** **Byner Cattle Company — *5,896** **JJJ — 303** **Hualapai Peak B — **2,880** **Yellow Pine B — 636** **Cane Spring Wash B — 40** **Sandy B — 80** **White Springs — 1,400** **Kayser Wash — 640.24** * The majority of this is within the Bagdad Copper Mine. Less than 1,000 acres are outside the area disturbed by the mine. ** Exchange for private lands in Hualapai Peak Unit A.		
Decision RM-2.3: **Investigate, identify and acquire areas where legal access is necessary to conduct efficient management of public lands.**	**No change.**	**Brought forward without change.**

(continued)

Appendix 30 (continued)

Cerbat/Black Mountains MFP
Cultural Resources

MFP Decisions	RMP Proposals
Conduct a site inventory of both planning units.	Brought forward without change.
Develop an archaeological protection plan.	Brought forward without change.

Hualapai/Aquarius MFP
Cultural Resources

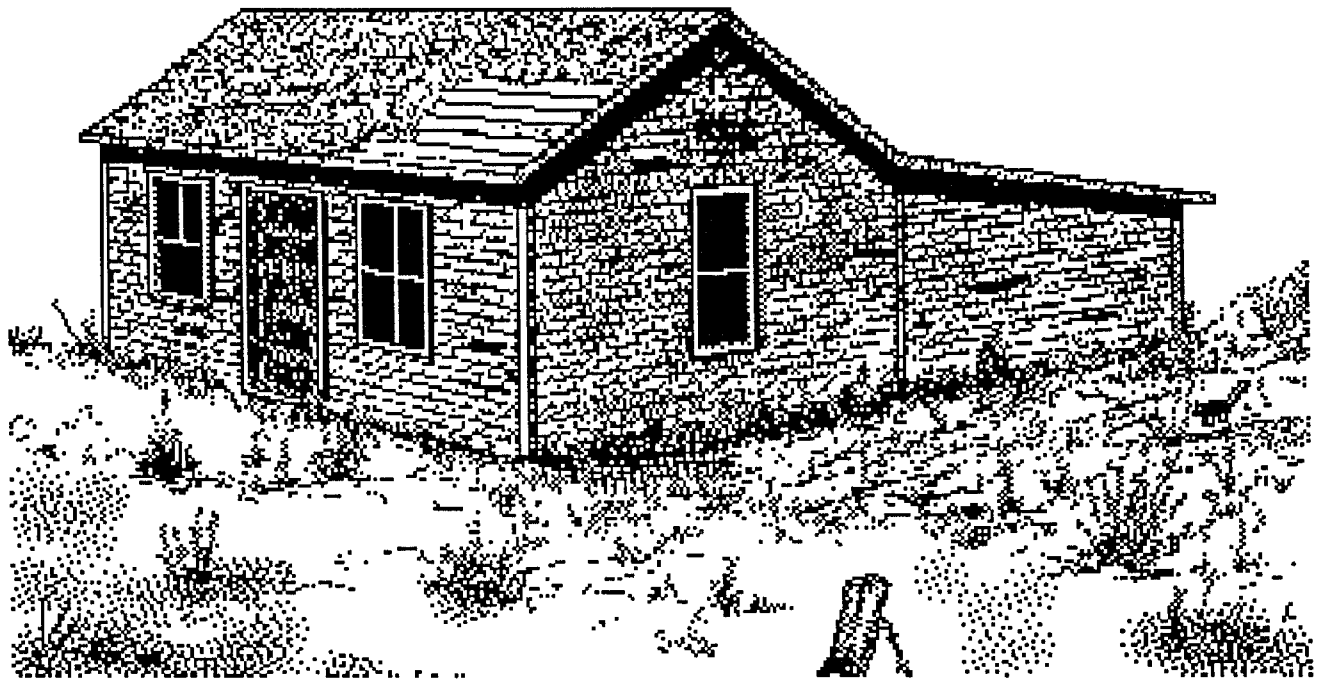
MFP Decisions	RMP Proposals
Plan and implement impact studies to determine the effects of: a. Increased access, population and visitation. b. Livestock grazing, range improvements and burro program. c. Erosion on all types of cultural resources in the planning area by 1982.	Dropped. No longer a valid decision.
Evaluate the relative effectiveness of protection measures for cultural resources in the planning area by 1990.	Dropped. No longer a valid decision.
Initiate studies to identify existing sociocultural values as well as areas and cultural resource properties with sociocultural values for Native American groups, residents and land users in the planning area by 1981.	Brought forward with elimination of deadline.
Conduct inventory to identify specific cultural resource properties and determine relative amounts of site types in the planning area which should be conserved for future use and/or protected by 1982.	Brought forward with elimination of deadline.
Provide immediate and long-term in situ preservation and protection of selected cultural resources threatened by agents of deterioration by 1985.	Brought forward with elimination of deadline.
Utilize selected cultural resources in the planning area to develop a cultural chronology according to these priorities: a. Initiate studies to refine the use of artifacts and features as chronological indicators, by 1982. b. Initiate studies and permit research projects designed to investigate changes in settlement patterns.	Brought forward with elimination of deadline.

(continued)

MFP Decision	RMP Proposal
c. Allow projects concerned with the nature and extent of Archaic and Paleo-Indian occupation.	
Utilize cultural resource in the planning area to determine the nature of intersite and intrasite variability in the following ways:	Brought forward with elimination of deadline.
a. Implement studies to verify and refine Class II Phase I inventory site types and determine the function of rockshelters and sites with structural remains by 1982.	
b. Permit research projects to investigate relationships between prehistoric and historic aboriginal populations.	
c. Permit research projects designed to archaeologically confirm the ethnographic range of the Hualapai and Yavapai.	
d. Permit research projects aimed at definition of prehistoric cultural traditions (e.g., Prescott/Cerbat and Amacava/Cerbat) and their distribution.	
e. Allow research projects designed to determine the nature of trade relationships.	
f. Allow research projects to examine evidence of multiple aboriginal use, occupation and social organization.	
Provide environmental data necessary for reconstruction of the prehistoric environment including botanical, hydrological, soils, geological, range, wildlife and climatological information.	Brought forward without change.
Utilize cultural resources in the planning area to improve the understanding of prehistoric utilization of the environment in the following ways:	Dropped. No longer a valid decision.
a. Implement studies to determine correlations between site types and water source type and distance by 1982.	
b. Permit research projects on cultural resource properties to obtain and analyze data on native plants utilized by prehistoric populations.	

(continued)

MFP Decision	RMP Proposal
c. Permit studies to obtain information from cultural resource properties relating to sources of flaked stone materials and other raw materials exploited by prehistoric groups.	
d. Allow research projects to determine the functional specificity of archaeological sites with respect to vegetative procurement and processing.	
e. Permit research projects on cultural resource properties to investigate the nature and extent of prehistoric agriculture.	
Provide environmental data necessary for reconstruction of the prehistoric environment including botanical, hydrological, soils, geological, range, wildlife and climatological information.	Dropped. No longer a valid decision.



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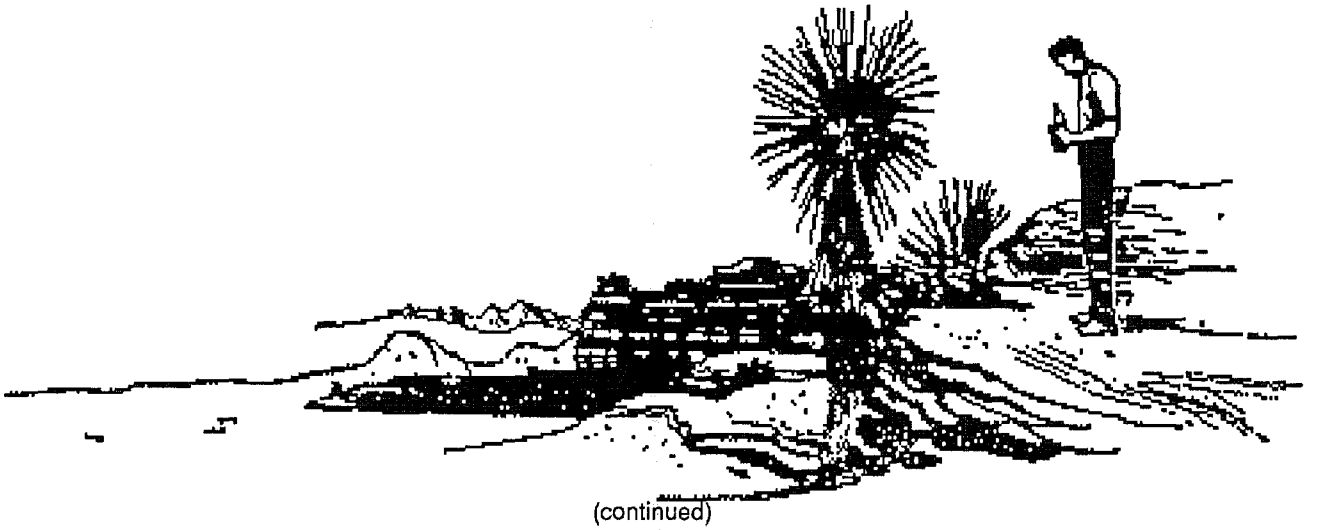
Appendix 30 (continued)
Black Mountains MFP
Recreation

MFP Decisions	RMP Proposals
Conduct an inventory of all public hazards with particular emphasis given to open mine shafts and develop a protection plan.	Dropped. Not needed in a land use plan. Providing for public safety is standard operating procedure in the recreation program; if monitoring/inventory suggests that a hazard exists, steps can be taken to abate the hazard without a specific reference in the RMP.
Assure access for public use and enjoyment of outdoor recreation values via existing roads and trails.	Dropped. No longer valid. Access decisions exist in the final RMP in a more specific form than the general MFP statement above. Off-highway vehicle decisions in the final RMP further refine access via roads and trails. Thus, the MFP decision is no longer needed.
Restrict off-highway vehicle use to designated roads, trails and washes.	Dropped. The final RMP lists off-highway vehicle designations for every acre of BLM-administered public land in the resource area. Generally, the designation limits off-highway vehicle use to existing roads, trails and washes, but in some areas (such as ACECs, wilderness), the designation is more restrictive. The final RMP also designates at least one "open" area.
Initiate a plan for the minimal development of two visitor overlook sites in sec. 12, T. 19 N., R. 20 W.	Decision brought forward essentially unchanged. The legal description is in the Sitgreaves Pass area and the final RMP has identified this site for development as an interpretive overlook.
Conduct a study to determine if Boundary Cone qualifies as a natural (geologic) landmark.	Dropped. It is unclear from the MFP decision if it is referring to Boundary Cone qualifying as a National Natural Landmark or some other administrative designation.



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Appendix 30 (continued)
Cerbat MFP
Recreation

MFP Decisions	RMP Proposals
Identify existing public hazards with particular emphasis given to open mine shafts.	See response to the Black Mountains MFP.
North Music Mountains Natural Scenic Area -- Acquire all private lands on north end of area 1 (shown on MFP II overlay); restrict off-highway vehicle use to existing roads, trails and washes; develop a recreation management plan; take legal steps to assure public access.	Decision dropped. Acquisition of most private land has occurred, as has acquisition of legal access to most of the area. Also, the final RMP has designated the area as an area of critical environmental concern with off-highway vehicles restricted to designated roads, trails, and washes.
Clay Springs Natural Scenic Area -- Consolidate landownership within Clay Springs Canyon area; formally designate area as natural and scenic; restrict off-highway vehicle use to existing roads, trails and washes.	Decision dropped. Landowner consolidation is not likely because the non-BLM land is Indian trust land. A formal designation was not pursued and in the final RMP, off-highway vehicle use in this area is limited to existing roads, trails and washes.
Restrict off-highway vehicles to established roads, trails and washes in the designated natural, scenic and wildlife areas. Remainder of planning unit will remain open.	Decision dropped. Off-highway vehicle designations in the final RMP have very few "open" areas. Most public land has the designation of "limited to existing roads, trails and washes" although in certain areas of critical environmental concern and certainly in wilderness, designations are more restrictive.
Continue BLM administration of the Pack Saddle and Windy Point recreation sites and designate area as natural scenic area. Restrict off-highway vehicles to existing roads, trails and washes.	Decision brought forward unchanged. Will continue administering the two recreation sites and the off-highway vehicle designation remains the same. However, the designation of the area as a natural scenic area is not brought forward. This area does not qualify as an area of critical environmental concern and does not meet the special area designation planning criteria for any other special designation.
Mount Tipton Natural Scenic Area -- Consolidate landownership.	Most viable land exchanges have already been consummated. Inholdings in the Mount Tipton Wilderness Area are targeted for acquisition as a matter of policy.

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Appendix 30 (continued)
Hualapai/Aquarius MFP
Recreation

MFP Decisions	RMP Proposals
Acquire legal access in T. 15 N., R. 12 W., secs. 25, 27 and 29 (Burro Creek/Signal Road area).	Decision modified. Brought forward for secs, 25 and 27. Road through sec. 29 is claimed by the county as a county road.
Manage public lands surrounding the old Greenwood townsite so as to not impact townsite.	Decision modified. Site is in the Three Rivers Riparian ACEC; cultural resources for this ACEC are not discussed in Table 9, but various riparian and wildlife protective measures are addressed that would help protect the townsite as a spin-off benefit.
Designate Burro Creek West as a rockhound area.	Decision dropped. No need for special designation to allow rockhounding.
Designate Burro Creek East as a rockhound area; acquire T. 14 N., R. 10 W., sec. 7, S1/2SW1/4 and sec. 18, N1/2NW1/4.	Decision dropped. No need for special designation to allow rockhounding. Acquisition has been completed except for sec. 7, SE1/4 SW1/4.
Respond affirmatively to off-highway-vehicle-related problems and resolve problems without formal off-highway vehicle designations.	Decision dropped. BLM policy, by virtue of various Executive Orders, is to designate all public land as either open, closed or with some limitations regarding vehicle use. Final RMP has done that.
Blade BLM Road 2123 up to the Wild Cow Recreation Site to enhance snow-related recreation opportunities.	Decision dropped. This is an administrative decision that can be made at any time.
Establish a hiking and horse trail along the crest of the Hualapai Mountains.	Decision modified. A recreation project plan was completed in 1986 (Hualapai Highlights Trail System), but would be superseded by the Hualapai Mountain Recreation Area Management Plan.
Obtain legal access to public lands as shown on an MFP overlay.	Decision brought forward essentially unchanged.
Maintain the Burro Creek Recreation Site.	Decision brought forward unchanged.
Maintain the Wild Cow Recreation Site.	Decision brought forward unchanged.
Construct an interpretive site along Highway 93 at the Big Sandy lakebed formations (T. 15 N., R. 12 W., sec. 18, SW1/4).	Decision dropped.
Construct the Burro Creek interpretive site.	Decision brought forward unchanged. Acquisition completed except for sec. 7, SE1/4 SW1/4. No need to consider further.

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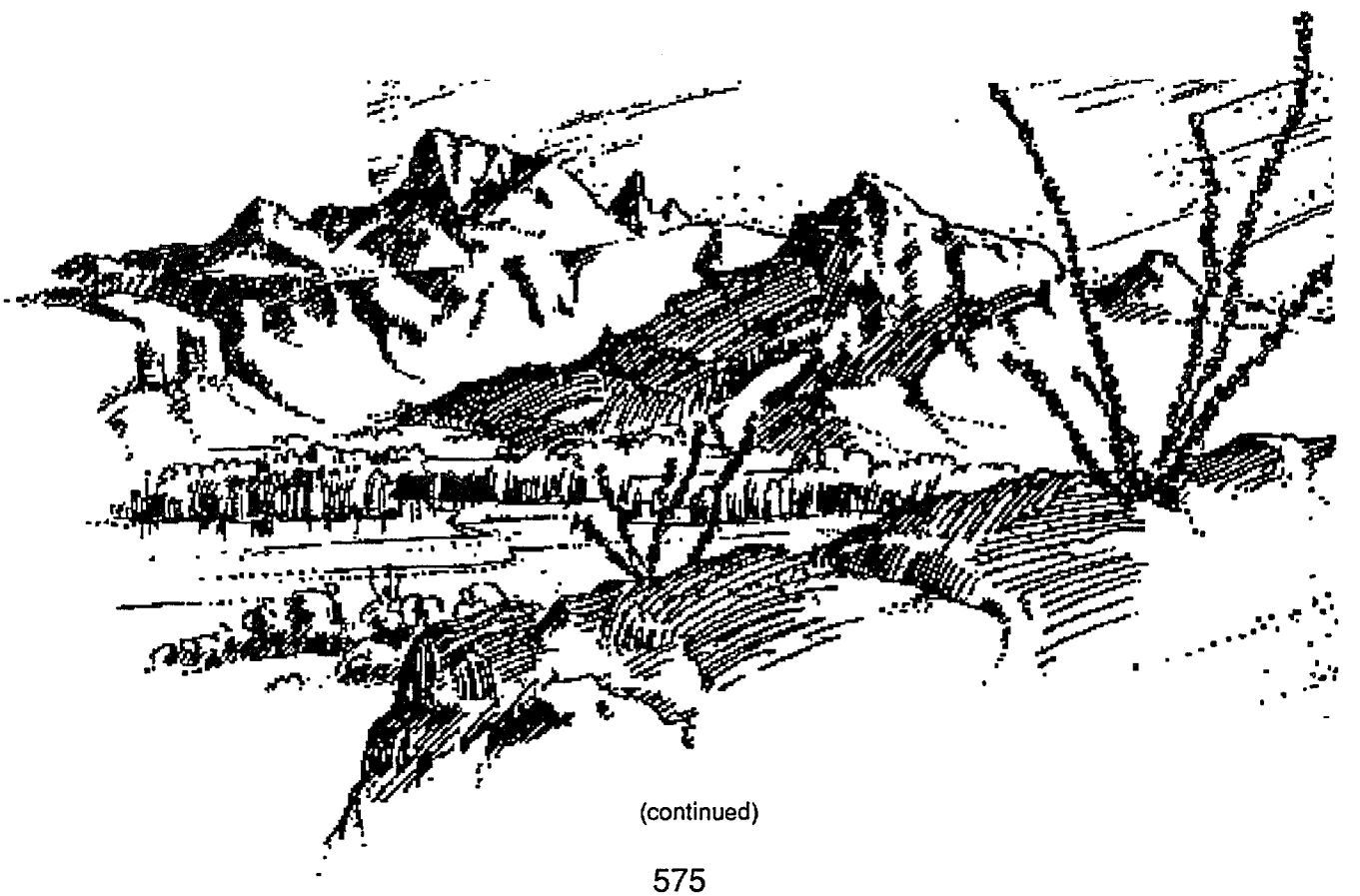
Appendix 30
Hualapai/Aquarius MFP
Recreation

MFP Decision	RMP Proposal
Acquire the Old Crossing camping area. Acquire and develop Pine Flat as a recreation site.	Decision dropped. Although it is listed in the draft RMP, this site will be dropped from further consideration because of critical habitat needs of the Hualapai Mexican Vole.
Enter into a cooperative agreement and develop a primitive campground on the northwest side of Alamo Lake.	Decision dropped.
Develop brochures on a variety of subjects, including developed recreation sites, rockhound areas, off-highway vehicle designations, etc.	Decision dropped. No need for a land use plan decision to prepare brochures.
Post suggestion box at Burro Creek and Wild Cow recreation sites.	Decision dropped. No need for a land use plan decision to install suggestion boxes at facilities.
Continue the allotment-based visitor use reporting system.	Decision dropped. The BLM now reports use by special recreation management area.
Continue the use of contrast ratings for visual resource management.	Decision dropped. BLM policy requires use of contrast rating system for analyzing impacts to visual resources. The resource area visual resource management map has been updated.



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Appendix 30 (continued)
Black Mountains
Wildlife

MFP Decisions	RMP Proposals
WL-1, #1 Acquire those non-federal lands that are within critical desert bighorn sheep habitat now in use by desert bighorns.	Decision is brought forward with updated acquisition list shown in appendices 9 and 21.
WL-1, #2 Areas 1 through 4 (MFP-I overlay R-2) should be classified as primitive areas. Areas 1 and 2 should be given a higher priority than areas 3 and 4.	Decision dropped.
WL-1, #3 Burros should be removed from burro-desert bighorn conflict areas (MFP-I overlay R-3) and managed intensively in other areas.	Decision is brought forward and changed to read: "Ungulates would be managed to minimize conflicts among species in the Black Mountains."
WL-1, #4 Classify portions of the following allotments as ephemeral: Big Ranch, Fort MacEwen, Gediondia, Black Mountains and Silver Creek (MFP-T overlay R-4). Remove cattle from the remaining portion of the MacEwen Allotment and rest it for a number of years, or at least greatly reduce the base herd (MFP-I overlay R-4).	Decision dropped as being no longer valid.
WL-1, #5 Motorized vehicle usage in non-primitive desert bighorn areas (MFP-I overlay R-5) should be limited to existing roads, trails and washes and designated areas.	Decision addressed in the RMP off-highway vehicle designations.
WL-1, #6 Develop water sources at high elevations for desert bighorns and fence to exclude cattle and burros (MFP-I overlay R-6 and Table 2). Many of these will also benefit deer.	Actions have been accomplished. Future projects may be considered in the Black Mountains Habitat Management Plan.
WL-1, #7 Develop water sources suitable for small and nongame species and fence to exclude cattle and burros (MFP-I overlay R-7).	Actions have been accomplished. Additional waters may be developed in the Black Mountains Habitat Management Plan.
WL-1, #8 Fence Columbine and Master springs to exclude burro access.	Actions have been accomplished.
WL-1, #9 Contact the Arizona Department of Transportation concerning the placement of road signs to help prevent desert bighorn kills on Hwy 68 in sec. 16, T. 21 N., R. 20 W. (MFP-I overlay R-9).	This issue has been resolved through protective fencing along the highway.
WL-1, #10 The cistern in the NW1/4, sec. 27, T. 21 N., R. 20 W. should be covered or fenced to prevent desert bighorn sheep drownings (MFP-I overlay R-1).	Actions have been accomplished.
WL-1, #11 Desert bighorn lambing grounds should be given special protection (MFP-I overlay R-11). These areas should be closed to mining entry where possible (subject to valid existing claims), transmission lines, communication sites, state selection and RS 2477. Motorized vehicles should be restricted to existing roads, trails and washes.	Decision is brought forward and changed to read: "Desert bighorn sheep lambing grounds would be given special protection. These areas would be closed to transmission lines, communication sites, state selection and RS-2477 rights-of-way. Motorized vehicles would be restricted to existing roads, trails and washes."

(continued)

Appendix 30 (continued)
Black Mountain
Wildlife

MFP Decisions	RMP Proposals
WL-1, #12 Develop a habitat management plan for the Black Mountains Planning Unit giving priority to desert bighorns (MFP-I overlay R-12). Included should be an intense survey by helicopter and foot to locate perennial water sources and pinpoint sites for water development for desert bighorns.	Actions have been accomplished.
(Unit-wide) Evaluate big game, livestock and wild burro forage competition. Reserve adequate forage for wildlife. Eliminate or reduce forage competition between big game and livestock.	Decision brought forward unchanged.

Cerbat Mountains
Area-Wide

WL-1, #1 Acquire by private and state exchange about 33,000 acres of non-federal lands initially in the critical deer-livestock competition areas shown on the overlay and other non-federal lands within the critical deer habitat as delineated. These lands are listed in Table 16 of the Unit Resource Analysis.	Decision brought forward with changes. Non-federal lands in crucial mule deer habitat would be acquired through exchange.
WL-1, #2 Do not dispose of any public domain lands in the critical mule deer area shown on the overlay (Objective 2).	Decision brought forward with changes. Do not dispose of public lands in crucial mule deer habitat.
WL-1, #3 Allow no introduction of exotic (non-native) big game herbivores without a thorough analysis and evaluation of all consequences of, and alternatives to, the situation and concurrence on analysis by the Arizona Game and Fish Department.	Decision dropped as not being needed. This is BLM policy.
WL-1, #4 Allow predator control throughout the area using the best legal methods to protect non-predatory (chiefly big game) populations, especially on reproduction areas as these areas are to be identified in the future. Work should be done on a case-by-case demonstrated need basis.	Decision is dropped as not being needed. This is BLM policy.
WL-1, #5 Do not allow any additional special land use permits, free use permits or road development in critical deer habitat areas.	Decision is brought forward with changes requiring environmental analysis and mitigation to offset impacts to critical deer habitat.
WL-1, #6 Complete an intensive habitat inventory and analysis for this wildlife opportunity area. Develop and implement a habitat management plan for this area, giving top priority to rare or endangered species, followed by big, small and non-game species.	Actions have been accomplished.
WL-1, #7 Increase forage for mule deer in the critical habitat identified on the overlay by using cattle as tools and initiating livestock grazing systems on the Cane Springs and Diamond Bar allotments.	Decision brought forward unchanged.
WL-1, #8 Improve mule deer forage by physical vegetative	Decision dropped.

(continued)

Appendix 30 (continued)
Cerbat Mountains
Wildlife

MFP Decisions	RMP Proposals
manipulation (two-way chaining and reseeding) of pinyon-juniper on 12,300 acres identified on the overlay. Legal descriptions of these tracts are tabulated in Table 18 of the Unit Resource Analysis.	
WL-1, #9 Improve water distribution for mule deer by making the waters shown on the overlay (listed in Unit Resource Analysis Table 17) available to wildlife yearlong.	Decision brought forward unchanged.
WL-1, #10 Evaluate competition between big game herbivores and livestock, including feral burros.	Decision brought forward unchanged.
WL-1, #11 Reserve adequate forage for wildlife in all allotment management plans.	Decision dropped as being not valid. Forage allocations were made in the Cerbat-Black Environmental Impact Statement. They are not made as part of the allotment management planning process.
WL-1, #12 Eliminate livestock competition with big game for forage by providing adequate forage in the livestock wildlife competition area shown on the overlay.	Decision brought forward with changes. Reduce ungulate competition by providing adequate forage for livestock and wildlife and, where designated, for wild horses.
WL-1, #13 Establish seasons of use for livestock which will be beneficial to wildlife, especially big game.	Decision brought forward unchanged.
WL-1, #14 Obtain legal access where needed on the roads shown on the overlay.	Decision brought forward unchanged.
WL-1, #15 Protect access on the above roads by 44 L.D. 513 where necessary.	Decision brought forward unchanged.
WL-1, #16 Restrict use of motorized vehicles to present washes and roads.	Actions addressed in the RMP off-highway vehicle designation.
WL-1, #17 Maintain a program to further identify and protect habitat used by endangered species. Allow no developments or habitat changes until a thorough inventory is made of a particular area.	Decision dropped. This is handled through the National Environmental Policy Act process.
WL-1, #18 Identify, through on-the-ground reconnaissance, specific sites on which water catchments could be built for small and non-game species, in the foothills area identified in the overlay as water deficient.	Actions have been accomplished.
WL-1, #19 Do not allow any range improvements or anything else which would alter or destroy pronghorn habitat without further on-the-ground reconnaissance and contact Arizona Game and Fish Department personnel.	Decision dropped. This is handled through the National Environmental Policy Act process.
WL-3, #1 Withdraw the critical bighorn sheep habitat on Wilson Ridge as a primitive area. Segregate the area against all forms of entry and disturbance, including special land use	Actions have been accomplished since this area is included in wilderness.

(continued)

Appendix 30 (continued)
Cerbat Mountains
Wildlife

MFP Decisions	RMP Proposals
permits, free use permits, rights-of-way, road developments, the mining and mineral leasing laws and R.S. 2477.	
WL-3, #2 Exclude livestock grazing from the area shown on the overlay (Wilson Ridge).	Decision brought forward and will be addressed through the National Environmental Policy Act process.
WL-3, #3 Eliminate feral burros from all bighorn sheep habitat in the planning unit adjoining the Lake Mead National Recreation Area.	Decision modified to read; "Eliminate wild burros from the Mount Wilson use area."
WL-3, #4 Maintain a program to further identify and protect habitat used by rare or endangered species. Allow no developments or changes of habitat until a thorough inventory of the area is made.	Decision brought forward and will be addressed through the National Environmental Policy Act process.
WL-3, #5 Allow predator control throughout the wildlife habitat area using the best legal methods to protect bighorn sheep populations.	Decision dropped as not being needed. This is BLM policy.
WL-3, #6 Allow no introduction of exotic (non-native) big game herbivores without a thorough analysis and evaluation of all consequences of, and alternatives to, the situation and concurrence on analysis by the Arizona Game and Fish Department.	Decision dropped as not being needed. This is BLM policy.
WL-3, #7 Complete an intensive habitat inventory and analysis for this wildlife opportunity/habitat area. Develop and implement a habitat management plan for this area, giving top priority to rare or endangered species and desert bighorn sheep.	Actions have been completed.
WL-3, #8 Restrict use of motorized vehicles to present washes and roads. Allow no new road development.	Actions addressed in the RMP off-highway vehicle designations.
WL-2, #1 Eliminate livestock grazing from the White Hills north of the Cerbat Mountains.	Decision dropped.
WL-2, #2 Do not dispose of any public lands in the critical mule deer area shown on the overlay.	Decision brought forward unchanged.
WL-2, #3 Acquire through private and state exchanges private holdings identified as critical deer habitat.	Decision brought forward unchanged.
WL-2, #4 Allow no introduction of exotic (non-native) big game herbivores without a thorough analysis and evaluation of all consequences of, and alternatives to, the situation and concurrence on analysis by the Arizona Game and Fish Department.	Decision dropped as not being needed. This is BLM policy.
WL-2, #5 Allow predator control throughout the area using the best legal methods to protect non-predatory (chiefly big game) populations, especially on reproduction areas as these areas are to be identified in the future. Work should be done on a case-by-case demonstrated need basis.	Decision dropped as not being needed. This is BLM policy.

(continued)

Appendix 30 (continued)
Cerbat Mountains
Wildlife

MFP Decisions	RMP Proposals
WL-2, #6 Do not allow any additional special land use permits, free use permits or road development in critical deer habitat areas.	Decision is brought forward with changes requiring environmental analysis and mitigation to offset impacts to critical deer habitat.
WL-2, #7 Maintain a program to further identify and protect habitat used by endangered species.	Decision dropped as not being needed. This is BLM policy.
WL-2, #8 Complete an intensive habitat inventory and analysis for this wildlife/opportunity area. Develop and implement a habitat management plan for this area, giving top priority to rare or endangered species, followed by big, small and non-game species.	Actions have been accomplished.
WL-2, #9 Evaluate competition between big game herbivores and livestock, including feral burros.	Decision brought forward unchanged.
WL-2, #10 Reserve adequate forage for wildlife in all allotment management plans.	Decision dropped as not being valid. Forage allocations were made in the Cerbat-Black Environmental Impact Statement. They are not made as part of the allotment management planning process.
WL-2, #11 Eliminate livestock competition with big game for forage by providing adequate forage in the livestock wildlife competition area shown on the overlay.	Decision brought forward with changes. Reduce ungulate competition by providing adequate forage for livestock and wildlife and, where designated, for wild horses.
WL-2, #12 Establish seasons of use (for livestock) which will be beneficial to wildlife, especially big game.	Decision brought forward unchanged.
WL-2, #13 Identify and obtain legal access where needed on the roads shown on the overlay.	Decision brought forward unchanged.
WL-2, #14 Protect access on the listed roads by 44 L.D. 513 where necessary.	Decision brought forward unchanged.
WL-2, #15 Restrict access of motorized vehicles to present washes and roads. Allow no new road development by any agency without a thorough environmental analysis and environmental impact statement, if required.	Actions addressed in the RMP off-highway vehicle designations and through the environmental review process.
WL-2, #16 Identify, through on-the-ground reconnaissance, specific sites on which water catchments could be built, primarily for small and non-game species, in the areas shown on the overlay.	Actions have been accomplished.
WL-4, #1 Acquire legal access as needed along the roads shown on the overlay.	Decision brought forward unchanged.
WL-4, #2 Protect access on the above roads by 44 L.D. 513 where necessary.	Decision brought forward unchanged.

(continued)

Appendix 30 (continued)

Cerbat Mountains
Wildlife

MFP Decisions	RMP Proposals
WL-4, #3 Allow no introduction of exotic (non-native) big game herbivores without a thorough analysis and evaluation of all consequences of, and alternatives to, the situation and concurrence on analysis by the Arizona Game and Fish Department.	Decision dropped as not being needed. This is BLM policy.
WL-4, #4 Allow predator control throughout the area using the best legal methods to protect non-predatory (chiefly big game) populations.	Decision dropped as not being needed. This is BLM policy.
WL-4, #5 Maintain a program to further identify and protect habitat used by endangered species. Allow no developments or changes of habitat until a thorough inventory is made of this area.	Decision dropped. This is handled through the National Environmental Policy Act process.
WL-4, #6 Evaluate competition between big game herbivores and livestock, including feral burros.	Decision brought forward unchanged.
WL-4, #7 Complete an intensive habitat inventory and analysis for this wildlife opportunity/habitat area. Develop and implement a habitat management plan for this area, giving top priority to rare or endangered species, followed by big, small and non-game species.	Actions have been accomplished.
WL-4, #8 Acquire non-federal holdings on identified critical wildlife habitat through private and state exchanges.	Decision brought forward unchanged.
WL-4, #9 Reserve adequate forage for wildlife in all allotment management plans.	Decision dropped as not being valid. Forage allocations were made in the Cerbat-Black Environmental Impact Statement. They are not made as part of the allotment management planning process.
WL-4, #10 Identify, through on-the-ground reconnaissance, specific sites on which water catchments could be built for small and non-game species in the foothills area identified in the overlay as water deficient.	Actions have been accomplished.

Hualapai/Aquarius

WL-1.1 Starting in FY 83 and to be completed by FY 87, provide wildlife safe access and year-round water availability to 205 livestock water facilities on public lands within the planning area. Modifications will include installation of bird ladders and animal ramps in all existing and future livestock water developments and neoprene covers in all open storage tanks. Fenced ground level waters will be constructed in conjunction with new livestock waters.	Decision brought forward with changes and modified to read: "All new water developments and those existing water developments identified as posing significant access and safety hazards to wildlife would be constructed and/or modified to provide safe access to wildlife. Modifications would include installation of bird ladders and animal ramps, and tanks would be covered to prevent drowning as determined to be appropriate. Separate fenced wildlife waters may be constructed in conjunction with new livestock waters, as deemed necessary by BLM resource specialists. Public waters important to wildlife would be made available year-round."

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Appendix 30 (continued)
Hualapai/Aquarius
Wildlife

MFP Decisions	RMP Proposals
WL-1.2 There is a need for additional wildlife water sources as indicated in the 1977 water inventory. These will enhance upland and small game numbers which will provide additional recreational hunting and sightseeing opportunities.	Decision brought forward unchanged.
WL-1.4 Design and conduct research studies on upland and small game populations and their habitat requirements by FY 87 subject to availability of personnel and funding. Initiate studies to determine the effects of cottontails and black-tailed jackrabbits on range condition and the breeding biology and habitat requirements of band-tailed pigeons in the Hualapai Mountains.	Decision brought forward with changes, dropping the 1987 date requirement and dropping item 1.
WL-2.1 Establish broadleaf tree reproduction and perpetuation via supplemental planting of seedlings in existing and potentially suitable riparian habitat by FY 84 subject to availability of personnel and funding. Seedlings four to five years old will be planted in stands no less than 300 feet long and 100 feet wide. Stand density will range from 100 to 160 trees per acre with the densest stands nearest to the streambed. These stands will be fenced and maintained to allow seedling establishment and growth. Planted stands will be established in the following areas: T. 16.5 N., R. 10 W., sec. 30, NE1/4 on the west side of Francis Creek across from the canyon. T. 16.5 N., R. 10 W., sec. 33, SE1/4 on the north side of Francis Creek. T. 16 N., R. 10 W., sec. 1, SE1/4 on both sides of Francis Creek above the pump station access road crossing. Establish a study in 1982 to determine when trees are of sufficient height to allow removal of the protective fence and the possibility of allowing livestock grazing.	Decision brought forward with changes, dropping the 1982 and 1984 date requirements. Actions have been partially accomplished through natural regeneration following proper livestock management and tree plantings.
WL-2.2 Develop herd area management plans for burros, allotment management plans for livestock and habitat management plans for wildlife in concert to resolve site-specific problems in cottonwood-willow, mixed broadleaf, oak-pine, mesquite bosque and mesquite-tamarisk standard habitat sites. The areas needing protection and protection methods will be decided upon as these plans are developed.	Decision brought forward with changes. As herd management area plans and habitat management plans have already been completed, the key activity planning efforts remaining to manage these important habitat areas are allotment management plans. The RMP will emphasize development of allotment management plans in important wildlife habitat areas.
WL-2.3 Protect the perennial and intermittent reaches of major drainages (Burro, Pine, Conger, Francis, Wilder, Knight, Trout, Sycamore, Walnut and Cottonwood creeks, Kaiser Springs, Blue Tank Wash and the Big Sandy, Santa Maria and Bill Williams rivers) -- 19,885 acres of public land. This is to be	Decision brought forward with changes, dropping the 1983 date reference and including all riparian areas outside the areas of critical environmental concern. Examples are Pine, Conger, Wilder, Knight, Sycamore and Walnut creeks, Kaiser Spring and Blue Tank Wash.

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MFP Decisions	RMP Proposals
accomplished by closely monitoring or not authorizing the following habitat-disturbing impacts on the above areas by 1983. 1. Building of structures 2. Land clearing activities 3. Mining 4. Off-highway vehicle use 5. Roadbuilding 6. Intense recreational use or development 7. Rights-of-way 8. Other human disturbances as found in subsequent inventories and environmental assessments of HMP development.	
WL-2.4 Initiate studies in 1983 to monitor and document floral and faunal changes in cottonwood-willow and mixed broadleaf riparian standard habitat sites within the planning area subject to availability of personnel and funding.	Decision brought forward with changes, dropping the 1983 date.
WL-2.5 Initiate instream flow studies in FY 83 to monitor Francis and Burro creeks and the Bill Williams and Santa Maria rivers subject to availability of personnel and funding.	Decision brought forward to involve the Big Sandy River and Sycamore and Wright creeks. All other streams are being or have been studied.
WL-3.1 Cooperate with the Arizona Game and Fish Department and the Army Corps of Engineers on the Ocotillo Wildlife Area to develop a HMP and manage the water in the Alamo Reservoir to maintain riparian habitat. The HMP will be developed in concert with AMPs and HAMPs based on the availability of personnel and funding.	Both the Hualapai and Aquarius habitat management plans include projects in this area. Decision is brought forward, dropping the need for further HMP development.
WL-3.2 Implement BLM Policy as outlined in IM AZ 80-142 regarding complete or partial fencing of earthen reservoirs for improved wildlife habitat.	Decision dropped as not being needed. This is BLM policy.
WL-3.3 Reduce livestock and burro grazing on the Burro Creek Allotment to bring grazing in line with current forage production. Develop a herd area management plan for burros and an allotment management plan for wildlife in concert, each of which will be designed to resolve site-specific problems within the Burro Creek Allotment.	Actions have been accomplished through proper livestock and wildlife habitat management. There are no burros on this allotment, so a herd management area plan is not necessary.
WL-3.4 By 1985, design and initiate studies to monitor waterfowl use, habitat requirements and response to management actions on perennial and intermittent drainages and large dirt tanks. Also monitor water quality and determine instream flow requirements of aquatic systems affecting public lands in the planning area.	Decision brought forward with changes to note that determination of instream flow requirements has been accomplished on several creeks and rivers within the resource area. The Big Sandy and Santa Maria rivers and Sycamore and Wright creeks still need instream flow determinations and subsequent filing for water rights. Monitor water quality and aquatic systems affecting public lands. Design and initiate studies to monitor waterfowl use, habitat requirements and response to management actions on large dirt tanks.

(continued)

Appendix 30 (continued)
Hualapai/Aquarius
Wildlife

MFP Decisions	RMP Proposals
WL-3.5 Actively observe BLM policy of maintenance and retention of riparian habitat including vegetation, snags and dead bushes on all public lands in the planning area when making land use decisions and during fire suppression activities.	Decision dropped as not being needed. This is BLM policy.
WL-4.1 Maintain instream flows to support habitat to supply aquatic, terrestrial and threatened and endangered wildlife and dependent riparian vegetation on public lands in Burro Creek and the Big Sandy, Santa Maria and Bill Williams rivers through securing and protecting water rights for wildlife habitat by 1984.	Decision brought forward with changes, dropping the 1984 date requirement and adding Francis and Sycamore creeks.
WL-4.3 Initiate a study in 1981 to monitor and identify water pollution and sources in perennial drainages in the planning area (including radionuclides, heavy metals, bacterial contamination and other parameters). Adjust pollution sources to meet water quality standards set by the state and federal governments. Sources of possible contamination such as the Boriana, Cedar, Anderson and Cyprus-Bagdad mines must be studied and adjusted accordingly.	Decision brought forward, focusing on other potential sources of pollution and dropping the 1981 date requirement.
WL-4.4 On the public lands along the Santa Maria and Big Sandy rivers and Burro Creek, reduce livestock and burro grazing capacity to bring grazing in line with current forage production. Develop an HMAP for burros, AMPs for livestock and an HMP for wildlife in concert, each of which will be designed to resolve site-specific aquatic habitat problems.	Decision brought forward with changes. On public lands along the Santa Maria and Big Sandy rivers and Burro Creek, manage livestock, wild burros and wildlife to bring grazing in line with current forage production. Develop and implement allotment management plans for livestock, implement herd management area plans for wild burros and implement habitat management plans for wildlife. Each of these plans would be designed to resolve site-specific aquatic and riparian habitat problems. Ecological sites would be managed for the desired plant community which best meets the needs of the listed species.
WL-5.1 Improve range sites in pine-oak, mixed conifer, open chaparral, closed chaparral and pine-oak riparian by one condition class using livestock management with reduction to carrying capacity (or below) under AMPs to improve habitat conditions for zone-tailed hawks, goshawks, spotted owls, Gilbert's skinks, Gila monsters, Mexican voles, Sonoran mountain kingsnakes, peregrine falcons and sharp-shinned hawks by 1995. Initiate condition and trend studies to monitor the recommended improvement in range condition as AMPs are written and implemented.	Decision brought forward with changes, dropping the 1995 date requirement.
WL-5.2 Protect the important, crucial use, conflict or habitat improvement areas for the threatened, endangered, state-listed or sensitive species. This is to be accomplished by closely monitoring or not authorizing the following habitat-disturbing impacts on the above areas.	Decision brought forward unchanged.

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Appendix 30 (continued)
Hualapai/Aquarius
Wildlife

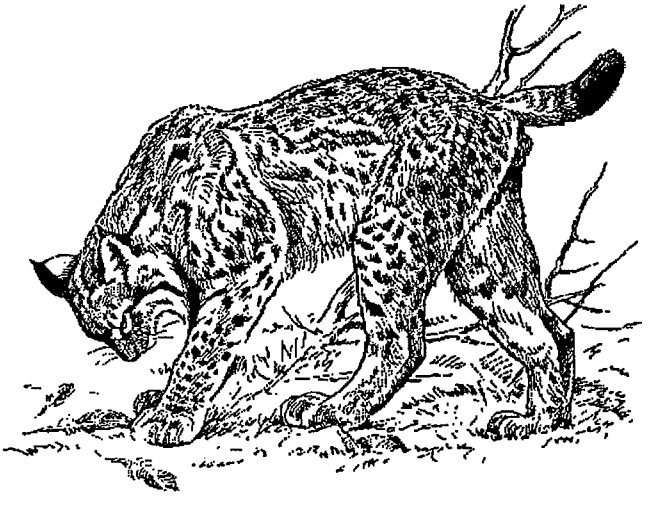
MFP Decisions	RMP Proposals
1. Excess fencing 2. Land disposal 3. Land (vegetative) clearing or removal of downed wood or woodcutting of *Nolina bigelovii* 4. Building of structures 5. Mining 6. Off-highway vehicle use 7. Roadbuilding 8. Intensive recreational use or development 9. Limit utilization of key forage to no more than 60 percent 10. Livestock and burro grazing on bighorn lambing areas 11. Rights-of-way 12. Other impacts found in subsequent inventories, environmental assessments of HMP development.	
WL 5.3 A BLM realty specialist would work with the responsible companies to modify the single-pole, three-phase powerlines near Six-Mile Crossing (T. 14 N., R. 10 W., secs. 5 and 7) and Burro Creek Campground (T. 14 N., R. 11 W., sec. 19) to facilitate safe raptor use. Coordinate with the Fish and Wildlife Service, the Arizona Game and Fish Department and the Arizona State Land Department.	Actions have been accomplished.
WL-5.4 Establish broadleaf vegetation and ensure broadleaf reproduction in suitable riparian zones (including springs) to enhance habitat conditions for bald eagles, black-hawks, zone-tailed hawks, Sonoran mountain kingsnakes, Gila monsters and Gilbert's skinks by 1984. Guidelines for planting and fencing specific locations are presented in Step 4 of the Aquarius Unit Resource Analysis and WL-2.1. Moss Basin, Blue Tank Wash and other areas will be identified in the Hualapai and Aquarius HMPs.	Decision brought forward with changes, dropping the 1984 date requirement.
WL-5.5 Maximize herbaceous forage production on range sites within desert tortoise improvement and expansion areas as portrayed in the Hualapai and Aquarius Unit Resource Analysis by 1990 using the following methods. 1. Allow no utilization on key forage species in any pasture greater than 60 percent of the proper use in a season. 2. Develop AMPs to include reducing livestock to (or below) carrying capacity of the range, increasing herbaceous forage production and increasing range condition to "good."	Decision modified as follows: guidance from Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan and Arizona BLM's subsequent Implementation Strategy have been incorporated. The 1990 deadline was dropped.
WL-5.6 Increase vegetative structure in open and closed chaparral, ponderosa pine and pine-oak, standard habitat sites for goshawks, zone-tailed hawks, Gilbert's skink, sharp-shinned hawks and Mexican voles by:	Decision modified as follows: increase vegetative structure in open and closed chaparral, ponderosa pine and pine-oak, standard habitat sites for goshawks, zone-tailed hawks, Gilbert's skink, sharp-shinned hawks and Mexican voles by:

(continued)

Appendix 30 (continued)
Hualapai/Aquarius
Wildlife

MFP Decisions	RMP Proposals
1. Developing fire plans to encourage dense stands of conifers.	1. Developing fire plans to encourage dense stands of conifers.
2. Reducing levels of livestock grazing utilization.	2. Manage for proper livestock use.
3. Seeding perennial and annual grasses and planting native conifers after disturbance (rights-of-way, road building, fire).	3. Seeding perennial and annual grasses and planting native conifers after disturbance (rights-of-way, road building, fire).
4. Chaining and reseeding.	4. Accomplish items 1 through 3 through habitat management plans, allotment management plans and fire suppressions and prescribed fire plans.
This is to be developed under upcoming HMPs on lands to be described under HMPs.	
WL-5.7 In 1984, initiate a study of the habitat requirements and factors of the spotted bat, desert night lizard and peregrine falcon in the planning area so that their habitats may be protected and improved under upcoming HMPs by 1990 subject to availability of personnel and funding.	Decision brought forward with changes, dropping the 1984 and 1990 date requirements and the spotted bat and desert night lizard studies.
WL-5.8 Improve cover of perennial forbs and grasses 15 to 20 percent on public lands within the Burro Creek watershed above the Highway 93 bridge through the BLM's watershed program, reduction of grazing and other vegetative manipulation for the benefit of the northern goshawk, sharp-shinned hawk, zone-tailed hawk, black-hawk, bald eagle, peregrine falcon, desert tortoise, Gila monster, Gilbert's skink and desert night lizard by the year 2000.	Decision brought forward with the following changes, dropping the 1990 date reference. Identify, establish and/or maintain the potential natural plant communities within the Burro Creek watershed for the benefit of the northern goshawk, sharp-shinned hawk, zone-tailed hawk, black-hawk, bald eagle, peregrine falcon, desert tortoise, Gila monster, Gilbert's skink and desert night lizard.
Establish continuing vegetative studies to determine present habitat condition and monitor trend.	
WL-6.1 Analyze selected habitats to establish limiting factors to mountain quail introduction while evaluating the possible competition between them and Gambel's quail by FY 82.	Decision dropped as no longer being valid.
The on-site inspection and detailed evaluation of habitat by the Arizona Game and Fish Department is recommended during the analysis stage. Analyze mountain quail habitat parameters under the Hualapai HMP subject to availability of personnel and funding.	
WL-6.2 Analyze existing habitat for potential re-establishment of desert bighorn sheep into the Aquarius Planning Unit by 1985.	Decision brought forward with changes, adding the Hualapai Planning Unit and dropping the 1985 date requirement.
Within the Aquarius HMP, address whether bighorns will be re-established in the Aquarius Planning Unit based on the habitat analysis.	
WL-7.1 Develop cooperative HMPs on the Hualapai and Aquarius areas by FY 85 to install about 25 big game waters as	Actions have been accomplished.

(continued)

MFP Decisions	RMP Proposals
generally identified on Step 4 overlays. The exact location and schedule for construction of these proposed waters will be determined in the HMPs.	
WL-7.2 Implement BLM policy as outlined in IM AZ-80-142 regarding fencing of springs, riparian areas and dirt tanks.	Decision dropped as not being valid. This is BLM policy.
WL-7.3 Allocate forage and secure water for present numbers of big game animals based upon proper use tables and the 1979 forage inventory.	Decision brought forward with the followings: determine forage allocations for big game by integrated habitat monitoring and forage inventory to support a thriving natural ecological balance among all ungulates. Provide adequate water for wildlife.
WL-7.4 Begin a program of prescribed burning, reseeding and wildfire management to improve deer habitat in the open and closed chaparral standard habitat site for Aquarius and Hualapai planning units under the appropriate HMPs by FY 85.	Decision brought forward with changes, dropping item 6, making the rest period in item 7 flexible, modifying item 8 to allow only native species and by dropping the FY 85 date requirement.
Use the following guidelines when planning vegetation manipulation projects.	
1. Cleared areas should not make up over one-third of the habitat area. For every 100 acres cleared, 200 acres should be left untouched.	
2. Leave 1/4- to 1/2-mile buffer zones along roads and other recreation facilities.	
3. Leave felled trees in place and evenly distribute brush piles over the entire treatment area.	
4. Openings should be small and regular-shaped; 660 foot maximum width is optimum, but should not exceed 1,200 feet. Edges should be irregular to create maximum edge effect.	
5. Ridges should remain untreated and be at least 300 feet wide to provide effective cover.	
6. Treatment should be as thorough as possible to get maximum soil disturbance to provide a good seed bed and maximum kill of trees to lengthen useful life of treatment.	
7. A three-year rest will be required on all treatment areas to allow for seedling establishment. Utilization will not exceed 40 percent.	
8. A mixture of seed will be seeded with the purpose of supplying succulent forage over a long period. Species trial plots should be established to determine new species possibly adapted to the area. A diversity of species is needed.	

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MFP Decisions	RMP Proposals
WL-7.5 Build and monitor six 100-acre exclosures for study of cattle, burro, deer and antelope utilization versus habitat condition in saguaro-paloverde juniper-mixed shrub, open and closed chaparral and high and low elevation grassland standard habitat sites in deer and antelope range. Locations will be developed where conflicts are presently severe. Exclosures must be on range sites most typical of the habitat and constructed by FY 87.	Decision brought forward with changes, dropping the 1987 date requirement.
WL-7.6 Protect the lambing, fawning and important or crucial use areas (161,860 acres) of big game species in the planning area by closely monitoring or not authorizing the following habitat disturbance impacts on the above areas by FY 82. 1. Excess fencing 2. Land disposal or trading 3. Building of structures 4. Land (vegetative) clearing or removal of downed wood 5. Mining 6. Off-highway vehicle use 7. Roadbuilding 8. Intense recreation use or development 9. In pronghorn, bighorn and elk areas, limit utilization of key perennial grasses and annual forbs to no more than 60 percent 10. In deer and bighorn areas, limit utilization of key shrub species to no more than 60 percent 11. Livestock and burro grazing on bighorn lambing areas 12. Rights-of-way 13. Other impacts as found in subsequent inventories, environmental assessments or HMP development	Decision brought forward with changes, dropping the FY 82 date requirement.
WL-7.7 Use livestock and burro management as a tool to improve big game habitat from the present poor to fair range condition to good to excellent range condition on the following allotments by the year 2000. Also, establish studies to determine exact condition and monitor trend. Allotment 1. Gray Wash 0038 2. Greenwood Peak 0040 3. Burro Creek Ranch 0014 4. Yellow Pine 0078 5. Lines 0110 6. Hualapai 0047 7. Bateman Spring 0006 8. Walnut Creek 0073 9. Chicken Spring 0021 10. Arrastra Mountain 0002 11. Black Mesa 0009	Decision has been modified to read: "Identify, establish and/or maintain the potential natural plant communities in big game habitat. Integrated monitoring of habitat would be used to measure progress. Drop the FY 2000 date requirement."

(continued)

Appendix 30 (continued)
Hualapai/Aquarius
Wildlife

MFP Decisions	RMP Proposals
WL-7.8 Cooperatively develop HMPs with the Arizona Game and Fish Department to address the following. The exact location of the studies and period of time will be identified in the HMPs. 1. Study the water needs of Mexican pronghorn in the southern half of the Hualapai Planning Unit. 2. Study predation and fawn survival of pronghorn in relation to forb production, fence impediments and grass utilization.	Decision has been incorporated in the Bill Williams-Crossman Peak Habitat Management Plan.
WL-7.9 Modify all fences in mule deer range and antelope range on public lands to meet BLM standards (Manual 1737) as reconstructed or during major maintenance.	Decision brought forward unchanged.
WL-7.10 Keep gravity-fed troughs and water storage tanks filled year-round for use by waterfowl and other wildlife even if livestock are removed.	Decision brought forward unchanged.
WL-8.1 Construct 22 100-acre exclosures in representative range sites in all standard habitat sites in the planning area by FY 86 subject to availability of personnel and funding.	Decision brought forward with changes, dropping the FY 86 requirement.
WL-8.2 Initiate studies (subject to availability of personnel and funding) to determine habitat relationship characteristics on the following animals whose populations may be decreasing in response to or causing habitat degradation. These studies may be developed jointly with the Arizona Game and Fish Department. 1. Mountain lion kitten rearing areas 2. Furbearers 3. Bobcats 4. Black bear 5. Gray fox 6. Cattle/burro/cottontail and jackrabbit 7. Bat roosting sites 8. Beaver 9. Kit fox	Decision brought forward with changes, dropping item 1.
WL-8.3 Minimize resource uses and activities which would further deteriorate ponderosa pine, mixed broadleaf, cottonwood-willow, mesquite bosque and mesquite-tamarisk standard habitat sites in the planning area. Relative values of these habitats are found in Table .36B2 in Step 1 of each unit resource analysis. This recommendation includes full mitigation of and alternative site selection of the following possible activities.	Decision brought forward unchanged.

(continued)

Appendix 30 (continued)
Hualapai/Aquarius
Wildlife

MFP Decisions	RMP Proposals
1. Land disposal 2. Vegetation removal (including woodcutting) 3. Roadbuilding 4. Construction of communication sites and other structures 5. Reduction of instream flows 6. Construction of powerlines, gaslines, waterlines 7. Increase of burro or livestock use 8. Materials removal 9. Increases in forage plant utilization in any grazing pasture greater than 60 percent 10. Intense recreational use 11. Water pollution	
WL-8.4 In preparing HMPs and other activity plans, design a system of rangeland/habitat management allowing for a mosaic of habitat patterns (increasing habitat "edge") with juxtaposition of a variety of range site condition classes in each standard habitat site in a preferred mix of 20 percent Fair, 50 percent Good and 30 percent Excellent by 1999 (922,000).	Decision has been modified to read: "Identify, establish and/or maintain the potential natural plant communities, allowing for a mosaic of habitat patterns. Drop the fiscal year 1999 date requirement."
WL-9.1 Initiate studies necessary to identify and thereby resolve conflicts with desert bighorn sheep by FY 82 (in the Aubrey Peak area).	Decision brought forward with changes, dropping the fiscal year 82 date requirement.
WL-9.4 Manage the public lands in the Burro Creek Riparian Management Area under multiple use concepts with a primary objective being to enhance the condition and quality of the unique natural ecosystems in the area. Develop a management plan to provide guidance for resource uses in the area by March 31, 1983.	The Burro Creek Riparian Management Area Plan has been completed. Actions have been accomplished.
WL-10.1 Accept the revised Multiple-Use Recommendations with the following modifications.	
1. Develop a riparian management plan, fully coordinating it with the owners of 23,800 acres of adjacent or intermingled non-federal lands. Cooperative agreement should be sought in order to secure mutual objectives consistent with the purposes of the riparian management plan. Where necessary in order to provide the required special management, and when it is in the public interest to do so, acquire portions of the 23,800 acres through purchase, exchange or donation.	Actions partially completed. The Burro Creek Riparian Management Plan has been completed. Further acquisitions are necessary.
2. Acquire surface and subsurface rights on 26,240 acres of non-public lands in big game habitat for elk, bighorn sheep, pronghorn antelope and waterfowl as identified in the Hualapai and Aquarius Step 4 Tables by FY 88.	Actions partially completed and the remainder of the decision brought forward by dropping the FY 88 date requirement.

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Appendix 30 (continued)
Cerbat
Wild Horse and Burro

MFP Decision	RMP Proposal
The unit resource analysis addressed the horse herd area. It was never addressed in the MFP, but was slated to be addressed in the first MFP update. Reservation of forage to support 14 horses was accepted in the grazing EIS.	The decision was brought forward with changes. Those changes include increased forage reservation to support a herd of 90 wild horses and expand the wild horse area to reflect the actual use patterns.

Black Mountains

Forage was reserved to support 400 burros.	The decision was brought forward unchanged.
Designate and manage a wild burro sanctuary in the Black Mountains Planning Unit.	Decision carried forward with changes. A wild burro range would be identified in the southern portion of the Black Mountains Herd Management Area.
Remove wild burros from area RMB-1. Manage the area without wild horses and burros. Reduce the burro population to 200 animals. Develop waters to improve burro distribution. Close the area to grazing by domestic horses and burros. Retain all public lands within the habitat area. Retain rights-of-way, acquire additional rights-of-way and develop a memorandum of understanding with the National Park Service at Lake Mead and the U.S. Fish and Wildlife Service to ensure continued access to water.	Decision brought forward with changes. Area RM13-1 corresponds with Area B in the Resource Management Plan proposed action (see Map 10). Wild burros would first be removed from areas outside the herd management area, then as problem animals from Area B within the herd management area. Area B has become largely private lands with increasing subdivisions and human development. The refining of forage allocation and stratification of habitat would define burro management areas, allow for adjustments in the wild burro population, removal of problem animals, removal from problem areas and removal on an equitable level in transition/joint use areas. This would be in line with the management framework plan decision.
Reduce livestock grazing and reserve 2,400 animal unit months of forage for 200 burros.	Decision brought forward with changes. A total of 12,000 animal unit months of forage would be reserved for ungulates including burros, desert bighorn sheep, livestock and deer in the Black Mountains. Forage would be allocated at 30 percent for burros, 30 percent for desert bighorn sheep, 30 percent for livestock and 10 percent for deer in areas of shared habitat.

Hualapai/Aquarius

The MFP recommendations for maintaining a wild burro herd in the Big Sandy Herd Management Area were brought forward through the grazing environmental impact statement. Habitat and forage was reserved for 139 wild burros.	The decision was brought forward unchanged.
RM-3.1 Initiate studies of wild burros to determine numbers, sex and age ratios, distribution, daily and seasonal movements, food habits and other information necessary for herd management. The studies should include, but not be limited to, fecal studies, temporary exclosures, permanent utilization transects, trend studies, complete records of animals captured during reduction programs, burro inventories and animal observations.	Decision carried forward with changes. The BLM would initiate studies to identify the ecological niche currently being occupied by wild burros to determine social behavioral traits, genetic viability and habitat use patterns including crucial habitat components. Integrated habitat monitoring would be used to determine the forage allocations necessary to support a herd in thriving natural ecological balance.

(continued)

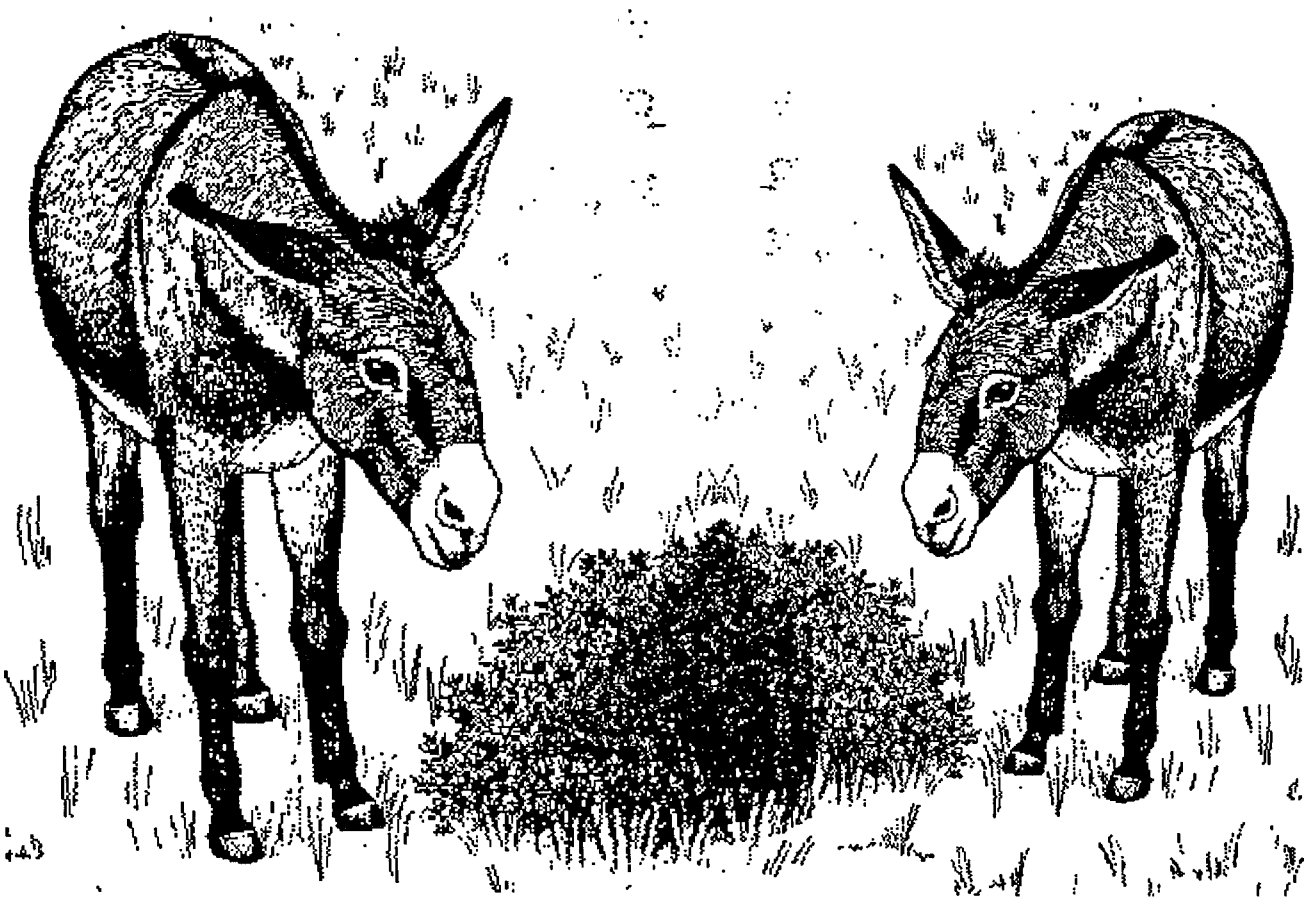
Appendix 30 (continued)
Hualapai/Aquarius
Wild Horse and Burro

MFP Decision	RMP Proposal
RM-3.2 Coordinate with the Lower Gila Resource Area on the management of burros in the Alamo Lake Herd Area.	Decision brought forward unchanged.
RM-3.3 Combine the six herd areas identified in the unit resource analysis into two herd areas.	Actions have been completed.
RM-3.4 Reserve forage for 652 burros per year pending removal of excess animals. Increase the forage allocation by 17 percent annually beginning with the year 1980. Allocate a minimum of 3.92 acre-feet of water available for use by burros each year. This allocation should also be increased by 17 percent annually. If burro numbers are not reduced by the time grazing decisions are issued, downward adjustments may be necessary to prevent over commitment of the forage resource.	Since implementation of the management framework plan decision, the wild burro population has been adjusted downward through the management prescriptions set forth in the Big Sandy Herd Management Area Plan. The wild burro population would continue to be adjusted within an ecological balance based on vegetative monitoring studies through multiple use grazing decisions addressing use by all ungulates.
RM-3.5 Designate herd unit 1A as the Sycamore Creek herd unit. To facilitate management, acquire private and state lands within the herd unit by October 1, 1990. Develop a herd management area plan in coordination with the allotment management plan and habitat management plans for the area. These plans will be designed to resolve site-specific problems. Manage the herd unit for 48 burros.	Decision brought forward with changes. Coordinate and revise the herd management area plan, allotment management plans and habitat management plans to identify and resolve habitat use conflicts among ungulates in the Big Sandy Herd Management Area. (The Big Sandy Herd Management Area includes the Sycamore Creek, Burro Creek and the Big Sandy herd use areas). The unit would not be managed for 48 burros. The management area would be managed to support a genetically viable population defined as a minimum of 50 effective breeding animals. Integrated habitat monitoring would be developed to determine forage allocations necessary to support a thriving natural ecological balance among all ungulates using the Big Sandy Herd Management Area. Population adjustments would be based on analysis of integrated monitoring data and resource objectives and in consultation with other government agencies and interested publics.
RM-3.6 Designate herd unit 1B as the Burro Creek herd unit. To facilitate management acquire private and state lands within the herd management area plan in coordination with the allotment management plan and habitat management plans for the area. These plans will be designed to resolve site-specific problems. Manage the herd unit for 22 burros. Remove all burros from the riparian zone for seven to ten years to improve riparian habitat. Manage the remainder of the herd in areas away from the creek and its immediate habitat.	Decision brought forward with changes. Coordinate and revise the herd management area plan, allotment management plans and habitat management plans to identify and resolve habitat use conflicts among ungulates in the Big Sandy Herd Management Area. (The Big Sandy Herd Management Area includes the Sycamore Creek, Burro Creek and the Big Sandy herd use areas). The unit would not be managed for 22 burros. The management area would be managed to support a genetically viable population defined as a minimum of 50 effective breeding animals. Integrated habitat monitoring would be developed to determine forage allocations necessary to support a thriving natural ecological balance among all ungulates using the Big Sandy Herd Management Area. Population adjustments would be based on analysis of integrated monitoring data and resource objectives and in consultation with other government agencies and interested publics. Riparian habitat objectives and management prescriptions would be developed in new resource activity plans and revisions of existing plans.

(continued)

Appendix 30 (continued)
Hualapai/Aquarius
Wild Horse and Burro

MFP Decision	RMP Proposal
RM-3.7 Designate herd unit 2 as the Big Sandy herd unit. Remove burros from the Gibson, Groom Peak and portions of the Greenwood Peak Community grazing allotments to protect burros from harassment and/or death. Manage the herd unit for 54 burros. Develop a herd management area plan in coordination with allotment management plans and the habitat management plan for the area. These plans will be designed to resolve site-specific problems.	Decision brought forward with changes. Coordinate and revise the herd management area plan, allotment management plans and habitat management plans to identify and resolve use conflicts among ungulates in the Big Sandy Herd Management Area. (The Big Sandy Herd Management Area includes the Sycamore Creek, Burro Creek and the Big Sandy Herd use areas). The unit would not be managed for 54 burros. The management area would be managed to support a genetically viable population defined as a minimum of 50 effective breeding animals. Integrated habitat monitoring would be developed to determine forage allocations necessary to support a thriving natural ecological balance among all ungulates in the Big Sandy Herd Management Area. Population adjustments would be based on analysis of integrated monitoring data and resource objectives and in consultation with other government agencies and interested publics.
RM-3.8 Exclude all grazing by domestic horses and burros from all wild and free-roaming horse and burro herd areas.	Decision brought forward unchanged.



GLOSSARY

ACCELERATED EROSION: Erosion much more rapid than normal, natural or geologic erosion, resulting from the destruction of vegetation cover, other human activities and sometimes natural catastrophes such as fire.

ACRE-FOOT: The volume of material or water that will cover an area of one acre to a depth of one foot (43,560 cubic feet or 325,851 gallons).

ACTIVITY PLAN: A detailed, specific plan for management of a single resource program or plan element undertaken as necessary to implement the more general resource management plan decisions.

ADVERSE EFFECT (Cultural Resources): Alteration of the characteristics which contribute to the use(s) determined appropriate for a cultural resource or which qualify a cultural property for the National Register to such a degree that the appropriate use(s) are diminished or precluded or the cultural property is disqualified from National Register eligibility. Criteria in the regulations of the Advisory Council (36 CFR Part 800) guide the determination of adverse effects.

AIR POLLUTION: Accumulation of aerial wastes beyond the concentrations that the atmosphere can absorb and which may, in turn, damage the environment.

AIR QUALITY CLASSES: Classes established by the Environmental Protection Agency (EPA) that define the amount of air pollution considered significant within an area.

I. Almost any change in air quality would be considered significant.

II. Deterioration normally accompanying moderate, well-controlled growth would be considered insignificant.

III. Deterioration up to the national standards would be considered insignificant.

AIRSHED: A region within which air movement tends to be confined by topographic barriers, meteorology and local circulations.

ALKALI SOIL: Soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

ALLOTMENT: An area of land assigned to one or more livestock operators for grazing livestock. Allotments generally consist of public lands but may also include state-owned and private lands. An allotment may include one or more separate pastures. Livestock numbers and seasons of use are specified for each allotment.

ALLOTMENT MANAGEMENT PLAN (AMP): A livestock grazing management plan for a specific allotment based on multiple-use resource management objectives. The AMP considers livestock grazing in relation to other uses of the range and in relation to renewable resources -- watershed, vegetation and wildlife. An AMP establishes the seasons-of-use, the number of livestock to be permitted on the range and the rangeland developments needed.

ALLUVIAL: Relating to or formed by water carrying and depositing rocks, soil and other materials.

ALTERNATIVES: Different ways of addressing the planning issues and management activities considered in the planning process. These serve to provide the decision maker and the public a clear basis for choices among options.

AMBIENT AIR QUALITY: Prevailing condition of the atmosphere at a given time; the outside air. Concentration levels in the outside air for a specified pollutant and a specified averaging time period within a given area.

ANIMAL UNIT (AU): One mature (1,000-pound) cow or its equivalent based on an average daily forage consumption of 26 pounds of dry matter.

ANIMAL UNIT MONTH (AUM): The amount of forage necessary for the sustenance of one cow or five sheep for one month.

APPARENT TREND: Immediate or short-term tendency, used mainly to record vegetative response to management actions.

AQUATIC HABITAT: Habitat that is inundated by water with a frequency sufficient to support a prevalent form of aquatic life.

AQUIFER: An underground body of rock or similar material capable of storing water and transmitting it to wells or springs.

ARCHAEOLOGICAL DISTRICT: An area that provides a concentration of cultural properties in a discrete, definable location.

ARCHAIC: Archaeological period of about 8,000 to 300 B.C.

AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC): An area of public lands where special management attention is required to protect important historic, cultural or scenic values, fish and wildlife or natural systems or processes, or to protect life and safety from natural hazards.

ARIZONA SITE STEWARD PROGRAM: A volunteer program administered through the Arizona Archaeology Advisory Commission and the State Historic Preservation Officer to safeguard and monitor the condition of selected archaeological sites and areas in Arizona in cooperation with state and federal agencies.

AVAILABLE FORAGE: The portion of the forage production that is accessible for use by a specified kind or class of grazing animal.

AVERAGE LICENSED USE: The average number of animal unit months authorized during the past five years. This figure depends on forage production and economics in any one year.

BACK COUNTRY BYWAYS: Back country roads and vehicle trails that the BLM has designated and promotes for their high scenic and public interest values. As part of the National Scenic

Byway System, back country byways vary from single-track bike trails to narrow, low-speed, paved roads.

BAJADA: A broad, gently inclined slope or outwash plain at the foot of a mountain, formed by the coalescing of alluvial fans.

BASE FLOW: The amount of streamflow that is maintained by groundwater inflow to the stream and is therefore relatively constant, even during dry periods.

BASELINE: Conditions, including trends, existing in the human environment before a proposed action is begun; a benchmark state from which all environmental consequences are forecast and all changes expected to occur under existing management is the no-action alternative.

BASE METAL: Any of the more common and chemically active metals, such as copper and lead.

BASE PROPERTY: Lands in a ranching enterprise that are owned or under long-term control of the operator.

BENTONITE: A clay formed by the decomposition of volcanic ash, having the ability to absorb large amounts of water and to expand to several times its normal volume; used in adhesives, cements and ceramic fillers.

BLOCK (verb)/BLOCKED-UP (adjective): v. To consolidate like things, such as ownership of land, e.g., the BLM acquires privately owned acreage in the middle of a large area of public land.

BROWSE: As a verb, to consume or feed on (a plant); as a noun, the tender shoots, twigs and leaves of trees and shrubs often used as food by cattle, deer, elk and other animals.

BRUSH: Vegetation consisting primarily of bushes and shrubs, usually undesirable for livestock or timber management. It may sometimes be of value for browse or for watershed protection.

BUTTE: An isolated hill with steep sides and a flat top.

CARRYING CAPACITY (RECREATION): The maximum number of people at one time that an area or facility can accommodate without impairing the natural, cultural or developed resource.

CHAINING: A method of vegetation treatment in which large, woody species such as pinyon and juniper are removed with a heavy chain dragged between two bulldozers.

CHANGE AGENT: The apparent cause of an environmental consequence, an antecedent related empirically to an environmental consequence.

CLASSIFICATION: The process of determining whether public lands are more valuable or suitable for transfer or use under particular or various public land laws than for retention in federal ownership for management purposes.

CLIMAX VEGETATION: The final vegetation community that emerges after a series of successive vegetational stages. The climax community perpetuates itself indefinitely unless disturbed by outside forces. This differs from the potential natural community (PNC) in that it does not include naturalized non-native species.

COAL SLURRY: A mixture of water and powdered coal in roughly equal proportions by weight.

COMMON VARIETY: Mineral deposits which do not possess a distinct special economic value over and above the normal use of the general run of such deposits.

COMMUNITY: A group of plants and animals living together in a common area and having close interactions.

CONTRAST (VISUAL): The effect of a striking difference in the form, line, color or texture of an area being viewed.

CONTRAST RATING: A method of determining the extent of visual impact of an existing or proposed activity that will modify any landscape feature.

CONVEYANCE: The transfer of real property from one owner to another by means of a formal document and other formalities.

COORDINATED RESOURCE MANAGEMENT PLAN (CRMP): A plan for management of one or more allotments that involves all the affected resources, e.g., range, wildlife and watershed.

CRITICAL SOILS: Soils that contain very highly saline soils and /or are very highly susceptible to water erosion.

CRITICAL WATERSHED: An area of soils that (1) have a high potential for salt yield, (2) are subject to severe water and wind erosion when disturbed, (3) have high runoff potential during storm events, (4) are subject to frequent flooding or (5) have a potential for loss of vegetation productivity under high rates of wind or water erosion.

CRITICAL WILDLIFE HABITAT: The area of land, water and airspace required for the normal needs and survival of a species.

CRUCIAL WILDLIFE HABITAT: Sensitive use areas that are necessary to the existence, perpetuation or introduction of one or more species during critical periods of their life cycles.

CULTURAL CLEARANCE: A statement, based upon an inventory, that a given tract of land contains no cultural resource values or that, if cultural resources are present, compliance actions will be undertaken and other adverse impacts on them sufficiently mitigated.

CULTURAL PROPERTY: Any definite location of past human activity, habitation or use identified through a field inventory (see below), historical documentation or oral evidence. This term may include archaeological or historic sites, structures and places and sites or places of traditional cultural or religious importance to a specific group, whether or not represented by physical remains. Cultural properties are managed by the system of inventory evaluation and protection and use.

CULTURAL RESOURCE INVENTORY: A descriptive listing and documentation of cultural resources, including photographs and maps; included are the processes of locating, identifying, and recording sites, structures, buildings, objects and districts

through library and archival research, information from persons knowledgeable about cultural resources and varying levels of intensity of on-the-ground field surveys. There are three classes of cultural resource inventories:

I (Existing data inventory): An inventory study that includes a compilation and analysis of all available cultural resource data and an interpretive, narrative overview and synthesis of the data.

II (Sampling field inventory): A sample-oriented field inventory designed to locate and record, from surface and exposed profile indications, all cultural resource sites within a portion of a defined area in a manner that will allow an objective estimate of the nature and distribution of cultural resources in the entire defined area.

III (Intensive field inventory): An intensive field inventory designed to locate and record, from surface and exposedprofile indications, all cultural resource sites within a specified area.

CULTURAL RESOURCES: Those fragile and nonrenewable remains of human activities, occupations and endeavors as reflected in sites, buildings, structures or objects, including works of art, architecture and engineering. Cultural resources are commonly discussed as prehistoric and historic values, but each period represents a part of the full continuum of cultural values from the earliest to the most recent.

CULTURAL SITE: A physical location of past human activities or events. Cultural resource sites are extremely variable in size and range from the location of a single cultural resource object to a cluster of cultural resource structures having sociocultural or scientific values and meeting criterion of being more than 50 years old.

CUSTODIAL MANAGEMENT: A limited form of resource management employed on lands with low resource production potential that are producing near potential and where opportunities for positive economic return on public investment do not exist.

DESIGNATED RIGHT-OF-WAY CORRIDOR: A parcel of land, either linear or areal, that has been identified by law, by Secretarial Order, through the land use planning process or by other management decision as a preferred location for existing and future right-of-way grants and suitable to accommodate more than one type of right-of-way or one or more rights-of-way which are similar, identical or compatible.

DESIRED PLANT COMMUNITY (DPC): A plant community that produces the kind, amount and proportions of vegetation needed to meet or exceed the resource management plan/activity plan objective established for the site. The DPC must be within the site's capability to produce the desired vegetation through natural succession, management intervention or both.

DIRECTIONAL DRILLING: Drilling at an angle from the vertical to reach subsurface areas not directly under the wellbore. Such drilling is used to reach a subsurface area beneath a non-surface occupancy lease.

DRAINAGE BASIN: An area bounded by a water parting and drained by a particular river and its tributaries (watershed).

DRILLING FLUID (Mud): A mixture of liquids and solids circulated through the wellbore of oil and gas wells during rotary drilling to force cuttings out of the wellbore to the surface, to cool and lubricate the bit and drill stem, to protect against blowouts by holding back subsurface pressures and to deposit a mud cake on the wall of the borehole to prevent the loss of fluids to the formation.

EASEMENT: An interest in land owned by another that entitles the holder of the easement to a specific limited use of that land.

ECOLOGICAL SITE: A distinctive kind of land that differs from other kinds of lands in its ability to produce a characteristic natural plant community. An ecological site is the product of all the environmental factors responsible for its development. It is capable of supporting a native plant community typified by an association of species that differs from that of other ecological sites in the kind or proportion of species or in total production. Ecological site is synonymous with range site.

ECOLOGICAL STATUS: The present state of vegetation of an ecological site in relation to the natural potential plant community for that site. It is an expression of the relative degree to which the kinds, proportions and amounts of plants in a plant community resemble that of the potential natural community. Ecological status was formerly known as range condition.

ECONOMIC IMPACT: The change, positive or negative, in economic conditions (including distribution and stability of employment and income in affected local and regional economies) that directly or indirectly result from an activity, project or program.

ECOSYSTEM: A complex self-sustaining natural system which includes living and nonliving components of the environment and the circulation of matter and energy between organisms and their environment.

ENDANGERED SPECIES ACT OF 1973 (as amended): Federal law to ensure that no federal action will jeopardize federally listed or proposed threatened or endangered species of plants or animals.

ENVIRONMENTAL ASSESSMENT: The procedure for analyzing the impacts of some proposed action on a given environment and the documentation of the analysis. An environmental assessment is similar to an environmental impact statement but is generally smaller in scope. An environmental assessment may be preliminary to an environmental impact statement.

ENVIRONMENTAL CONSEQUENCE: A temporal or spatial change in the human environment caused by an act of man. The change should be perceptible, measurable and relatable through a change agent to a proposed action or alternative. A consequence is something that follows an antecedent (as a cause or agent). Consequences are synonymous with impacts and effects. In the Council on Environmental Quality regulations, consequences are caused by a proposed action (40 CFR 1508.7; 1508.14).

ENVIRONMENTAL IMPACT STATEMENT (EIS): An analytical document prepared for use by decision-makers to weigh the environmental consequences of a potential decision. An EIS

should accurately portray potential impacts to the environment of a particular course of action and its possible alternatives.

EPHEMERAL STREAM: A stream that flows only briefly after a storm or during snowmelt.

EQUID: A member of the horse family, i.e., a burro.

EROSION: The wearing away of the soil and surface by running water, wind, ice or other geological agents.

EVALUATION (Cultural Resources): The analysis of cultural resource inventory records, the application of professional judgment to identify characteristics that contribute to possible uses for recorded cultural resources and the recommendation of appropriate uses(s) for each resource or group of resources. National Register eligibility criteria, 36 CFR Part 60, are interpreted through or with reference to Bureau evaluation criteria.

EXCAVATION (ARCHAEOLOGICAL): The scientifically controlled recovery of subsurface materials and information from a cultural site. Recovery techniques are relevant to research problems and are designed to produce maximum knowledge about the site's use, its relation to other sites and the natural environment, and its significance in the maintenance of the cultural system.

EXISTING RIGHT-OF-WAY CORRIDOR: A parcel of land, with fixed limits or boundaries, that is being used as the location for one or more rights-of-way.

EXTENSIVE RECREATION MANAGEMENT AREAS (ERMAs): Areas where recreation is unstructured and dispersed and where minimal recreation-related investments are required. ERMAs, which constitute the majority of the Arizona Strip public land, provide recreation visitors the freedom of choice with minimal regulatory constraint.

FAIR MARKET VALUE: The amount in cash, or in terms reasonably equivalent to cash, for which in all probability a leasable mineral deposit would be sold or leased by a knowledgeable owner willing but not obligated to sell or lease to a knowledgeable purchaser who desires but is not obligated to buy or lease.

FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 (FLPMA): Public Law 94-579, which gives the BLM legal authority to establish public land policy, to establish guidelines for administering such policy and to provide for the management, protection, development and enhancement of the public lands.

FEDERAL LANDS: Those lands owned by the United States, without reference to how the land was acquired or which federal agency administers the lands, including mineral or coal estates underlying private surface.

FIRE MANAGEMENT: The integration of fire protection, prescribed burning and fire ecology knowledge into multiple use planning, decision-making and land management activities. Fire management is a program, not of letting fires burn, but rather of placing fire in perspective with overall land management objectives to fulfill the needs of society.

FLOOD PEAK: The highest value of the stage or discharge attained by a flood; thus, peak stage or peak discharge.

FLOODPLAIN: The nearly level alluvial plain that borders a stream or river and is subject to inundation during high water periods; the relatively flat area or lowland adjoining a body of standing or flowing water which has been or might be covered by floodwaters.

FORAGE: Vegetation of all forms available for animal consumption.

FORB: a herbaceous (nonwoody) plant that is not a grass, sedge or rush.

FREE USE PERMIT: A permit that allows the removal of timber and other resources from the public lands free of charge.

FREQUENCY: A quantitative expression of the presence or absence of individuals of a species in a population. It is defined as the percentage of occurrence of a species in a series of samples of uniform size.

GOAL: The desired state or condition that a resource management policy or program is designed to achieve. A goal is usually not quantifiable and may not have a specific date by which it is to be completed. Goals are the bases from which objectives are developed.

GRAZING PREFERENCE: The total number of animal unit months of livestock grazing on public lands apportioned and attached to base property owned or controlled by a permittee or lessee. Active preference and suspended preference combined make up total grazing preference.

GRAZING PRIVILEGES: Permission to graze livestock on the public lands granted by the BLM to permittees and lessees as a privilege. Grazing privileges are attached to base property.

GRAZING SYSTEM: Sequence of livestock grazing, by area, designed to accomplish management objectives.

GROUNDWATER: Water filling the unblocked pores of underlying material below the water table.

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

HABITAT MANAGEMENT PLAN: A written and officially approved plan for a specific geographic area which identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives and outlines procedures for evaluating accomplishments.

HAZARDOUS WASTE OR MATERIAL (HAZMAT): Any substance that poses a threat to the health or safety of persons or the environment. These include any material that is toxic, ignitable, corrosive or radioactive.

HEAVY MINERALS: Metals having a specific gravity (weight in comparison to the weight of an equal volume of water) of 5.0

or more and generally toxic in relatively low concentrations to plant and animal life. Including lead, mercury, cadmium and arsenic, such metals can persist in animal tissue and increase in concentrations as they pass up the food chain.

HERBACEOUS: Pertaining to plants having little or no woody tissue.

HERD MANAGEMENT AREA PLAN (HMAP): A plan for the management of a geographic area used by wild horses or burros. A HMAP outlines details of a burro or horse capture plan, adoption program and long-term management of populations.

HOLISTIC RESOURCE MANAGEMENT: An approach to resource management that recognizes the need to consider the entire ecosystem as well as human, biological and financial resources.

HUMAN ENVIRONMENT: The natural and physical environment and the relationship of people with that environment (see complete definition in the Council on Environmental Quality regulations, 40 CFR 1508.15).

INDICATOR: An element of the human environment affected, or potentially affected, by a change agent. An indicator can be a structural component, a functional process or an index. A key indicator integrates several system elements in such a way as to indicate the general health of that system.

INTERDISCIPLINARY APPROACH: Cooperative, interactive consultation and analysis among individuals representing two or more disciplines. Such an approach should ensure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making, which may have an impact on man's environment [National Environmental Policy Act 102(2)(A)].

INTRUSION (VISUAL): A land, vegetation or structural feature that is generally considered out of context with the characteristic landscape.

ISOLATED TRACT: A parcel of public lands surrounded by non-federal lands.

ISSUE: See planning issue.

KEY AREA: A relatively small portion of a rangeland selected because of its location, use or grazing value as an area on which to monitor the effects of grazing use. It is assumed that key areas, if properly selected, will reflect the effects of current grazing management over all or part of a pasture, allotment or other grazing unit.

KEY SPECIES: A plant that is relatively or potentially abundant, can endure moderately close grazing and serves as an indicator of changes in a vegetational complex. The key species is an important vegetation component, which, if overused, will significantly harm watershed conditions, grazing capacity or other resources. More than one key species may be selected on an allotment. One species may be important for watershed protection and a different species may be important for livestock or wildlife forage or other values.

LAND AND WATER CONSERVATION FUND: A federally maintained fund used for acquiring and developing federal outdoor recreation resources and for assisting states in planning, acquiring and developing land and water areas and facilities for outdoor recreation.

LAND DISPOSAL: A transaction that leads to the transfer of title of public lands from the federal government.

LAND TREATMENT: Alteration of vegetation of an area by mechanical, biological or chemical means or by burning. Land treatments are implemented to reduce erosion or improve vegetation for livestock or wildlife.

LEACH MINING: The technique of mineral extraction where a variety of chemical solutions are used to extract minerals which are soluble within those liquids. This technique may be used to extract minerals from abandoned tailings, crushed ores and in-place ores.

LEASABLE MINERALS: Minerals such as coal, oil shale, oil and gas, phosphate, potash, sodium, geothermal resources and all other minerals that may be acquired under the Mineral Leasing Act of 1920, as amended.

LEGAL DESCRIPTION: The description of a particular parcel of land according to the official plat of its cadastral survey, including township, range and section numbers.

LOCATABLE MINERALS: Any valuable mineral that is not salable or leasable, including gold, silver, copper, tungsten, uranium, etc.

LODE MINING: Extraction of minerals from deposits which are still in place within the confines of the surrounding country rock.

MAJOR LAND RESOURCE AREAS (MLRAs): Geographic areas having similar topography, climate, soils and vegetation. For example, MLRA 30-2 is characterized as having all hyperthermic soils with less than eight inches of annual precipitation. All other MLRAs are characterized as having thermic soils with greater than eight inches of yearly precipitation.

MANAGEMENT FRAMEWORK PLAN (MFP): A planning decision document prepared before the effective date of the regulations implementing the land use planning provisions of the Federal Land Policy and Management Act.

MANAGEMENT SITUATION ANALYSIS (MSA): A step in the BLM planning process that identifies existing management, physical resources and opportunities to meet the needs, concerns and issues identified through resource management planning. The MSA results in a reference document, which is kept in the resource area office. The MSA document is open for public inspection but is not distributed to the public.

METALLIC MINERALS: Those minerals whose native form is metallic or whose principal products after refinement are metallic.

MINERAL ENTRY: The location of mining claims by an individual to protect his right to a valuable mineral.

MINERAL ESTATE: Mineral or subsurface ownership.

MINERALIZATION: The processes taking place in the earth's crust resulting in the formation of valuable minerals or ore bodies; the occurrence of potentially valuable minerals.

MINERAL MATERIAL DISPOSAL: Disposal of sand, building and decorative stone, gravel, pumice, clay and other mineral materials and petrified wood through permit or contract for sale or free use.

MINERAL WITHDRAWAL: Closure of land to mining laws, including sales, leasing and location, subject to valid existing rights.

MINING PLAN OF OPERATION (MPO): A plan for mining exploration and development that an operator must submit to the BLM for approval when more than five acres a year will be disturbed or when an operator plans to work in an area of critical environmental concern, wilderness study area or wilderness. A mining plan of operation must document in detail all actions the operator plans to take from exploration through reclamation and present all information needed for preparing a National Environmental Policy Act document.

MITIGATING MEASURES: Methods used (often included as stipulations or special conditions attached to a lease) to reduce the significance of or eliminate an anticipated environmental impact.

MITIGATION: The lessening of a potential adverse effect by applying appropriate protection measures, the recovery of cultural resource data or other measures.

MONITORING: The orderly collection and analysis of data to evaluate progress in meeting resource management objectives. Monitoring may also include: (1) the collection of data to evaluate progress in complying with laws, regulations, policies, executive orders and management decisions and (2) the collection of data and observation of progress toward plan objectives, the accuracy of impact analysis and the effectiveness of mitigation measures; these are also of particular interest in terms of RMP monitoring activities.

MOTORIZED TRAVEL: Travel in any motorized vehicle for recreation purposes; includes driving or riding in off-highway areas (OHV travel).

MOUNTAIN ISLANDS: Isolated mountain ranges where islands of habitat are surrounded by a sea of desert or grassland. Mountain islands are typically separated from similar communities on other mountains by thousands of feet of elevation and radically different climatic conditions. Most mountain island plants and animals, especially the smaller ones, are descended from ancestors isolated since the last ice age, thousands of years ago.

MOVEMENT CORRIDORS: Lands needed for maintaining or reconnecting natural habitat islands to facilitate traditional movement, migration, genetic interchange and population expansion of native wildlife species.

MULTIPLE-USE MANAGEMENT: Management of public lands and their resources so that they are used in the combination best meeting the present and future needs of the American people. Relative resource values are considered, not necessarily the combination of uses that will give the greatest potential economic return or the greatest unit output.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA): It establishes policy, sets goals and provides means to ensure that environmental information is available to public officials and citizens before decisions are made and actions are taken.

NATIONAL HISTORIC PRESERVATION ACT: The primary federal law providing for the protection and preservation of cultural resources. Making it a national policy to preserve cultural heritage, the National Historic Preservation Act established the National Register of Historic Places, the Advisory Council on Historic Preservation and State Historic Preservation Officers.

NATIONAL REGISTER OF HISTORIC PLACES: A list of districts, sites, buildings, structures and objects significant in American history, architecture, archaeology and culture maintained by the Secretary of the Interior; expanded as authorized by Section 2(b) of the Historic Sites Act of 1935 (16 U.S.C. 462) and Section 101(a)(1)(A) of the National Historic Preservation Act.

NATIONAL WILD AND SCENIC RIVERS SYSTEM: Established by the Wild and Scenic Rivers Act of 1968 to protect rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural and other similar values and are preserved in free-flowing conditions, this system provides for the designation of three types of rivers: (1) *recreation* — rivers or sections of rivers readily accessible by road or railroad that may have some development along their shorelines and may have undergone some impoundment or diversion in the past, (2) *scenic* — rivers or sections of rivers free of impoundments, with shorelines or watersheds still largely undeveloped but accessible in places by roads and (3) *wild* — rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with essentially primitive watersheds or shorelines and unpolluted waters.

NATIONAL WILDERNESS PRESERVATION SYSTEM: A system composed of federally owned areas designated by Congress as wilderness areas. These areas shall be administered for the use and enjoyment of the American people; management actions will preserve wilderness values for future use and enjoyment.

NATURAL AREA: Land managed for retention of its typical or unusual plant or animal types, associations or other biotic phenomena or its outstanding scenic, geologic, soil or aquatic features or processes.

NATURAL HAZARD: A natural characteristic of land or water resources or areas that constitutes conditions significantly dangerous, or potentially significantly dangerous, to human life or property or would be significantly dangerous to life or the safety of property if development or other activity were permitted. Such a hazard may be either existing or considered likely to occur in the future.

NAVIGABLE WASH: A wash or arroya which is wide enough for a vehicle to pass through without damage to vegetation or bank soils and generally having a sandy stream bed.

NONUSE: Current authorized grazing use in animal unit months that is not used during a given time period. Nonuse is applied for and authorized on an annual basis.

NOTICE OF INTENT (NOI): A notice submitted to the BLM by a geophysical exploration company outlining a proposed oil and gas exploration program.

OFF-HIGHWAY VEHICLE (OHV) DESIGNATIONS:

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

Limited: Designated areas and trails where the use of off-highway vehicles is subject to restrictions, such as limiting the number or type of vehicles allowed, dates and times of use (seasonal restrictions), limiting use to existing roads and trails or limiting use to designated roads and trails. Combinations of restrictions are possible, such as limiting use to certain types of vehicles during certain times of the year.

Closed: Designated areas, roads and trails where the use of off-highway vehicles is permanently or temporarily prohibited. Emergency use of vehicles is allowed.

OIL AND GAS PRODUCTION FACILITIES: All those facility structures and equipment associated with the surface collection, storage or processing of oil and gas.

OPTIMUM POTENTIAL: Relates to managing for the optimum or best number of animals grazing an area of habitat, which allows all habitat conditions to improve and/or be maintained. Habitat conditions include seral stage, plant density, species composition, soil stability, water quality and health of other animals also using the land.

PALATABILITY: The relish with which a particular species or plant part is consumed by an animal.

PARTICULATE MATTER: Any material, except water, in a chemically uncombined form that is or has been airborne and exists as a liquid or solid at standard temperature and pressure: minute particles of coal dust, flying ash and oxides temporarily suspended in the atmosphere.

PASTURE: As used in this document, a subdivision of a grazing allotment.

PATENT: A government instrument (or deed) that conveys legal title for public lands to an individual or another government entity.

PAYMENT IN LIEU OF TAXES (PILT): Payments to local or state governments based on ownership of federal land and not directly dependent on production of outputs or receipt sharing.

PERMEABILITY (Soil): The ease with which gases or liquids penetrate or pass through soil.

PHENOLOGICAL OR PHENOLOGY: Relating to stages of growth and development in the life cycle of plants.

PICTOGRAPH: Prehistoric rock art, either drawn or painted onto a stone surface or pecked into such a surface.

PLACER MINING: That form of mining in which the surficial detritus (surface soil) is washed for gold or other valuable minerals (Dictionary of Geologic Terms, Anchor Press, 1979).

PLANNING CRITERIA: The standards of rules and other factors developed by the manager and inter-disciplinary team for their use in forming judgments about decision making, analysis, and data collection during planning.

PLANT VIGOR: The relative well-being and health of a plant as reflected by its ability to manufacture sufficient food for growth and maintenance.

POT HUNTING: Illegal collection of artifacts, either from the land surface or by digging into an archaeological site.

PREFERRED: That plan alternative, in the environmental assessment or impact statement, which management has initially selected as offering the most acceptable resolution of the planning issues and management concerns.

PRIMITIVE RECREATION: Nonmotorized and undeveloped types of outdoor recreation activities.

PRIORITY WILDLIFE SPECIES: Federally listed threatened and endangered species and high profile candidate species; state-listed species which serve as environmental barometers for habitat quality as well as other species; big game species of particularly high economic, ecological and recreational value.

PROPER FUNCTIONING RIPARIAN CONDITION: One which maintains a stable flow regime, can absorb and dissipate energy of floodwaters, has a stable vegetative cover of all ages of plants (representing all species appropriate for the area), filters out sediment from the water, improves water quality and provides food, water, shade and cover for wildlife.

PROPER USE: (1) A degree of utilization of current year's growth which, if continued, would achieve the management objectives and maintain or improve the long-term productivity of the site or (2) the percentage a plant is utilized when the rangeland as a whole is properly utilized. Proper use varies with time and systems of grazing. Proper use is synonymous with proper utilization.

PUBLIC PARTICIPATION: Part of the BLM's planning system that provides the opportunity for citizens as individuals or groups to express local, regional and national perspectives and concerns in the rulemaking, decision-making, inventory and planning processes for public land. This includes public meetings, hearings or advisory boards or panels that may review resource management proposals and offer suggestions or criticisms for the various alternatives considered.

PUBLIC RANGELANDS IMPROVEMENT ACT OF 1978: A federal law that sought to improve rangeland conditions on the public lands. Among its provisions, the Public Rangelands Improvement Act (1) required the continuing inventory and monitoring of rangeland conditions, (2) specified that allotment management plans be developed "in careful and considered consultation, cooperation and coordination with lessees, permittees and landowners involved" and (3) set a new grazing fee formula based on a combination of fair market value, beef prices and production costs.

RANGE CONDITION: The current productivity of rangeland relative to what the rangeland is naturally capable of producing.

RANGE IMPROVEMENT: An authorized activity or program on or relating to rangelands which is designed to improve production of forage, change vegetation composition, control patterns of use, provide water, stabilize soil and water conditions and provide habitat for livestock, wild horses and burros and wildlife. The term includes, but is not limited to, structures, treatment projects and use of mechanical means to accomplish the desired results.

RANGELAND: A kind of land that supports vegetation useful for grazing or browsing, on which routine management of that vegetation is through manipulation of grazing rather than cultural practices. Rangeland includes natural grasslands, marshes, riparian zones and wet meadows. Rangeland includes lands revegetated naturally or artificially to provide a plant cover which is managed like native vegetation.

RANGE SITE: See ecological site.

RANGE TREND: The direction of change in range trend.

RECORD OF DECISION: A required document that concisely reports the decision reached on an action examined through the National Environmental Policy Act process in an environmental impact statement.

RECREATION MANAGEMENT AREA (RMA): An area requiring explicit recreation management to achieve the BLM's recreation objectives and to provide specific recreation opportunities. Special management areas are identified in the Resource Management Plan, which also defines the management objectives for the area. The BLM's recreation investments are concentrated in these areas.

RECREATION OPPORTUNITY SPECTRUM (ROS): A conceptual framework for inventory, planning and management of recreation resources.

RECREATIONAL OPPORTUNITY: Those outdoor recreational activities which offer satisfaction in a particular physical, social and management setting in the EIS area. These activities are primarily hunting, fishing, wildlife viewing, photography, boating and camping.

REHABILITATION: Restoration of damaged or lost environment as nearly as possible to its original state.

RESEARCH NATURAL AREA (RNA): A physical or biological unit in which current natural conditions are maintained as much as possible. In a research natural area, activities such as livestock grazing and vegetation manipulation are prohibited unless they replace natural process and contribute to an area's protection and preservation, and recreation activities such as camping and gathering plants are discouraged.

RESOURCE AREA: An administrative subdivision of a BLM district.

RESOURCE MANAGEMENT PLAN (RMP): A written land use plan that outlines the BLM's decisions and strategies for management of the resources in a particular area, replacing the management framework plan in the BLM's planning system.

REST-ROTATION GRAZING SYSTEM: A grazing plan providing for systematic and sequential grazing by livestock and resting from livestock use on a range area to provide for production of livestock while maintaining or improving the vegetation and soil fertility.

RIGHT-OF-WAY (ROW): The legal right for use, occupancy or access across land or water areas for a specified purpose or purposes. Also, the lands covered by such a right.

RIGHT-OF-WAY CORRIDOR: The designation of an existing group of rights-of-way capable of accommodating one or more compatible rights-of-way of like kind. such a corridor contains only public land.

RIPARIAN HABITAT (Areas): Lands directly influenced by permanent water and having visible characteristics, e.g., vegetation, reflective of the presence of permanent water, i.e., surface and /or subsurface.

SALABLE MINERALS: Minerals such as common varieties of sand, stone, gravel, pumicite and clay that may be acquired under the Materials Act of 1947, as amended.

SALINE SOIL: Soil containing soluble salts in an amount that impairs growth of plants. A saline soil does not contain excess exchangeable sodium.

SALINITY: A measure of total dissolved solids including all inorganic material in solution, whether ionized or not.

SATISFACTORY WATERSHED CONDITION: A qualitative term relating to the extent of sheet, rill or gully erosion which has taken place within a watershed. This assessment or determination is based on professional judgment.

SCENIC CORRIDOR: The area encompassing the foreground-middleground zone along roadways.

SCENIC QUALITY: The visual aesthetics of an area based on key factors of landforms, vegetation, color, water, influence of adjacent scenery, scarcity and amount of cultural modification. It indicates the visual quality of an area relative to other scenery in the region. BLM ratings are A = exceptional/extraordinary, B = moderate and C = low/common.

SCOPING PROCESS: An early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. Scoping may involve public meetings, field interviews with representatives of agencies and interest groups, discussions with resource specialists and managers, written comments in response to news releases, direct mailings and articles about the proposed action and scoping meetings.

SEASON OF USE: The time of livestock grazing on a range area.

SEDIMENT: Soil or mineral material transported by water and deposited in streams or other bodies of water.

SEGREGATION: Any action to allow an application (exchange) that suspends the operation of the general public land laws; to separate, set apart or remove lands from the jurisdiction of part or all of the public land minerals laws.

SEMIPRIMITIVE MOTORIZED RECREATION: Those recreation opportunities available in backcountry areas with natural settings and having little or no development, where visitor use is relatively low and few visitor controls are apparent and in which travel by motorized vehicle is permitted.

SEMIPRIMITIVE NONMOTORIZED RECREATION: Areas similarly described under semiprimitive motorized recreation, but where vehicle use is not permitted.

SENSITIVE SOILS: Soils that are erodible, have a relatively high content of clay and silt and are slightly to moderately saline.

SENSITIVE SPECIES (Plants and Animals): Species occurring on public lands and requiring special management attention to protect it and to prevent irreparable damage to the important resources or other natural systems or processes on which it depends. The sensitive list is made up of species listed in category 3C in the Federal Register, Vol. 50 No. 188, September 27, 1985, page 39526.

SERAL STAGE: A rating applied to an area of land which is indicative of the present plant species composition and density in relation to its potential natural (climax) community. It is an expression of the relative degree (or percent) to which the kind, proportion and amount of plants in a community resemble the climax community. Air-dry weight is the unit of measure used in this comparison. The seral stages and the percent by which they resemble climax are:

Early seral	**0 to 25 percent**
Mid seral	**26 to 50 percent**
Late seral	**51 to 75 percent**
Potential natural community	**76 to 100 percent**

SHRUB: A plant that has a persistent woody stem, a relatively low growth habitat and generally produces several basal shoots instead of a single trunk.

SPECIAL RECREATION MANAGEMENT AREA (SRMA): An area requiring explicit recreation management to achieve the BLM's recreation objectives and to provide specific recreation opportunities. SRMAs are listed in resource management plans, which also define SRMA management objectives. The BLM's recreation investments are concentrated in SRMAs.

SPECIAL STATUS SPECIES: Wildlife and plant species either federally listed or proposed for listing as endangered or threatened, state-listed or BLM-determined priority species.

SPLIT ESTATE: The surface estate and the mineral estate of a parcel of land belong to different owners.

STABILIZATION (Cultural): Protective techniques usually applied to structures and ruins to keep them in their existing condition, prevent further deterioration and provide structural safety without significant rebuilding.

STATE INDEMNITY SELECTION: Lands owed to the state to replace land that the state would have received as a term of statehood but did not because the lands were already appropriated under the public land laws or were within adjacent states.

STIPULATION: A requirement, usually dealing with protection of the environment, that is made a part of a lease, grant or other authorizing document.

STRATEGIC MINERALS: Minerals essential to the national defense, for the supply of which the United States is wholly or in part dependent upon sources outside its continental limits and for which strict measures are needed to control conservation and distribution.

SUBSURFACE MINERALS: Minerals found below the earth's surface, including oil and gas.

SUSTAINED YIELD: Achieving and maintaining a permanently high level of annual or regular-period production of renewable land resources without impairing the productivity of the land and its environmental values.

THREATENED SPECIES: Any plant or animal species that is likely to become an endangered species throughout all or a significant portion of its range, as defined by the U.S. Fish and Wildlife Service under the authority of the Endangered Species Act of 1973.

TOPOGRAPHY: The relief and contour of the land, especially when taken collectively, as over a region or large area.

TRAIL: As related to off-highway vehicle designations, a single track route designated and constructed for vehicle use; does not include game trails, cow trails, etc.

TREND: The direction of change in range condition (ecological status or resource value ratings) observed over time.

TRESPASS: The use of public land without proper authority, resulting either from a willful or negligent act.

UNGULATE: A hoofed mammal, i.e., cattle, horses, burros, bighorn sheep, deer.

UNSATISFACTORY WATERSHED CONDITION: A qualitative term relating to the extent of sheet, rill, or gully erosion which has taken place within a watershed. This assessment or determination is based on professional judgment.

UTILIZATION: The proportion or degree of current year's forage production that is consumed or destroyed by animals (including insects). May refer to either a single plant species, a group of species or the vegetation as a whole. Utilization is synonymous with use.

VEGETATION COVER: The proportion of ground surface under live aerial plants or the combined aerial parts of plants and mulch.

VEGETATION TYPE: A plant community with distinguishable characteristics.

VISITOR DAY: Twelve visitor hours which may be aggregated continuously, intermittently or simultaneously by one or more persons.

VISUAL ELEMENTS: The elements that determine how the character of a landscape is perceived. *Form*: the shapes of

objects such as landforms or patterns in the landscape. *Line*: perceivable linear changes in contrast resulting form abrupt differences in form, color and texture. *Color*: the reflected light of different wavelengths that enables the eye to differentiate otherwise identical objects. *Texture*: the visual result of variation in the surface of an object.

VISUAL RESOURCE MANAGEMENT (VRM) CLASSES: Classification containing specific objectives for maintaining or enhancing visual resources, including the amount of acceptable change to the existing landscape to meet established visual goals.

Class I - (Preservation) Provides for natural, ecological changes only. This class includes wilderness areas, some natural areas, some wild and scenic rivers and other similar sites where landscape modification should be restricted.

Class II - (Retention of the landscape character) Includes areas where changes in any of the basic elements (form, line, color or texture), caused by management activities, should not be evident in the characteristic landscape.

Class III - (Partial retention of the landscape character) Includes areas where changes in the basic elements caused by management activities may be evident in the characteristic landscape. The changes, however, should remain subordinate to the existing landscape character.

Class IV - (Modification of the landscape character) Includes areas where changes may subordinate the original composition and character. They should, however, reflect what could be a natural occurrence in the characteristic landscape.

WASH: A depression or channel of an intermittent stream.

WATERSHED: All land and water within the confines of a drainage divide.

WETLANDS: Lands including swamps, marshes, bogs and similar areas such as wet meadows, river overflows, mud flats and natural ponds.

WILD AND SCENIC RIVERS ACT: Federal law that instituted a National Wild and Scenic Rivers System to preserve in free-flowing condition selected rivers that have outstanding scenic, recreational, geologic, fish and wildlife, historic and cultural values.

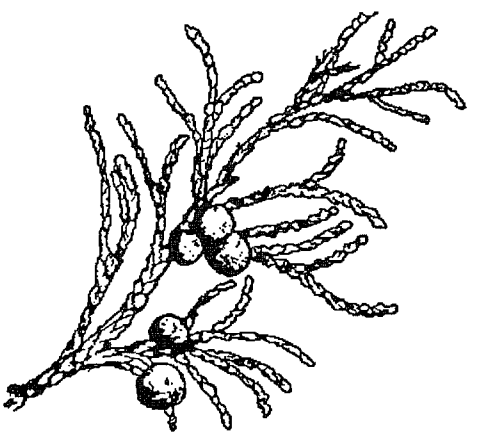
WILDERNESS AREA: An area officially designated as wilderness by Congress. Wilderness areas will be managed to preserve wilderness characteristics and shall be devoted to the public purposes of conservation and recreational, scenic, scientific, educational and historical uses.

WILDERNESS MANAGEMENT POLICY: The BLM policy that governs administration of public lands designated as wilderness areas by Congress. It is based on the Wilderness Act of 1964 and the Federal Land Policy and Management Act of 1976. The Federal Land Policy and Management Act requires a wilderness area to be a roadless area or island that has been inventoried and found to have wilderness characteristics as described in Section 603 of FLPMA and in Section 1(c) of the Wilderness Act.

WILDLIFE: All species of mammals, birds, fish, amphibians and reptiles found in a wild state.

WILDLIFE HABITAT: All elements of a wild animal's environment necessary for completion of its life cycle, including food, cover, water and living space.

WITHDRAWAL: Withholding an area of federal land from settlement, sale, location or entry under some or all of the general land laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; transferring jurisdiction over an area of federal lands from one department, bureau or agency to another department, bureau or agency.



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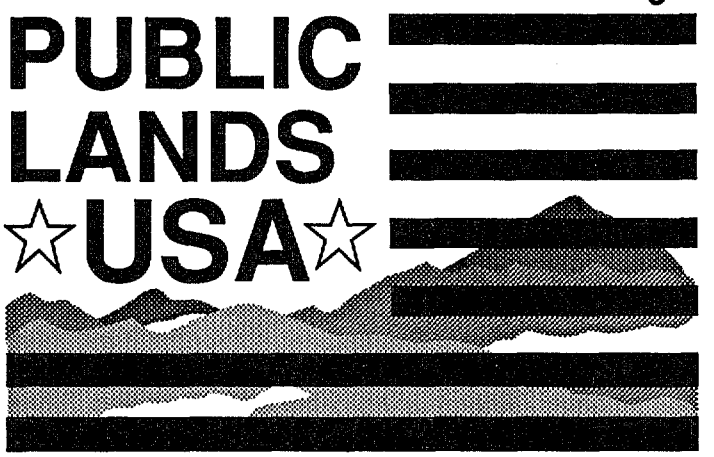

USE ☆ SHARE ☆ APPRECIATE

Form 1542-2
(January 1987)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Kingman Resource Area
2475 Beverly Ave.
Kingman, Arizona 86401

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300