



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

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Final

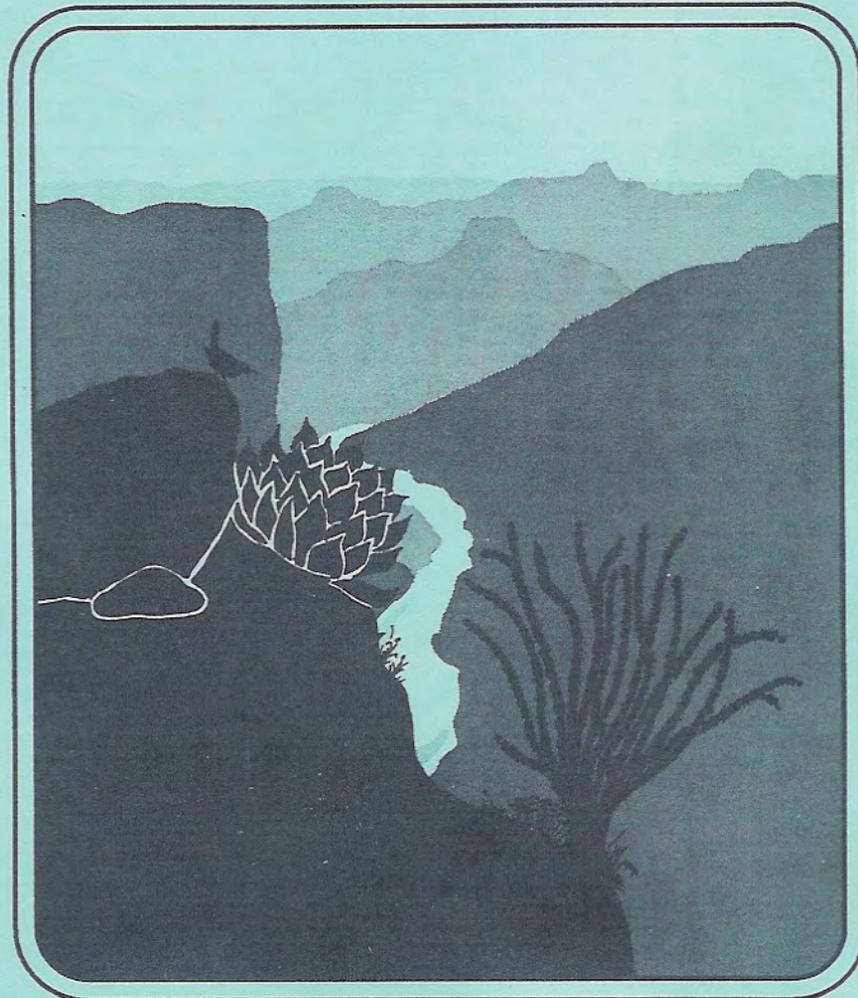
Safford District Office
425 East 4th Street
Safford, Arizona 85546

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August 1991



Safford District Resource Management Plan

Environmental Impact Statement



Final Safford District Resource Management Plan and Environmental Impact Statement

Prepared by

U.S. Department of the Interior
Bureau of Land Management
Safford District
Arizona


Arizona State Director

This Final Environmental Impact Statement describes and analyzes four alternatives for management of approximately 1,400,000 acres of public land in southeastern Arizona. The alternatives analyzed include Alternative A (the Preferred Alternative), Alternative B (a protection oriented alternative), Alternative C (a production oriented alternative) and Alternative D (the No Action Alternative).

For further information contact Cindy Alvarez, Planning and Environmental Coordinator, Safford District Office, Bureau of Land Management, 425 East 4th Street, Safford, Arizona 85546 or call (602) 428-4040.



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
SAFFORD DISTRICT OFFICE
425 E. 4TH STREET
SAFFORD, ARIZONA 85546
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IN REPLY REFER TO:
1615
(040)

Dear Public Land User:

Enclosed is the Final Safford District Resource Management Plan and Environmental Impact Statement for your information. The draft document was published and released for public comment January 5, 1990. After an extension was provided to accommodate comments on Areas of Critical Environmental Concern, the comment period concluded June 5, 1990.

Passage of the Arizona Desert Wilderness Bill of 1990 on November 28, 1990 required revisions of the final plan and environmental impact statement to reflect the changes created by the passage of the wilderness legislation. These revisions include boundary changes for some of the Areas of Critical Environmental Concern and the deletion of some areas from designation recommendations.

The resource management planning process includes an opportunity for administrative review via a plan protest to the BLM's Director if you believe the approval of a 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 that will assure the greatest consideration to your point of view.

Only those persons or organizations who participated in our planning process may protest. If our records do not indicate that you had any involvement in any stage in the preparation of the proposed Resource Management Plan, your protest will be denied without further review.

A protesting party may raise only those issues which were submitted for the record during the planning process. New issues raised in the protest period should be directed to the Safford District, the San Simon Area Manager or the Gila Area Manager for consideration in plan implementation, as potential plan amendments or as otherwise appropriate.

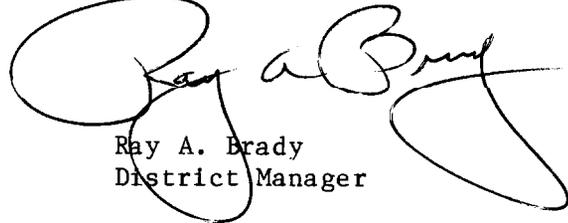
The period for filing protests begins when the Environmental Protection Agency publishes in the Federal Register its notice of Receipt of the final environmental impact statement containing the proposed Resource Management Plan or amendment. The protest period extends for 30 days. There is no provision for any extension of time. To be considered "timely", your protest must be post-marked no later than the last day of the protest period. Also, although not a requirement, we suggest that you send your protest by certified mail, return receipt requested.

Protests must be filed to: Director (760)
Bureau of Land Management
1849 "C" Street, NW
Washington, D.C. 20240

In order to be considered complete, your protests 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 the plan being protested. To the extent possible, this should be done by reference to specific pages, paragraphs, sections, tables, maps, etc., included in the proposed Resource Management Plan.
4. A copy of all documents addressing the issue or issues that you submitted during the planning process or a reference to the date the issue or issues were discussed by you for the record.
5. A concise statement explaining why the BLM State Director's **proposed** decision is believed to be incorrect. This is a critical part of your 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** us with the benefit of your information and insight. In this case, the Director's review will be based on the existing analysis and supporting data.

Sincerely,



Ray A. Brady
District Manager

Summary

Purpose and Need

This final Resource Management Plan and Environmental Impact Statement contains several changes from the draft version. During the preparation of the Final Resource Management Plan/Environmental Impact Statement, the Arizona Desert Wilderness bill was passed by Congress and on November 28, 1990 was signed into law by President George Bush. The Resource Management Plan/Environmental Impact Statement has been modified to reflect the changes created by the passage of the Wilderness bill. In addition, the Gila Box Riparian National Conservation Area was so designated by Congress. Other significant changes to alternatives are:

1. Wild and Scenic River eligibility and classification determinations have been made for five additional rivers; Aravaipa Creek, Turkey Creek, Swamp Springs-Hot Springs Canyon, Bonita Creek and San Pedro River. Suitability determinations have been deferred.
2. Identification of specific tracts of lands deemed suitable for acquisition. See Map 27 for locations.
3. Deletion of mountain bikes from Off -Highway Vehicle definition.
4. During the development of this Resource Management Plan/Environmental Impact Statement Congressional action created six additional wilderness areas in the Safford District (See Map 25). The new wilderness areas are: Needles Eye, North Santa Teresa, Fishhooks, Redfield Canyon, Dos Cabezas Mountains and Peloncillo Mountains. In addition, the existing Aravaipa Canyon Wilderness has been expanded. Some of the Areas of Critical Environmental Concern described in the draft Resource Management Plan/Environmental Impact Statement are entirely within the boundaries of a wilderness area. Area of Critical Environmental Concern prescriptions will be carried forward into the wilderness management plan where appropriate. In other cases, some of the Area of Critical Environmental Concern lands are outside the wilderness boundaries. These lands will be carried forward as Areas of Critical Environmental Concern but with adjusted acreages.
5. The same Wilderness legislation created the Gila Box Riparian National Conservation Area which includes the Bonita Creek Area of Critical Environmental Concern and a large portion of the Gila Box Area of Critical Environmental Concern. Area of Critical Environmental Concern prescriptions will be carried forward into the National Conservation Area manage-

ment plan where appropriate. As with the wilderness areas, the remaining Area of Critical Environmental Concern lands outside the National Conservation Area will be carried forward.

This Resource Management Plan/Final Environmental Impact Statement has been prepared to guide management of 1,400,000 acres of public land in the Safford District (southeastern Arizona) for approximately the next 15 years. The decisions in the approved Resource Management Plan/Record of Decision will determine which use or combination of uses will be emphasized in the District. The Resource Management Plan will also decide which uses are not appropriate.

The Resource Management Plan will replace four existing Management Framework Plans Winkelman, Geronimo, Black Hills and San Simon. These plans have guided BLM's management since the early 1970s. Much of the information used in preparing the Management Framework Plans and the decisions of those plans that are still valid have been incorporated into this Resource Management Plan. Management Framework Plans were not prepared for scattered parcels of public land in Cochise and southwestern Graham Counties. The decisions of the approved Resource Management Plan will guide management of these areas.

In 1989, BLM completed a land management plan for 47,668 acres of public lands along the upper San Pedro River. The San Pedro River Riparian Management *Plan* (BLM 1989) provides direction for management of the natural and cultural resources of that property. During the preparation of the plan, Congress designated these lands and adjacent public lands as the San Pedro Riparian National Conservation Area. This Resource Management Plan incorporates the decisions of the *San Pedro River Riparian Management Plan* and sets management direction for lands in the National Conservation Area not covered by that plan.

Planning Issues and Management Concerns

Decisions in the approved Resource Management Plan will resolve significant issues and management concerns about specific land management opportunities and problems. Four issues and 10 management concerns were identified for analysis in this planning process. The issues and concerns were identified by BLM managers and specialists and the public. The following issues and concerns were analyzed in this Resource Management Plan.

Issue 1 Access

Land ownership in southeastern Arizona varies from large blocks of public, national forest and Indian reservation lands to small scattered tracts of public, state and private lands. The land pattern restricts physical and legal access to some public lands. In this Resource Management Plan, BLM identifies areas where physical and legal access is needed to or across public lands for vehicle and foot or horse travel. The Resource Management Plan will also identify areas where current access should be restricted.

Issue 2 Areas of Critical Environmental Concern and Other Special Management Types

Public lands in the Safford District have a variety of important historic, cultural, scenic and natural values. Areas of Critical Environmental Concern and wild and scenic rivers are special management types that can be used to preserve unique and important resource values. In this Resource Management Plan, BLM will analyze 30 Area of Critical Environmental Concern nominations and several river segments including the Gila River (Gila Box and lower river below Coolidge Dam), the Lower San Francisco, Bonita Creek, Aravaipa Creek, San Pedro River, Hot Springs Creek, Swamp Springs Creek and Turkey Creek for eligibility and classification under the Wild and Scenic Rivers Act.

Issue 3 Off-highway Vehicles

Recreational off-highway vehicle use has increased over the years and continues to grow. Off-highway vehicles can cause significant damage to the environment if not used in the proper manner and in the proper location. BLM manages the public lands for use by off-highway vehicles, but their use must be carefully managed to prevent adverse impacts to the land and its resources. Through this Resource Management Plan, BLM will identify lands that will be opened, limited or closed to off-highway vehicle use.

Issue 4 Riparian Areas

Riparian areas are valuable because of their importance to watershed protection, water quality, wildlife, recreation opportunities and livestock management. Special management attention is needed to ensure these fragile areas are protected and improved while providing for their use. In this Resource Management

Plan, BLM determines the objectives for management of riparian areas and the actions to be taken to implement the objectives.

Ten management concerns are also addressed in this Resource Management Plan:

Management Concern 1	Wildlife Habitat including Threatened and Endangered Species
Management Concern 2	Lands and Realty
Management Concern 3	Outdoor Recreation and Visual Resource Management, including socio-economic
Management Concern 4	Energy and Minerals, including socio-economic
Management Concern 5	Cultural Resources
Management Concern 6	Soil Erosion, especially San Simon
Management Concern 7	Vegetation
Management Concern 8	Water Resources
Management Concern 9	Air Quality
Management Concern 10	Paleontological Resources

This Resource Management Plan determines management objectives for each of these concerns and identify actions that will be taken to implement the objectives. Specific planning questions for each issue and concern are identified in Chapter 1 Purpose and Need. Evaluation criteria are also found in Chapter 1.

Issues considered but not addressed include livestock grazing, wilderness and herbicides and pesticides. Livestock grazing was not addressed because it is considered adequately in the Upper Gila-San Simon and the Eastern Arizona Grazing Environmental Impact Statements. Implementation of the decisions of these documents is still in the implementation and monitoring phases. Present management has the flexibility to modify grazing levels and seasons where necessary. Wilderness was not addressed because of pending legislation which addressed wilderness areas in Arizona. The legislation has since been passed by Congress and signed into law by President George Bush. An Environmental Impact Statement is presently being prepared to provide Bureauwide guidance on the use of pesticides and herbicides. If chemicals are approved for use, site-specific environmental documents will be prepared for each proposal for the use of these chemicals.

Description of the Alternatives

Four alternative plans (including the Preferred Alternative) have been developed to respond to the issues and concerns. Each alternative presents the land-use objectives that will guide management of the public lands for the next 15 years, and the actions BLM will carry out to accomplish those objectives. The following alternatives are analyzed in this Resource Management Plan/Environmental Impact Statement.

Alternative A (Preferred Alternative)

This alternative is BLM's preferred Resource Management Plan. It is designed to respond to the issues and management concerns in a manner that provides a balanced approach to multiple use management. It provides protection to sensitive resources that cannot tolerate disturbance from other activities. It also provides for the consumptive use and development of other resources.

Alternative B (Protection Oriented)

This alternative emphasizes management and protection of natural and cultural resources while still providing for use and development of the public lands. More restrictions are applied to protect natural and cultural resources. This alternative designates the largest areas as Areas of Critical Environmental Concern with more protective management prescriptions. Priority wildlife species include Threatened and Endangered species and their habitat, but not game species. Actions are proposed to protect water quality and quantity and additional management emphasis is given to protection and enhancement of riparian areas. The protection of cultural resources will be emphasized before any area is used.

Alternative C (Production Oriented)

This alternative provides more emphasis than Alternative A or B to use and develop public lands. Fewer areas are managed to protect natural and cultural resources and specific prescriptions are less restrictive to use and development activities. While Areas of Critical Environmental Concern are still designated, they are generally smaller and less restrictive on other uses. Protection and enhancement of riparian areas and Threatened and Endangered wildlife species are emphasized as are scientific use and recreational/interpretive development of cultural resources. Most of the planning area is open to off-highway vehicles.

Alternative D (No Action or Current Management)

This alternative continues implementation of the current land use plans. The allocation of lands and resources would remain unchanged. The analysis of the impacts of implementing Alternative D provides a basis for comparing the effects of the other three alternatives.

Environmental Consequences

The environmental consequences of implementing each alternative are analyzed in this Resource Management Plan/Environmental Impact Statement. The level of detail of the analysis for each element of the environment varies with the degree of anticipated impact or benefit. The term impact refers to an adverse effect whereas the term benefit refers to a beneficial effect. The planning team concluded that no significant impacts or benefits would occur to topography, air or climate with the implementation of any alternative.

Alternative A (Preferred Alternative)

The selection of this alternative would give moderate to high benefits to paleontological and cultural resources through the protection measures provided by Area of Critical Environmental Concern management. Elsewhere, the construction of Timber Draw detention dam would cause high impacts to archaeological sites within portions of the project area, and would require intensive mitigation prior to construction.

Area of Critical Environmental Concern management would provide moderate benefits to wildlife habitat and high benefits to riparian vegetation through implementation of management prescriptions. Restrictions on off-highway vehicle use and mining and mineral leasing activities would also have increased benefits for wildlife habitat by minimizing disturbance of wildlife and their habitat.

Restrictions on mining, mineral leasing activities and off-highway vehicle use would provide some benefits to soil and water quality by reducing surface disturbing activities. Construction or repair of detention dams would have a moderate benefit to soil retention in the San Simon River channel and the Bear Springs Flat area. Upland vegetation would receive some benefits from land treatments and restrictions on off-highway vehicle use.

Mineral entry withdrawals, no surface occupancy stipulations and restrictions on mineral material sales would have a minor adverse impact on segments of the local economy dealing with minerals extraction and exploration.

Alternative B (Protection Oriented)

Because the theme of this alternative stresses management and protection of resources, its implementation would provide high benefits to paleontological resources by protecting known fossil deposits. Moderate benefits would be gained for wildlife habitat, riparian vegetation, cultural resources and soils because of the protective measures described for the various actions. Upland vegetation would receive some benefits. The construction of Timber Draw detention dam would cause high impacts to archaeological sites in part of the project area. Low socio-economic impacts would result from mineral restrictions.

Alternative C (Production Oriented)

Management of Areas of Critical Environmental Concern would provide moderate benefits to riparian vegetation and cultural and paleontological resources. Off-highway vehicle use, however, would cause moderate impacts to riparian areas, wildlife habitat and cultural and paleontological resources due to disturbance caused by vehicles. The construction of Timber Draw detention dam would result in high impacts to archaeological sites but moderate benefits to soils by regrading a highly eroded area.

Mineral entry withdrawals, no surface occupancy stipulations for mineral leasing and restrictions on mineral material sales would provide low benefits to riparian vegetation, wildlife and their habitat and cultural and paleontological resources through reductions of surface disturbing activities.

That portion of the local economy providing goods and services for off-highway vehicle users would receive some increased benefits from the implementation of this alternative through increased opportunities created by an expanded use area. The mineral industry and that part of the local economy providing goods and services to primitive recreation users would suffer a low impact due to decreased opportunities.

Alternative D (No Action/Current Management)

Continuation of current management practices would provide some benefits to water resources by controlling Off-Highway Vehicle activity that causes soil erosion and sedimentation of streams and rivers. This alternative would also provide moderate benefits to soil, wildlife habitat, riparian vegetation and cultural and paleontological resources by designation of Areas of Critical Environmental Concern. The construction of Timber Draw detention dam would result in high impacts to archaeological sites in the project area.

Mining and mineral leasing restrictions would cause some impacts to the economy. Designation of Areas of Critical Environmental Concern would provide some benefits to the economy of local tourism industries.

Mitigating Measures

No specific mitigating measures have been identified in this Resource Management Plan/Environmental Impact Statement that would reduce the anticipated impacts of implementing the Preferred Alternative. Mitigation will be incorporated when BLM begins implementing the specific actions identified in the Resource Management Plan. At that time, an environmental assessment will be prepared to analyze the specific impacts of each project and identify any needed mitigating measures to deal with those impacts.

Abbreviations

Abbreviations have been limited to a few which are found in some of the tables and in the headings on some of the maps. Those are defined below.

ACEC Area of Critical Environmental Concern

NNL National Natural Landmark

NSO No Surface Occupancy

OHV Off-Highway Vehicle

ONA Outstanding Natural Area

RNA Research Natural Area

RW Right-of-Way

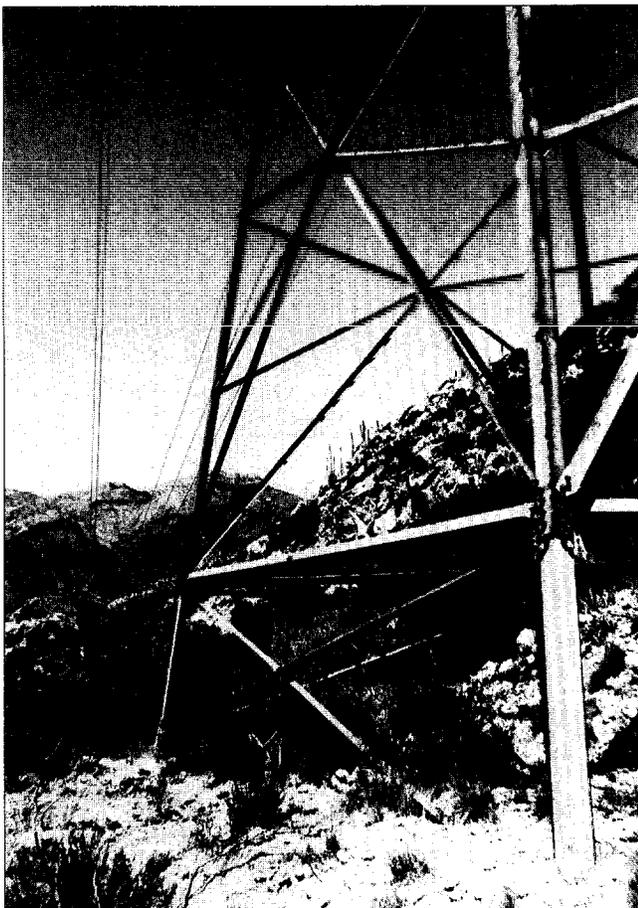
T&E Threatened and Endangered

VRM Visual Resource Management

Introduction

The purpose of this Resource Management Plan/ Environmental Impact Statement is to guide BLM Safford District's management of public lands and resources for the next 15 years. The decisions resulting from the approved Resource Management Plan/ Record of Decision will determine which use or combination of uses will be emphasized by the District. Decisions will also indicate which uses are not appropriate. In certain cases, the decisions will be specific and immediately implementable. In other instances, more specific activity plans and environmental analyses will be prepared before decisions can be implemented. Mitigating measures will be developed prior to implementation of the Resource Management Plan.

Section 202 of the *Federal Land Policy and Management Act of 1976* requires the Secretary of the Interior to develop, maintain and revise land use plans for management of the public lands. To comply with that act, this Resource Management Plan was prepared by the Safford District. The approved plan will be reviewed, in accordance with monitoring plans, to determine its effectiveness and need for revision.



High voltage power lines carrying electricity across public lands.

Monitoring is a critical and never-ending step in the planning process. Resource Management Plans are generally designed to have a planning horizon of about 15 years.

The Resource Management Plan will replace four existing Management Framework Plans. Much of the information collected for use in preparing the Management Framework Plans was used in preparation of the Resource Management Plan. Similarly, many of the Management Framework Plan's decisions are still valid and are carried forward and incorporated into the Resource Management Plan. Two of the District's Planning Units have never had a land use plan developed. One, the Cochise Planning Unit, is located in Cochise County west of the Dos Cabezas and Chiricahua Mountains and is part of the San Simon Resource Area. The other, the San Pedro Planning Unit, is located in northern Cochise and southwestern Graham counties and is part of the Gila Resource Area. These two units are contiguous to one another and comprise scattered tracts of public lands among large blocks of State or private lands.

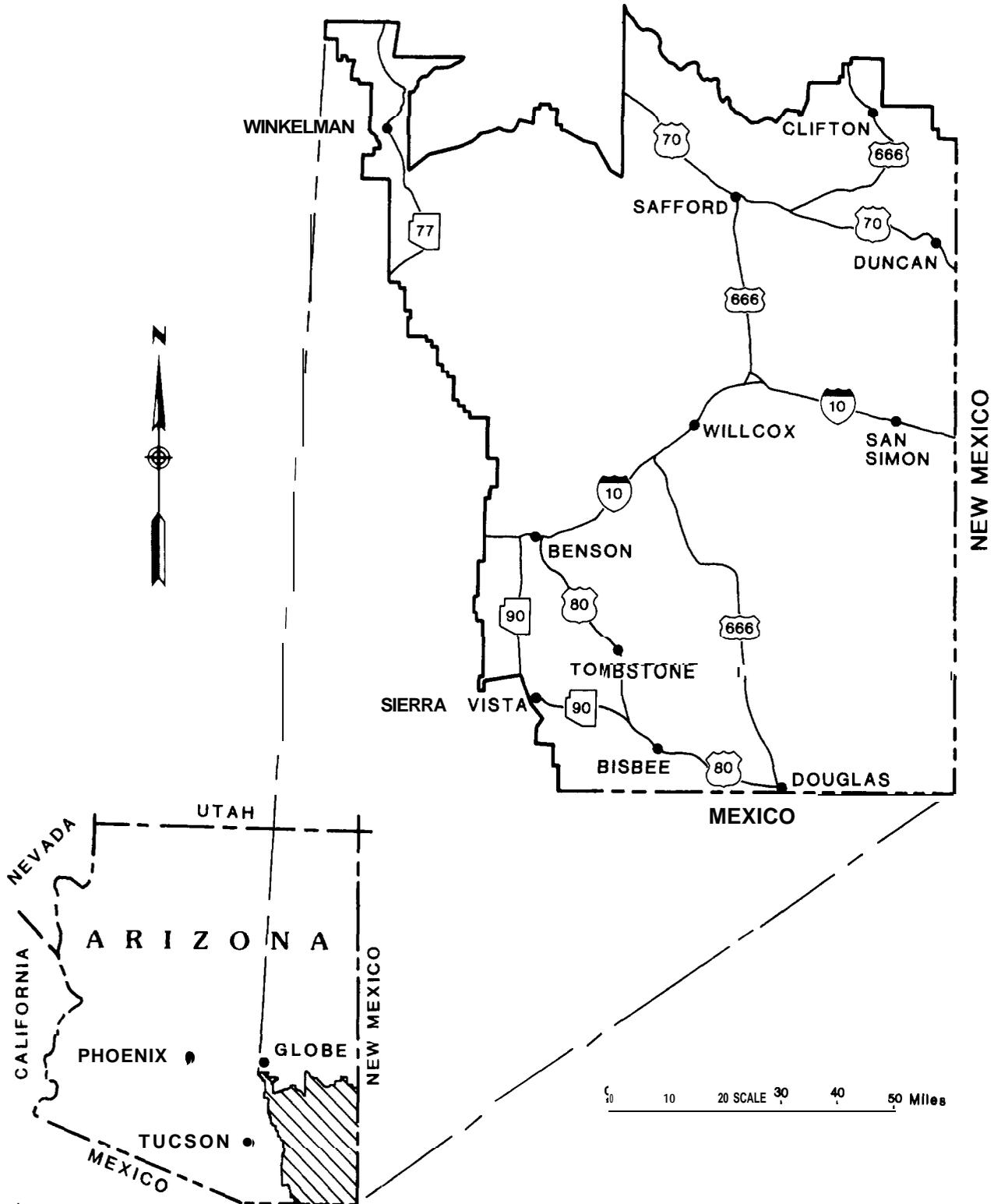
In 1989 BLM completed a land management plan for 47,668 acres of public land along the upper San Pedro River. The *San Pedro River Riparian Management Plan and Environmental Impact Statement* (BLM 1989) provides direction for management of the natural and cultural resources of the property. During the preparation of the San Pedro plan, Congress designated these lands and adjacent public lands (54,189 acres) as the San Pedro Riparian National Conservation Area. Management direction for the adjacent lands was not determined in the San Pedro plan, but will be made in the approved Resource Management Plan, consistent with legislation and the San Pedro plan. The management decisions and mitigations of the *San Pedro River Riparian Management Plan and Environmental Impact Statement* are incorporated into this Resource Management Plan.

Description of the Planning Area

The Safford District manages for over 1,400,000 acres of public land in southeastern Arizona. It encompasses all of Graham, Greenlee and Cochise counties and portions of Pinal, Pima and Gila counties.

The District is in a sparsely populated part of the state. Larger communities include Sierra Vista, Safford/Thatcher, Clifton/Morenci, Duncan, Willcox, Douglas, Bisbee, Benson and Winkelman.

SAFFORD DISTRICT RMP/EIS AREA



The public lands managed by the District lie within the Basin and Range Physiographic Province south of the Colorado Plateau. The area's northwesterly trending mountain ranges reach elevations of almost 11,000 feet. Separating these mountain ranges are broad, flat or gently sloping basins. Public lands range in elevation from about 1,900 feet to 7,500 feet.

The Safford District administers a variety of programs on public lands in the planning area. Historically, management emphasis has been on livestock grazing, mining, wildlife habitat, recreation, watershed and land and realty actions. Increasing demands for management of cultural resources, wilderness, and other multiple-use programs necessitates BLM maintain up-to-date land use plans.

Planning Process Overview

Resource Management Plans are prepared to resolve significant issues and management concerns about specific land management opportunities and problems. Issues and concerns are identified by BLM specialists and managers and the public at the onset of the planning process. Various alternatives to resolve the issues and concerns are developed and analyzed in compliance with the National Environmental Policy Act. The approved Resource Management Plan that results from this process will provide the District Manager with solutions to the issues and concerns and specific guidance for management of all resources on public lands throughout the District.

Under the planning regulations (43 CFR 1610.4) the preparation and implementation of an Resource Management Plan is completed in nine steps as described below (see Figure 1).

Step 1- Identification of Issues

This step is intended to identify resource management problems or conflicts that can be resolved through the planning process. Issues are identified by the public and BLM specialists.

Step 2- Development of Planning Criteria

During this step, preliminary decisions are made regarding the kinds of information needed to resolve the issues, the kinds of alternatives to be developed and the factors to be considered in evaluating alternatives and selecting a preferred resource management plan.

Step 3 - Collection of Inventory Data and Information

This step involves the collection of resource, environmental, social, economic or institutional data needed for completion of the process.

Step 4 - Analysis of the Management Situation

This step calls for an assessment of the current situation. It includes a description of current Bureau management guidance, discussion of existing problems and opportunities to resolve them and consolidation of existing data that is needed to analyze and resolve the identified issues.

Step 5 - Formulation of Alternatives

During this step, several resource management alternatives are prepared, including one for no action and others that strive to resolve the issues while emphasizing either environmental protection or resource production or a balance between the two extremes.

Step 6 - Estimation of the Effects of Alternatives

The physical, biological, economic and social effects of implementing each alternative are estimated in order to allow for a comparative evaluation of impacts.



Coatis are racoon-like mammals found in rocky wooded canyons such as Guadalupe Canyon.

Step 7 - Selection of the Preferred Alternative

Based on the information generated during Step 6, the District Manager identifies a preferred alternative. The draft Resource Management Plan/Environmental Impact Statement document is then prepared and distributed for public review.

Step 8 - Selection of the Resource Management Plan

Based in part on the results of public review and comment, the District Manager will select a proposed resource management plan and publish it along with a final Environmental Impact Statement. A final decision can then be made after a 30-day protest period on the final Environmental Impact Statement. The final decision is documented in a Record of Decision prepared by the District Manager. Unresolved protests are not included in the Record of Decision and a decision will be deferred until the protested portions are resolved. The Record of Decision is a separate environmental document and is not considered as a part of the Final Resource Management Plan /Environmental Impact Statement document.

Step 9 - Monitoring and Evaluation

This step involves the collection and analysis of long-term resource condition and trend data to determine the effectiveness of the plan in resolving the identified issues. Monitoring will also assure that implementation of 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 plan.

Planning Issues and Management Concerns

The BLM planning process relates resource management planning to solving land use problems. Significant or controversial land use problems are referred to as issues. An issue may be general, such as a particular program, or more specific, such as how that particular program affects a specific area. Some issues cannot be resolved through the planning process, but require policy changes or even legislation for a solution. In addition to the major issues, other less controversial land use problems are also evaluated. These are referred to as management concerns and are resolved in the same manner as planning issues to improve management of the public lands. Issues and management concerns are identified by BLM specialists and the public.

Issue-driven planning means that only those parts of current management direction that are believed to be at issue are analyzed through the formulation and evaluation of alternatives. Alternatives are not developed for those parts of current management believed to be satisfactory.

Issues Addressed

Four issues and 10 management concerns are addressed in this document. These issues and management concerns were identified based on the judgment of Bureau planning team members, interagency consultation, public input and review by BLM managers.

Issue I -Access

Land ownership in southeastern Arizona varies from large blocks of public, national forest and Indian reservation lands to small scattered tracts of public, state and private lands. Public use of state, national forest and public lands is often limited by the lack of physical or legal access. In some cases, no roads or trails exist to provide access. More often, however, roads exist, but the public has no legal right to use them because they cross private property or other lands where use is not permitted without the appropriate authorization. Access problems also prevent BLM from administering the public lands. The following questions were analyzed in the planning process.

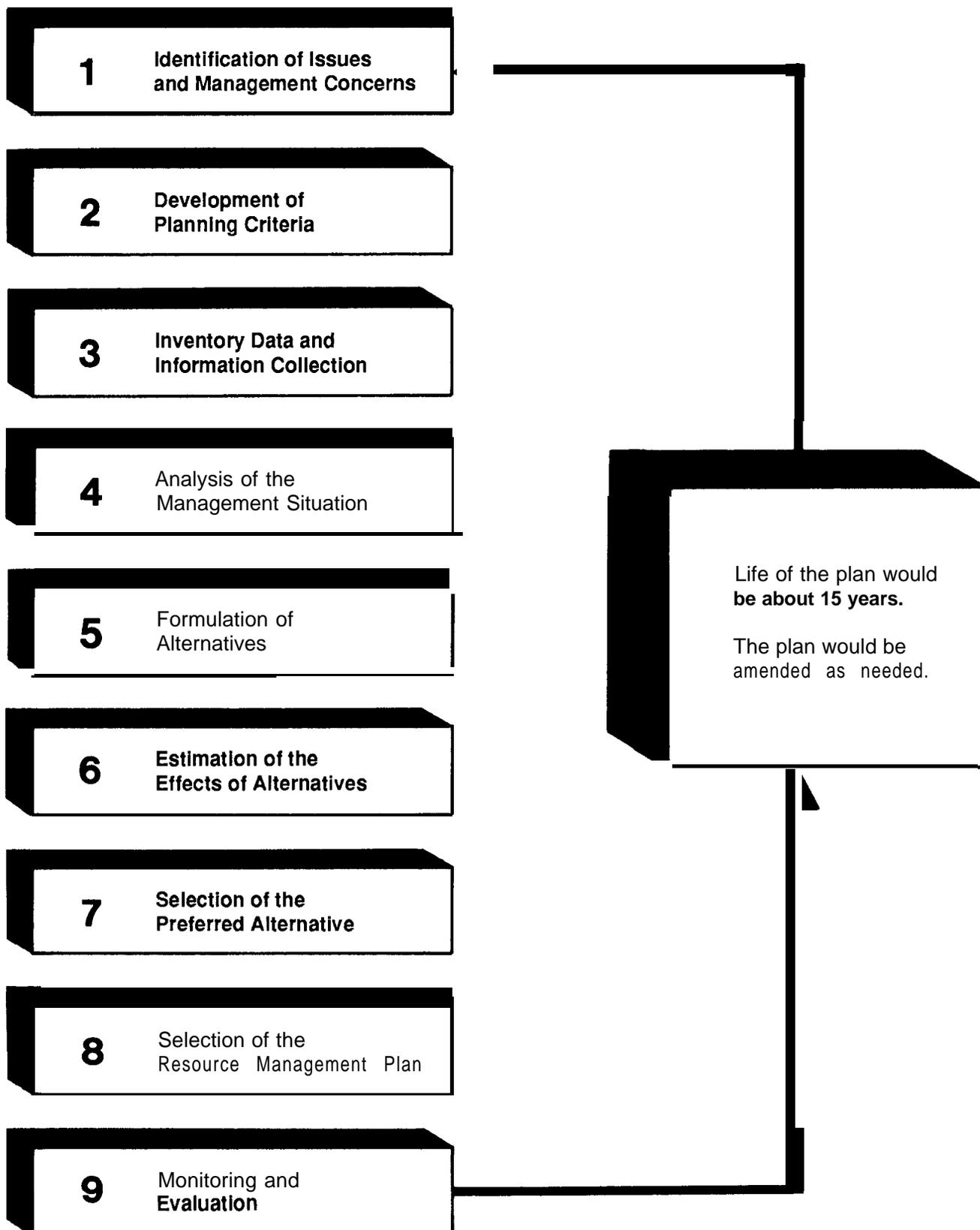
- Where should BLM provide access to or across public lands and what type of access is needed?
- What actions should BLM take to provide access to or across public lands?



Fences are used to divide pastures to facilitate livestock management and to exclude grazing from sensitive areas.

STEPS IN THE RESOURCE MANAGEMENT PLANNING PROCESS

Figure 1



- How should BLM coordinate with other land and resource management agencies and private land-owners to ensure access to state, national forest and public lands?

Issue 2 - Areas of Critical Environmental Concern and Other Types of Special Management

The public lands in the Safford District have a variety of important historic, cultural, scenic and natural values. Areas of Critical Environmental Concern designations may be used to protect these values. They may also be used to identify and manage areas that are hazardous to human life and property. Members of the public and BLM resource specialists have made 30 nominations for Areas of Critical Environmental Concern. (See Appendix 2)

Other types of special management may also be used to protect important resource values. These include wild and scenic rivers, and resource conservation areas. As required by the Federal Land Policy and Management Act of 1976 and the subsequent Guidelines for Fulfilling Requirements of the Wild and Scenic Rivers Act, BLM must study those rivers which qualify for potential addition to the National Wild and Scenic Rivers System. Two rivers in this area (the Gila and San Francisco) were identified by the National Park Service in 1982 as needing further study, and will be addressed in this document as well (see Appendix 3).

The Wild and Scenic River study process involves making an eligibility, classification and suitability determination. This Resource Management Plan / Environmental Impact Statement addresses only eligibility and classification as required by the Guidelines and will defer the suitability determination of all eligible rivers until a later date due to the need for further public involvement. It will only be through the detailed suitability assessment and further public involvement that BLM will make a recommendation through the Secretary of the Interior to Congress on suitable Wild and Scenic Rivers. Only Congress has the authority to designate a Wild and Scenic River through this process.

Resource conservation areas can be designated to give management emphasis to protect special resource values. The following questions were analyzed in the planning process.

- Which public lands, if any, should be designated as Areas of Critical Environmental Concern? How should they be managed?

- Which rivers and streams, if any, are eligible for inclusion in the National Wild and Scenic River System and how should they be managed?
- Which public lands, if any, should be designated as Resource Conservation Areas? How should they be managed?

Issue 3 - Off-highway Vehicles

The use of off-highway recreational vehicles (three and four-wheeled all terrain vehicles, four-wheel drive pickups, dirt bikes, etc.) has increased over the years and continues to grow. BLM manages the public lands for use by off-highway vehicles, but their use must be carefully controlled to prevent unacceptable changes to the land and its resources. Through this planning process, public lands will be designated as open, limited or closed to off-highway vehicle use. The following questions were analyzed in the planning process.

- Which public lands should be open to off-highway use by vehicles? Which should be closed?
- On which public lands should Off-Highway Vehicles be limited to existing or designated roads and trails (including washes), by type of vehicle or by season of use?

An open area is an area where all types of vehicle use is permitted, at all times and anywhere in the designated area. Conversely, a closed area is an area where vehicle use is prohibited even if roads or trails exist within the designated area.

Issue 4 - Riparian Areas

Riparian areas are valuable because of their importance to watershed protection, water quality, aquatic and terrestrial wildlife, threatened and endangered species, cultural resources, recreation opportunities and livestock management. Special management attention is needed to ensure these fragile areas are protected and improved while providing for their use. The following questions were analyzed in the planning process.

- What management objectives should BLM establish for riparian areas to provide for the various public demands for use, yet still protect and enhance these areas?
- What actions should BLM take to achieve these objectives?



Management Concern 1 Wildlife Habitat

Public lands in the Safford District provide habitat for a variety of wildlife species. Other uses of the public lands can be damaging to wildlife habitat if not properly managed. Special attention is needed to restore, maintain or enhance priority species and habitats (see Appendix 4). Integration of habitat management with other resource programs requires careful planning to minimize impacts to these species and habitats while still providing for other uses of the public lands. The following questions were analyzed in the planning process.

- . What species and habitats should receive management priority? What maintenance, improvement and expansion objectives should BLM establish for those species and habitats?
- . For which priority areas should Habitat Management Plans be prepared?
- . What actions should BLM take to achieve the objectives for priority species and habitats?
- . What monitoring objectives should BLM establish for priority habitat?

- . What management objectives should BLM establish for state and federally listed threatened and endangered species? What actions should BLM take to improve habitat conditions and resolve resource conflicts for listed, proposed and candidate species?
- . Where, by what methods, and at what times of the year should animal damage (predator) control activities be authorized?

Management Concern 2 - Lands and Realty

Over the past three years, BLM has been very active in a land ownership adjustment, or exchange program. The purpose of the program was to consolidate land ownership to improve resource management and service to the public and to bring into public ownership lands with significant multiple resource values. Over 250,000 acres of state land and large areas of private land have come into public ownership through exchanges or adjustments.

The public lands are used by the private sector for a variety of purposes, including powerlines, oil pipelines and telecommunication sites. Authorization of these activities takes careful planning to ensure that significant adverse impacts to other resource values and uses do not occur. The following questions were analyzed in the planning process.

- . Which public lands should be sold or exchanged to improve BLM land and resource management efficiency and to provide for the future needs of the public and local communities?
- . What types of lands should BLM acquire through purchase or exchange to support its resource management programs (see Appendix 5)?
- . Which lands should be retained in public ownership to be managed for their various values in a combination that will best serve the needs of the public?
- . Which public lands should be designated right-of-way corridors, communication sites, avoidance areas and exclusion areas?
- . What terms and conditions should be applied to right-of-way grants for corridors and communication sites and for uses outside corridors and communication sites?
- . Which existing public land transportation and utility corridors should not be designated as right-of-way corridors upon plan approval?

Management Concern 3 - Outdoor Recreation and Visual Resource Management

Recreation on public lands continues to increase. Demand for developed recreation sites and open space for more dispersed activities can, at least in part, be satisfied through management of outdoor recreation use of the public lands. Recreation opportunities also contribute to tourism in Arizona, benefitting the economies of communities, counties and the state. BLM also manages visual resources to maintain the scenic quality of the public lands. The following questions were analyzed in the planning process.

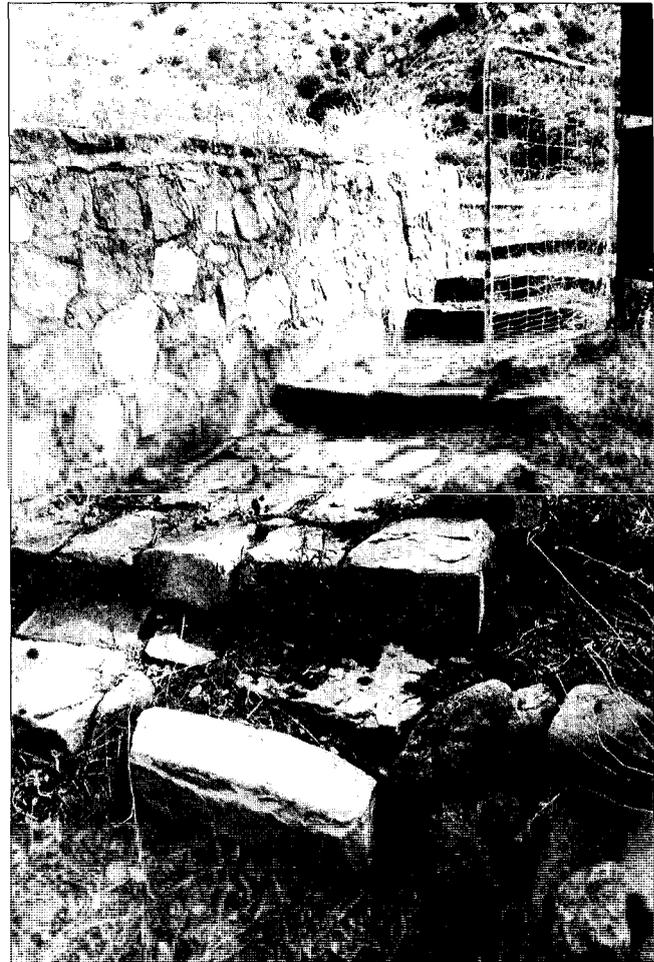
- . Which public lands should be managed with emphasis on outdoor recreation opportunities?
- . What recreation settings should be maintained and what recreation activities, services or facilities should BLM provide?
- . What recreation management strategies should be developed, and what actions should BLM take to maintain or improve established recreation settings?
- . What recreation activity planning priorities should BLM establish for the District?
- . Which public lands should be identified and managed for interpretation of natural and cultural resources and for public education?
- . Which roads, sites, signs and facilities should be signed to provide for public information, interpretation and safety?
- . What visual resource management objectives should BLM establish for recently acquired lands? Existing public lands?

Management Concern 4 - Energy and Minerals

Bureau policy and Department regulations to foster and encourage the development of energy and mineral resources while protecting public lands from undue or unnecessary degradation of the environment. Careful consideration is given to mitigate, where possible, potential impacts of mining operations on other resource values. BLM also has the authority to include stipulations with energy and mineral leases to avoid adverse impacts to other resource values. Utilization of energy and mineral resources, while providing for environmental protection, requires careful analysis.

The following questions were analyzed in the planning process.

- . Which public lands should be open to oil and gas and geothermal energy development subject to the terms and conditions of the standard lease form, minor constraints such as seasonal restrictions or major constraints such as no surface occupancy? Which public lands should be closed to oil and gas and geothermal energy leasing (see Appendix 8)?
- . What management direction should Safford District establish for existing leases, lease stipulations, stipulation waivers and geophysical exploration?
- Which public lands should be closed to the operation of the mining laws (see Appendix 7)?
- . Which public lands should be open to mineral material (sand, gravel, etc.) disposal? Which should be closed?



Remains of historical buildings can be seen along Guadalupe Canyon in extreme southeastern Arizona.

- What terms, conditions or special stipulations should be applied to open areas that may constrain mineral material disposal activities?

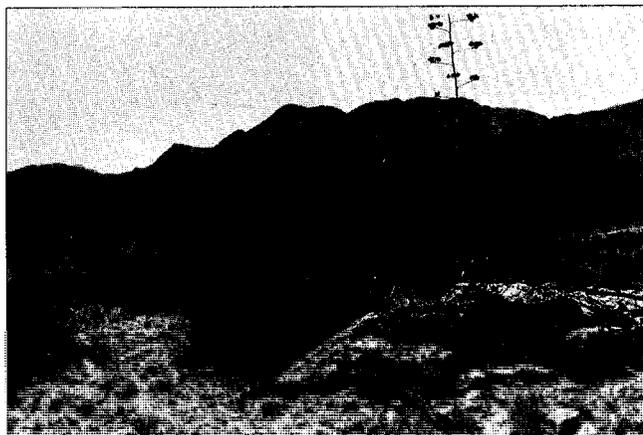
Management Concern 5- Cultural Resources

Cultural resources are an important link to our past. Understanding this link will help BLM as well as public, state and local historians or archaeologists in planning for the future. BLM manages cultural resources for their scientific, historic and management information; sociocultural, educational, recreational or other public values; or to maintain them in their present condition. The resource management plan presents an opportunity to set direction for management of cultural resources on the public lands. The following questions were analyzed in the planning process.

- What management objectives should BLM establish for cultural resources on public lands in the District?
- What actions should BLM take to achieve these objectives?

Management Concern 6- Soil Erosion

Measures to control soil erosion in the San Simon Watershed and to reclaim eroded land have been underway since the 1930s. Since the 1950s BLM has built structures on the main and side channels of the San Simon River and reseeded over 12,000 acres of the watershed for that same purpose. While channel structures have produced the desired results, seedings have met with minimal success. Special attention is needed to determine if further structural work will be required to complete rehabilitation of the watershed.



Rolling hills around Ft. Bowle National Historic Site provide hiking opportunities, and contain parts of the historic Butterfield State Route.

The following questions were analyzed in the planning process.

- What objectives should BLM establish for management of soils in the San Simon Watershed, and what actions should be taken to achieve those objectives?
- What objectives should the District establish to reduce the salinity of water and what actions should be taken to achieve those objectives?

Management Concern 7 - Vegetation

Vegetation is an integral part of an ecosystem and how BLM manages that resource on public land will affect the health of the environment. Careful consideration needs to be given about how BLM should manage firewood cutting, threatened and endangered plant species, re-establishment of vegetation and land treatments for enhancement of vegetation. The following questions were analyzed in the planning process.

- Which public lands should be available for firewood cutting and what terms and conditions should be applied to a permit to cut firewood?
- What management objectives should BLM develop to re-establish upland vegetative species, and what actions should be taken to achieve those objectives?
- What management objectives should BLM establish to protect and enhance threatened and endangered species, and what actions should be taken to achieve those objectives?
- On which public lands should land treatments (vegetation manipulation) be used to protect, restore, establish or enhance vegetation species? What types of treatments should BLM use (root plow, herbicides, prescribed fire, etc.)?

Management Concern 8 - Water Resources

In the dry environment of the Southwest, water is often the limiting factor to biological resources and use of the public lands. Maintenance of water quality and quantity is critical to the well-being of the environment, the public and many of BLM's programs (see Appendix 9). The following questions were analyzed in the planning process.

- What groundwater management objectives should BLM establish for the public lands managed by the District and what actions should be taken to achieve those objectives?
- For which public lands should water management plans be prepared?
- What water quality objectives should BLM establish for the public lands within the District and what actions should be taken to achieve those objectives?
- Where should Unique Waters nominations be made? How should BLM manage these areas if designated?
- Where should BLM focus its efforts to secure instream flows for riparian, wildlife and recreation purposes?

Management Concern 9 - Air Quality

Under the Clean Air Act, public lands in the Safford District 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 that take place on public lands may have created impacts on air quality, but the activities must comply with the Clean Air Act standards. The following questions were analyzed in the planning process.

- What management objectives should BLM establish for maintenance of air quality on public lands within the District?
- What actions should BLM take to achieve these objectives?

Management Concern 10 - Paleontological Resources

Southeastern Arizona contains many paleontological resources. This Resource Management Plan gives the Bureau an opportunity to set direction for how these resources should be managed on the public lands for the public benefit. The following questions were analyzed in the planning process.

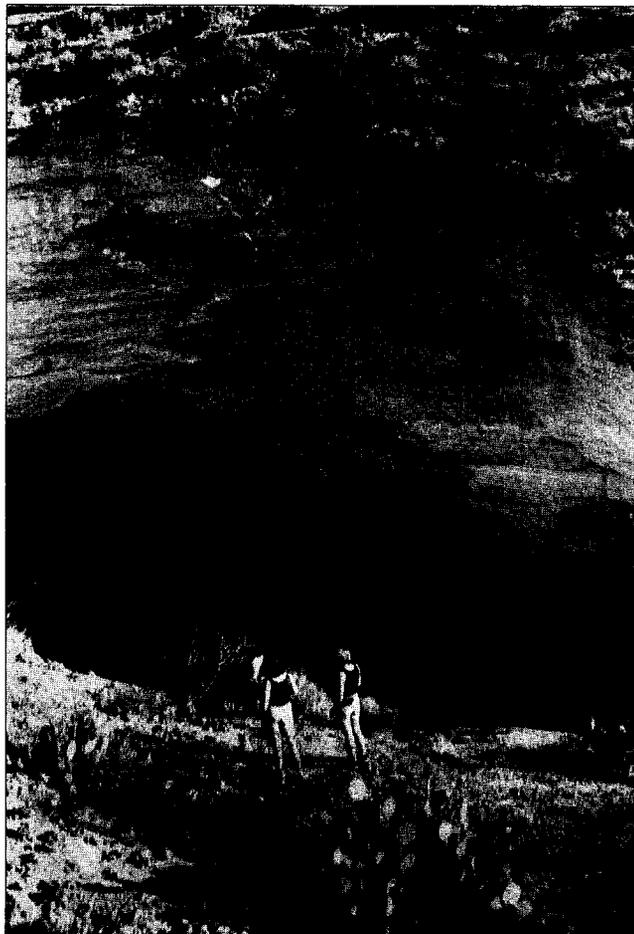
- What management objectives should BLM establish for paleontological resources?
- What actions should BLM take to achieve these objectives?

Issues Considered But Not Analyzed

The following issues were identified early in the process, but were not analyzed in detail:

Livestock Grazing The Upper Gila-San Simon Grazing Environmental Impact Statement was completed in 1978 and its decisions have been implemented since then. Monitoring studies are in place and analysis indicates that the rangeland condition is improving under the present management. Present management has the flexibility to modify grazing levels and seasons, where necessary. In addition, the *Eastern Arizona Grazing Environmental Impact Statement* was completed in 1987 and the decisions made in that document are beginning to be implemented. The grazing decisions are incorporated by reference.

Wilderness Districtwide wilderness studies were completed in 1989. On November 28, 1990, President George Bush signed into law the Arizona Desert



Hikers above Oak Grove Canyon view the Goat Corral amphitheater in the canyon below.

Wilderness Act which created six new wilderness areas in the District, an expanded Aravaipa Canyon Wilderness and the Gila Box Riparian National Conservation Area. No further analysis of this issue is necessary at this time. Baker Canyon WSA will continue to be managed as a study area until New Mexico addresses Wilderness designation.

Herbicides and Pesticides An environmental impact statement *Vegetation Treatment on BLM Lands* is being prepared to provide Bureauwide guidance on the use of pesticides and herbicides. If chemicals are approved for use, site specific environmental analyses will be prepared for each project proposing the use of herbicides or pesticides.

Planning Criteria

Planning criteria were developed and revised at several points during the planning process to assure that the planning steps focused on the issues and concerns. Planning criteria are factors BLM will evaluate when developing resolutions to the issues and management concerns. They help establish the limits of the analysis needed to resolve the issues and concerns. The analyzed criteria can be reviewed at the Safford District Office, 425 East Fourth Street, Safford, Arizona 85546.



Introduction

Four alternative land use plans, including the *Preferred Alternative*, are described in this chapter. Each alternative contains land use objectives that could guide management of the public lands for the next 15 years and the actions BLM could implement to carry out those objectives. A section is also included that identifies general management guidance common to all alternatives. General management guidance is based on the laws, regulations and policies that guide BLM's management of the public lands regardless of the alternative chosen for implementation through this Resource Management Plan.

Decisions concerning management of livestock on public lands and management of the San Pedro Riparian National Conservation Area have been developed through the *Upper Gila-San Simon Grazing environmental Impact Statement* (BLM 1978), *Eastern Arizona Grazing Environmental Impact Statement* (BLM 1986) and *San Pedro River Riparian Management Plan and Environmental Impact Statement* (BLM 1989). Through the above authorizing documents, BLM will continue to issue grazing permits and licenses, implement, monitor and modify allotment management plans and increase or decrease grazing authorizations as determined through the allotment evaluation processes. As necessary, National Environmental Policy Act compliance documents will be prepared prior to any action being implemented. The grazing decisions are incorporated into this Resource Management Plan/Environmental Impact Statement by reference and are common to all alternatives.

To provide the public and decisionmaker with a tool for comparing impacts and reaching conclusions, Chapter 2 ends with a summary of the environmental consequences of implementing each alternative.

Alternative Formulation

Both the *National Environmental Policy Act* and BLM planning regulations require the formulation of a range of alternatives. Each alternative represents a complete and reasonable plan for management of the public lands and resources in the Safford District for the next 15 years. One alternative must represent no action, meaning current management. Other alternatives must provide a reasonable range of choices for management of the public lands. The range usually varies from resource protection to resource production. The following criteria, using governing regulations, applicable state, local and other Federal regulations were used in the development of the alternatives.

1. Each alternative will provide for protection of proposed and listed Threatened and Endangered species and their habitat and efforts to recover those species, as required by the *Endangered Species Act*, Memorandums of Understanding and BLM Manual.
2. Each alternative will provide for protection of significant cultural resources as required by the *National Historic Preservation Act* and the *Archaeological Resources Protection Act*.
3. Each alternative will comply with all existing state, federal and local regulations.
4. Each alternative will assume a continuation of existing interagency cooperative agreements.
5. Each alternative will be reasonable and attainable.
6. At least one alternative will comply with the No Action requirement of the Council on Environmental Quality regulations (40 CFR 1502.14(d)).

The goal of any alternative is to propose guidance that responds to the issues and management concerns identified for resolution in the Resource Management Plan.

The four alternatives analyzed in this Environmental Impact Statement were developed around the following general themes: no action (Alt. D); resource protection (Alt. B); resource production (Alt. C); and a balance of multiple uses between production and protection of lands and resources (The *Preferred Alternative* Alt. A.)



Outcrops of white diatomaceous earth are visible in portions of the 111 Ranch.

Alternatives Considered But Not Analyzed

No other specific alternatives were considered for analysis in this Environmental Impact Statement. Variations of the four basic themes were considered, but none were carried forward. The Bureau believes the four themes present a full and reasonable range of alternatives for management of the public lands and comply with the requirements of National Environmental Policy Act and BLM regulations and policies.

Alternative Evaluation Criteria

The following criteria are considered in the evaluation of each alternative.

1. Significant social and economic effects.
2. Consistency with federal, state and local plans.
3. Compatibility with adjacent land uses.
4. Implementation requirements.
5. Significant impacts to resource values such as wildlife habitat condition, watershed and water quality/quantity, recreation opportunities, historic and prehistoric archaeological sites and threatened and endangered species.

Management Guidance Common to All Alternatives

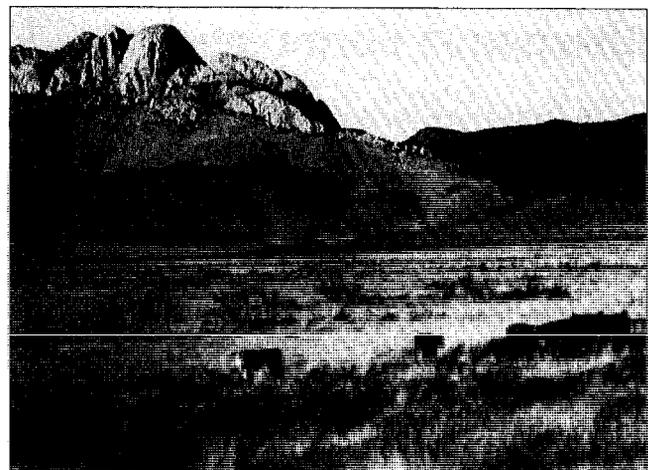
It is not feasible to discuss every law, regulation, policy or decision that affects management of the public lands and resources in this document. This section does, however, summarize significant guidance and identify legally protected categories that affect BLM's management of the public lands. Further information about the development of the alternatives can be found in the *Gila Resource Area Management Situation Analysis* (BLM 1989) and *San Simon Resource Area Management Situation Analysis* (BLM 1989). The Management Situation Analyses, prepared in the early stages of the planning process, included an analysis of the issues and management concerns and led to the development of the Resource Management Plan alternatives. They are incorporated into this Environmental Impact Statement by reference but can be reviewed in the Safford District Office.

Future strategic plans and changes in policy will be incorporated into Bureau actions where compatible with the approved Resource Management Plan or the Resource Management Plan will be revised to bring it into compliance with other Bureau actions.

BLM will evaluate any action proposed on the public lands to determine the impacts it will have on the environment. An environmental assessment (to the appropriate level of detail) will be conducted for every considered proposal on the public lands. In addition, all actions proposed in specific activity plans (allotment management plans, habitat management plans, wilderness management plans, etc.) will be coordinated with other programs.

Fire management policy within the Safford District will be in accordance with Departmental Manual 910 and Bureau Manuals 9200 and 8560. Essentially, the policy states that every wildland fire is either a wildfire or a prescribed burn and that all wildfires will be suppressed unless a pre-approved prescribed burn plan exists and the fire meets all the prescription criteria.

Any wildfire escaping initial attack suppression efforts will be dealt with through the Escaped Fire Situation Analysis process to determine further suppression actions. Wildfires occurring within designated wilderness areas will be handled in accordance with Bureau Wilderness Management Policy (BLM Manual 8560). Suppression actions in the wilderness must be executed to minimize surface disturbance, alterations to the natural landscape and fire suppression costs while being consistent with management objectives and constraints. Fire management methods and equipment which least alter the landscape or disturb the land are considered to be the best.



Over 11,000 cattle graze public rangelands in the Safford District.

Issue 1- Access

BLM Manual 9110 provides for transportation planning. A transportation plan portrays the transportation system (roads and trails), the access needs identified in the Resource Management Plan and subsequent activity and project plans. Through the Resource Management Plan, decisions will be made where legal access for vehicle, horse and foot travel is needed across state, other federal and private lands; where construction of roads or trails is needed to provide access to public lands; and where existing access needs to be closed to protect resource values. Upon completion of the Resource Management Plan, these decisions will be incorporated into the District Transportation Plan. The plan will also address road and trail maintenance needs.

BLM's policy provides private property owners reasonable means of access across public lands to their property. This may vary from foot or horse travel to construction of a road, depending on the need for access.

Issue 2 - Areas of Critical Environmental Concern and Other Types of Special Management

Individual management plans will be written for each Area of Critical Environmental Concern designated through the approved Resource Management Plan. These management plans will identify the actions BLM will take to implement the specific management prescriptions. The complexity of the issues surrounding a particular Area of Critical Environmental Concern will determine the detail of the management plan.

The three Research Natural Areas Areas of Critical Environmental Concerns recommended in the *San Pedro River Riparian Management Plan and Environmental Impact Statement* (BLM 1989) will be designated in this plan under all alternatives. Management plans will be prepared for each area following designation.

As required by *The Federal Land Policy and Management Act of 1976* and the subsequent *Guidelines for Fulfilling Requirements of the Wild and Scenic Rivers Act*, BLM must study those rivers which qualify as potential additions to the National Wild and Scenic Rivers System. Two rivers in this area (the Gila and San Francisco) were identified by the National Park Service as needing further study and are addressed in this document as well (see Appendix /3).



The Wild and Scenic River study process involves making an eligibility, classification and suitability determination. This Resource Management Plan/ Environmental Impact Statement addresses only eligibility and classification as required by the Guidelines and will defer the suitability determination until a later date due to the need for further public involvement. Only through the detailed suitability assessment and further public involvement will BLM make a recommendation through the Secretary of Interior to Congress on suitable Wild and Scenic Rivers designations. Only Congress has the authority to designate a Wild and Scenic River through this process.

Appendix 3 includes a discussion of the eligibility and classification criteria used to evaluate rivers in the Safford District. Those waterways which demonstrated individual outstandingly remarkable hydrologic values include the Gila and San Francisco Rivers within the Gila Box, the Gila River below Coolidge Dam, Aravaipa Creek, Turkey Creek, Swamp Springs, Hot Springs Canyon, Bonita Creek and the San Pedro River. All other areas have been determined ineligible under the criteria.

The above rivers which have been determined eligible for consideration under the requirements of the Wild and Scenic Rivers Act will be afforded adequate interim protection until a final decision is reached on

suitability for designation. Management activities and authorized uses will not be allowed to adversely affect the rivers' eligibility or future suitability. Subject to valid existing rights, outstandingly remarkable values of the river must be protected and enhanced if possible.

Issue 3 - Off-highway Vehicles

BLM Manual 8340 defines acceptable off-highway vehicle use as an acceptable use of the public lands wherever it is compatible with established resource management objectives. *The Federal Land Policy and Management Act* of 1976, Executive Orders 11644 and 11989 and BLM Manual 8342 also state that all public lands will be designated as open, closed or limited to off-highway vehicle use to meet public demands, protect resources and public safety and minimize conflicts.

Issue 4 - Riparian Areas

Bureau policy sets the following direction for management of riparian areas.

1. Achieve riparian area improvement and maintenance objectives through the management of existing uses, wherever feasible.
2. Ensure that new resource management plans and activity plans, and revisions of existing plans recognize the importance of riparian values and propose management to maintain, restore or improve them.
3. Prescribe management of riparian values based on site-specific characteristics and settings.
4. Give special attention to monitoring and evaluating management activities in riparian areas and revise management practices where site-specific objectives are not being met.
5. Cooperate with and encourage the involvement of interested federal, State and local governments, organizations and private parties to share information, implement management, coordinate activities, and provide education on the value, productivity and management of riparian areas.
6. Retain riparian areas in public ownership unless disposal would be in the public interest, as determined by land use planning.
7. Identify, encourage and support research and studies needed to ensure that riparian area management objectives can be properly defined and met.

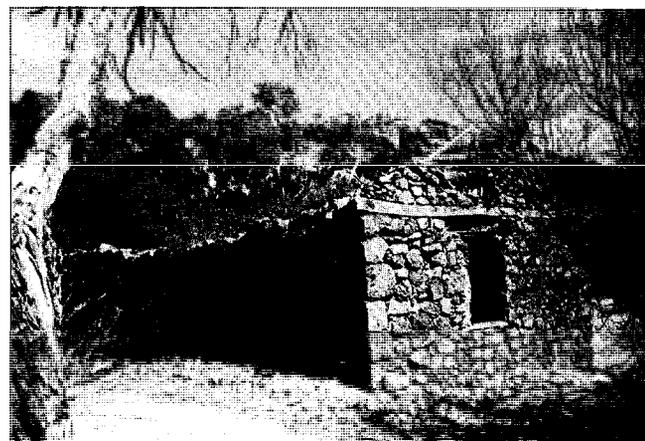
8. Provide environmental education materials to schools and other publics relating to riparian management.

Arizona BLM has developed a strategic plan that outlines the overall riparian wetland management. The "*Arizona Riparian- Wetland Area Management Strategy*" (BLM 1990) uses the Bureauwide policy presented above to develop more site-specific goals, objectives and actions to maintain or improve these valuable areas. One of the primary goals is to improve water quality and riparian areas to good or better ecological conditions by 1997 for 75 percent of the BLM-administered streams by implementing grazing systems and strategically planned enhancement projects.

From 1986 to 1988, BLM acquired 47,668 acres along the upper San Pedro River between the Mexican border and St. David. In 1987, BLM began preparing the *San Pedro River Riparian Management Plan* (BLM 1989) to protect and enhance the significant natural and cultural resources of the property. The plan was completed in 1989. In 1988, during preparation of the plan, Congress designated 54,189 acres of public land as the San Pedro Riparian National Conservation Area. The additional 6,521 acres were acquired from the State of Arizona by exchange and are subject to existing livestock grazing leases.

Since this designation came in the middle of the planning process, BLM decided to complete its plan for management of the 47,668 acres and address the remaining 6,521 acres of the National Conservation Area in this Resource Management Plan.

The *San Pedro River Riparian Management Plan* provides management direction for the riparian corridor and the adjacent uplands in the National Conservation



Remains of historic homesteads can be seen along lower Bonita Creek.

Area. Generally, the plan provides a framework for protection of the National Conservation Area, allowing those uses that are compatible with preservation of the National Conservation Area. Energy and mineral uses are not permitted, nor are sand and gravel operations.

According to the San Pedro Plan, livestock grazing has been prohibited for the life of the plan on the original acreage. Dispersed and developed recreation is being carefully planned to avoid impacts to the abundant natural, cultural and paleontological (fossil) resources. Vehicles will be restricted to designated roads. Discharge of firearms is being restricted to ensure visitor safety. Many actions will be implemented to maintain and enhance the quality and quantity of the water, riparian vegetation, wildlife, cultural resources and paleontological resources. Administrative and visitor contact facilities are also planned.

The decisions of the *San Pedro River Riparian Management Plan* will apply to the 6,521 acres of the National Conservation Area not covered in the plan, with the following exceptions.

- 1 Livestock grazing will continue on the added 6,521-acre area in accordance with the State exchange agreements. This area includes state lands acquired through exchange; state grazing leases will be recognized for the term of these leases.
- 2 Allotment categorization will be changed from "Maintain" to "Improve" to intensively manage livestock on all allotments in the 6,521 -acre area.
- 3 Allotment management plans will be prepared for all allotments in the 6,521 -acre area to provide for continued livestock grazing and protection of the riparian values of the National Conservation Area.

Management Concern 1 - Wildlife Habitat

Wildlife and their habitat are managed cooperatively by BLM and Arizona Game and Fish Department under a *Memorandum of Understanding* (1987). Federally listed or proposed threatened and endangered wildlife are protected under provisions of the *Endangered Species Act* (1973, as amended). BLM Manual 6840 outlines the conservation of Threatened and Endangered species and the ecosystems they depend upon; ensures that all actions authorized, funded or carried out by BLM are in compliance with the Endangered Species Act; cooperates with the Fish and Wildlife Service and the National Marine Fisheries Service in planning and providing for the recovery of Threatened

and Endangered species; and retains in public ownership all habitat essential to the survival or recovery of any Threatened and Endangered species, including habitat used historically by these species. It is also BLM policy to manage candidate species and their habitat to prevent the need to list them as threatened or endangered.

Management Concern 2 - Lands and Realty

Land Ownership Adjustment Lands identified for disposal by sale must comply with Section 203 of The *Federal Land Policy and Management Act of 1976*. Section 203 states that lands offered for sale must meet one of the following criteria: they are difficult and uneconomical to manage and not suitable for management by another agency; they are no longer needed for the original purpose for which they were acquired; or they will serve an important public purpose. If lands, because of their location or other characteristics, meet one of the above criteria, they may be offered for sale (see Appendix 5).

All public lands will be disposed of at fair market value, except for lands disposed of under the *Recreation and Public Purposes Act* or state indemnity selection. Disposals are subject to valid existing rights.

It is Bureau policy not to dispose of public lands encumbered with properly recorded unpatented mining claims. These lands, however, may be disposed of if the mining claims are found to be void; a mining claimant relinquishes the mining claims to the United States; a mining claim is contested and found to be invalid; or policy is changed.

State Indemnity Selection is another method of disposal of public lands. Upon statehood the government granted Arizona four sections of land per township. Much of this land had already been appropriated and, therefore, was unavailable to the state. Other state lands may have been appropriated by federal projects and require compensation to the state. Thus, a "bank" of public lands has accrued to the state from which it may select desired, unappropriated public lands. All public lands identified for disposal will also be available for state selection.

Lands identified for disposal will be reviewed for the presence of significant natural and cultural resources, threatened and endangered plants and animals, flood hazards and other critical factors. The actual transfer of the land cannot be finalized until these reviews are complete.

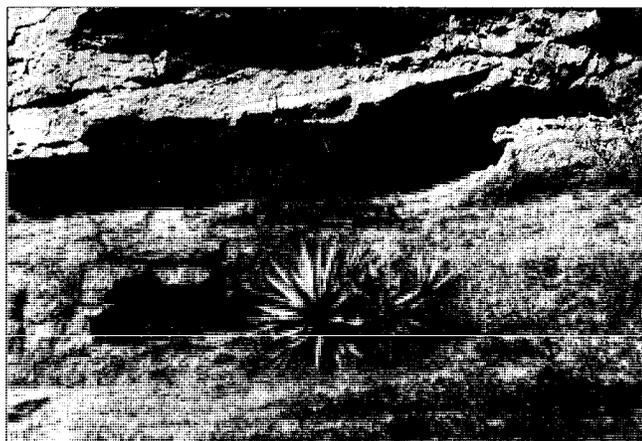
BLM may acquire lands and interests in lands needed to manage, protect, develop, maintain and use resources on public lands. Land may also be acquired to provide access for public use and enjoyment.

Public lands are often repositioned under the exchange authority of Section 206 of the Federal Land Policy and Management Act of 1976. Exchanges are negotiated with the state, as well as with private landowners. Exchange is the preferred method of land disposal, as it provides an opportunity to acquire desired tracts of nonpublic land. Land purchase is the second preferred method of acquisition due in part to the loss of private lands to a federal agency and thereby a portion of the tax base. Condemnation of lands by the government for acquisition under the authority of Public Law 91646 Uniform Relocation and Real Property Acquisition Policy Act of 1970 is the least preferred method. Refer to Map 27 for potential land disposal and acquisition areas.

Land Use *Authorizations* Rights-of-way, leases and permits will be considered on a case-by-case basis, in accordance with the decisions of this Resource Management Plan. Major rights-of-way, however, will be directed to designated corridors where possible.

Communication Sites Communication site right-of-way grants will be issued for newly designated communication sites. Where designated sites do not meet public needs, additional new sites will be considered on a case-by-case basis.

Communications site user groups will be encouraged and supported at the designated sites. Right-of-way applications will be approved when consistent with site plans and found to be technically compatible with the existing uses.



Agaves cling to cliffs along Turkey Creek, a popular picnicking spot just outside Aravaipa Canyon Wilderness.

Recreation and Public Purpose Leases/Patents Recreation and Public Purposes applications for public parks, building sites and other public purposes will continue to be evaluated on a case-by-case basis. Leases and patents will be issued in accordance with the decisions of the approved Resource Management Plan and Record of Decision and evaluated following the requirements of National Environmental Policy Act. New landfills may be authorized under the Recreation and Public Purposes Amendment Act of 1988 upon promulgation of its regulations by the Secretary of the Interior. Land exchanges will not be executed for later conveyance of land under the Recreation and Public Purposes Act.

Public Land Withdrawals and Classifications BLM will continue its withdrawal review process to determine the need for existing withdrawals and classifications. Future needs for withdrawals will be evaluated on a case-by-case basis, in accordance with the decisions of the final approved plan.

Hazardous Materials The laws that provide guidance for management of hazardous materials include the *Resource Conservation and Recovery Act of 1976, Comprehensive Environmental Response, Compensation, and Liability Act* and *Superfund Amendment Reauthorization Act* (Executive Order 12580, 1986). BLM responsibilities under these acts include conformance with state enforcement regulations pertaining to the storage, handling and disposal of hazardous materials and the reporting of unpermitted hazardous materials discharges under the provisions of the *Comprehensive Environmental Response, Compensation and Liability Act*. The District's hazardous materials emergency contingency plan provides procedures for responding to hazardous materials incidents on public lands. Inventories of the public lands will be used to identify areas possibly contaminated with hazardous materials. Identified sites will be further evaluated by preliminary assessments, site investigations and expanded site investigations, as appropriate.

Management Concern 3 - Outdoor Recreation and Visual Resource Management

The Bureau's primary recreation management goal is to provide continued outdoor recreation opportunities that the public seeks and that are not readily obtainable from other public and private entities. BLM's primary recreation role is to provide dispersed and resource-dependent types of outdoor recreation, and to deal with the few situations where special or more intensive types of recreation management are required.

Section 102 of the Federal Land Policy and Management Act of 1976 states that "... the public lands be managed in a manner that will protect the quality of the ... scenic ... values ...". BLM Manual 8400 states that BLM "...has a basic stewardship responsibility to identify and protect visual values on public lands." Every action BLM authorizes, funds or carries out will be evaluated for its effects on the scenic qualities of the public lands. Adverse impacts will be mitigated.

Management Concern 4 - Energy and Minerals

The Bureau's policy is to foster and encourage the development of energy and mineral resources. Overall guidance on management of energy and mineral resources comes from the *Mining and Minerals Policy Act*, Section 102 of the Federal Land Policy and Management Act of 1976, *National Materials and Minerals Policy*, *Research and Development Act* and BLM's Mineral Resources Policy.

Locatable Minerals Development of locatable minerals (copper, gold, silver, etc.) is regulated by BLM's Code of Federal Regulations (43 CFR 3802 and 43 CFR 3809). The 3809 regulations provide for mineral entry,



Many unusual rock formations can be seen at Black Rock RNA ACEC.

exploration, location and operations, pursuant to the mining laws, that will prevent unnecessary and undue degradation of other resources. The 3802 regulations were implemented to provide for mining in lands under wilderness review in a manner that protects claimants' rights and the values of wilderness study areas. Mining activities will be evaluated on a case-by-case basis during the life of this plan.

Salable Minerals Mineral materials are administered by BLM and will be disposed of on a case-by-case basis. Mineral materials are usually sold at fair market value, but BLM may provide free-use permits to federal, State and local governments, as well as non-profit organizations.

Leasable Minerals BLM regulations 43 CFR 3100 3500 provide the authority to issue mineral (oil, gas, geothermal, etc.) leases. Stipulations are attached to leases to protect the natural and cultural resources in a lease area.

Management Concern 5 - Cultural Resources

The Federal Land Policy and Management Act of 1976 is the primary basis for BLM's management of cultural resources. Many other laws and regulations, however, provide specific protection of these resources, the most important being the *National Historic Preservation Act* and the *Archaeological Resources Protection Act*. Under National Historic Preservation Act, activities that may affect existing sites or eligible National Register sites are evaluated and potential impacts are analyzed and evaluated in consultation with the State Historic Preservation Officer and the Advisory Council on Historic Preservation. National Historic Preservation Act also gives BLM the responsibility to inventory the cultural resources on public land and to preserve significant resources. The *Archaeological Resources Protection Act* prohibits looting and vandalism of archaeological resources. Severe penalties may be assessed for actions in violation of the conditions of the Act. Several laws provide for the consideration and protection of traditional lifeway values including those of Native Americans.

Regardless of the alternative selected, cultural resources will be managed under three broad objectives: manage for information potential; manage for public values; and manage for conservation. See Appendix 11 for the definition of each objective. The degree to which BLM manages each category varies among the alternatives, according to whether the emphasis is on protecting values (*Alternative B*), utilizing values (*Alternative C*) or balanced management (*Preferred Alternative*).

BLM's cultural resource management program is designed as a comprehensive system for identifying, planning the appropriately using and managing cultural resources on public lands and in areas of BLM responsibility other than public lands. The following are the cultural resource management program objectives.

1. Respond legally and professionally to: (a) the various statutory authorities concerning historic preservation and cultural resource protection, and (b) the principles of multiple use.
2. Recognize the potential public and scientific uses of, and the values attributed to, cultural resources on the public lands, and manage the cultural resources so that these uses and values are not diminished but rather are maintained and enhanced.
3. Contribute to land use planning and the multiple use management of the public lands in ways that make optimum use of the thousands of years of land use history inherent in cultural resource information, and that safeguard opportunities for attaining appropriate uses of cultural resources.
4. Protect and preserve, in-place, representative examples of the full array of cultural resources on public lands for the benefit of scientific and public use by present and future generations.
5. Ensure that proposed land uses, initiated or authorized by BLM, avoid inadvertent damage to federal and non-federal cultural resources.

Management Concern 6 - Soil Erosion

The *Federal Land Policy and Management Act* defines BLM's multiple use management mission to include protection of watersheds. In all alternatives in the Resource Management Plan, the overall goal is to minimize soil erosion and rehabilitate eroded areas to maintain and enhance watershed condition and reduce non-point source pollution that could result from rangeland management and use activities. Corrective measures include construction of erosion control structures, allocation of proper levels of vegetation use by livestock and wildlife, land treatment measures and control or mitigation of activities that may contribute to soil erosion and degradation of watershed condition. Activities proposed in areas prone to erosion are evaluated through the National Environmental Policy Act process to determine anticipated impacts and mitigating measures needed to approve the project.



Copper mines and smelters, such as Phelps-Dodge in Morenci, provide jobs for many people in Graham and Greenlee Counties.

Management Concern 7- Vegetation

BLM's authority for management of upland vegetation (vegetation outside riparian zones) comes from the *Endangered Species Act* (1973), *Taylor Grazing Act* (1934), *Public Rangelands Improvement Act* (1978) and *The Federal Land Policy and Management Act* (1976). These laws require BLM to manage vegetation for its use while maintaining sufficient ground cover to maintain and enhance watershed condition and reduce non-point source pollution from rangeland management and use activities. Best management practices would be selected from available grazing management systems, livestock management practices and BLM standards for range improvements to ensure ground cover and reduce non-point pollution (to Arizona's waters sediment production and fecal contamination) resulting from grazing activities.

Under the *Endangered Species Act*, BLM will not jeopardize the continued existence of any species listed or proposed for listing as threatened or endangered and to actively promote species conservation and recovery. BLM will also manage candidate species to prevent listing as threatened or endangered.

The 9th Circuit Court of Appeals has issued an injunction that prohibits use of chemicals for vegetation manipulation on public lands. BLM is preparing an environmental impact statement assessing the use of chemicals. Several actions in this Resource Management Plan involve the use of herbicides. Herbicides will be used only if permit-led upon completion of the *Environmental Impact Statement, Vegetation Treatment on BLM Lands in 13 Western States* (BLM 1989, in preparation) and relief from the 9th Circuit Court. If chemicals are approved for use, site-specific

environmental analyses will be prepared for each project proposing the use of chemicals.

The *Upper Gila-San Simon Grazing Environmental Impact Statement* (BLM 1978) and *Eastern Arizona Grazing Environmental Impact Statement* (BLM 1986) provide direction for management of livestock on public lands. These Environmental Impact Statements set the direction for livestock numbers, grazing systems, class of livestock, etc. The decisions of these Environmental Impact Statements are still valid and will be incorporated by reference in all alternatives evaluated in this Environmental Impact Statement.

The *Safford District Fire Management Activity Plan* (BLM 1989, in preparation) sets direction for management of wild and prescribed fire. Wildfires will be put out. Prescribed fire (either a natural start or a planned ignition) will be used to accomplish resource management objectives. Prescribed fire will be used only with a "pre-approved" burning plan.

Management Concern 8 - Water Resources

The *Water Quality Act* (1987) and *Arizona Environmental Quality Act* (1986) provide direction on man-

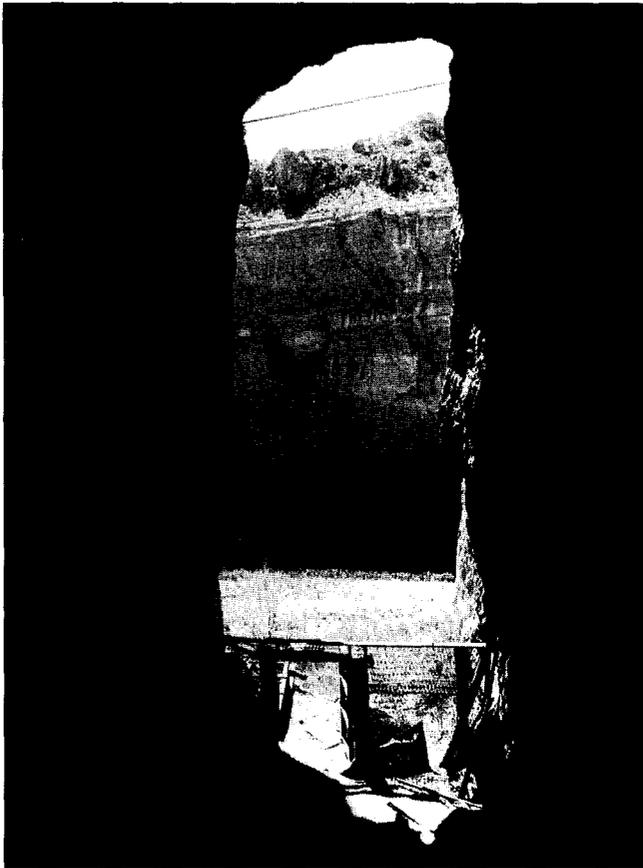
agement and maintenance of water quality. Water is allocated in Arizona under the *Surface Wafer Code*, the *Groundwafer Code* (1980) and applicable federal laws. Executive Order 11988 gives BLM guidance on management of floodplains. Specifically, the Executive Order prohibits use of federal funds for construction in floodplains. Acquisition of water rights for the quantities of water needed to accomplish BLM's programs will be obtained through the State of Arizona's appropriation procedure and adjudication process.

Water quality necessary to accomplish BLM's programs will be secured through quality monitoring programs, National Environmental Policy Act evaluations of activities proposed on public lands, and designation and management under the State of Arizona's Unique Waters Program. BLM resource activities will employ the best selected management practices to reduce non-point source pollution from rangeland management and use activities on the public lands.

Management Concern 9 - Air Quality

Under the *Clean Air Act* (1977, as amended), public lands within the Safford District were given Class II air quality classification. This classification allows for





The large entrance to Eagle Creek bat cave, a maternity care for Mexican free-tailed bats, was gated when the cave was used as a source of commercial guano.

moderate deterioration of air quality associated with moderate, well-controlled population and industrial growth. Public lands will be managed as Class II areas unless excepted as non-attainment areas or their classification is changed as a result of state procedures prescribed under the *Clean Air Act*. Air quality reclassification is the responsibility of the state, not BLM. impacts to air quality resulting from activities on public lands will be prevented or reduced to acceptable levels through mitigation prescribed in National Environmental Policy Act evaluations.



Management Concern 10 - Paleontological Resources

The Bureau's authority for management and protection of fossils comes from a variety of laws, regulations and policies, most recently the Federal Land Policy and Management Act of 1976. Section 102 requires that scientific values be protected while Section 103 requires scientific values be addressed in the management of public lands and resources. Potential impacts of activities on public lands will be evaluated through the National Environmental Policy Act review process. Paleontological collection permits from the Safford District will be required for scientific studies on public lands within the District.

Description of the Alternatives

This section provides details on each alternative considered in this Resource Management Plan/ Environmental Impact Statement. Most of the actions identified in the Resource Management Plan can be implemented when the State Director signs the Record of Decision. Other actions identified in the Resource Management Plan require further approval before they can be implemented. Some decisions like withdrawals must be made by the Secretary of the Interior, with BLM only making recommendations through this Resource Management Plan. BLM intends to pursue all recommendations made in the approved Resource Management Plan.

Alternative A (Preferred Alternative)

This alternative is BLM's preferred Resource Management Plan. It is designed to respond to the issues and management concerns in a manner that provides a balanced approach to multiple use management. It provides protection to important resources that cannot tolerate disturbance from other activities. It also provides for the consumptive use and development of other resources.

Issue 1 - Access

With Alternative A, the following actions would be implemented to resolve the Access Issue.

1. Prepare a District Transportation Plan that includes identification of access needs and closures, a road and trail numbering system, sign needs,

- maintenance needs and coordination with other agencies and landowners.
2. Where needed, reserve access across public lands conveyed out of federal administration.
 3. Obtain public and administrative access to the public lands.
 4. Close roads, as needed, to manage visitors, protect resources and to meet objectives.
 5. Obtain legal access, for public and/or administrative use, across private lands in 39 locations Districtwide (see Appendix 1) and across other state and private lands as determined in the future.
 6. Reconstruct the following roads at the locations noted below to provide or improve vehicle access for the administration and use of the public lands.
 - a. Left Fork of Markham Creek Road, about three miles T. 3 S., R. 24 E., Sec. 36; T. 4 S., R. 24 E., Secs. 1, 12; and T. 4 S., R. 25 E., Secs. 6, 7, 18.
 - b. Military Trail, about three miles T. 3 S., R. 16 E., Secs. 13, 14, 23.
 - c. Virgus Canyon Road, about a half mile T. 6 S., R. 18 E., Secs. 27,34,35.
 - d. Jackson Cabin Road, about five and a half miles T. 11 S., R. 20 E., Secs. 22, 26, 27, 35, 36; T. 12 S., R. 20 E., Secs. 1, 2, 11, 24; and T. 12 S., R. 21 E., Secs. 30,31.
 - e. Buckeye Canyon Road, about one mile T. 13 S., R. 27 E., Secs. 26,27,34 and T. 14 S., R. 27 E., Sec. 9.
 - f. Other roads as determined in the future and included in the District Transportation Plan.
 7. Obtain legal administrative and public access across private, state and Indian lands on existing foot and horse trails.
 - a. Safford-Morenci Trail where it crosses the San Carlos Indian Reservation T. 4 S., R. 28 E., Sec. 31.
 - b. Safford-Morenci Trail where it crosses Bonita Creek T. 5 S., R. 27 E., Secs. 10,11.
 - c. Hell Hole Canyon Trail and trailhead at Dry Camp T. 6 S., R. 19 E., Sec. 7.
 - d. Aravaipa Canyon Wilderness Trail from the west trailhead (at the administrative site) to the west boundary of the wilderness T.6 S., R. 17 E., Secs. 13, 24.
 - e. Babocomari River Trail T. 20 S., R. 20 E., Sec. 13 and T. 20 S., R. 21 E., Sec. 18.

Issue 2 - Area of Critical Environmental Concerns and Other Types of Special Management Areas

Under Alternative A, the following actions will be implemented to resolve the Area of Critical Environmental Concern and Other Types of Special Management Areas Issue.

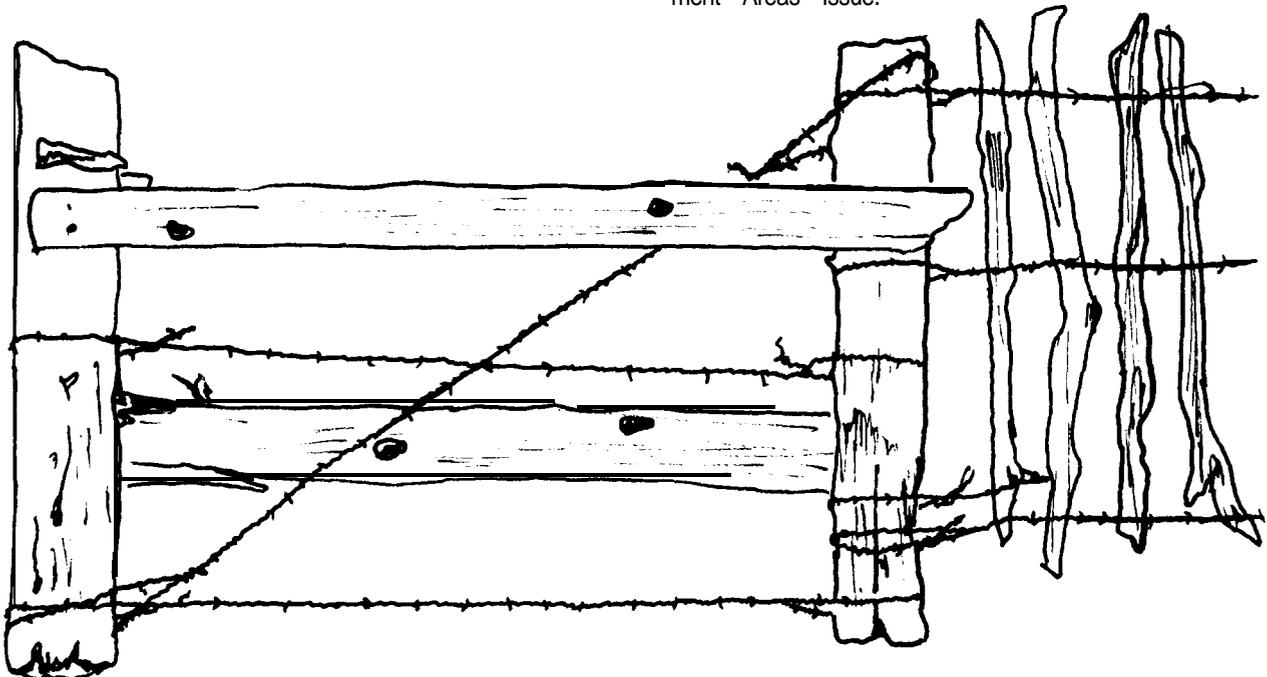


Table 2-1. Areas Designated as Area of Critical Environmental Concerns-Alternative A

Proposed Name	Federal, State & Private	Acres	Values or Hazards	Management Prescription
Gila Box ONA ACEC	F	2,411	Desert rivers, riparian habi- tat, T&E spe- ties, bighorn sheep, scenery, recreation use, cultural resources.	Mineral with- drawal, NSO for mineral leasing, no sand/gravel sales, limit OHVs, no new RWs, no woodcutting, acquire private lands if available, VRM Class II.
	S	0		
	P	210		
		2,621		
Turkey Creek Riparian ACEC	F	2,326	Two riparian woodlands.	Limit OHV use, close Oak Grove Canyon to OHVs, close upper part of Turkey Cr. to OHVs, require a mining plan, manage livestock, no woodcutting, monitor water quality, rehabili- tate riparian area, develop cooperative agreements.
	S	0		
	P	0		
		2,326		
Table Mtn. RNA ACEC	F	1,220	Plant community.	Limit OHV use, no woodcutting, min- eral withdrawal, no vegetative sales, prescribed fire plan.
	S	0		
	P	0		
		1,220		
Desert Grass- lands RNA ACEC	F	530	Relict desert grasslands.	Mineral withdrawal (part of ACEC), closed to OHVs, acquire state/ private lands if available, no livestock, prescribed fire plan.
	S	240		
	P	70		
		840		
Swamp Springs- Hot Springs Watershed ACEC*	F	10,838	Riparian areas, T&E species, bighorn sheep, native fish, cultural resources.	Limit OHV use, close Hot Springs Canyon to OHV use, require mining plans, no woodcut- ting, rehabilitate upland and riparian vegetation, no live- stock, acquire legal access, acquire state/ private lands if available.
	S	967		
	P	4,958		
		16,763		

Table 2-1. Areas Designated as Area of Critical Environmental Concerns-Alternative A (continued)

Proposed Name	Federal, State & Private Acres	Values or Hazards	Management Prescription
Bear Springs Badlands ACEC	F 2,927	Paleontological (fossil) resources, scenery.	Scientific studies, VRM Class II, no road construction, inventory, limit OHV use, mitigate livestock and soil erosion impacts, mineral withdrawal, NSO for mineral leasing, no sand/ gravel sales.
	S 320		
	P 0		
	3,247		
Guadalupe Cyn. ONA ACEC	F 2159	Riparian habitat, T&E species, scenery, recreation values.	Limit OHV use, prescribed fire plan, no woodcutting, VRM Class II.
	S 0		
	P 778		
	2,937		
Bowie Mtn. Scenic ACEC	F 4,190	Scenic backdrop to Ft. Bowie National Historic Site.	Mineral withdrawal, and NSO for mineral leasing in Ft. Bowie viewshed, limit OHV use, suppress wildfire, no woodcutting, VRM Class I, no RWs, acquire private lands if available.
	S 0		
	P 100		
	4,290		
Coronado Mtn. RNA ACEC	F 120	Unique plant association.	Mineral withdrawal, no woodcutting, VRM Class II, prescribed fire plan, no R/ ws.
	S 0		
	P 0		
	120		
Dos Cabezas Peaks ACEC	F 25	Scenic, historic landmark.	Require mining plan, limit OHV use, no woodcutting, prescribed fire plan, no RWs, VRM Class II.
	S 0		
	P 0		
	25		
Eagle Creek Bat Cave ACEC	F 40	Mexican free-tailed bat maternity cave.	Mineral withdrawal, NSO for mineral leasing, no sand/gravel sales, no guano extraction, monitor the cave, acquire private lands if available, VRM Class II.
	S 0		
	P 10		
	50		

Table 2-1. Areas Designated as Area of Critical Environmental Concerns-Alternative A (continued)

Proposed Name	Federal, State & Private Acres	Values or Hazards	Management Prescription
Willcox Playa NNL	F	2,475	Close to OHV use, acquire state/private lands if available, no woodcutting, no RWs, VRM Class II.
	S	803	
	P	400	
		3,678	
111 Ranch RNA ACEC	F	2,688	Limit OHV use, no wood-cutting, VRM Class II, inventory.
	S	0	
	P	0	
		2,688	

* Includes Muleshoe Riparian Area of Critical Environmental Concern from Alternative C.
Source: Safford District Files

1. Designate 13 Area of Critical Environmental Concerns totalling 40,805 acres (31,949 acres of public land) to protect important natural and cultural resources. Table 2-1 describes the specific areas, acreages, values and management prescriptions. Maps 1 through 22 and Map 24 show the location of each proposed Area of Critical Environmental Concern.

Appendix 2 includes a detailed discussion of each Area of Critical Environmental Concern nomination, including a determination of relevance and importance, rationale for designation, management prescriptions and alternatives considered.

2. Develop Coordinated Resource Management Plans to direct the management of BLM's multiple use programs on public lands in the Aravaipa Creek Watershed, Muleshoe Ranch and Bear Springs Flat. The purpose of the plans is to establish management objectives that directs the development of future program activities toward maintenance and enhancement of watershed condition (see Maps 24 and 26). A Cooperative Management Agreement for the Muleshoe Ranch area has been prepared between the BLM and The Nature Conservancy (19--) to facilitate accomplishment of the joint management objectives for public lands in the Muleshoe area. A Cooperative Management Agreement between BLM and The Nature Conservancy will also be prepared for the Aravaipa area.

These Cooperative Management Agreements will be incorporated into the Coordinated Resource Management Plans for the Aravaipa and Muleshoe areas scheduled to be prepared after the Resource Management Plan is approved.

Management goals for the Aravaipa Creek Watershed and Muleshoe Ranch are designed to maintain or restore the natural ecological processes, biological communities and cultural resource values as practicable while allocating and actively managing the full spectrum of compatible multiple uses. These goals will be achieved through the following management actions.

a. Aravaipa Creek Watershed -

- (1) In order to increase management flexibility and to provide for acceleration of uplands and riparian areas, initiate an immediate 50 percent suspension (2890 Animal Unit Months) of total preference on South Rim Allotment 4529.
- (2) Determine livestock carrying capacity and complete a Range Suitability Study for South Rim Allotment prior to development of a Coordinated Resource Management Plan for the area.
- (3) Implement monitoring studies and evaluate success of current South Rim Allotment Management Plan (dated 1989).

- (4) As part of the Coordinated Resource Management Plan process, reevaluate existing Allotment Management Plan, and implement a monitoring plan in order to measure progress toward resource management goals and objectives for the area.
- (5) Since active use currently constitutes 50 percent of the new preference, changes in current active use will be justified by monitoring studies and consistency with management goals and objectives for the area. Changes in active use in excess of 10 percent will be implemented over a five year period, unless otherwise negotiated with the allottee.
- (6) Suspension of preference as well as deferrals will be evaluated at a minimum of five year intervals to determine progress toward and achieving management goals and objectives. Changes in preference, in either direction, may be made as a part of this process.
- (7) Improve watershed conditions on the upland areas by vegetative manipulation through a fire management plan and by stabilization of active erosion areas.

b. Muleshoe Ranch Livestock grazing on this allotment was previously suspended for a five-year period (by the Eastern Arizona Grazing Environmental Impact Statement, which was implemented upon signing of a Cooperative Management Agreement between BLM, The Nature Conservancy and the Forest Service) beginning December 12, 1988. The purpose of this suspension was to improve riparian conditions and wildlife habitat on the Muleshoe Ranch. In order to continue progress toward the management goals for the Muleshoe, BLM will:

- (1) Implement a suspension of grazing use on the Swamp Springs-Hot Springs Watershed Area of Critical Environmental Concern to provide for accelerated rehabilitation of uplands and riparian areas. Suspension will be evaluated at a minimum of five year intervals to make progress toward meeting the management objectives.
- (2) Allow livestock use on the Soza Mesa area. Livestock forage use will not be permitted to exceed an average of 40 percent over a full grazing cycle (averaging three to five years duration). Specific livestock management actions will be developed during the Coordinated Resource Management Plan stage of planning.

- (3) Improve watershed conditions on the upland areas by vegetation manipulation through a Fire Management Plan and by studies to evaluate progress in meeting the desired goals and objectives. A monitoring plan will be developed and implemented in concert with the Coordinated Resource Management Plan.

Management goals for the Bear Springs Flat are designed to protect sensitive Class I fossils and protection of scenic values with impressive erosional features in the area. These goals will be achieved through the following management actions.

- a. Allow livestock use in the Bear Springs Flat area, consistent with a livestock management plan to mitigate the adverse impacts on fossils of the area. Livestock forage use will not be permitted to exceed an average of 40 percent over a full grazing cycle (averaging 3 to 5 years duration). Specific livestock management actions will be developed at the activity plan level.
 - b. Evaluate progress in meeting the desired goals and objectives through appropriate monitoring studies
5. Revise the San Simon River Coordinated Resource Management Plan. The purpose of this plan is to direct development of program activities to maintain and enhance watershed condition.
 6. Following completion of the approved Resource Management Plan cooperative livestock and watershed management studies will be conducted to restore native grasslands and improve the condition of the Aravaipa Watershed. These studies will investigate the best management techniques.



Killdeer are a common site around stock ponds throughout the Safford District.

Issue 3 - Off-highway Vehicles

Under the Preferred Alternative the following actions will be implemented to resolve the off-highway vehicles Issue.

1. Initiate procedures to designate 1,708 acres at Hot Well Dunes as open to off-highway vehicle use. An open area is an area where all types of vehicle use is permitted, at all times and anywhere in the area.
 2. Designate the following areas closed to off-highway vehicle use.
 - a. Turkey Creek, above Oak Grove Canyon corral and Oak Grove Canyon 102 acres.
 - b. Desert Grasslands Research Natural Area Area of Critical Environmental Concern 530 acres.
 - c. Willcox Playa NNL Area of Critical Environmental Concern 2,475 acres.
 - d. The riparian area of Hot Springs Canyon 140 acres.
 - e. Any areas designated wilderness (84,632 acres currently designated).
- A closed area is an area where off -highway vehicle use is prohibited, even if roads or trails exist within the closed area.
3. Off-highway vehicle use within the San Pedro Riparian National Conservation Area (54,189 acres) is limited to designated roads. Vehicle use within the Gila Box Riparian National Conservation Area (20,900 acres) will be determined during preparation of the management plan for the area.
 4. Designate the remainder of the public lands within the District (1,310,713 acres) limited to off-highway vehicle use. Off-highway vehicle use will be limited to existing roads and trails occurring at the time of designation and any new roads approved for construction during the life of this Resource Management Plan. Existing roads and trails have been identified and can be reviewed in the Safford District Office. Table 2-2 identifies the acres designated in each category.
 5. Off-highway vehicle designations and management will apply to motorized transportation only.

Table 2-2. Acres Designated for Off-highway Vehicle Use-Alternative A

Off-highway Vehicle Designation	Approximate Acres
Open	1,708
Limited	1,310,713
Closed	87,879

Source: Safford District Files

Issue 4 - Riparian Areas

If this alternative is approved, the following objective and actions will be implemented to resolve the Riparian Areas Issue.

The objective for management of riparian areas is to maintain or improve 75 percent of the acreage of riparian vegetation on public lands within the District in good or excellent condition by 1997 (see Map 26).

To accomplish this objective, the following actions will be implemented.

1. Incorporate riparian area objectives into existing and future activity plans.
2. In cooperation with Arizona Game and Fish Department, develop and implement a system to prioritize needed riparian area management. The priorities will be based on management objectives, resource condition, resource conflict and the potential or capability of a riparian area to respond to treatment.
3. Develop a riparian inventory system. Coordinate development and implementation of the system with other land managing agencies.
4. In cooperation with Arizona Game and Fish Department, complete the inventory of all riparian areas on public lands in the District to establish baseline condition.
5. Establish a monitoring plan for selected riparian areas based upon the management priority system. Implement the plan and evaluate monitor-

- ing data. Continue to carry out needed changes in riparian area management through activity plans.
6. Continue to file for in-stream flow water rights on perennial streams or rivers and water rights on springs and ponds to protect and maintain riparian vegetation.
 7. Continue to develop grazing systems and modify existing allotment management plans, as necessary, to best manage livestock use for the improvement of riparian areas and reduce non-point source water pollution.
 8. Do not permit firewood cutting in riparian areas.
 9. Permit the removal of non-native vegetation for improvement of riparian vegetation.
 10. Maintain and monitor representative relict riparian areas to provide a baseline for future management decisions.
 11. Build Timber Draw Dam on the San Simon River to reestablish stream channel and floodplain conditions to promote the redevelopment of the riparian ecosystem.
 12. Continue to manage the San Pedro Riparian National Conservation Area according to the guidance in the existing management plan, and develop a management plan for the Gila Box Riparian National Conservation Area.
 13. Develop an environmental education program for schools and the public for riparian management.
4. Manage state-listed species to meet state objectives. Other special status species will be managed in accordance with inter and intra-agency management plans.
 5. Manage priority wildlife species habitat (vegetation communities) or special features of that habitat (water, riparian vegetation, cliffs etc.) to maintain or enhance population levels.
 6. Focus management efforts on enhancing biological diversity.

The following actions will be implemented to accomplish these objectives.

1. Establish the following as priority species and habitats. Priority species and habitats in the District include federally listed, proposed and candidate Threatened and Endangered species and their habitat; State-listed Threatened and Endangered species and their habitat; important game species and their habitat; and other sensitive species and their habitat.
 - a. Riparian/aquatic habitat and species dependent on riparian/aquatic habitat Gila topminnow, desert pupfish, southern bald eagle, loach minnow, spikedace, Gila chub, Colorado roundtail chub, razorback sucker, western yellow-billed cuckoo, gray hawk, Mississippi kite, common black-hawk, ferruginous pygmy-owl, willow flycatcher, leopard frog, black bear, turkey and waterfowl.
 - b. Species identified for reintroduction in Fish and Wildlife Service plans are the aplomado falcon and woundfin.
 - c. Desert tortoise.
 - d. Desert and Rocky Mountain bighorn sheep.
 - e. Mule deer.
 - f. Pronghorn antelope.
 - g. Oak woodlands and species dependent on oak woodland habitat white-tailed deer, turkey, black bear and Montezuma quail.
 - h. Neotropical migratory birds.
 - i. Other species and habitats of interest peregrine falcon, red bat, Sanborn's long-nosed bat,

Management Concern 1 - Wildlife Habitat

If this alternative is approved, the following objectives and actions will be implemented to resolve the Wildlife Habitat Management Concern.

1. Maintain and enhance priority species and their habitats.
2. Focus management actions on a single species, only when required by the *Endangered Species Act*. Actively promote Threatened and Endangered species recovery to achieve eventual delisting.
3. Conserve candidate species to ensure that BLM-authorized actions do not contribute to the need to list any species as threatened or endangered.

Mexican long-tongued bat, ferruginous and Swainson's hawks, javelina, mountain lion, dove, quail and bat roosts.

General management objectives for each of the priority species and habitats are identified in Appendix 4.

2. Inventory public lands within the District to determine the presence and abundance of priority species and their habitat.
3. Manage habitat for optimum wildlife populations, based on ecological conditions, taking into consideration local, yearly climatic variations. BLM will follow Arizona Game and Fish Department's five-year strategic plans for the various species and will assist the Department in accomplishing its goals for the various species.
4. Transplant and augment populations of priority wildlife species within historic ranges, if necessary, to reach management objectives.
5. Monitor priority habitat to determine condition and changes in condition. Conduct inventories to determine the impacts of other activities on wildlife populations and habitat prior to preparation of Habitat Management Plans. Identify opportunities in Habitat Management Plans to mitigate adverse impacts and implement the actions needed to correct the problems.
6. Continue to maintain and improve wildlife habitat, emphasizing priority habitat.
7. Protect springs and associated indigenous riparian vegetation for wildlife water, cover and forage.
8. Develop prescribed burning plans in fire-dependent vegetation communities to improve habitat conditions for priority wildlife species.
9. Suppress wildfire in sensitive vegetation communities (like palo Verde/saguaro) to reduce the detrimental effects on priority wildlife dependent on those communities.
10. Existing Habitat Management Plans address all public lands in the District except scattered parcels in Cochise County. Two Habitat Management Plans were completed prior to substantial land exchanges, and were not based on realistic ecological boundaries. To improve site-specific habitat management direction, redefine all Habitat Management Plan area boundaries. Develop

Sikes Act Habitat Management Plans with Arizona Game and Fish Department for the following areas: Geronimo, Gila Box, Aravaipa Muleshoe, Peloncillo, Dos Cabezas, San Simon, Cochise and San Pedro. Priorities for revisions will be determined in coordination with Arizona Game and Fish Department.

11. Provide input into livestock Allotment Management Plans to ensure sufficient vegetation in bighorn sheep lambing areas for food and cover.
12. Provide input into Allotment Management Plans in oak-woodland habitat to ensure perennial grasses are available to provide adequate cover for priority species.
13. Close the following areas to animal damage control activities such as trapping, shooting, aerial gunning or use of M-44.
 - a. Threatened and Endangered species habitat for those techniques that pose a threat to the species.
 - b. Zones around residences and communities and in areas of concentrated recreation use for those techniques that pose a threat to the visitor or to dogs in areas where they are trained, exercised or used for hunting.
 - c. Wilderness areas and Research Natural Areas except as individually authorized by the Arizona BLM State Director or the District/Area Manager.

Authorize areas that are open for animal damage control in coordination with the Animal and Plant Health Inspection Service on a yearly basis.



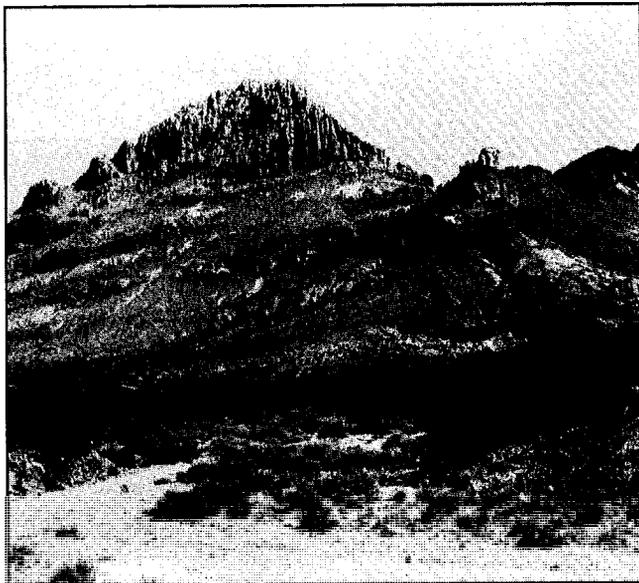
The tree-lined canyon along Aravaipa Creek provides cool shade for hikers and pleasant areas for primitive camping.

14. Inventory and categorize desert tortoise habitat by 1992. In the interim, place about 26,000 acres of public land in the San Pedro River basin from Cascabel to Winkelman and parts of the Dripping Spring and Pinal Mountains in Category 3. Place about 3,000 acres east of San Manuel in Category 2 (see Appendix 10 for goals and criteria for categorization of habitat).
15. Designate the following Area of Critical Environmental Concerns for the protection of priority wildlife species and their habitat: Gila Box Outstanding Natural Area, Swamp Springs-Hot Springs Watershed, Guadalupe Canyon Outstanding Natural Area and Eagle Creek Bat Cave .

Management Concern 2 - Lands and Realty

If this alternative is approved the following objectives and actions will be implemented to resolve the Lands and Realty Management Concern.

1. The following are objectives for disposal of public lands.
 - The order of preference for disposal will be by exchange, *Recreation and Public Purposes Act* or sale.
 - Isolated tracts of public land may be disposed of to improve resource management efficiency and service to the public.
 - When lands next to urban areas are disposed of, the resulting boundaries will be manageable, fenceable and identifiable.



The rugged volcanic cliffs of Doubtful Canyon in the Peloncillos are home to desert bighorn sheep.

- Prior to disposal, lands will be evaluated for significant cultural and natural resource values.

Dispose of 105,523 acres of public lands in the following areas to accomplish these objectives.

- a. Texas Canyon area.
- b. Gila Valley area.
- c. El Capitan and southern Pinal Mountain area.
- d. Dripping Spring Wash area.
- e. Swisshelm Mountain area.
- f. Bisbee area, excluding the Juniper Flats block.
- g. Tombstone area.
- h. Douglas area.
- i. Greenlee County Area.
- j. San Simon area.
- k. Portal area.
- l. Recreation and Public Purposes sanitary landfill leases.

The public land areas have been identified for disposal by sale or exchange and are within the disposal area identified on Map 27. However, all public lands within these areas do not have to be disposed of. Unforeseen future land management concerns or public demand may also necessitate the need for other public lands to be sold or exchanged which are not in the identified disposal area. The parcels considered at that time would be subject to BLM's planning process and the *National Environmental Policy Act*.

Appendix 5 shows the lands that meet the the Federal Land Policy and Management Act of 1976 criteria for sale. Although these lands qualify for sale, BLM's preferred method of disposal is by exchange or through the *Recreation and Public Purposes Act*. Map 27 shows where disposals of land may take place.

2. The following are objectives for land acquisition:
 - Acquire lands with high public values that complement existing management programs.
 - Consolidate ownership pattern to improve management efficiency.
 - Improve service to the public.

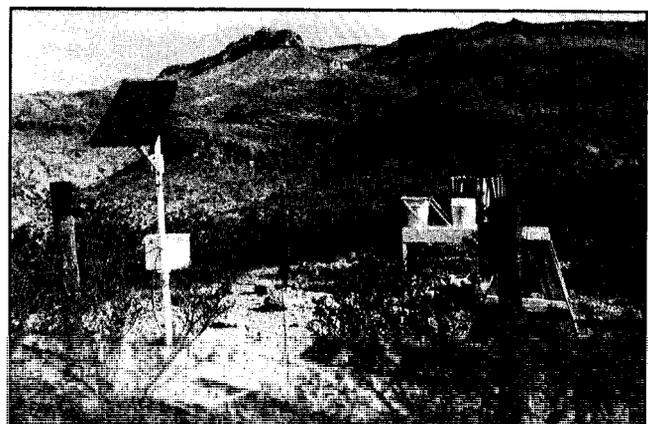
To accomplish these objectives, acquire State of Arizona and private land in the areas shown on Map 27 if they become available. These lands would have one or more of the following characteristics, generally within or adjacent to public lands shown on the map.

- a. riparian habitat.
 - b. watersheds of important riparian areas.
 - c. high value wildlife habitat, such as Threatened and Endangered species areas and major migration corridors.
 - d. administrative sites.
 - e. land for developed recreation sites.
 - f. land providing access to public lands.
 - g. significant cultural and paleontological properties.
 - h. other lands with high public resource values such as inholdings in Area of Critical Environmental Concerns and other types of special management areas.
 - i. other private lands that will accomplish BLM's acquisition objectives.
3. According to *The Federal Land Policy and Management Act of 1976*, all lands not identified for disposal must be retained under Federal administration to be managed under the principles of multiple use and sustained yield. Unforeseen future land management concerns or public demand may necessitate the disposal of other public lands. Such proposals will require this plan to be amended with the appropriate National Environmental Policy Act compliance documents as part of the amendment.
4. Designate the following existing utility lines as corridors for future utility needs across the District.
- a. Arizona Electric Power Company line 1-mile wide.
 - b. Tucson Electric Power Company line 1-mile wide.
 - c. All American pipeline (San Simon Resource Area only) 1-mile wide.
 - d. San Pedro 1-mile wide (660 ft. wide where it crosses San Pedro Riparian National Conservation Area).

- e. Hayden/Christmas 1 -mile wide.

Any future major cross-District utility rights-of-way proposals will be encouraged to use these corridors (see Map 27).

- 5. Establish the Muleshoe Ranch and the Bowie Mountain Scenic Area of Critical Environmental Concern as right-of-way avoidance. Every attempt will be made to avoid these areas with major cross-District rights-of-way to minimize or eliminate conflicts with sensitive resource values.
- 6. Attach needed site-specific environmental protection stipulations to all rights-of-way.
- 7. Establish the following areas as right-of-way exclusion areas.
 - a. Gila Box Outstanding Natural Area Area of Critical Environmental Concern.
 - b. Coronado Mountain Research Natural Area Area of Critical Environmental Concern.
 - c. Dos Cabezas Peaks Area of Critical Environmental Concern.
 - d. Bear Springs Badlands Area of Critical Environmental Concern.
 - e. Willcox Playa National Natural Landmark Area of Critical Environmental Concern.
 - f. wilderness study area.
 - g. designated wilderness areas.



The Oliver Knoll atmospheric deposition monitoring station is part of a nationwide network that measures the acidity and particulate content of precipitation.

h. Oliver Knoll Atmospheric Deposition Monitoring Station

8. Designate Guthrie Peak, Juniper Flat in the Mule Mountains and the west end of Dos Cabezas Mountains as communication sites (see Map 27). Site plans will be prepared for all communication sites, and designation of new sites will be analyzed on a case-by-case basis.
9. Complete the withdrawal review process. Revoke all withdrawals determined to no longer serve their original or intended purpose.
10. Withdraw 12 acres for the proposed Safford District Office administrative site (T. 7 S., R. 25 E., Sec. 24, that part of the W1/2NW1/4NE1/4 lying north of Golf Course Road) from the public land laws and the mining and mineral leasing laws,
11. Withdraw 10 acres for the Oliver Knoll atmospheric deposition monitoring station (T. 4 S., R. 24 E., Sec. 22, SW1/4SE1/4SE1/4NE1/4, SE1/4SW1/4 SE1/4NE1/4, NW1/4NE1/4NE1/4SE1/4, NE1/4NW1/4NE1/4SE1/4) from the public land laws and the mining laws. Mineral leasing will be permitted with a "No Surface Occupancy" stipulation. Area will be established as an administrative site.
12. Withdraw 9,829 acres, including administrative sites and campgrounds, from mineral entry to preserve important resource values. Table 2-3 identifies the areas and acreages to be withdrawn, Appendix 7 lists the legal descriptions of the areas to be withdrawn.

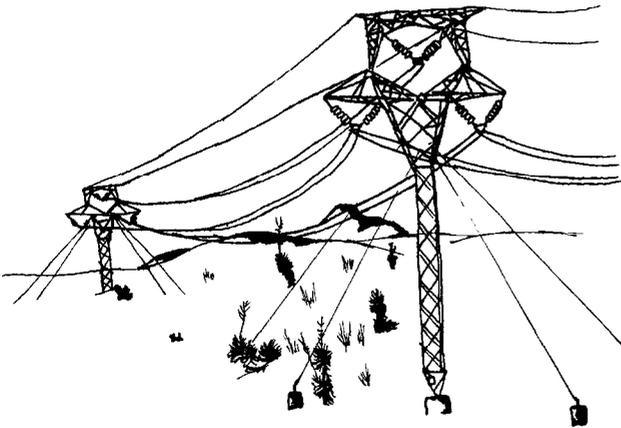


Table 2-3. Areas/Acres To Be Withdrawn From Mineral Entry-Alternative A

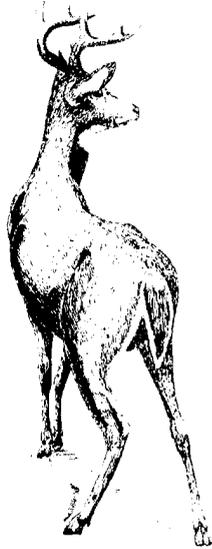
Area Withdrawn	Acres Withdrawn
Gila Box ONA ACEC	2,411
Table Mountain RNA ACEC	1,220
Desert Grassland RNA ACEC	380
Bear Springs Badlands ACEC	2,927
Bowie Mountain Scenic ACEC	2,230
Coronado Mountain RNA ACEC	120
Eagle Creek Bat Cave ACEC	40
Fourmile Canyon Campground	159
Oliver Knoll Atmospheric Deposition Monitoring Station	10
District Office Site proposed	12
Yuma Wash Archaeological Site	120
Tres Alamos Archaeological Site	160
Midway Cave Archaeological Site	40
Total	9,829

Source: Safford District Files

Management Concern 3- Outdoor Recreation and Visual Resource Management

If this alternative is approved the following actions will be implemented to resolve the Outdoor Recreation and Visual Resource Management Concern.

1. Designate the following areas as Special Recreation Management Areas to manage current recreation use.
 - a. Aravaipa Canyon/Turkey Creek
 - b. Gila Box/Bonita Creek.
 - c. Christmas (Gila River below Coolidge Dam).
 - d. Red Knolls/Bear Springs Badlands/Watson Wash.
 - e. Hot Well Dunes.



f. additional lands in the San Pedro Riparian National Conservation Area not previously included in the *San Pedro River Riparian Management Plan* (BLM 1989).

Prepare Recreation Area Management Plans for designated Special Recreation Management Areas, as needed. Manage the remainder of the public lands within the District as an Extensive Recreation Management Area for dispersed recreation use.

2. In the Recreation Area Management Plans, determine which public lands will be managed for interpretation and education, and which sites will have signs added for public interpretation, safety and education.
3. Continue to manage Aravaipa Canyon Wilderness following the guidance of the *Aravaipa Canyon Wilderness Management Plan* (BLM 1988).
4. Prepare project plans for the following areas that need some recreation planning and development.
 - a. Gila Mountain Crest Trail, in cooperation with the San Carlos Apache Tribe.
 - b. Galiuro/Aravaipa Santa Teresa Trail, in cooperation with the Forest Service.
 - c. Watson Wash Hot Well.
 - d. Safford-Morenci Trail.
 - e. Red Knolls.
 - f. Guadalupe Canyon.

- g. Black Hills Rockhound Area.
 - h. Round Mountain Rockhound Area.
 - i. Fort Bowie/Helen's Dome Trail, in cooperation with the National Park Service.
5. Evaluate new road construction for possibilities to enhance recreation experiences. Evaluate possible closure of some existing roads for the same possibilities. (See Access issue for additional information.)
 6. Continue to exclude livestock from 159 acres of public land around Fourmile Canyon Campground.
 7. Unless otherwise established, the maximum length of stay for recreation purposes in any one location is 14 days.
 8. Develop a District sign plan to determine which roads, sites and facilities will be signed for interpretation, education, information and public safety.
 9. Designate the following as Visual Resource Management Class I areas to preserve the scenic quality. (See Appendix 6 for classification definitions.)
 - a. designated wilderness areas.
 - b. Bowie Mountain Scenic Area of Critical Environmental Concern.



A BLM archaeologist examines fossilized bones at the Bear Springs Badlands ACEC.

10. Designate the following as Visual Resource Management Class II areas to preserve their scenic quality and to allow for some modification of the landscape.
 - a. Gila Box Riparian National Conservation Area and adjacent lands.
 - b. Turkey Creek Riparian Area of Critical Environmental Concern.
 - c. Aravaipa Canyon tablelands.
 - d. Bear Springs Badlands Area of Critical Environmental Concern.
 - e. Guadalupe Canyon Outstanding Natural Area Area of Critical Environmental Concern.
 - f. Dos Cabezas Peaks Area of Critical Environmental Concern.
 - g. Eagle Creek Canyon.
 - h. Coronado Mountain



Prickly pear cactus are a favorite food of javelina and other wildlife species.

- i. Willcox Playa National Natural Landmark Area of Critical Environmental Concern.
 - j. 111 Ranch Research Natural Area Area of Critical Environmental Concern.
 - k. Muleshoe Ranch.
 - l. Babocomari River.
 - m. Gila River Canyon (below Coolidge Dam).
 - n. Baker Canyon wilderness study area.
 - o. Brandenburg Mountain
11. Designate the following as Visual Resource Management Class III areas to preserve their scenic quality while providing for management activities that are evident but do not dominate the landscape.
 - a. all major highway corridors.
 - b. public lands north of Morenci.
 - c. San Francisco River above and below the Town of Clifton.
 - d. Government Peak and Happy Camp Canyon area of the Dos Cabezas Mountains.
 - e. east of Bowie Mountain around the marble quarry.
 - f. lands adjacent to the San Pedro Riparian National Conservation Area.
 - g. Whitlock Mountains.
 - h. Orange Butte.
 - i. Gila River at Bonita Creek.
 - j. Gila Mountains.
 - k. Mescal Mountains.
 - l. Jackson Mountain.
12. Designate the remainder of the District as a Visual Resource Management Class IV area. Appendix 6 explains the Visual Resource Management management class objectives. The following table identifies the number of acres designated by Visual Resource Management class.

Table 2-4. Acres by Visual Resource Management Class-Alternative A

VRM Class	Acres Designated
I	90,582
II	47,156
III	386,849
IV	874,413

Source: Safford District Files

Management Concern 4 - Energy and Minerals

The following actions will be implemented to resolve the Energy and Minerals Management Concern.

- Review mining notices and plans of operation received under the surface management regulations (43 CFR 3809) for impacts to other resources. Mitigation and reclamation measures will be provided to prevent unnecessary or undue degradation of the environment. Reclamation bonds will be required consistent with current BLM policy.
- Withdraw 9,829 acres from mineral entry to preserve important resource values. Table 2-3 identifies the areas and acreages to be withdrawn. Appendix 7 lists the legal descriptions of the areas to be withdrawn.
- Withdraw administrative sites and campgrounds (Table 2-3) from entry under the mining laws (see Appendix 7 for legal descriptions).
- Prohibit the sale of mineral materials (sand, gravel, etc.) on 12,371 acres to protect sensitive resource values. Table 2-5 identifies the areas and acreages where mineral materials will not be sold.
- Sale of mineral materials (sand, gravel, etc.) will not be permitted in areas with riparian vegetation (see Map 26).
- The standard list of environmental protection stipulations will be attached to all mineral material

Table 2-5. Areas/Acres Where Mineral Materials Will Not Be Sold-Alternative A

Area	Acres
Gila Box ONA ACEC	2,411
Bear Springs Badlands ACEC	2,927
Bowie Mountain Scenic ACEC	2,230
Dos Cabezas Peaks ACEC	25
Eagle Creek Bat Cave ACEC	40
Riparian areas other than those located in ACECs above	4,458
Tres Alamos Archaeological Site	160
Yuma Wash Archaeological Site	120
Total	12,371

Source: Safford District Files

sale authorizations. Any needed site-specific stipulations will also be added.

- Energy and other leasable minerals will be leased subject to the following conditions.
 - Standard environmental protection stipulations will be applied to all leases in open areas.
 - Surface occupancy will not be permitted in riparian areas (see Map 26).
 - Surface occupancy will not be permitted in campgrounds or administrative sites.
 - Surface occupancy will not be permitted in established bighorn sheep lambing areas from February 1 to April 30 of each year.
 - Surface occupancy will not be permitted at Tres Alamos, Yuma Wash or Midway Cave archaeological sites.
- Issue mineral and energy leases with a "No Surface Occupancy" stipulation on 14,052 acres to protect sensitive resource values. Table 2-6 identifies the areas and acreages to which this stipulation will apply.

Table 2-6. Areas/Acres to be Leased With a “No Surface Occupancy” Stipulation-Alternative A

NSO Area	NSO Acres
Gila Box ONA ACEC	2,411
Bear Springs Badlands ACEC	2,927
Bowie Mountain Scenic ACEC	3,600
Dos Cabezas Peaks ACEC	25
Eagle Creek Bat Cave ACEC	40
Riparian Areas other than those located in ACECs above	4,458
Desert Bighorn Sheep Lambing Areas	90
Fourmile Canyon Campground	159
District Office Site proposed	12
Oliver Knoll Atmospheric Deposition Monitoring Station	10
Yuma Wash Archaeological Site	120
Tres Alamos Archaeological Site	160
Midway Cave Archaeological Site	40
Total	14,052

Source: Safford District Files

Management Concern 5 - Cultural Resources

If this alternative is approved, the following objectives and actions will be implemented to resolve the Cultural Resources Management Concern.

- . Manage for Information Potential.
- . Manage for Public Values.
- . Manage for Conservation.

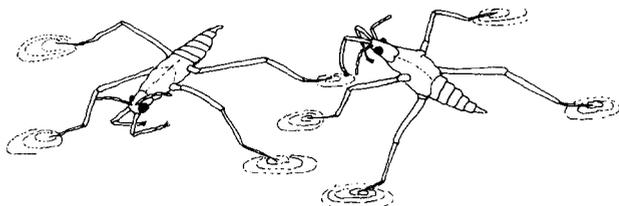


Table 2-7 identifies the actions that will be implemented to achieve each objective. Appendix 12 defines each objective.

The following actions will be implemented to accomplish the cultural resource management objectives. Critical protection will be considered more important than planning or field studies of threatened resources involving non-critical protection. This does not mean, however, that all critical protection work will be done before any planning or other actions.

1. Prioritize implementation of planned cultural resource actions according to the degree of need as defined below.
 - a. First priority will be given to planned actions protecting threatened and significant cultural resources that would otherwise be lost. This includes obtaining important data from individuals (ethnographic information) that may not be available in the future.
 - b. Second priority will be given to the preparation of management plans directing how the District manages its cultural resources.
 - c. Third priority will be given in cases where there is good reason to believe that cultural resources are being adversely affected even though they are not located in any area of proposed activity. Planned actions in these instances will seek to determine the nature and extent of the impacts and to identify corrective management actions. Third priority will also be given to planned actions protecting significant threatened cultural resources where the degree of damage or threat of damage is low (non-critical).



Bobcats can be found in rocky, brushy habitat along desert washes throughout the Safford District.

- cf. Fourth priority will be given to collecting cultural resource field data for planning purposes and for resource utilization not part of any protection or mitigation measure (for example, to allow a cultural property to be excavated solely for scientific research purposes or to allow a property to be interpreted to the public).
 - e. Fifth priority will be given to non-field studies designed to collect data for management or scientific purposes and for nominating cultural properties to the National Register of Historic Places. These studies and nominations will not be designed primarily to meet immediate management needs. Instead, they will be done to provide supplemental management information or to highlight cultural properties by nominating them to the National Register of Historic Places as requested by the general public or other interested parties.
2. Use the following administrative and physical measures to protect cultural properties:
- a. *Signing* place antiquity or interpretive signs on cultural properties being looted or vandalized.
 - b. *Withdrawal* withdraw areas from locations under the mining laws to protect significant cultural properties. Retain significant cultural properties in public ownership to conserve them for the future.
 - c. *Access* install fences or other barriers to restrict or eliminate public access to cultural properties that are being looted or vandalized. Prohibit firewood cutting for public use in areas with high cultural resource values.
 - d. *Patrol* patrol threatened cultural properties with personnel from the Arizona Site Steward Program, BLM's Cultural Resource Assistants and Law Enforcement Rangers and community volunteers.
 - e. *Fire Control* provide input to the development of a fire management plan to protect cultural resources. Assign a Cultural Resource Advisor to all extended attack fires whenever heavy equipment is used.
 - f. *Stabilization* stabilize deteriorating standing architectural structures on significant cultural properties.
 - g. *Detailed Recording* record all known prehistoric cliff dwellings and related structures in the District and the Yuma Wash and Midway Cave sites.
 - h. *Public Education* develop and implement annual Public Affairs Action Plans for cultural resources.



- | | |
|--|---|
| <p>3. Complete a Class III cultural resource inventory and intensive testing in and adjacent to the Timber Draw project area.</p> <p>4. Eliminate livestock grazing on the Tres Alamos site.</p> <p>5. Conduct ethnographic studies of Bonita Creek, Muleshoe Ranch, Pima Mormon Canal System,</p> | <p>Civilian Conservation Corps camps and project areas and Aravaipa Canyon Wilderness and adjacent lands.</p> <p>6. Revise the Safford District Rock Art Cultural Resource Management Plan.</p> <p>7. Conduct a records search inventory and personal</p> |
|--|---|

Table 2-7. Management Objectives Achieved by Planned Actions-Alternative A

Actions	Manage for Information Potential	Manage for Values	Manage for Conservation
1. Use protection measures	X	X	X
2. Inventory and test at Timber Draw	X		
3. Eliminate grazing - Tres Alamos	X		
4. Conduct ethnographic studies - Bonita Creek	X	0	0
Muleshoe Ranch	X	0	0
Mormon Canals	X		0
CCC camps and projects	X	0	0
Aravaipa area	X	0	0
5. Revise Rock Art CRMP	X	0	0
6. Study vandalism	X		
7. Conduct Class II inventories - Aravaipa area	X	0	0
Muleshoe Ranch	X	0	0
Mormon Canals	X	0	0
CCC camps and projects	X	0	0
8. Conduct Class III inventory - Bonita Creek	X	0	0
Timber Draw			
9. Inventor and manage the Dos Ca6ezas mining area	X	0	0
10. Research trails, roads, etc.	X	0	
11. Develop regional research design	X		
12. Promote scientific use	X		
13. Promote development of predictive model	X		
14. Interpret Aravaipa area		X	
15. Interpret - Safford Airport CCC Camp		X	
Bonita Creek properties		X	
16. Study San Simon erosion		X	

X Primary Objective 0 Secondary Objective N/A Not Applicable
Source: Safford District files.

interviews to determine the extent of looting and vandalism to cultural resources.

8. Conduct Class II archaeological inventories in Aravaipa Canyon Wilderness and adjacent lands, Muleshoe Ranch, Pima Mormon Canal System and Civilian Conservation Corps camps and project areas to enhance knowledge of cultural resources for future management decisions.
9. Conduct a Class III archaeological inventory in Bonita Creek Canyon to enhance knowledge of cultural resources for future management decisions.
10. Conduct a judgemental cultural resource field inventory and archival research to increase knowledge of the Dos Cabezas historical mining area on public lands. Develop cooperative management agreements for the inventory of the mining area on adjacent non-federal lands.
11. Conduct archival research to identify historic trails, roads, telegraph lines and other forms of historic transportation and communication.
12. Develop a regional research design to help identify the specific scientific and public values of individual cultural properties.
13. Actively promote scientific investigations on District cultural resources through the development of information packets, brochures and other measures.
14. Promote the development of a rigorous predictive model for the occurrence of cultural resources.
15. Develop a comprehensive interpretive and educational program depicting the geological, cultural and wildlife values of Aravaipa Canyon.
16. Develop and implement a management plan for interpretive use of the Civilian Conservation Corps Base Camp near the Safford Airport and selected cultural properties along Bonita Creek.
17. Conduct a cooperative study with the Soils Program to determine the effects of soil erosion on cultural properties in the San Simon drainage.

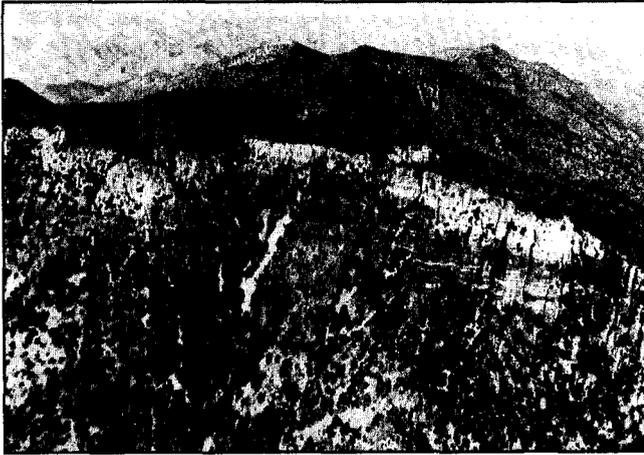
Management Concern 6 - Soil Erosion

If this alternative is approved, the following objectives and actions will be implemented to resolve the Soil Erosion Management Concern.

- Reduce accelerated erosion.
- Restore eroded floodplains of the San Simon River and in the Bear Springs Flat area (see Map 26).
 - Reduce silt and salts entering the Gila River from the San Simon River.
- Reduce non-point source pollution that could result from rangeland management and use activities.

The following actions will be implemented to accomplish the soil erosion and salinity management objectives.

1. Develop activity plans, where needed, to initiate rehabilitation of eroded areas.
2. Construct Timber Draw Dam to continue efforts to rehabilitate eroded areas of the San Simon River (see Map 26).
3. Continue reseeding grasses and riparian vegetation on restored areas behind erosion control structures. Manage livestock with fencing or other methods to protect these areas.
4. Protect the eroded floodplain of the San Simon River through appropriate livestock management.
5. Establish soil erosion studies at Hot Well Dunes to determine the effects of off-highway vehicle use. Limit off-highway vehicle use if erosion becomes unacceptable.
6. Repair Oso Largo Detention Dam (see Map 26) in the Bear Springs Flat area to continue rehabilitation of eroded lands. Assess the land upstream of Oso Largo Dam to determine the need for maintenance of existing structures or the need for additional structures. Make all structures functional without adverse impacts to the Area of Critical Environmental Concern located in the upper end of the eroded area.
7. Investigate methods to increase vegetation cover in the Bear Springs Flat area, without adversely affecting the Area of Critical Environmental Concern.
8. Continue seasonal livestock use in the Bear Springs Flat area.
9. Cap or contain the flowing wells in the San Simon Watershed if salinity exceeds 3,000 ppm.



A unique plant community of Arizona cypress, Mexican pinyon, pointleaf and pringle's manzanita and netleaf oak atop Coronado Mountain is managed by BLM and USFS.

Management Concern 7- Vegetation

If this alternative is approved, the following objectives and actions will be implemented to resolve the Vegetation Management Concern.

1. The objective for management of upland vegetation is to restore and maintain plant communities for wildlife, watershed condition and livestock. The desired plant communities will be determined in the preparation of activity plans (allotment management plans, habitat management plans, etc.). An ecological site inventory will be completed as new allotment management plans are prepared or existing plans revised.
2. The objective for management of threatened, endangered and special status plant species is to manage the public lands to preserve and enhance occurrences of special status species and to achieve the eventual delisting of threatened and endangered species. BLM will assist the Fish and Wildlife Service in the development of Threatened and Endangered species recovery plans. Implementation of recovery plans will be accomplished through activity plans.

To accomplish the Threatened and Endangered plant species management objectives, inventory and develop Habitat Management Plans or include Threatened and Endangered plants in other Habitat Management Plans in the following priority order.

- a. Listed threatened *Coryphantha robbinsorum*.
- b. Candidate category I species *Aster lemonii* and *Rumex orthoneurus*.

- c. Reinventory and monitor other candidate species known to occur on public lands.
 - d. Reinventory and monitor listed endangered species. *Echinocereus triglochiciatus*
3. Land treatments (vegetation manipulation) will be used to decrease invading woody plants and increase grasses and forbs for wildlife, watershed condition and livestock. Public lands, where vegetation condition is less than desired to meet management objectives, will be identified for treatment through activity plans. Treatments may include various artificial (mechanical, chemical or prescribed fire) methods. Management objectives for riparian vegetation can be found under Issue 4 Riparian Vegetation.

The following actions will be implemented to accomplish the land treatment objective.

- a. Implement those best management practices and methods that will increase vegetation cover and decrease soil erosion and non-point source pollution to streams from sedimentation.
 - b. Study the methods and effects of reducing rodent and rabbit populations on selected upland areas to improve vegetation cover.
4. Make the following firewood cutting areas available to the public (see Map 26).
 - a. San Simon Fan Structure area for tamarisk and mesquite.
 - b. West of the San Simon River, on Sonoita soils for mesquite.
 - c. Mesquite Well area, on Sonoita soils for whitethorn and mesquite.
 - d. Horse Mountain area for manzanita, juniper and mesquite.

Permit up to 500 cords per year on public lands Districtwide, but do not allow cutting in major desert washes, wilderness areas or some special management areas.

5. Determine other areas appropriate for firewood cutting and the quantities available.
6. Issue permits for vegetation products, other than firewood, as determined by public demand and on-site evaluation.

7. Initiate a study of the effects of climatic changes on vegetation communities as well as on other resources.

Management Concern 8 - Water Resources

If this alternative is approved, the following objectives and actions will be implemented to resolve the Water Resources Management Concern. These objectives are designed to support on-going programs (range, riparian, recreation, wildlife, etc.) while providing data to be used for future management decisions.

1. The objective for management of groundwater is to conserve water for prudent resource management purposes.

The following actions will be implemented to accomplish the groundwater management objective.

- a. Cap unusable or unsuitable wells to prevent contamination of aquifers and to contain highly saline water.
- b. Restrict artesian flow to meet specific program needs.
- c. Inspect and maintain water systems to prevent unnecessary loss of water.

Further, initiate a groundwater study for the San Simon Watershed to determine the depth of the various aquifers, changes in the quantities of individual aquifers, the water quality of each aquifer and availability of groundwater for BLM's resource management programs. Prepare a management plan for the use and conservation of water (quality and quantity).

2. The objective for management of water quality is to maintain or enhance water quality at or above established standards for designated uses to meet management goals for each water source. BLM will adhere to federal and state water quality laws and standards.

The following actions will be implemented to accomplish the water quality management objective.

- a. Support other resource programs in the implementation of this plan and monitor the effectiveness of planning decisions.
- b. Continue the existing water quality testing program in the District (see Appendix 9).

c. Initiate data collection where there is a suspected or known pollution threat or hazard to water quality.

d. Develop an activity plan and initiate management actions needed to mitigate water quality degradation detected through monitoring.

e. Develop a District Water Quality Monitoring Plan, including recommendations for Unique Waters nominations.

f. Share data with other water quality managing agencies.

3. Evaluate Aravaipa Creek, Mescal Creek, Redfield Canyon, Swamp Springs Canyon, Hot Springs Canyon and Bass Canyon to determine their suitability for Unique Waters designation. Nominate those that meet the required standards.

4. Evaluate Turkey Creek, Deer Creek and the Left Fork of Markham Creek (intermittent streams) for Unique Waters designation, if their flow becomes perennial. Nominate those that meet the required standards.

5. Manage stream segments through public lands designated as Unique Waters to maintain or enhance water quality standards, protect the associated resources, and use best management practices selected to reduce non-point source pollution that could result from rangeland management uses.

6. Evaluate the long-term Districtwide resource management needs for ground and surface water.

7. Evaluate Gila River, San Francisco River, Redfield Canyon, Hot Springs Canyon, Swamp Springs



The winding canyonlands of Aravaipa, as view from atop the Pilaes, are habitat for desert bighorn sheep.

Canyon, Bass Canyon, Bonita Creek and Mescal Creek to determine the quantities of in-stream flow (water rights) needed to meet resource management objectives. File with the state on the quantities needed to meet resource management objectives.

8. Evaluate Turkey Creek, Deer Creek, Left Fork of Markham Creek and Guadalupe Canyon (intermittent streams), if their flow becomes perennial, to determine the quantities of instream flow (water right) needed to meet resource management objectives. File with the state on the quantities needed to meet resource management objectives.
9. Purchase water rights, when necessary, to protect threatened resource values.

Management Concern 9 - Air Quality

If this alternative is approved, the following objectives and actions will be implemented to resolve the Air Quality Management Concern.

1. Continue to manage the airshed in accordance with State of Arizona Class II standards, unless redesignated. Class II standards allow for moderate deterioration of air quality associated with moderate, well-controlled industrial and population growth.
2. Comply with all federal and State statutes pertaining to air quality and cooperate with the State of Arizona in carrying out the State Implementation Plan.

The following actions will be implemented to accomplish these objectives.

- a. When implementing BLM or BLM-approved activities, minimize surface disturbances to prevent the addition of large quantities of dust to the air. When surface disturbances occur, enforce stipulations to mitigate the impacts to air quality.
- b. Continue the rehabilitation of erosion in the San Simon Watershed and the Bear Springs Flat area (see Map 26) to reduce airborne dust.
- c. Conduct prescribed fire with prior approval of the Arizona Department of Environmental Quality, Office of Air Quality.
- d. Continue operation of the Oliver Knoll atmospheric deposition monitoring station as part of a nationwide network.

Management Concern 10 - Paleontological Resources

If this alternative is approved, the following objectives and actions will be implemented to resolve the Paleontological Resources Management Concern.

1. Preserve a representative sample of Class I (see Appendix 12) paleontological localities.
2. Ensure that BLM actions avoid inadvertent damage to paleontological resources.
3. Manage paleontological resources to preserve their scientific and interpretive values.
4. Emphasize management of Class I sites.
5. Provide opportunities for education and interpretation.
6. Provide opportunities for scientific research.

Implement the following actions to accomplish the objectives for management of paleontological resources:

- a. Continue inventories in areas of proposed activities to identify the presence of paleontological resources and determine measures needed to mitigate anticipated impacts.
- b. Conduct field studies at Bear Springs Badlands, 111 Ranch and Hot Well Dunes.
 - (1) Provide data on the nature, extent and scientific significance of fossils.
 - (2) Determine the condition of exposures and factors that may be affecting them.
 - (3) Determine the suitability of these areas for inclusion in the National Natural Landmarks program. Nominate qualifying areas.
3. Prepare a Paleontological Resources Management Plan for the District.
4. Write a detailed overview of the biological and geological history of the District emphasizing paleontological resources important to scientific research.
5. Study, evaluate and monitor off-highway vehicle use at the Hot Well Dunes to determine the effect on paleontological resources.

Alternative B

This alternative emphasizes management and protection of natural and cultural resources while still providing for use and development of the public lands. More restrictions are applied, compared to the other alternatives, to protect natural and cultural resources. This alternative designates larger areas in some Areas of Critical Environmental Concern with more protective management prescriptions. Priority wildlife species include Threatened and Endangered species and their habitat but no game species. Actions are proposed to protect water quality by using best management practices to reduce non-point pollution from rangeland management activities and uses. Additional management emphasis is given to protection and enhancement of riparian areas. The protection of cultural resource values (scientific, public and conservation) will be emphasized before the use of these values.

Issue 1- Access

The following actions will be implemented to resolve the Access Issue.

1. Prepare a District Transportation Plan that includes identification of access needs and closures, a road and trail numbering system, sign needs, maintenance needs and coordination with other agencies and landowners.
2. Minimize the impact from existing and proposed access routes on natural and cultural resources.
3. Reserve, as needed, access across public lands that are disposed of by sale, exchange or other means.
4. Obtain public and administrative access to the public lands.
5. Roads may be closed, as needed, for visitor use management, resource protection and to accomplish resource management objectives.
6. Obtain legal access, for public and administrative use, across private lands in 29 locations Districtwide (see Appendix 1) and across other state and private lands as determined in the future.
7. Reconstruct the following roads to provide vehicle access for the administration and use of the public lands.
 - a. Virgus Canyon Road, about one half mile T. 6 S., R. 18 E., Secs. 27,34,35.

- b. Military Trail, about three miles T. 3 S., R. 16 E., Secs. 13, 14, 23.
 - c. Buckeye Canyon Road, about one mile T. 13 S., R. 27 E., Secs. 26, 27,34 and T. 14 S., R. 27 E., Sec. 9.
 - d. Jackson Cabin Road, about five and a half miles T. 11 S., R. 20 E., Secs. 22, 26, 27, 35, 36; T. 12 S., R. 20 E., Secs. 1, 2,11, 24; and T. 12 S., R. 21 E., Secs. 30,31.
 - e. other roads as determined in the future.
8. Obtain legal access, for public and administrative use, on existing foot and horse trails across private lands in the following locations.
- a. Aravaipa Canyon Wilderness Trail from the west trailhead (at the administrative site) to the west boundary of the wilderness T. 6 S., R. 17 E., Secs. 13, 24.
 - b. Babocomari River Trail T. 20 S., R. 20 E., Sec. 13 and T. 20 S., R. 21 E., Sec. 18.
 - c. Safford-Morenci Trail where it crosses Bonita Creek T. 5 S., R. 27 E., Secs. 10, 11.
 - d. Safford-Morenci Trail where it crosses the San Carlos Indian Reservation T. 4 S., R. 28 E., Sec. 31.
 - e. Hell Hole Canyon Trail and trailhead at Dry Camp T. 6 S., R. 19 E., Sec. 7.



Desert bailey, a common desert flower, is poisonous to livestock.

Issue 2 - Area of Critical Environmental Concerns and Other Types of Special Management

If this alternative is approved, the following actions will be implemented to resolve the Area of Critical Environmental Concerns and Other Types of Special Management Issues.

1. Designate 13 Area of Critical Environmental Concerns totalling 122,102 acres (97,057 acres of public land) to protect important natural and cultural resources. Table 2-8 describes the specific areas, acreages, values and management prescriptions. Maps 1 through 22 and Map 24 show the location of each proposed Area of Critical Environmental Concern.

Appendix 2 includes a detailed discussion of each Area of Critical Environmental Concern nomination, including a determination of relevance and importance, rationale for designation, management prescription and alternatives considered.

2. Develop a Coordinated Resource Management Plan for the Bear Springs Flat area to direct the management of BLM's multiple use programs. The purpose of the plan will be to establish management objectives that direct development of future programs activities toward maintenance and enhancement of watershed condition (see Map 26). When developing the plan, livestock forage use will not be permitted to exceed an average of 40 percent over a full grazing cycle (averaging three to five years in duration).
3. Revise the San Simon River Coordinated Resource Management Plan. The purpose of the plan is to direct development of program activities to maintain and enhance watershed condition.
4. Cooperative livestock and watershed management studies will be conducted with the Forest Service, The Nature Conservancy and state universities to restore native grasslands and improve the condition of the Aravaipa Watershed. District studies will explore various "best management" techniques.

Issue 3 - Off-highway Vehicles

If this alternative is approved, the following actions will be implemented to resolve the Off-highway Vehicles Issue.

1. Initiate procedures to designate 1,708 acres at Hot Well Dunes closed to off-highway vehicle use.
2. Designate the following areas closed to off-highway vehicle use.
 - a. That part of Turkey Creek and Oak Grove Canyon in the Aravaipa Watershed Area of Critical Environmental Concern above the Oak Grove Canyon corrals 102 acres.
 - b. Desert Grasslands Research Natural Area Area of Critical Environmental Concern 530 acres.
 - c. Willcox Playa National Natural Landmark Area of Critical Environmental Concern 2,475 acres.
 - d. The riparian area of Hot Springs Canyon 140 acres.
3. Designate wilderness areas closed to off-road vehicle use. (84,632 acres currently designated).
4. Off-highway vehicle use within the San Pedro Riparian National Conservation Area (54,189 acres) is limited to designated roads. Vehicle use within the Gila Box Riparian National Conservation Area (20,900 acres) will be determined during the preparation of the management plan for the area.
5. Designate the remainder of the District (1,309,646 acres) Limited to off-highway vehicle use. Off highway vehicle use will be limited to existing roads and trails occurring at the time of designation and any new roads approved for construction during the life of the Resource Management Plan. Existing roads and trails have been identified and are available for review in the District Office. Table 2-9 identifies the acres designated in each category.
6. Off highway vehicle designations and management will apply to motorized transportation only.

Issue 4 - Riparian Areas

If Alternative B is approved, the following objectives and actions will be implemented to resolve the Riparian Areas Issue.

The objective for management of riparian areas is to maintain or improve 75 percent of the acres of riparian vegetation on public lands within the District in good or excellent condition by 1997 (see Map 26).

The following actions will be implemented to accomplish this objective.

Table 2-8. Areas Designated as Area of Critical Environmental Concerns-Alternative B

Proposed Values or Name	Federal, State Management & Private Acres	Values or Hazards	Prescription
Gila Box ONA ACEC	F 2,994 S 0 P 360 3,354	Desert rivers, riparian habitat, T&E species, bighorn sheep, scenery, recreation use, cultural resources.	Mineral withdrawal, NSO for mineral leasing, no sand/gravel sales, limit OHVs, no OHVs in canyon bottoms, suppress wildfire in riparian zones, acquire private lands if available, no RWs outside the designated corridor, no woodcutting, VRM Class II.
Aravaipa Watershed ACEC*	F 50,290 S 0 P 8,028 58,318	Valuable watershed, including a wilderness, riparian zones, T&E wildlife, bighorn sheep, native fish, streams, recreation opportunities	Limit OHV use, close Oak Grove Cyn. and upper part of Turkey Cr. to OHV use, NSO for mineral leasing or no mineral material perennial waters, sales in riparian zones. Require a mining plan, no livestock after expiration of current lease, monitor water quality, rehabilitate riparian and upland vegetation, develop cooperative agreement.
Table Mtn. RNA ACEC	F 1,220 S 0 P 0 1,220	Plant community.	Limit OHV use, no woodcutting, mineral withdrawal, no vegetative sales, prescribed fire plan, NSO for mineral leasing, no sand/gravel sales, exclude livestock.
Desert Grasslands RNA ACEC	F 530 S 240 P 70 840	Relict desert grasslands.	Mineral withdrawal, no sand/gravel sales, closed to OHV use, acquire State/private lands if available, prescribed fire plan.

Table 2-8. Areas Designated as Area of Critical Environmental Concerns-Alternative B (continued)

Proposed Values or Name	Federal, State Management & Private Acres	Values or Hazards	Prescription
Muleshoe ACEC**	F 19,400 S 967 P 6,320 26,687	Riparian areas, T&E species, big-horn sheep, native fish, cultural resources, valuable watershed.	Limit OHV use, close Hot Springs Canyon to OHVs, require mining plans, rehabilitate riparian and upland vegetation, exclude livestock except on Soza Mesa and peripheral areas, acquire legal access, acquire State/private land if available.
Bear Springs Badlands ACEC	F 4,127 S 320 P 0 4,447	Paleontological (fossil) resources, scenery.	Scientific studies, VRM Class II, no road construction, limit OHV use, mitigate livestock and soil erosion impacts, mineral withdrawal, NSO for mineral leasing, no sand/gravel sales, extensive inventory.
Guadalupe Canyon ONA ACEC	F 5,838 S 0 P 1,146 6,984	Riparian habitat, T&E species, scenery, recreation values.	Limit OHV use, prescribed fire plan, no woodcutting, VRM Class II, no R/Ws.
Bowie Mtn. Scenic ACEC	F 4,190 S 0 P 100 4,290	Scenic backdrop to Ft. Bowie National Historic Site.	Require mining plan, limit OHV use, suppress wild-fire, no woodcutting, VRM Class I, no R/Ws, acquire private lands if available.
Coronado Mtn. RNA ACEC	F 120 S 0 P 0 120	Unique plant association.	Mineral withdrawal no woodcutting, VRM Class I, prescribed fire plan, no R/Ws.

Table 2-8. Areas Designated as Area of Critical Environmental Concerns-Alternative B (continued)

Proposed Values or Name	Federal, State Management & Private Acres	Values or Hazards	Prescription
Dos Cabezas Peaks ACEC	F 25 S 0 P 0 25	Scenic, historic landmark.	Require mining plan, limit OHV use, no woodcutting, prescribed fire plan, no RWs, VRM Class II.
Eagle Creek Canyon ONA ACEC***	F 3,160 S 1,341 P 4,950 9,451	Mexican free-tailed bat maternity cave, scenery, T&E wildlife, raptors.	Mineral withdrawal, NSO for mineral leasing, acquire State/private lands if available, VRM Class II, prohibit guano extraction, monitor bat cave.
Willcox Playa NNL ACEC	F 2,475 S 803 P 400 3,678	Pleistocene Epoch lakebed.	Close to OHV use, acquire State/private lands if available, no woodcutting, no RWs, VRM Class II.
111 Ranch RNA ACEC	F 2,688 S 0 P 0 2,688	Paleontological (fossil) resources.	No wood-cutting, no RWs, VRM Class II, paleontological clearances.

*Includes Turkey Creek Riparian Area of Critical Environmental Concern from Alternative A and South Rim Area of Critical Environmental Concern from Alternative C.

**Includes Swamp Springs-Hot Springs Watershed Area of Critical Environmental Concern from Alternative A and Muleshoe Riparian Area of Critical Environmental Concern from Alternative C.

***Includes Eagle Creek Bat Cave Area of Critical Environmental Concern from Alternatives A and C.

Source: Safford District Files

- Incorporate riparian area objective into existing and future activity plans.
- Develop and implement a system to prioritize needed riparian area management. The priorities will be based on management objectives, resource condition, resource conflicts and the potential or capability of a riparian area to respond to treatment.
- Develop a riparian inventory system. Coordinate development and implementation of the system with other federal and state land managing agencies.
- Complete the inventory of all riparian areas on public lands in the District to establish baseline conditions.
- Establish a monitoring plan for selected riparian areas based on the management priority system. Implement the plan and evaluate monitoring data. Continue to carry out needed changes in riparian area management through activity plans.
- Continue to file for in-stream flow rights on perennial streams or rivers and water rights on springs and ponds to protect and maintain riparian vegetation.

Table 2-9. Acres Designated for Off-highway Vehicle Use-Alternative B

Off-highway Vehicle Designation	Approximate Acres
Open	0
Limited	1,309,646
Closed	89,587

Source: Safford District Files

- Continue to develop grazing systems and modify existing allotment management plans, as necessary, to manage livestock use for the improvement of riparian areas.
- Except for tamarisk, do not permit firewood cutting in riparian areas.



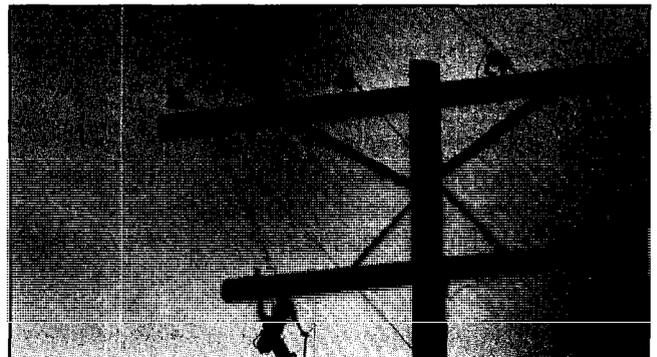
Mining claims for locatable mineals can be filled on most public lands in the Safford District under the proposed RMP.

- Permit the removal of non-native vegetation for improvement of riparian vegetation.
- Maintain and monitor representative relict riparian areas to provide a baseline for future management decisions.
- Build Timber Draw Dam on the San Simon River to re-establish stream channel and floodplain conditions to promote the redevelopment of the riparian ecosystem.
- Continue to manage the San Pedro Riparian National Conservation Area following the guidance in the existing management plan and develop a management plan for the Gila Box Riparian National Conservation Area.
- Develop an environmental education program for riparian management.

Management Concern 1- Wildlife Habitat

If Alternative B is approved, the following objectives and actions will be implemented to resolve the Wildlife Habitat Management Concern.

- Maintain and enhance priority species and their habitats.
- Focus management actions on a single species, only when required by the *Endangered Species Act*. Actively promote Threatened and Endangered species recovery to achieve eventual delisting of the species.
- Conserve candidate species to ensure BLM authorized actions do not contribute to the need to list any species as threatened or endangered.



Power and telephone poles provide perching and nesting sites for many birds.

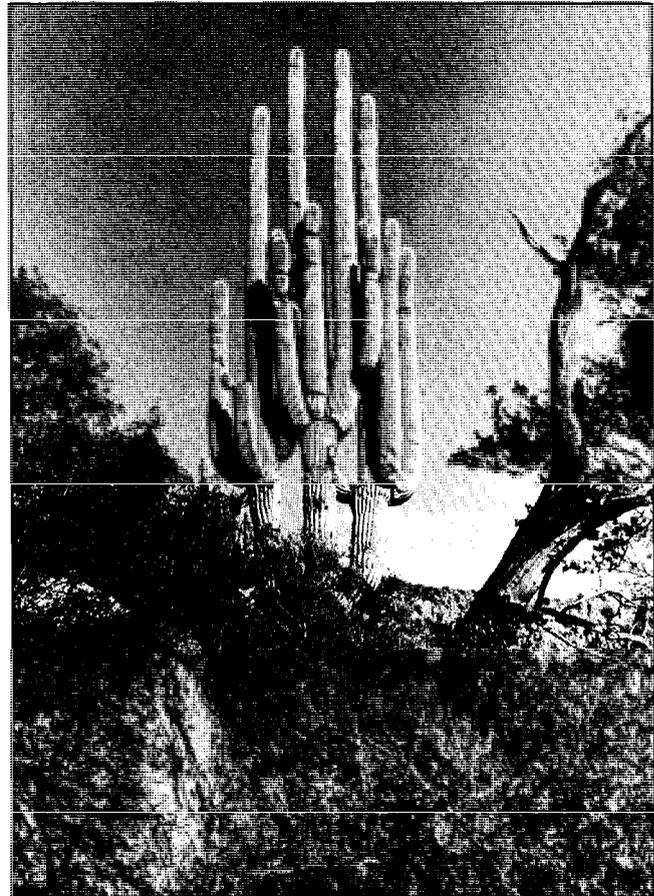
4. Manage State listed species to meet State objectives. Other special status species will be managed in accordance with inter and intra-agency management plans.
5. Manage priority wildlife species habitat (vegetation communities) or special features of that habitat (water, riparian vegetation, cliffs, etc.) to maintain or enhance population levels.
6. Focus management efforts on enhancing biological diversity.

The following actions will be implemented to accomplish these objectives.

- a. Establish the following as priority species and habitats. Priority species and habitats in the District include federally listed, proposed and candidate Threatened and Endangered species and their habitat, state-listed Threatened and Endangered species and their habitat, and other sensitive species and their habitat.
 - (1) Riparian/aquatic habitat and species dependent on riparian/ aquatic habitat Gila topminnow, desert pupfish, southern bald eagle, loach minnow, spinedace, Gila chub, Colorado roundtail chub, razorback sucker, western yellow-billed cuckoo, gray hawk, Mississippi kite, common black-hawk, ferruginous pygmy-owl, willow flycatcher and leopard frog.
 - (2) Species extirpated from the Safford District aplomado falcon, woundfin, grizzly bear, wolf, ocelot, jaguar, Colorado River squawfish, black-tailed prairie dog and river otter.
 - (3) Saguaro/palo verde owls, desert tortoise, songbirds and Harris hawk.
 - (4) Desert and Rocky Mountain bighorn sheep.
 - (5) Desert grasslands songbirds, reptiles, small game and pronghorn antelope.
 - (6) Oak woodlands and species dependent on oak woodland habitat white-tailed deer, turkey, black bear and Montezuma quail.
 - (7) Wetlands waterfowl, shore birds and leopard frog.
 - (8) Neotropical migratory birds
 - (9) Other species and habitats of interest peregrine falcon, red bat, Sat-born's long-nosed bat, Mexican long-tongued bat, ferruginous and Swainson's hawks and bat roosts.

General management objectives for each of the priority species and habitats are identified in Appendix 4.

- b. Inventory the District to determine the presence and abundance of priority species and their habitat.
- c. Manage habitat for optimum wildlife populations, based on ecological conditions, taking into consideration climatic changes and the goals and objectives of Arizona Game and Fish Department and the Fish and Wildlife Service (for Threatened and Endangered species).
- d. Transplant and augment populations of priority wildlife species, if necessary, to reach management objectives.
- e. Monitor priority habitat to determine condition and changes in condition. Inventory the impacts of other activities on wildlife populations and habitat prior to preparation of Habitat Management Plans. Identify opportunities in Habitat Management Plans to mitigate adverse impacts and implement the actions needed to correct the problem.
- f. Continue to maintain and improve wildlife habitat, emphasizing priority habitat.



Saguaros are common in the Lower Sonoran Desert. Large individuals are over 200 years old.

- g. Protect springs and associated riparian vegetation for wildlife water, cover and forage.
- h. Develop prescribed burning plans in fire-dependent vegetation communities to improve habitat conditions for priority wildlife species.
- i. Suppress wildfire in sensitive vegetation communities (like palo Verde/saguaro) to reduce any detrimental effects on priority wildlife dependent on those communities.
- j. Existing Habitat Management Plans address all public lands in the District except scattered parcels in Cochise County. Two Habitat Management Plans were completed prior to substantial land exchanges and were not based on realistic ecological boundaries. Redefine all Habitat Management Plan area boundaries to improve site-specific habitat management direction. Develop Sikes Act Habitat Management Plans, with Arizona Game and Fish Department for the following areas: Geronimo, Gila Box, Aravaipa-Muleshoe, Peloncillo, Dos Cabezas, San Simon, Cochise and San Pedro. Revision priorities will be determined in coordination with Arizona Game and Fish Department.
- k. Provide input into livestock Allotment Management Plans to ensure sufficient vegetation for cover and food in bighorn sheep lambing areas.
- l. Provide input into Allotment Management Plans in oak-woodland habitat to ensure perennial grasses are available to provide adequate cover for priority species.
- m. Close the following areas to animal damage control activities.
 - (1) Threatened and Endangered species habitat for those techniques that pose a threat to the species.
 - (2) Zones around residences and communities and in areas of concentrated recreation use for those techniques that pose a threat to the visitor or to dogs in areas where they are trained, exercised or used for hunting.
 - (3) Wilderness areas and Research Natural Areas except as individually authorized by the Arizona BLM State Director or the District/Area Manager.
- n. Authorize areas that are open for animal damage control in coordination with the Animal and Plant Health Inspection Service on a yearly basis.
- o. Inventory and categorize desert tortoise habitat by 1992. In the interim, place about 26,000 acres of public land in the San Pedro River basin from Cascabel to Winkelman and parts of the Dripping Spring and Pinal Moun tains in Category 3. Place about 3,000 acres east of San Manuel in Category 2 (see Appendix 10 for goals and criteria for categorization of habitat).
- p. Designate Gila Box Outstanding Natural Area, Muleshoe, Guadalupe Canyon Outstanding Natural Area, Eagle Creek Canyon and Aravaipa Watershed Outstanding Natural Area Areas of Critical Environmentat Concern for the protection of priority wildlife species and their habitat.

Management Concern 2 - Lands and Realty

-If this alternative is approved, the following objectives and actions will be implemented to resolve the Lands and Realty Management Concern.

1. The following are objectives for disposal of public lands.
 - a. The order of preference for disposal will be by exchange, *Recreation and Public Purposes Act* or sale.
 - b. Isolated tracts of public land may be disposed of to improve resource management efficiency and service to the public.
 - c. When lands next to urban areas are disposed of, the resulting boundaries will be manageable, fenceable and identifiable.



Facilities for handling livestock are scattered throughout the Safford District.

- ct. Prior to disposal, lands will be evaluated for significant cultural and natural resource values.

To accomplish these objectives, dispose of 73,569 acres of public lands in the following areas.

- (1) Gila Valley area.
- (2) southern Pinal Mountain area.
- (3) Dripping Spring Wash area.
- (4) Bisbee area, excluding the Juniper Flats block.
- (5) Tombstone area.
- (6) Douglas area.
- (7) Greenlee County Area.
- (8) San Simon area.
- (9) Three-Way Recreation and Public Purposes.
- (10) Recreation and Public Purposes sanitary landfill leases.

These areas have been identified for disposal and are within the disposal area identified on Map 27. However, all public lands within these areas do not have to be sold or exchanged. BLM may retain certain lands within the disposal areas. Upon evaluation of future land disposals, BLM may identify resource values worthy of retention in public ownership. Unforeseen future land management concerns or public demand may also necessitate disposal of other public lands not currently identified. The parcels considered at that time would be subject to BLM's planning process and the *National Environmental Policy Act*.

Appendix 5 shows the lands that meet The *federal Land Policy and Management Act* of 1976 criteria for sale. Although these lands qualify for sale, BLM's preferred method of disposal is exchange or through the *Recreation and Public Purposes Act*. Map 27 shows the areas where disposals of land may take place.



The Turkey Creek cliff dwelling is one of the most intact prehistoric structures of its kind in southeastern Arizona.

2. The following are objectives for land acquisition.

- . Acquire lands with high public values that complement existing management programs.
- . Consolidate ownership pattern to improve management efficiency.
- . Improve service to the public.

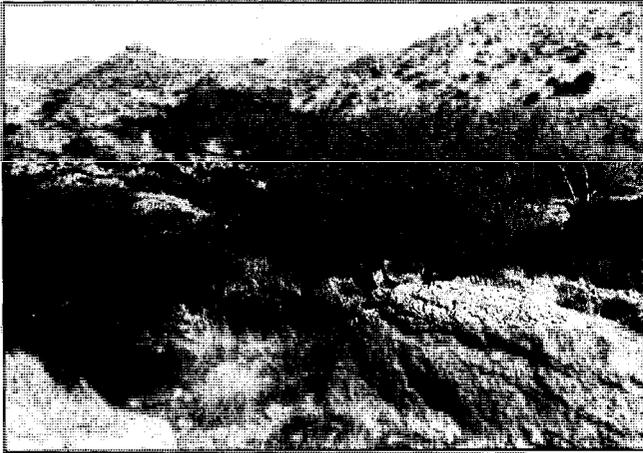
To accomplish these objectives, acquire, if they become available, state and private lands in the same areas as depicted in Alternative A and displayed on Map 27. These lands are of the following types and are located within or adjacent to public lands.

- a. riparian habitat.
- b. watersheds of important riparian areas.
- c. high-value wildlife habitat, such as Threatened and Endangered species areas and major migration corridors.
- d. administrative sites.
- e. land providing access to public lands.
- f. significant cultural and paleontological properties.
- g. other lands with high public resource values such as inholdings in Area of Critical Environmental Concerns and other types of special management areas.
- h. other private lands that will accomplish BLM's acquisition objectives.

3. According to the Federal Land Policy and Management Act of 1976 all lands not identified for disposal must be retained in federal ownership to be managed under the principles of multiple use and sustained yield.

Unforeseen future land management concerns or public demand may necessitate the disposal of other public lands. Such proposals will require this plan to be amended.

4. Designate the following existing utility lines as corridors for future utility needs on public lands across the District.
- a. Arizona Electric Power Company line one mile wide.
 - b. Tucson Electric Power Company line one mile wide.



Guadalupe Canyon has a unique overlap of Chihuahuan, Rocky Mountain and Sierra Madrean vegetation communities.

- c. All American pipeline (San Simon Resource Area only) one mile wide.
 - cf. San Pedro one mile wide (660 ft. wide where it crosses the San Pedro Riparian National Conservation Area.
 - e. Hayden/Christmas one mile wide.
- Any future major cross-District utility rights-of-way proposals will be encouraged to use these corridors (see Map 27).
5. Establish the Muleshoe Area of Critical Environmental Concern, the Aravaipa Watershed Area of Critical Environmental Concern, the Bear Springs Badlands Area of Critical Environmental Concern and the Bowie Mountain Scenic Area of Critical Environmental Concern as right-of-way avoidance areas. Every attempt will be made to avoid these areas with major cross-District rights-of-way to minimize or eliminate conflicts with sensitive resource values.
 6. Attach needed site-specific environmental protection stipulations to all rights-of-way.
 7. Establish the following areas as right-of-way exclusion areas.
 - a. Gila Box Outstanding Natural Area Area of Critical Environmental Concern.
 - b. Guadalupe Canyon Outstanding Natural Area Area of Critical Environmental Concern.
- c. Coronado Mountain Research Natural Area Area of Critical Environmental Concern.
 - d. Dos Cabezas Peaks Area of Critical Environmental Concern.
 - e. Willcox Playa National Natural Landmark Area of Critical Environmental Concern.
 - f. Bear Springs Badlands Area of Critical Environmental Concern
 - g. 111 Ranch Research Natural Area Area of Critical Environmental Concern.
 - h. wilderness study areas.
 - i. designated wilderness areas.
 - j. Oliver Knoll Atmospheric Deposition Monitoring Station
8. Designate Guthrie Peak, Juniper Flat in the Mule Mountains and the west end of Dos Cabezas Mountains as communication sites (see Map 27). Site plans will be prepared for all communication sites, and designation of new sites will be analyzed on a case-by-case basis.
 9. Complete the withdrawal review process. Revoke all withdrawals determined to no longer serve their original or intended purpose.
 10. Withdraw 12 acres for the proposed Safford District Office administrative site (T. 7 S., R. 25 E., Sec. 24, that part of the W1/2NW1/4NE1/4 lying north of Golf Course Road) from the public land laws and the mining and mineral leasing laws.
 11. Withdraw 10 acres for the Oliver Knoll atmospheric deposition monitoring station (T. 4 S., R. 24 E., Sec. 22, SW1/4SE1/4SE1/4NE1/4, SE1/4SW1/4SE1/4NE1/4, NW1/4NE1/4NE1/4SE1/4, NE1/4NW1/4NE1/4SE1/4) from the public land laws and the mining laws, Mineral leasing will be permitted with a "No Surface Occupancy" stipulation. Area will be established as an administrative site.
 12. Withdraw 17,220 acres, including administrative sites and campgrounds, from mineral entry to preserve important resource values. Table 2-10 identifies the areas and acreages to be withdrawn. Appendix 7 lists the legal descriptions of the areas to be withdrawn.

Table 2-10. Areas/Acres to be Withdrawn From Mineral Entry-Alternative B

Area Withdrawn	Acres Withdrawn
Gila Box ONA ACEC	2,994
Table Mountain RNA ACEC	1,220
Desert Grassland RNA ACEC	530
Bear Springs Badlands ACEC	4,127
Coronado Mtn. RNA ACEC	120
Eagle Creek Canyon ONA ACEC	3,160
Fourmile Canyon Campground	159
Oliver Knoll Atmospheric Deposition Monitoring Station	10
District Office Site proposed	12
Yuma Wash Archaeological Site	120
Tres Alamos Archaeological Site	160
Midway Cave Archaeological Site	40
Total	12,652

Source: S&ford District Files

Management Concern 3 - Outdoor Recreation and Visual Resource Management

If Alternative B is approved, the following actions will be implemented to resolve the Outdoor Recreation and Visual Resource Management Concern.

1. Designate the following areas as Special Recreation Management Areas to manage current recreation use.
 - a. Aravaipa Canyon/Turkey Creek.
 - b. Gila BotiBonita Creek.
 - c. Christmas (Gila River below Coolidge Dam).
 - d. Red Knolls/Bear Springs Badlands/Watson Wash.

- e. additional lands in the San Pedro Riparian National Conservation Area not previously included in the *San Pedro River Riparian Management Plan* (BLM 1989).

Prepare Recreation Area Management Plans for designated Special Recreation Management Areas, as needed. Manage the remainder of the public lands within the District as an Extensive Recreation Management Area for dispersed recreation use.

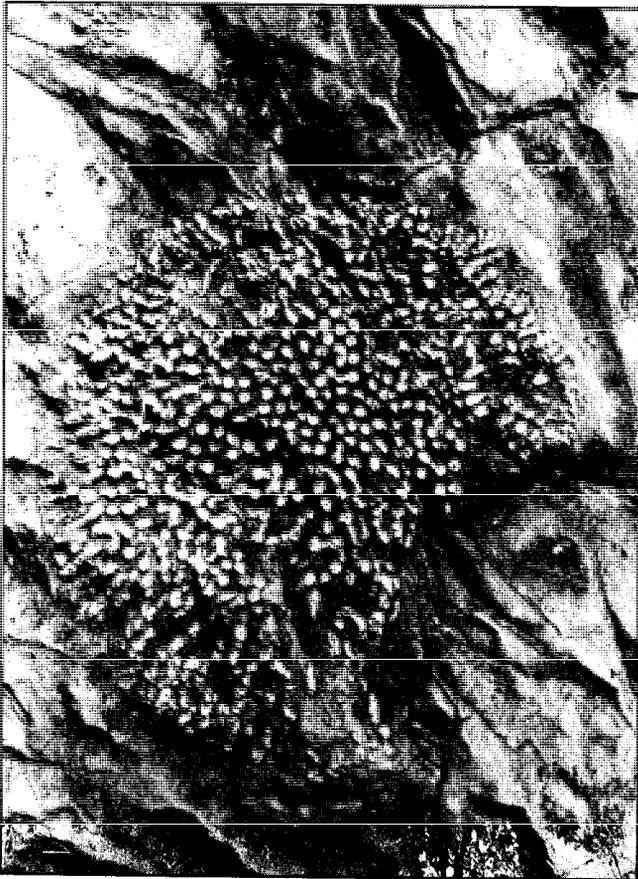
2. In the Recreation Area Management Plans, determine which public lands will be managed for interpretation and education, and which sites will be signed for interpretation, safety and education.
3. Continue to manage Aravaipa Canyon Wilderness following the guidance of the *Aravaipa Canyon Wilderness Management Plan* (BLM 1988).
4. Prepare project plans for the following areas that need some recreation planning and development.
 - a. Gila Mountain Crest Trail in cooperation with the San Carlos Apache Tribe.
 - b. Galiuro/Aravaipa/Santa Teresa Trail, in cooperation with the Forest Service.
 - c. Watson Wash Hot Well.
 - d. Safford-Morenci Trail.
 - e. Red Knolls.
 - f. Guadalupe Canyon.
 - g. Black Hills Rockhound Area.
 - h. Round Mountain Rockhound Area.
 - i. Fort Bowie/Helen's Dome Trail, in cooperation with the National Park Service.
5. Continue to exclude livestock from 159 acres of public land around Fourmile Canyon Campground.
6. Unless otherwise established, the maximum length of stay for recreation purposes in any one location is 14 days.
7. Develop a District sign plan to determine which roads, sites and facilities will be signed for interpretation, education, information and public safety.
8. Designate the following as Visual Resource Management Class I areas to preserve scenic quality.

- a. designated wilderness areas.
 - b. rivers designated as "Wild" under the Wild & Scenic Rivers Act.
 - c. Bowie Mountain Scenic Area of Critical Environmental Concern.
 - d. Coronado Mountain Research Natural Area Area of Critical Environmental Concern.
9. Designate the following as Visual Resource Management Class II areas to preserve scenic quality and to allow some limited modification of the landscape.
- a. Bonita Creek Canyon in the Bonita Creek Watershed.
 - b. Gila Box.
 - c. Bear Springs Badlands Area of Critical Environmental Concern.
 - d. Guadalupe Canyon Outstanding Natural Area Area of Critical Environmental Concern.
 - e. Dos Cabezas Peaks Area of Critical Environmental Concern.
 - f. Eagle Creek Canyon.
 - g. Willcox Playa National Natural Landmark Area of Critical Environmental Concern.
 - h. 111 Ranch Research Natural Area Area of Critical Environmental Concern.
 - i. Muleshoe Area of Critical Environmental Concern.
 - j. Babocomari River.
 - k. Gila River Canyon (below Coolidge Dam).
 - l. Baker Canyon wilderness study area.
 - m. Brandenburg Mountain
10. Designate the following as Visual Resource Management Class III areas to preserve scenic quality while providing for management activities that are evident but do not dominate the landscape .
- a. all major highway corridors.
 - b. public lands north of Morenci.
 - c. San Francisco River above the Town of Clifton.
 - d. Government Peak and Happy Camp Canyon area of the Dos Cabezas Mountains.
 - e. east of Bowie Mountain around the marble quarry.
 - f. lands adjacent to the San Pedro Riparian National Conservation Area.
 - g. Whitlock Mountains.
 - h. Orange Butte.
 - i. Gila Mountains.
 - j. uplands surrounding Bonita Creek Canyon in the Bonita Creek Watershed Area of Critical Environmental Concern.
 - k. Mescal Mountains.
 - l. uplands surrounding Aravaipa Canyon Wilderness in the Aravaipa Watershed Area of Critical Environmental Concern.
11. Designate the remainder of the District as a Visual Resource Management Class IV area. Appendix 6 explains the Visual Resource Management management class objectives. The following table identifies the acres designated by Visual Resource Management class.

Table 2-11. Acres by Visual Resource Management Class-Alternative B

VRM Class	Acres Designated
I	90,991
II	82,043
III	409,145
IV	817,811

Source: Safford District Files



Many fossils, such as this 350-million-year-old coral, can be found in the Mescal Mountains.

Management Concern 4 - Energy and Minerals

1. Mining notices and plans of operation received under the surface management regulations (43 CFR 3809) will be reviewed for impacts to other resources. Mitigation and reclamation measures will be provided to prevent unnecessary or undue degradation of the environment. Reclamation bonds will be required consistent with current BLM policy.
2. Withdraw 12,652 acres from mineral entry to preserve important resource values. Table 2-10 identifies the areas and acreages to be withdrawn. Appendix 7 lists the legal description of the area to be withdrawn.
3. Withdraw administrative sites and campgrounds (Table 2-10) from entry under the mining laws (see Appendix 7 for legal descriptions).
4. Lease energy and other leasable minerals subject to the following conditions.
 - a. Standard environmental protection stipulations will be applied to all leases in open areas.
 - b. Surface occupancy will not be permitted in riparian areas (see Map 26).
 - c. Surface occupancy will not be permitted in campgrounds or administrative sites.
 - d. Surface occupancy will not be permitted in established bighorn sheep lambing areas from February 1 to April 30 of each year.
 - e. Surface occupancy will not be permitted at Tres Alamos, Yuma Wash or Midway Cave archaeological sites.

Table 2-12. Areas/Acres to be Leased With a "No Surface Occupancy" Stipulation Alternative B

NSO Area	NSO Acres
Gila Box ONA ACEC	3,340
Aravaipa Watershed ACEC	537
Table Mountain RNA ACEC	1,220
Desert Grasslands RNA ACEC	790
Bear Springs Badlands ACEC	4,127
Bowie Mountain Scenic ACEC	3,600
Dos Cabezas Peaks ACEC	25
Eagle Creek Canyon ONA ACEC	3,642
Riparian Areas other than those located in ACECs or wilderness	3,797
Desert Bighorn Sheep Lambing Areas	90
Fourmile Canyon Campground	159
District Office Site proposed	12
Oliver Knoll Atmospheric Deposition Monitoring Station	10
Yuma Wash Archaeological Site	120
Tres Alamos Archaeological Site	160
Midway Cave Archaeological Site	40
Total	21,669

Source: Safford District Files

5. issue mineral and energy leases with a "No Surface Occupancy" stipulation on 21,669 acres to protect sensitive resource values. Table 2-12 identifies the areas and acreages to which the NSO stipulation will apply.
6. Prohibit the sale of mineral materials (sand, gravel, etc.) on 21,948 acres to protect sensitive resource values. Table 2-13 identifies the areas and acreages where mineral materials will not be sold.
7. Sale of mineral materials (sand, gravel, etc.) will not be permitted in areas with riparian vegetation (see Map 26).
8. The standard list of environmental protection stipulations will be attached to all mineral material sale authorizations. Any needed site specific stipulations will also be added.

Table 2-13. Areas/Acres Where Mineral Materials Will Not Be Sold Alternative B

Area	Acres
Gila Box ONA ACEC	3,340
Aravaipa Watershed ACEC	537
Table Mountain RNA ACEC	1,220
Desert Grasslands RNA ACEC	790
Bear Springs Badlands ACEC	4,127
Bowie Mountain Scenic ACEC	4,190
Dos Cabezas Peaks ACEC	25
Eagle Creek Canyon ONA ACEC	3,642
Riparian Areas other than those located in ACECs or wilderness	3,797
Tres Alamos Archaeological Site	160
Yuma Wash Archaeological Site	120
Total	21,948

Source: Safford District Files

Management Concern 5- Cultural Resources

If Alternative B is approved, the following objectives and actions will be implemented to resolve the Cultural Resources Management Concern.

- . Manage for Information Potential.
- . Manage for Public Values.
- ! Manage for Conservation.

Table 2-14 identifies the actions that will be implemented to achieve each objective. Appendix 12 defines each objective.

To accomplish the cultural resource management objectives, the following actions will be implemented. Critical protection will be given a higher priority for action than either planning or field studies of properties that are not critically threatened. This does not mean, however, that all critical protection work will be done before any planning or other actions.

- 1 Prioritize implementation of planned cultural resource actions according to the degree of need as defined below:
 - a. First priority will be given to planned actions protecting threatened and significant cultural resources that would otherwise be lost. This includes obtaining important data from individuals (ethnographic information) that may not be available in the future.
 - b. Second priority will be given to the preparation of management plans directing how the District manages its cultural resources.
 - c. Third priority will be given in cases where there is good reason to believe that cultural resources are being adversely affected even though they are not located in any area of proposed activity. Studies of plan actions in these instances will seek to determine the nature and extent of the impacts and identify corrective management actions. Third priority will also be given to planned actions protecting significant threatened cultural resources where the degree of damage or threat of damage is low (non-critical).
 - d. Fourth priority will be given to non-field studies designed to collect data for management or scientific purposes, This priority will also be given to nominating cultural properties to the National Register of Historic Places.

- e. Fifth priority will be given to collecting cultural resource field data for planning purposes and for resource utilization not part of any protection or mitigation measure (for example, to allow a cultural property to be excavated solely for scientific research, or to allow a property to be interpreted to the public).
2. Use the following administrative and physical measures to protect cultural properties:
 - a. Signing place antiquity or interpretive signs on cultural properties being looted or vandalized.
 - b. Withdrawal withdraw areas from location under the mining laws to protect significant cultural properties. Retain significant cultural properties in public ownership to conserve them for the future.
 - c. Access install fences or other barriers to restrict or eliminate public access to cultural properties that are being looted or vandalized. Disallow firewood cutting for public use in areas with high cultural resource values.
 - d. *Patrol* patrol threatened cultural properties with personnel from the Arizona Site Steward Program, BLM's Cultural Resource Assistants and Law Enforcement Rangers and community volunteers.
 - e. *fire Control* provide input into the development of a fire management plan to protect cultural resources. Assign a Cultural Resource Advisor to all extended attack fires whenever heavy equipment is used.
 - f. *Stabilization* stabilize deteriorating standing architectural structures on significant cultural properties.
 - g. *Detailed Recording* record all known prehistoric cliff dwellings and related structures in the District and the Yuma Wash and Midway Caves sites.
 - h. *Public Education* develop and implement annual Public Affairs Action Plans for cultural resources.
 3. Complete a Class III cultural resource inventory and intensive testing in and adjacent to the Timber Draw project area.
 4. Nominate at least six eligible cultural properties in the District to the National Register of Historic Places within the lifespan of the approved Resource Management Plan.
 5. Eliminate livestock grazing on the Tres Alamos site.
 6. Conduct ethnographic studies in Bonita Creek, Muleshoe Ranch, Pima Mormon Canal System, Civilian Conservation Corps camps and project areas and Aravaipa Canyon Wilderness and adjacent lands.
 7. Revise the Safford District Rock Art Cultural Resource Management Plan.
 8. Conduct a records search inventory and personal interviews to determine the extent of looting and vandalism to cultural resources.
 9. Conduct Class II archaeological inventories in Aravaipa Canyon Wilderness and adjacent lands and Muleshoe Ranch to enhance knowledge of cultural resources for future management decisions.
 10. Conduct a Class III archaeological inventory in Bonita Creek Canyon to enhance knowledge of cultural resources for future management decisions.
 11. Conduct a cooperative study with the Bureau Soils Program to determine the effects of soil erosion on cultural resources in the San Simon drainage.



Table 2-14. Management Objectives Achieved by Planned Actions-Alternative B

Actions	Manage for information Potential	Manage for Public Values	Manage for Conservation
1. Use protection measures	X	X	X
2. Inventory and test at Timber Draw	X		
3. Nominate properties to National Register	0	0	X
4. Eliminate grazing - Tres Alamos	X		
5. Conduct ethnographic studies -			
Bonita Creek	X	0	0
Muieshoe Ranch	X	0	0
Mormon Canals	X	0	0
CCC camps & projects	X	0	0
Aravaipa area	X	0	0
6. Revise Rock Art CRMP	0	0	
7. Study vandalism	X		
8. Conduct Class ii inventories -			
Aravaipa area	X	0	0
Muieshoe Ranch	X	0	0
9. Conduct Class iii inventory -			
Bonita Creek	X	0	0
Timber Draw			
10. Study San Simon erosion	X		

X - Primary Objective 0 - Secondary Objective N/A - Not Applicable
 Source: Safford District Files



Riparian areas provide nesting habitat for many species of birds.

Management Concern 6 - Soil Erosion

The following objectives and actions will be implemented to resolve the Soil Erosion Management Concern.

- Reduce accelerated erosion.
- Restore eroded floodplains of the San Simon River and in the Bear Springs Flat area (see Map 26).
- Reduce silt and salts entering the Gila River from San Simon River.

The following actions will be implemented to accomplish these objectives.

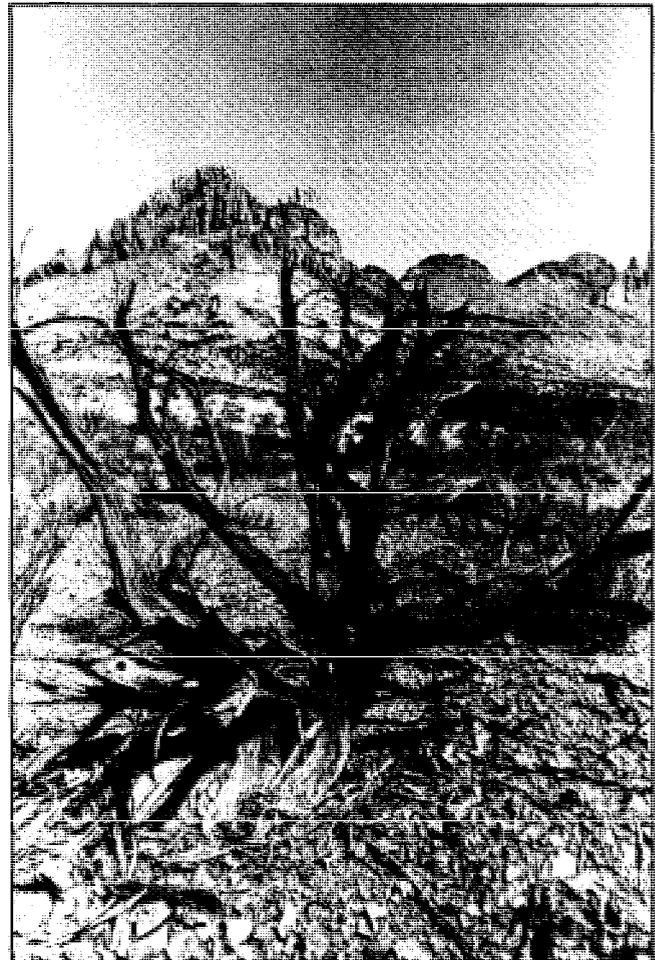
1. Develop activity plans, where needed, to initiate rehabilitation of eroded areas.
2. Construct Timber Draw Dam to continue efforts to rehabilitate eroded areas of the San Simon River (see Map 26).
3. Continue reseeded grasses and riparian vegetation on restored areas behind erosion control structures. Manage livestock with fencing or other methods to protect these areas.
4. Protect the eroded floodplain of the San Simon River through appropriate livestock management.
5. Repair Oso Largo Detention Dam (see Map 26) in the Bear Springs Flat area to continue rehabilitation of eroded lands. Assess the land upstream of Oso Largo Dam to determine the need to maintain existing structures or the need to build additional

structures. Make all structures functional without adverse impacts to the Area of Critical Environmental Concern located in the upper end of the eroded area.

6. Investigate methods to increase vegetation cover in the Bear Springs Flat area without adversely affecting the Area of Critical Environmental Concern located in the upper end of the eroded area.
7. Continue seasonal livestock use in the Bear Springs Flat area.
8. Cap or contain flowing wells in the San Simon Watershed if salinity exceeds 3,000 ppm.

Management Concern 7- Vegetation

If Alternative B is approved, the following objectives and actions will be implemented to resolve the Vegetation Management Concern.



A gnarled juniper is contrasted against the jagged cliffs of the highly scenic Peloncillo Mountains.

1. The objective for management of upland vegetation is to restore and maintain plant communities for wildlife, watershed condition and livestock. The desired plant communities will be determined in the preparation of activity plans (allotment management plans, habitat management plans, etc.). An ecological site inventory will be completed as allotment management plans are prepared or existing plans revised.
2. The objective for management of threatened, endangered and special status plant species is to manage the public lands to preserve and enhance occurrences of special status species and to achieve the eventual delisting of threatened and endangered species. BLM will assist the Fish and Wildlife Service in the development of Threatened and Endangered species recovery plans. Implementation of recovery plans will be accomplished through activity plans.
 - a. Listed threatened *Coryphantha robbinsorum* and *Vauquelinia pauciflora*.
 - b. Candidate category I species *Aster lemonii* and *Rumex orthoneurus*.
 - c. Re-inventory and monitor other candidate species known to occur on public lands.
 - d. Re-inventory and monitor *Echinocereus triglochidiatus*-listed endangered species.
3. Land treatments (vegetation manipulation) will be used to decrease invading woody plants and increase grasses and forbs for wildlife, watershed condition and livestock. Public lands, where vegetation condition is less than desired to meet management objectives, will be identified for treatment through activity plans. Treatments may include various artificial (mechanical, chemical or prescribed fire) methods. Management objectives for riparian vegetation can be found under Issue 4 — Riparian Vegetation. To achieve the objective for vegetation manipulation, implement those desirable treatment methods that increase vegetation cover and decrease soil erosion.



Pronghorn were released on semi-desert grasslands west of the Peloncillo Mountains through efforts of the BLM and Arizona Game and Fish Department.

4. Do not provide firewood or other vegetation products for public use.

Management Concern 8 -Water Resources

If this alternative is approved, the following objectives and actions will be implemented to resolve the Water Resources Management Concern. These objectives are designed to support on-going programs (range, riparian, recreation, wildlife, etc.) while providing data to be used for future management decisions.

1. The objective for management of groundwater is to conserve water for prudent resource management purposes.

The following actions will be implemented to accomplish the groundwater management objectives.

- a. Cap unusable or unsuitable wells to prevent contamination of aquifers and to contain highly saline water.
- b. Restrict artesian flow to meet specific program needs.
- c. Inspect and maintain water systems to prevent unnecessary loss of water.

Further, initiate a groundwater study for the San Simon Watershed to determine the level of the various aquifers, changes in the level of the aquifers, the water quality of the aquifers and availability of groundwater for BLM's resource management program. Prepare a management plan for use and conservation of water (quality and quantity).

2. The objective for managing water quality is to maintain or enhance water quality at or above established standards for designated uses to meet management goals for each water source. BLM will adhere to federal and State water quality laws and standards.

The following actions will be implemented to accomplish the water quality management objective.

- a. Support other resource programs in the implementation of this plan and monitor the effectiveness of planning decisions.
- b. Continue the existing water quality testing program in the District (see Appendix 9).

- c. Initiate data collection where there is a suspected or known pollution threat or hazard to water quality.
 - d. Develop an activity plan and initiate management actions needed to mitigate water quality degradation detected through water quality monitoring.
 - e. Develop a District Water Quality Monitoring Plan, including recommendations for Unique Waters nominations.
3. Evaluate Aravaipa Creek, Mescal Creek, Redfield Canyon, Swamp Springs Canyon, Hot Springs Canyon, Bass Canyon, Wildcat Canyon and Double R Canyon to determine their suitability for Unique Waters designation. Nominate those that meet the required standards.
 4. Evaluate Turkey Creek, Deer Creek, Left Fork of Markham Creek and Grapevine Creek (intermittent streams) for Unique Waters designation, if their flow becomes perennial. Nominate those creeks that meet the required standards.
 5. Manage stream segments designated by the state as Unique Waters to maintain or enhance water quality standards and protect the associated resources.
 6. Evaluate the long-term Districtwide resource management needs for ground and surface water across public lands.
 7. Evaluate the Gila River, San Francisco River, Redfield Canyon, Hot Springs Canyon, Swamp Springs Canyon, Bass Canyon, Wildcat Canyon, Double R Canyon, Bonita Creek and Mescal Creek to determine the quantities of in-stream flow (water rights) needed to meet resource management objectives. File with the state for the quantities of water needed to meet management objectives for those streams where no instream flow filings have been made.
 8. Evaluate Turkey Creek, Deer Creek, Left Fork of Markham Creek, Guadalupe Canyon and Johnny Creek (intermittent streams), if their flow becomes perennial, to determine the quantities of instream flow (water right) needed to meet resource management objectives. File with the state for the quantities needed to meet management objectives.
 9. Purchase water rights, when necessary, to protect threatened resource values.

Management Concern 9 - Air Quality

The following objectives and actions will be implemented to resolve the Air Quality Management Concern.

- Continue to manage the airshed in accordance with State of Arizona Class II standards, unless redesignated.
- Comply with all federal and state statutes pertaining to air quality and cooperate with the State of Arizona in carrying out the State Implementation Plan.

The following actions will be implemented to accomplish these objectives.

1. When implementing BLM or BLM-approved activities, minimize surface disturbances to prevent the addition of large quantities of dust to the air. When surface disturbances occur, require appropriate stipulations to mitigate the impact to air quality.
2. Continue the rehabilitation of erosion in the San Simon Watershed and the Bear Springs Flat area (see Map 26) to reduce airborne dust.
3. Conduct prescribed fire with prior approval of the Arizona Department of Environmental Quality, Office of Air Quality.
4. Continue operation of the Oliver Knoll atmospheric deposition monitoring station as part of the nationwide network.

Management Concern 10 - Paleontological Resources

If this alternative is approved, the following objectives and actions will be implemented to resolve the Paleontological Resources Management Concern.

1. Preserve a representative sample of Class I paleontological localities.
2. Ensure that BLM actions avoid inadvertent damage to paleontological resources.
3. Manage paleontological resources to preserve their scientific and interpretive values.
4. Emphasize management of Class I and II sites.
5. Provide opportunities for education, interpretation and scientific research.

Implement the following actions to accomplish the objectives for management of paleontological resources.

1. Continue inventories in areas of proposed activities to identify the presence of paleontological resources and determine measures needed to mitigate anticipated impacts.
2. Conduct field studies at Bear Springs Badlands, 111 Ranch and Hot Well Dunes.
 - a. Provide data on the nature, extent and scientific significance of fossils.
 - b. Determine the condition of exposures and factors that may be affecting them.
 - c. Determine the suitability of these areas for inclusion in the National Natural Landmarks Program. Nominate qualifying areas.
3. Prepare a Paleontological Resources Management Plan for the District.
4. Write a detailed overview of the biological and geological history of the District emphasizing the paleontological resources important to scientific research.

Alternative C

This alternative provides more emphasis on use and development of the public lands than Alternatives A or B. Fewer areas are managed to protect natural and cultural resources and specific prescriptions are less restrictive to use and development activities. While Area of Critical Environmental Concerns are still



Harris Hawks nest in large mesquites and saguaros in the Safford District.

designated, they are generally smaller and less restrictive on other uses. Protection and enhancement of riparian areas and Threatened and Endangered wildlife species are emphasized as are scientific use and recreational/interpretive development of cultural resources. Most of the planning area is open to off-highway vehicles.

Issue 1 - Access

If this alternative is approved, the following actions will be implemented to resolve the Access Issue.

1. Prepare a District Transportation Plan that includes identification of access needs and closures, a road and trail numbering system, sign needs, maintenance needs and coordination with other agencies and landowners.
2. Minimize the impact of existing and proposed access routes on natural and cultural resources.
3. Reserve, as needed, access across public lands that are disposed of by sale, exchange or other means.
4. Obtain public and administrative access to the public lands.
5. Roads may be closed as needed for visitor use management, resource protection and to accomplish resource management objectives.
6. Obtain legal access for public and administrative use across private lands in 39 locations Districtwide (see Appendix 1) and across other State and private lands as determined in the future.
7. Reconstruct the following roads to provide vehicle access for the administration and use of the public lands.
 - a. Virgus Canyon Road, about one half mile T. 6 S., R. 18 E., Secs. 27,34,35.
 - b. Military Trail, about three miles T. 3 S., R. 16 E., Secs. 13, 14, 23.
 - c. Buckeye Canyon Road, about one mile T. 13 S., R. 27 E., Secs. 26, 27,34 and T. 14 S., R. 27 E., Sec. 9.
 - d. Left Fork of Markham Creek Road, about three miles T. 3 S., R. 24 E., Sec. 36; T. 4 S., R. 24 E., Secs. 1, 12; and T. 4 S., R. 25 E., Secs. 6, 7, 18.

e. Jackson Cabin Road, about five and one half miles T. 11 S., R. 20 E., Secs. 22,26, 27,35, 36; T. 12 S., R. 20 E., Secs. 1,2,11,24; and T. 12 S., R. 21 E., Secs. 30,31.

f. Other roads as determined in the future.

8. Obtain legal access, for public and administrative use, on existing foot and horse trails across private lands in the following locations.
 - a. Aravaipa Canyon Wilderness Trail from the west trailhead (at the administrative site) to the west boundary of the wilderness T. 6 S., R. 17 E., Secs. 13, 24.
 - b. Babocomari River Trail T. 20 S., R. 20 E., Sec. 13 and T. 20 S., R. 21 E., Sec. 18.
 - c. Safford-Morenci Trail where it crosses Bonita Creek T. 5 S., R. 27 E., Secs. 10, 11.
 - d. Safford-Morenci Trail where it crosses the San Carlos Indian Reservation T. 4 S., R. 28 E., Sec. 31.
 - e. Hell Hole Canyon Trail and trailhead at Dry Camp T. 6 S., R. 19 E., Sec. 7.

Issue 2 - Area of Critical Environmental Concerns and Other Types of Special Management

If Alternative C is approved, the following actions will be implemented to resolve the Area of Critical Environmental Concerns and Other Types of Special Management Issue.

1. Designate 10 Area of Critical Environmental Concerns totalling 42,988 acres (35,362 acres of public land) to protect important natural and cultural resources. Table 2-15 describes the specific areas, acreages, values and management prescriptions. Maps 1 through 22 and Map 24 show the location of each proposed Area of Critical Environmental Concern.

Appendix 2 includes a detailed discussion of each Area of Critical Environmental Concern nomination, including a determination of relevance and importance, rationale for designation, management prescription and alternatives considered.

2. Develop Coordinated Resource Management Plans to direct the management of BLM's various multiple use programs on public lands in the Aravaipa Creek

Table 2-15. Areas Designated as Area of Critical Environmental Concerns-Alternative C

Proposed Name	Federal, State & Private	Acres	Values or Hazards	Management Prescription
South Rim ACEC*	F S P	22,510 0 6,268 28,778	Valuable watershed, including a wilderness, T&E species, native fish, recreation opportunities, big-horn sheep, riparian vegetation	Limit OHV use, close Oak Grove Canyon to OHV use, NSO for mineral leasing in riparian zones, require mining plan, no livestock after expiration of lease, monitor water quality, rehabilitate riparian and upland vegetation, VRM Class II.
Table Mtn. RNA ACEC	F S P	1,220 0 0 1,220	Plant community.	Limit OHV use, no woodcutting, require mining plan, no vegetative sales, prescribed fire plan, manage livestock.
Desert Grasslands RNA ACEC	F S P	530 240 70 840	Relict desert grasslands.	Require a mining plan, no livestock, closed to OHV use, acquire State/private lands if available, prescribed fire plan
Muleshoe Riparian ACEC	F S P	2,556 0 160 2,716	Riparian areas, T&E species, big-horn sheep, native fish, cultural resources.	Require mining plan, rehabilitate riparian vegetation, exclude livestock, acquire legal road access, acquire private land if available, limit OHV use, close Hot Springs Canyon to OHV use, monitor water quality, develop cooperative agreements.
Bear Springs Badlands ACEC	F S P	2,007 0 0 2,007	Paleontological (fossil) resources, scenery.	Inventory fossils, VRM Class II, no road construction, limit OHV use, require a mining plan.

Table 2-15. Areas Designated as Area of Critical Environmental Concerns-Alternative C (continued)

Proposed Name	Federal, State & Private Acres	Values or Hazards	Management Prescription
Guadalupe Canyon ONA ACEC	F 2,159 S 0 P 778 2,937	Riparian habitat, T & E species, scenery, recreation values.	Limit OHV use, no woodcutting, VRM Class II, no R/Ws, acquire private land if available, pre-scribed fire plan.
Bowie Mtn. Scenic ACEC	F 2,562 S 0 P 100 2,662	Scenic backdrop to Ft. Bowie National Historic Site.	Mineral withdrawal, NSO for mineral leasing, limit OHV use, prescribed fire plan, acquire private land if available, no woodcutting, VRM Class I, no R/Ws.
Coronado Mtn. RNA ACEC	F 50 S 0 P 0 50	Unique plant association.	Require mining plan, no woodcutting, VRM Class II, prescribed fire plan, no R/Ws.
Eagle Creek Bat Cave ACEC	F 40 S 0 P 10 50	Mexican free-tailed bat maternity cave.	Require mining plan, NSO for mineral leasing, no guano extraction, monitor the bat cave, acquire private lands if available, VRM Class II.
111 Ranch RNA ACEC	F 1,728 S 0 P 0 1,728	Paleontological (fossil) resources.	Require mining plan, limit OHV use, no woodcutting, VRM Class II, paleontological clearances.

¹ Includes Turkey Creek Riparian Area of Critical Environmental Concern from Alternative A.
Source: Safford District Files

Watershed, Muleshoe Ranch, Bear Springs Flat and Bonita Creek Watershed.

The purpose of the plans is to establish management objectives that directs the development of future program activities toward maintenance and enhancement of watershed condition (see Map 26). When developing Coordinated Resource Management Plans, livestock forage use will not be permitted to exceed an average of 40 percent over a full grazing cycle (averaging three to five years).

3. Revise the San Simon River Coordinated Resource Management Plan. The purpose of this plan is to direct development of program activities to maintain and enhance watershed condition.
4. Cooperative livestock and watershed management studies will be conducted with the Forest Service, The Nature Conservancy and universities to restore native grasslands and improve the condition of the Aravaipa Watershed. The District will study various best management techniques.

Issue 3 - Off-highway Vehicles

If this alternative is approved, the following actions will be implemented to resolve the Off-highway Vehicles Issue.

1. Designate the following areas closed to off-highway vehicle use. (85,384 acres)
 - a. Oak Grove Canyon above the Oak Grove Canyon corrals in the South Rim Area of Critical Environmental Concern 82 acres.
 - b. Desert Grasslands Research Natural Area Area of Critical Environmental Concern 530 acres.
 - c. The riparian area of Hot Springs Canyon 140 acres.
 - d. Any area designated wilderness. (84,632 acres currently designated.)

A closed area is where off -highway vehicle use is prohibited, even on roads or trails that exist within the closed area.

2. Designate the following areas limited to off-highway vehicle use. (34,742 acres)
 - a. South Rim Area of Critical Environmental Concern 22,510 acres.

- b. Table Mountain Research Natural Area Area of Critical Environmental Concern 1,220 acres.
- c. Muleshoe Riparian Area of Critical Environmental Concern 2,556 acres.
- d. Bear Springs Badlands Area of Critical Environmental Concern 2,007 acres.
- e. Guadalupe Canyon Outstanding Natural Area Area of Critical Environmental Concern 2,159 acres.
- f. Bowie Mountain Scenic Area of Critical Environmental Concern 2,562 acres.
- g. 111 Ranch Research Natural Area Area of Critical Environmental Concern 1,728 acres.

Off-highway vehicle use will be limited to roads and trails existing at the time of designation and any new roads approved for construction during the life of the Resource Management Plan. Existing roads and trails in these areas have been identified and the lists are available for review at the Safford District Office.

3. Off-highway vehicle use within the San Pedro Riparian National Conservation Area (54,189 acres) is limited to designated roads. Vehicle use within the Gila Box Riparian National Conservation Area (20,900 acres) will be determined during preparation of the management plan for the area.
4. Initiate procedures to designate the remainder of the District (1,257,513 acres) open to off-highway vehicle use. An open area is where all types of vehicle use is permitted, at all times and anywhere in the area. Table 2-16 identifies the acres designated in each category.

Table 2-16. Acres Designated for Off-highway Vehicle Use--Alternative C

Off-highway Vehicle Designation	Approximate Acres
Open	1,257,513
Limited	88,931
Closed	85,384

Source: Safford District Files

5. Off-highway vehicle designations and management will apply to motorized transportation only.

Issue 4 - Riparian Areas

The following objective and actions will be implemented to resolve the Riparian Areas Issue.

The objective for management of riparian areas is to maintain or improve 75 percent of the acres of riparian vegetation on public lands within the District in good or excellent condition by 1997 (see Map 26).

The following actions will be implemented to accomplish this objective.

1. Incorporate riparian area objectives into existing and future activity plans.
2. Develop and implement a system to prioritize needed riparian area management. The priorities will be based on management objectives, resource condition, resource conflicts and the potential or capability of a riparian area to respond to treatment.
3. Develop a riparian inventory system. Coordinate development and implementation of the system with other land managing agencies.
4. Complete the inventory of all riparian areas on public lands within the District to establish baseline condition.
5. Establish a monitoring plan for selected riparian areas based upon the management priority system. Implement the plan and evaluate monitoring data. Continue to carry out needed changes in riparian area management through activity plans.
6. Continue to file for in-stream flow rights on perennial streams or rivers and water rights on springs and ponds to protect and maintain riparian vegetation.
7. Continue to develop grazing systems and modify existing allotment management plans, as necessary, to manage livestock use for the improvement of riparian areas.
8. Do not permit firewood cutting in riparian areas.
9. Permit the removal of non-native vegetation for improvement of riparian vegetation.
10. Maintain and monitor representative relict riparian

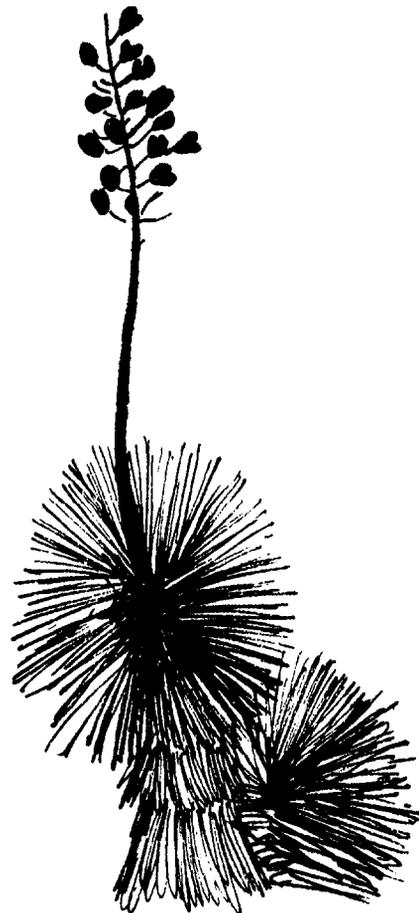
areas to provide a baseline for future management decisions.

11. Build Timber Draw Dam on the San Simon River to re-establish stream channel and floodplain conditions to promote the redevelopment of the riparian ecosystem.
12. Continue to manage the San Pedro Riparian National Conservation Area following the guidance in the existing management plan and develop a management plan for the Gila Box Riparian National Conservation Area.
13. Develop an environmental education program for riparian management.

Management Concern 1 - Wildlife Habitat

If this alternative is approved, the following objectives and actions will be implemented to resolve the Wildlife Habitat Management Concern.

1. Maintain and enhance priority species and their habitats.



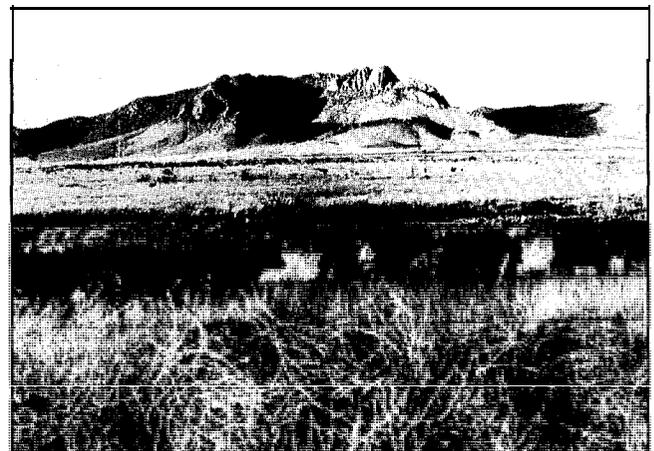
2. Focus management actions on a single special species, only when required by the Endangered Species Act. Actively promote Threatened and Endangered species recovery to eventually delist the species.
3. Conserve candidate species to ensure BLM-authorized actions do not contribute to the need to list any species as threatened or endangered.
4. Manage state-listed species to meet state objectives. Other special status species will be managed in accordance with inter- and intra-agency management plans.
5. Manage priority wildlife species habitat (vegetation communities) or special features of that habitat (water, riparian vegetation, cliffs, etc.) to maintain or enhance population levels.
6. Focus management efforts on enhancing biological diversity.

The following actions will be implemented to accomplish these objectives,

1. Establish the following as priority species and habitats. Priority species and habitats in the District include federally listed, proposed and candidate Threatened and Endangered species and their habitat, state-listed Threatened and Endangered species and their habitat, and other sensitive species and their habitat.
 - a. Riparian/aquatic habitat and species dependent on riparian/ aquatic habitat Gila topminnow, desert pupfish, southern bald eagle, loach minnow, spikedace, Gila chub, Colorado roundtail chub, razorback sucker, western yellow-billed cuckoo, gray hawk, Mississippi kite, common black hawk, ferruginous pygmy-owl, willow flycatcher and leopard frog.
 - b. Species identified for reintroduction in Fish and Wildlife Service plans - aplomado falcon and woundfin.
 - c. Desert tortoise.
 - d. Other species and habitats of interest - peregrine falcon, red bat, Sanborn's long-nosed bat, Mexican long-tongued bat, ferruginous hawk and Swainson's hawk.

General management objectives for each of the priority species and habitats identified in Appendix 4.

2. Inventory public lands across the District to determine the presence and abundance of priority species and their habitat.
3. Manage habitat for optimum wildlife populations, based on ecological conditions, taking into consideration climatic changes and the goals and objectives of Arizona Game and Fish Department and the Fish and Wildlife Service (for Threatened and Endangered species).
4. Transplant and augment populations of priority wildlife species, if necessary, to reach management objectives. Prescribe management through Endangered Species Act recovery plans.
5. Monitor priority habitat to determine condition and changes in condition. Inventory the impacts of other activities on wildlife populations and habitat prior to preparation of habitat management plans. Identify opportunities to mitigate adverse impacts and implement the actions needed to correct the problem.
6. Continue to maintain and improve wildlife habitat, emphasizing priority habitat.
7. Protect springs and associated riparian vegetation for wildlife water, cover and forage.
8. Develop prescribed burning plans in fire-dependent vegetation communities to improve habitat conditions for priority wildlife species.
9. Suppress wildfire in sensitive vegetation communities (like palo Verde/saguaro) to reduce the detrimental effects on priority wildlife dependent on those communities.



Allotment management plans are implemented to manage livestock use on grazing allotments.

10. Close the following areas to animal damage control activities.
 - a. Threatened and Endangered species habitat for those techniques that pose a threat to the species.
 - b. Zones around residences and communities in areas of concentrated recreation use for those techniques that pose a threat to visitors or to dogs in areas where they are trained, exercised or used for hunting.
 - c. Wilderness areas and Research Natural Areas except as individually authorized by the BLM State Director or the Area Manager.

Authorize areas that are open for animal damage control in coordination with the Animal and Plant Health Inspection Service on a yearly basis.

11. Inventory and categorize desert tortoise habitat by 1992. In the interim, place about 26,000 acres of public land in the San Pedro River basin from Cascabel to Winkelman and parts of the Dripping Springs and Pinal Mountains in Category 3. Place about 3,000 acres east of San Manuel in Category 2 (see Appendix 10 for goals and criteria for categorization of habitat).
12. Designate Muleshoe Riparian, Guadalupe Canyon Outstanding Natural Area and Eagle Creek Bat Cave Area of Critical Environmental Concerns for the protection of priority wildlife species and their habitat.

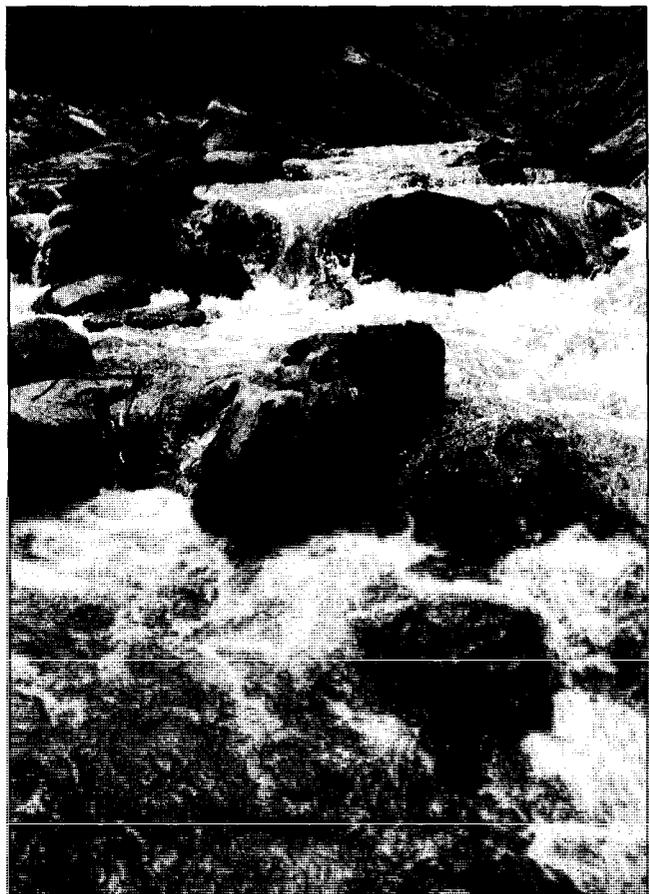
Management Concern 2 - Lands and Realty

If Alternative C is approved, the following objectives and actions will be implemented to resolve the Land and Realty Management Concern.

1. The following are the objectives for disposal of public lands.
 - . The order of preference for disposal will be by exchange, Recreation and Public Purposes Act or sale.
 - . Isolated tracts of public land may be disposed of to improve resource management efficiency and service to the public.
 - . When lands next to urban areas are disposed of, the resulting boundaries will be manageable, fenceable and identifiable.
 - Prior to disposal, lands will be evaluated for significant cultural and natural resource values.

To accomplish these objectives, dispose of 105,523 acres of public lands in the following areas.

- a. Gila Valley area.
- b. El Capitan and southern Pinal Mountain area.
- c. Dripping Spring Wash area.
- d. Texas Canyon area.
- e. Swisshelm Mountain area.
- f. Douglas area.
- g. Bisbee area, excluding the Juniper Flats block.
- h. Greenlee County area.
- i. Tombstone area.
- j. San Simon area.
- k. Recreation and Public Purposes sanitary landfill leases.
- l. Portal area.



The Safford District plans to file for instream flow water rights on Hot Springs Canyon to protect its perennial flow.

These public lands have been identified for disposal and are within the disposal area identified on Map 27. However, all public lands within these areas do not have to be sold or exchanged. BLM may retain certain lands within the disposal areas. Upon evaluation of future land disposals, BLM may identify resource values worthy of retention in public ownership. Unforeseen future land management concerns or public demand may also necessitate the disposal of other public lands for sale or exchange which are not currently identified. The parcels considered at that time would be subject to BLM's planning process and The National Environmental Policy Act of 1976.

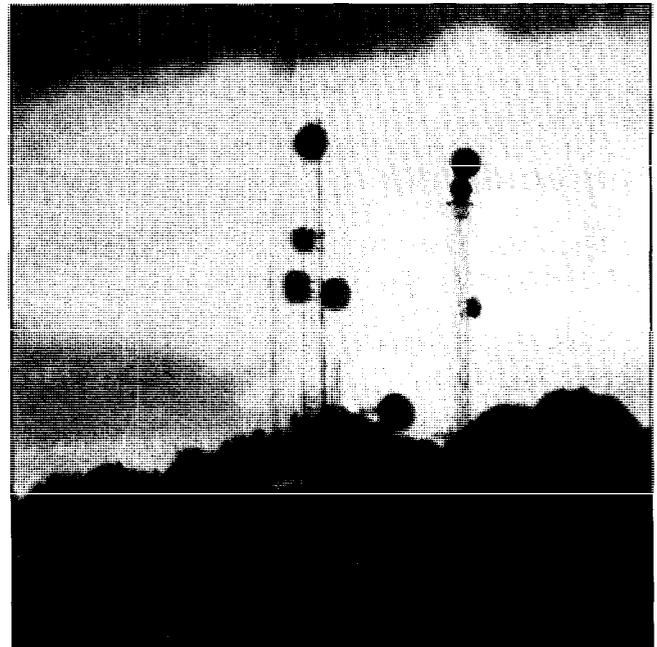
Appendix 5 shows the lands that meet The Federal Land Policy and Management Act of 1976 criteria for sale. Although these lands qualify for sale, BLM's preferred method of disposal is exchange or through the Recreation and Public Purposes Act. Map 27 shows the areas where land disposal may occur.

2. The following are the objectives for land acquisition.

- Acquire lands with high public values that complement existing management programs.
- Consolidate ownership pattern to improve management efficiency.
- Improve service to the public.

To accomplish these objectives, acquire, if they become available, state and private lands in the same areas depicted in Alternative A and shown on Map 27. These lands shall have one or more of the following characteristics and will generally be within or adjacent to public lands.

- a. riparian habitat.
- b. watersheds of important riparian areas.
- c. high value wildlife habitat, such as Threatened and Endangered species areas and major migration corridors.
- d. administrative sites.
- e. land for developed recreation sites.
- f. land providing access to public lands.
- g. significant cultural and paleontological properties.
- h. other lands with high public resource values such as inholdings in Area of Critical Environmental Concerns and other types of special management areas.



Rights-of-way are granted for communication sites on public lands.

- i. other private lands that will accomplish BLM's acquisition objectives.
3. According to the Federal Land Policy and Management Act of 1976, all lands not identified for disposal must be retained in Federal administration to be managed under the principles of multiple use and sustained yield. Unforeseen future land management concerns or public demand may necessitate other lands for disposal. Such proposals will require plan amendments and environmental documentation.
4. Designate the following existing utility lines as corridors for future utility needs across the District.
- a. Arizona Electric Power Company one mile wide.
 - b. Tucson Electric Power Company one mile wide.
 - c. All American Pipeline (San Simon Resource Area only) one mile wide.
 - d. San Pedro one mile wide (660 ft. wide where it cross San Pedro Riparian National Conservation Area).
 - e. Hayden/Christmas one mile wide.

Any future major cross-District utility rights-of-way will be encouraged to use these corridors (see Map 27).

5. Establish the Muleshoe Ranch and Bowie Mountain Scenic Area of Critical Environmental Concern as right-of-way avoidance areas. Every attempt will be made to avoid these areas with major cross-District rights-of-way to minimize or eliminate conflicts with sensitive resource values.
6. Attach needed site-specific environmental protection stipulations to all rights-of-way.
7. Establish the following areas as right-of-way exclusion areas.
 - a. Guadalupe Canyon Outstanding Natural Area Area of Critical Environmental Concern.
 - b. Bear Springs Badlands Area of Critical Environmental Concern.
 - c. Coronado Mountain Research Natural Area Area of Critical Environmental Concern.
 - d. wilderness study areas.
 - e. designated wilderness.
 - f. Oliver Knoll Atmospheric Deposition Monitoring Station.
8. Designate Guthrie Peak, Juniper Flat in the Mule Mountains and the west end of the Dos Cabezas Mountains as communication sites (see Map 27). Site plans will be prepared for all communication sites and designation of new sites will be analyzed on a case-by-case basis.
9. Complete the withdrawal review process. Revoke all withdrawals determined to no longer serve their original or intended purpose.
10. Withdraw 12 acres for the proposed Safford District Office administrative site (T. 7 S., R. 25 E., Sec. 24, that part of the W1/2NW1/4NE1/4 lying north of Golf Course Road) from the public land laws and the mining and mineral leasing laws.
11. Withdraw 10 acres for the Oliver Knoll atmospheric deposition monitoring station (T. 4 S., R. 24 E., Sec. 22, SW1/4SE1/4SE1/4NE1/4, SE1/4SW1/4SE1/4NE1/4, NW1/4NE1/4NE1/4SE1/4, NE1/4NW1/4NE1/4SE1/4) from the public land laws and mining laws. Establish it as an administrative site.
12. Withdraw 2,743 acres, including campgrounds and above administrative sites, from mineral entry to preserve important resource values. Table 2-17

identifies the areas and acreages to be withdrawn. Appendix 7 lists the legal descriptions of the areas to be withdrawn.

Management Concern 3 Outdoor Recreation and Visual Resource Management

If this alternative is approved, the following actions will be implemented to resolve the Outdoor Recreation and Visual Resource Management Concern.

1. Designate the following areas as Special Recreation Management Areas to manage current recreation use.
 - a. Aravaipa Canyon/Turkey Creek.
 - b. Gila Box/Bonita Creek.
 - c. Christmas (Gila River below Coolidge Dam).
 - d. Red Knolls/Bear Springs Badlands/Watson Wash.
 - e. Hot Well Dunes.
 - f. additional lands in the San Pedro Riparian National Conservation Area not previously included in the San Pedro River Riparian Management Plan (BLM 1989).

Table 2-17. Areas/Acres to be Withdrawn From Mineral Entry Alternative C

Area Withdrawn	Acres Withdrawn
Bowie Mountain Scenic ACEC	2,562
Fourmile Canyon Campground	159
Oliver Knoll Atmospheric Deposition Monitoring Station	10
District Office Site - proposed	12
Total	2,743

Source: Safford District Files

Prepare Recreation Area Management Plans for designated Special Recreation Management Areas, as needed. Manage the remainder of the public lands within the District as an Extensive Recreation Management Area for dispersed recreation use.

2. In the Recreation Area Management Plans, determine which public lands will be managed for interpretation and education and which sites will be signed for interpretation safety and education.
3. Continue to manage Aravaipa Canyon Wilderness following the guidance of the Aravaipa Canyon Wilderness Management Plan (BLM 1988).
4. Prepare project plans for the following areas that need some recreation planning and development.
 - a. Gila Mountain Crest Trail in cooperation with the San Carlos Apache Tribe.
 - b. Galiuro/Aravaipa/Santa Teresa Trail, in cooperation with the Forest Service.
 - c. Watson Wash Hot Well.
 - d. Safford-Morenci Trail.
 - e. Red Knolls.
 - f. Guadalupe Canyon.
 - g. Black Hills Rockhound Area.
 - h. Round Mountain Rockhound Area.
 - i. Fort Bowie/Helen's Dome Trail, in cooperation with the National Park Service.
5. Evaluate plans for new road construction for possibilities to enhance recreation experiences.
6. Unless otherwise established, the maximum length of stay for recreation purposes in any one location is 14 days.
7. Develop a District sign plan to determine which roads, sites and facilities will be signed for interpretation, education, information and public safety.
8. Designate the following as Visual Resource Management Class I areas to preserve scenic quality.
 - a. designated wilderness areas.
 - b. Bowie Mountain Scenic Area of Critical Environmental Concern.
9. Designate the following as Visual Resource Management Class II areas to preserve scenic quality and to provide for limited modification of the landscape.
 - a. Gila Box.
 - b. Bear Springs Badlands Area of Critical Environmental Concern.
 - c. Guadalupe Canyon Outstanding Natural Area Area of Critical Environmental Concern.
 - d. Eagle Creek Bat Cave Area of Critical Environmental Concern.
 - e. Coronado Mountain,
 - f. 111 Ranch Research Natural Area Area of Critical Environmental Concern.
 - g. Babocomari River.
 - h. Baker Canyon wilderness study area.
10. Designate the following as Visual Resource Management Class III areas to preserve scenic quality while providing for management activities that are evident but do not dominate the landscape .
 - a. all major highway corridors.
 - b. San Francisco River above and below the Town of Clifton.
 - c. Dos Cabezas Peaks.
 - d. lands adjacent to the San Pedro Riparian National Conservation Area.
 - e. Eagle Creek Canyon.
 - g. Gila Box outside the Area of Critical Environmental Concern.
 - f. Gila Mountains, including Bonita Creek.
 - g. Mescal Mountains,
 - h. Gila River Canyon (below Coolidge Dam).
 - i. Aravaipa tablelands including the South Rim Area of Critical Environmental Concern,
 - j. Muleshoe Ranch.

11. Designate the remainder of the District as a Visual Resource Management Class IV area. Appendix 6 explains the Visual Resource Management management class objectives. The following table identifies the acres designated by Visual Resource Management class.

Management Concern 4 - Energy and Minerals

If Alternative C is approved, the following actions will be implemented to resolve the Energy and Minerals Management Concern.

- 1 Mining notices and plans of operation received under the surface management regulations (43 CFR 3809) will be reviewed for impacts to other resources. Mitigation and reclamation measures will be provided to prevent unnecessary or undue degradation of the environment. Reclamation bonds will be required consistent with current BLM policy.
- 2 Withdraw 2,743 acres from mineral entry to preserve important resource values. Table 2-17 identifies the areas and acreages to be withdrawn. Appendix 7 lists the legal descriptions of the areas to be withdrawn.
3. Administrative sites and campgrounds (Table 2-17) will be withdrawn from entry under the mining laws (see Appendix 7 for legal descriptions).
4. Energy and other leasable minerals will be leased subject to the following conditions.
 - a. Standard environmental protection stipulations will be applied to all leases in open areas.

Table 2-18. Acres by Visual Resource Management Class-Alternative C

VRM Class	Acres Designated
I	80,295
II	11,746
III	369,807
IV	938,152

Source: Safford District Files

- b. Surface occupancy will not be permitted in riparian areas (see Map 26).
- c. Surface occupancy will not be permitted in campgrounds or administrative sites.
- d. Surface occupancy will not be permitted in established bighorn sheep lambing areas from February 1 to April 30 of each year.
- e. Surface occupancy will not be permitted at Tres Alamos, Yuma Wash or Midway Cave archaeological sites.

5. Issue mineral and energy leases with a "No Surface Occupancy" stipulation on 7,525 acres to protect sensitive resource values. Table 2-19 identifies the areas and acreages to which the No Surface Occupancy stipulation will apply.
6. Sale of mineral materials will not be permitted in 4,316 acres of riparian vegetation (see Map 26) on public lands throughout the District.
7. The standard list of environmental protection stipulations will be attached to all mineral material sale authorizations. Any needed site-specific stipulations will also be added.

Management Concern 5 - Cultural Resources

If this alternative is approved, the following objectives and actions will be implemented to resolve the Cultural Resources Management Concern.

- . Manage for Information Potential.
- Manage for Public Values.
- . Manage for Conservation.



The abundant grass on Sombrero Butte provides an excellent area for studies of native vegetation.

Table 2-19. Areas/Acres to be Leased With a “No Surface Occupancy” Stipulation-Alternative C

NSO Area	NSO Acres
South Rim ACEC	358
Bowie Mountain Scenic ACEC	2,230
Eagle Creek Bat Cave ACEC	40
Riparian Areas - other than those located in ACECs or wilderness	4,316
Desert Bighorn Sheep Lambing Areas	90
Fourmile Canyon Campground	159
District Office Site - proposed	12
Yuma Wash Archaeological Site	120
Tres Alamos Archaeological Site	160
Midway Cave Archaeological Site	40
Total	7,525

Source: Safford District Files

Table 2-20 identifies the actions that will be implemented to achieve each objective. Appendix 11 defines each objective.

To accomplish the cultural resource management objectives, the following actions will be implemented. Critical protection needs will be given a higher priority for action than either planning or field studies of properties that are not critically threatened. This does not mean, however, that all critical protection work will be done before planning or other types of studies.

1. Prioritize implementation of planned cultural resource actions according to the degree of need as defined below:
 - a. First priority will be given to planned actions protecting threatened and significant cultural resources that would otherwise be lost. This includes obtaining important data from individuals (ethnographic information) that may not be available in the future.
 - b. Second priority will be given to collecting cultural resource field data for planning purposes and for resource utilization not part of any protection or mitigation measure (for example, to allow a cultural property to be excavated solely for scientific research purposes or to allow a property to be interpreted to the public).
 - c. Third priority will be given to non-field studies designed to obtain information through archival research on cultural resources not currently having management needs or emphasis. They will, instead, be designed to produce documentation on issues relevant to current scientific questions or potential future management concern.
 - d. Fourth priority will be given to the preparation of management plans directing how the District manages its cultural resources.
 - e. Fifth priority will be given in cases where there is good reason to believe that cultural resources are being adversely effected even though they are not located in any area of proposed activity. Studies of plan actions in these instances will seek to determine the nature and extent of the impacts and to identify corrective management actions. Fifth priority will also be given to planned actions protecting significant threatened cultural resources where the degree of damage or threat of damage is low (non-critical).
2. Use the following administrative and physical measures to protect cultural properties.
 - a. Signing - place antiquity or interpretive signs on cultural properties being looted or vandalized.
 - b. Withdrawal -withdraw areas from location under the mining laws to protect significant cultural properties. Retain significant cultural properties in public ownership to conserve them for the future.
 - c. Access - install fences or other barriers to restrict or eliminate public access to cultural properties that are being looted or vandalized. Disallow firewood cutting for public use in areas with high cultural resource values.
 - d. Patrol - patrol threatened cultural properties with personnel from the Arizona Site Steward Program, BLM's Cultural Resource Assistants and Law Enforcement Rangers and community volunteers.
 - e. fire Control - provide input to the development of a fire management plan to protect cultural resources. Assign a Cultural

Table 2-20. Management Objectives Achieved by Planned Actions-Alternative C

Actions	Manage for Information Potential	Manage for Public Values	Manage for Conservation
1. Use protection measures	X	X	X
2. Expand inventory and testing of Timber Draw	X		
3. Conduct ethnographic studies -			
Bonita Creek	X	0	0
Muleshoe Ranch	X	0	0
Mormon Canals	X	0	0
CCC camps & projects	X	0	0
Aravaipa area	X	0	0
Dos Cabezas area	X	0	0
4. Revise Rock Art CRMP	X	0	0
5. Conduct Class II inventories -			
Aravaipa area	X	0	
Muleshoe Ranch	X	0	0
Mormon Canals	X	0	0
CCC camps and projects	X	0	
Dos Cabezas historic sites	X	0	0
San Simon riparian areas	X	0	0
6. Conduct Class III inventory -			
Bonita Creek	X	0	0
7. Conduct extensive inventory and manage Dos Cabezas Mining Area	X	0	0
8. Research trails, roads, etc.	X	0	
9. Develop regional research design	X		
10. Promote and fund scientific use	X		
11. Develop predictive model	X		
12. Interpret -			
Aravaipa area	X		
Bonita Creek	X		
Muleshoe Ranch	X		
Gila Box	X		
13. Interpret -			
Safford Airport CCC Camp	X		
Bonita Creek properties	X		
Dos Cabezas mining properties	X		

X Primary Objective
Source: Safford District files.

0 . Secondary Objective

NA . Not Applicable

- Resource Advisor to all extended attack fires whenever heavy equipment is used.
- f. Stabilization - stabilize deteriorating standing architectural structures on significant cultural properties.
 - g. Detailed Recording - record all known prehistoric cliff dwellings and related structures in the District and the Yuma Wash and Midway Cave sites.
 - h. Public Education -develop and implement annual Public Affairs Action Plans for cultural resources.
3. Expand and complete a Class III cultural resource inventory and intensive testing in and adjacent to the Timber Draw project area.
 4. Conduct ethnographic studies in Bonita Creek, Muleshoe Ranch, Pima Mormon Canal System, Civilian Conservation Corps camps and project areas, Aravaipa Canyon Wilderness and adjacent lands and Dos Cabezas Mountains area.
 5. Revise the Safford District Rock Art Cultural Resource Management Plan.
 6. Conduct Class II archaeological inventories in Aravaipa Canyon Wilderness and adjacent lands, Muleshoe Ranch, Pima Mormon Canal System, Civilian Conservation Corps camps and project areas, Dos Cabezas Mountains historic sites and culturally sensitive riparian areas bordering the San Simon Valley to enhance knowledge of cultural resources for future management decisions.
 7. Conduct a Class III archaeological inventory in Bonita Creek Canyon to enhance knowledge of cultural resources for future management decisions.
 8. Conduct extensive archival research on public lands to increase knowledge of the Dos Cabezas historical mining area. Develop cooperative management agreements for the inventory of the mining area on adjacent non-federal lands.
 9. Conduct archival research to identify historic trails, roads, telegraph lines and other forms of historic transportation and communication.
 10. Develop a regional research design to help identify the specific scientific and public values of individual cultural properties.
 11. Actively promote and fund scientific investigations on District cultural resources through the development of information packets, brochures and other measures.
 12. Develop a rigorous predictive model for the occurrence of cultural resources.
 13. Develop a comprehensive interpretive and educational program depicting the geological, cultural and wildlife values of Aravaipa Canyon, Bonita Creek, Muleshoe Ranch and Gila Box.
 14. Interpret the Civilian Conservation Corps Base Camp near the Safford Airport, selected cultural properties along Bonita Creek and the Dos Cabezas mining properties for public use.



Desert bighorn ewes inhabit the rocky cliffs of Aravaipa Canyon.

Management Concern 6- Soil

If Alternative C is approved, the following objectives and actions will be implemented to resolve the Soil Erosion Management Concern.

- . Reduce accelerated erosion.
- . Restore eroded floodplains of the San Simon River and in the Bear Springs Flat area (see Map 26).
- . Reduce silt and salts entering the Gila River from the San Simon River.

The following actions will be implemented to accomplish the soil erosion and salinity management objectives.

1. Develop activity plans, where needed, to initiate rehabilitation of eroded areas and to provide more forage for livestock.
2. Construct Timber Draw Dam to continue efforts to rehabilitate eroded areas of the San Simon River (see Map 26).
3. Continue reseeding grasses and riparian vegetation on restored areas behind erosion control structures. Manage livestock with fencing or other methods to protect these areas.
4. Protect the eroded floodplain of the San Simon River through appropriate livestock management.
5. Repair Oso Largo Detention Dam (see Map 26) in the Bear Springs Flat area to continue rehabilitation of eroded lands. Assess the land upstream of Oso Largo Dam to determine the need for maintenance of existing structures or the need for additional structures. Make all structures functional without adversely affecting the Area of Critical Environmental Concern located in the upper end of the eroded area.
6. Investigate methods to increase livestock forage in the Bear Springs Flat area, without adversely affecting the Area of Critical Environmental Concern located in the upper end of the eroded area.
7. Continue seasonal livestock use in the Bear Springs Flat area.
8. Cap or contain the flow of flowing wells in the San Simon Watershed if salinity exceeds 3,000 ppm.

Management Concern 7- Vegetation

If this alternative is approved, the following objectives and actions will be implemented to resolve the Vegetation Management Concern.

1. The objective for management of upland vegetation is to restore and maintain plant communities for wildlife, watershed condition and livestock. The desired plant communities will be determined in the preparation of activity plans (allotment management plans, habitat management plans, etc.). An ecological site inventory will be completed as new allotment management plans are prepared or existing plans revised.
2. The objective for management of threatened, endangered and special status plant species is to manage the public lands to preserve occurrences of

special status species and to eventually delist threatened and endangered species. To accomplish these objectives, continue inventories in areas of proposed activities.

3. Land treatments (vegetation manipulation) will be used to decrease invading woody plants and increase grasses and forbs for wildlife, watershed condition and livestock. Public lands, where vegetation condition is less than desired to meet management objectives, will be identified for treatment through activity plans. Treatments may include various artificial (mechanical, chemical or prescribed fire) methods. Management objectives for riparian vegetation can be found under Issue 4 Riparian Vegetation.
4. Make the following firewood-cutting areas available to the public.
 - a. San Simon Fan Structure area for tamarisk and mesquite.
 - b. West of the San Simon River, on Sonoita soils for mesquite.
 - c. Mesquite Well area, on Sonoita soils for whitethorn and mesquite.
 - d. Horse Mountain area for manzanita, juniper and mesquite.

Permit up to 500 cords per year Districtwide, but do not allow cutting in major desert washes.

5. Determine other areas appropriate for firewood cutting and the quantities available.



Examples of prehistoric Salado adobe structures can be found on public lands in the Safford District.

6. Issue permits for vegetative products, other than firewood, as determined by public demand and on-site evaluation.

Management Concern 8 - Water Resources

If Alternative C is approved, the following objectives and actions will be implemented to resolve the Water Resources Management Concern.

1. The objective for management of groundwater is to efficiently use available water for on-going resource management purposes.

The following actions will be implemented to accomplish the groundwater management objective.

- a. Cap unusable or unsuitable wells to prevent contamination of aquifers and to contain highly saline water.
- b. Inspect and maintain water systems to prevent unnecessary loss of water.

Further, initiate a groundwater study for the San Simon Watershed to determine the level of the various aquifers, changes in the level of the aquifers, the water quality of the aquifers and availability of groundwater for BLM's resource management programs. Prepare a management plan for use of water.

2. The objective for managing water quality is to maintain or enhance water quality at or above established standards for designated uses to meet management goals for each water source. BLM will adhere to federal and state water quality laws and standards.

The following actions will be implemented to accomplish the water quality management objective.

- a. Support other resource programs in the implementation of this plan and monitor the effectiveness of planning decisions.
- b. Continue the existing water quality testing program in the District (see Appendix 9).
- c. Initiate data collection where there is a suspected or known pollution threat or hazard to water quality.
- d. Develop an activity plan and initiate management actions needed to mitigate water quality degradation detected through water quality monitoring.

- e. Develop a District Water Quality Monitoring Plan.

- f. Share data with other water quality managing agencies.

3. Manage stream segments nominated or state designated as Unique Waters to maintain or enhance water quality standards and protect the associated resources.
4. Evaluate the long-term Districtwide resource management needs for ground and surface water.
5. Evaluate the Gila River, Redfield Canyon, Hot Springs Canyon, Bass Canyon and Bonita Creek to determine the quantities of in-stream flow (water right) needed to meet resource management objectives. File on the quantities needed to meet those objectives.
6. Evaluate Turkey Creek, Deer Creek, Left Fork of Markham Creek and Guadalupe Canyon (intermittent streams), if their flow becomes perennial, to determine the quantities of in-stream flow (water rights) needed to meet resource management objectives. File with the state on the quantities needed to meet resource management objectives.
7. Consider purchasing water rights when resource values are threatened.

Management Concern 9 - Air Quality

The following objectives and actions will be implemented to resolve the Air Quality Management Concern.

1. Continue to manage the airshed in accordance with State of Arizona Class II standards, unless redesignated.
2. Comply with all federal and State statutes pertaining to air quality and cooperate with the State of Arizona in carrying out the State Implementation Plan.

The following actions will be implemented to accomplish these objectives.

1. When implementing BLM or BLM-approved activities, minimize surface disturbances to prevent the addition of large quantities of dust to the air. When surface disturbances occur, enforce appropriate stipulations to mitigate the impact to air quality.
2. Continue the rehabilitation of erosion in the San Simon Watershed and the Bear Springs Flat area (see Map 26) to reduce airborne dust.

3. Conduct prescribed fire with prior approval of the Arizona Department of Environmental Quality, Office of Air Quality.
4. Continue operation of the Oliver Knoll atmospheric deposition monitoring station as part of the nation-wide network.

Management Concern 10 - Paleontological Resources

If this alternative is approved, the following objectives and actions will be implemented to resolve the Paleontological Resources Management Concern.

1. Preserve a representative sample of Class I paleontological localities.
2. Ensure that BLM actions avoid inadvertent damage to paleontological resources.
3. Manage paleontological resources to preserve their scientific and interpretive values.

The following action will be implemented to accomplish these objectives.

1. Continue inventories in areas of proposed activities to identify the presence of paleontological resources and determine measures needed to mitigate anticipated impacts or whether proposed activity should be allowed.

Alternative D (No Action)

This alternative continues implementation of the current land use plans. The allocation of lands and resources would remain unchanged. The analysis of



Agaves were an important food of Native Americans, who cultivated is using dryland farming techniques near Safford.

the impacts of implementing Alternative D provides a basis for comparing the effects of the other three alternatives.

Issue 1 - Access

If this alternative is approved, the following action will be implemented to resolve the Access Issue.

1. Develop a plan to determine physical and legal access needs in the District. Close roads determined to be unnecessary.

Issue 2 - Area of Critical Environmental Concerns and Other Types of Special Management

If Alternative D is approved, the following actions will be implemented to resolve the Area of Critical Environmental Concerns and Other Types of Special Management Issue.

- 1 Consider the following areas for Area of Critical Environmental Concern designation or other types of special management.
 - a. Coronado Mountain.
 - b. Bear Spring Paleontological Area.
 - c. Little Doubtful Canyon.
 - d. Howell Canyon.
 - e. Gila River, below Coolidge Dam.
 - f. Turkey Creek.
 - g. Dos Cabezas Peaks.
 - h. Mescal Creek.
 - i. riparian areas.
 - j. Government Peak.
 - k. springs.
 - l. Bonita Creek
 - m. Eagle Creek
 - n. Gila Box
 - o. Fishhooks

- p. Johnny Creek
 - q. Markham Creek
2. Manage the following areas to maintain the primitive character, scenic quality, recreation opportunities and research potential.
 - a. Peloncillo Mountains.
 - b. Bowie Mountain.
 - c. Bonita Creek.
 - d. Dos Cabezas Mountains.
 - e. Jackson Mountain.
 - f. Eagle Creek.
 3. Determine the preliminary suitability of the Gila and San Francisco Rivers, through the Gila Box, for inclusion in the National Wild and Scenic River System.



The Narrows, located in Hot Springs Canyon in the Muleshoe Ranch, is subject to flash flooding.

Issue 3 - Off-Highway Vehicles

The following actions will be implemented to resolve the Off-highway Vehicles Issue.

1. Manage off-highway vehicle use on lands designated as wilderness or under wilderness review according to the Interim Management Policy and Guidelines for Lands Under Wilderness Review to preserve the wilderness values of these areas.
2. Designate the remainder of the District limited to existing roads and trails.
3. Inventory and analyze the District to determine possible locations for open off-highway vehicle areas.

Issue 4 - Riparian Areas

If this alternative is approved, the following actions will be implemented or continued to resolve the Riparian Areas Issue.

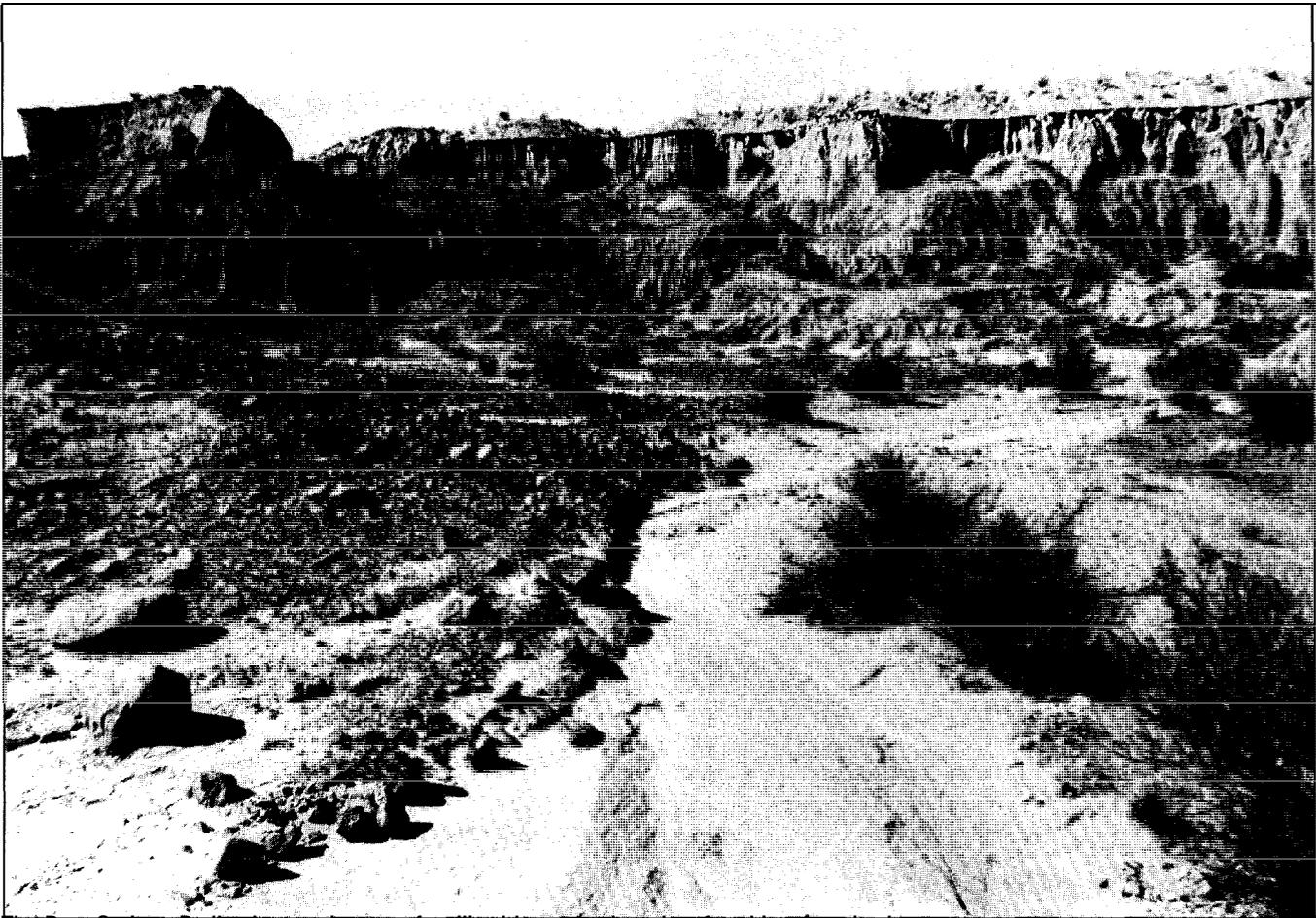
1. Manage desert washes to minimize soil erosion, maintain or increase vegetation ground cover, maintain or improve wildlife habitat and protect cultural values.
2. Suppress wildfires with as little surface disturbance as possible with the following limitations.
 - a. Prohibit use of heavy equipment in riparian and aquatic habitat along the Gila and San Francisco rivers, except as a last resort.
 - b. Keep surface disturbance to an absolute minimum in the remainder of the Gila Box.
3. Manage livestock grazing in riparian and aquatic habitat in the Gila Box. Allow only periodic prescribed use for vegetation control and management.
4. Enhance riparian habitat in the Geronimo Planning Unit by the following prescription.
 - a. Eliminate or manage livestock grazing.
 - b. Intensively inventory fish, raptors and songbirds.
 - c. Eliminate vehicular travel from all or part of the riparian areas or seasonally restrict travel based on information collected in the riparian inventory.
 - d. Prohibit unnatural destruction or removal of vegetation unless it benefits wildlife.

- e. Prohibit construction of any project that disrupts wildlife.
- f. Prohibit any high-intensity human use.
- g. Retain all public lands. Acquire new lands with riparian values.
- h. Classify all or part of the riparian areas as Outstanding Natural Areas.

Management Concern 1 - Wildlife Habitat

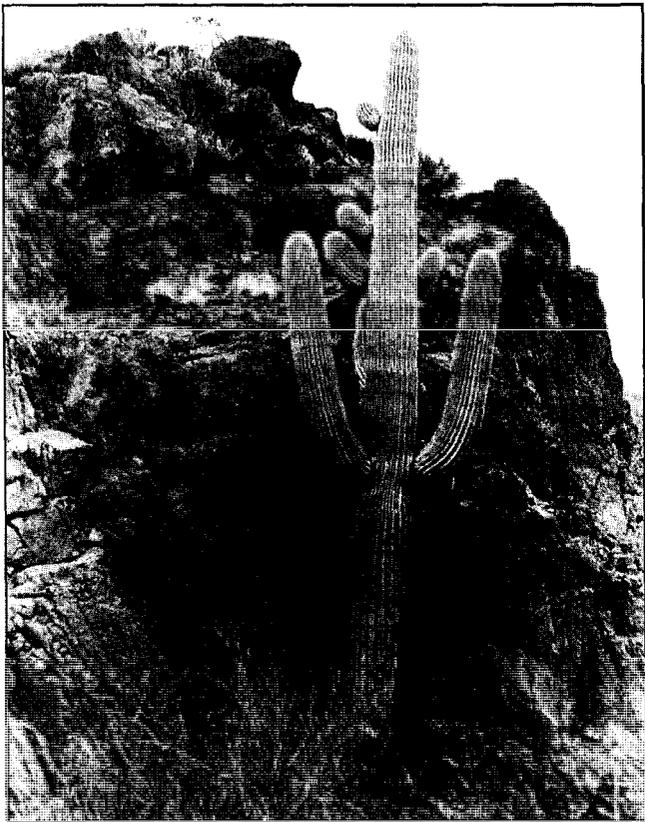
If Alternative D is approved, the following actions will be implemented to resolve the Wildlife Habitat Management Concern.

1. Provide additional permanent and/or seasonal water developments for wildlife and livestock. Make access to water available to wildlife yearlong in accordance with wildlife and livestock activity plans.
2. Contract or develop cooperative agreement with range users to provide water for wildlife at wells, springs and pipelines when livestock are not on the range or pasture.
3. Provide artificial quail and javelina cover, artificial raptor nests, big game water developments and study the feasibility of waterfowl habitat development projects.
4. Conduct intensive wildlife inventory and analysis in cooperation with the Arizona Game and Fish Department. Give full consideration to nongame species and special attention to threatened and endangered species and those proposed for listing.
5. Manage livestock to minimize competition with wildlife and to enhance wildlife habitat where feasible.
6. Vegetation manipulation will be coordinated with the wildlife program to determine and mitigate potential impacts to wildlife and their habitat.



The Bear Springs Badlands contain many fossilized bones and tracks of prehistoric animals.

7. Protect, enhance and establish vegetation cover at water sources.
8. Erosion control structures will include specific design features to provide better habitat for wildlife and fish.
9. Use prescribed fire to improve wildlife habitat. Keep bulldozer work to a minimum to reduce impacts to wildlife habitat and minimize additional access to the area.
10. Conduct an inventory, in cooperation with the Arizona Game and Fish Department, to determine the feasibility of reintroducing or supplementing big game populations.
11. Focus management in upper elevations to protect and enhance wildlife habitat.
12. Develop a grazing management program that more closely meets the needs of desert bighorn sheep in cooperation with state and local grazing lessees.
13. Monitor the distribution and numbers of native and non-native fish in the Aravaipa watershed and prevent non-native fish from becoming established.
14. Establish at least one 100-acre range and wildlife study enclosure in each of the major standard habitats.
15. Conduct a comprehensive terrestrial and aquatic inventory, using the Integrated Habitat Inventory Classification System . Evaluate the potential for endangered fish reintroductions and Area of Critical Environmental Concern recommendations.
16. Study ephemeral rangelands to determine the relationship between livestock forage use and wildlife densities and diversities.
17. Manage riparian areas to protect their values.
18. Prevent tamarisk from establishing itself in Mescal Creek and Aravaipa Canyon Wilderness.
19. Coordinate with Fish and Wildlife Service, Arizona Game and Fish Department, The Nature Conservancy and local landowners to acquire protective easements for selected parts of the San Pedro River to protect this diverse and highly productive riparian area.
20. Coordinate with the San Carlos Apache Tribe to prohibit livestock grazing from 18 miles of riparian habitat on the Gila River below Coolidge Dam. If this is not feasible, construct small enclosures on public lands with the highest potential for rehabilitation of riparian vegetation. Rehabilitate the riparian community by removing tamarisk and planting cottonwoods and willows.
21. Acquire baseline terrestrial and aquatic biological data on the condition and trend of all riparian habitat and perennial streams.
22. Prohibit the removal of all native live and dead trees greater than 6 inches diameter at breast height (DBH) in the Winkelman Planning Unit. Potential firewood-cutting areas will be evaluated to determine impact on wildlife.
23. Study white-tailed deer and elk distribution and habitat use.
24. Study the potential for introduction of beaver into Aravaipa Creek and the river otter into the Gila River below Coolidge Dam.
25. Predator control activities, other than sport hunting, should be permitted only in areas where there is documented evidence of extreme depredation of livestock. Aim control measures only at offending animals.
26. Coordinate with the Arizona Game and Fish Department to establish predator concentration areas, habitat preferences and population trends.
27. During nesting season, prohibit activities within one fourth mile radius of active raptor nests in wooded areas and one half mile radius in open country unless consideration has been given to minimizing disturbance to nesting raptors. Manage raptors to enhance nesting success.
28. Assist the Fish and Wildlife Service and Arizona Game and Fish Department by monitoring the Gila River for use by wintering bald eagles to determine the extent and period of use.
29. Determine the distribution, population status and habitat relationships of the desert tortoise and Gila monster.
30. Restrict off-highway vehicles to existing roads, except in designated areas currently receiving regular use where no wildlife conflicts exist. Areas designated for unrestricted use should exclude major washes, riparian zones, forest, chaparral and saguaro-palo verde habitats.



Saguaros are found along canyons in the foothills of the Gila Mountains northwest of Safford.

Management Concern 2 - Lands and Realty

If this alternative is approved, the following actions will be implemented to resolve the Lands and Realty Management Concern.

1. Consider public land disposal proposals in the following use priority: to assure public access; for other public purposes (such as Recreation and Public Purposes); exchanges that benefit BLM programs; and Bureau-motion sales.
2. Lands in urban, suburban, residential, commercial and industrial expansion areas will be disposed of on the merit of the application, as it would benefit BLM programs or be of benefit to the public for public purposes.
3. Provide through Recreation and Public Purposes lease or by exchange, 80 acres of public land in T. 8 S., R. 16 E., Sec. 24, E1/2NE1/4 for the future expansion of the Town of Mammoth.
4. Provide through Recreation and Public Purposes lease or by exchange, 20 acres of public land in

the Dripping Spring Valley in T. 4 S., R. 16 E., for disposal to Gila County for a sanitary landfill.

5. Provide through Recreation and Public Purposes lease or by exchange, 40 acres of public land in T. 8 S., R. 17 E., Sec. 19, NE1/4SW1/4 for disposal to Pinal County for use as a medical health building.
6. Retain isolated tracts of public lands in the Bowie-San Simon area, that have agricultural potential, until adequate information is obtained concerning the effect new wells will have on the groundwater table.
7. Conduct a feasibility study of, and implement accordingly, a land exchange and acquisition program to provide better control of range administration and improve management practices.
8. Acquire State and private lands in the same areas described in Alternative A and shown on Map 27.
9. Acquire 680 acres of private land along Aravaipa Creek, east and west of the wilderness.



A lone tree is silhouetted against the sheer canyon walls of Aravaipa Canyon Wilderness.

10. Retain public lands in the following areas.
 - a. Dos Cabezas Mountains.
 - b. Gila Box.
 - c. Jackson Mountain.
 - d. small tracts of public lands adjacent to the Gila River.
 - e. the National Guard Withdrawal, in T. 7 S., R. 25 E., Sec. 23, S1/2NE1/4, SE1/4, Sec. 26, NE1/4.
 - f. T. 8 S., R. 17 E., Sec. 29 for the future recreation and public purposes in the next 10 years
 - g. all lands in the Winkelman Planning Unit that have perennial water or riparian habitat.
11. Grant rights-of-way to public and private utility interests in established or proposed alternative primary corridors. Secondary or distribution line rights-of-way will be considered on a case-by-case basis.
12. Consider the existing concentration of rights-of-way through the Dripping Spring, Gila and San Pedro valleys right-of-way corridor. Attempt to confine all future rights-of-way to this corridor.
13. Develop site plans for all existing and future communication site developments prior to granting additional rights-of-way.
14. Following completion of the withdrawal review, authorize the following withdrawals along the Gila River below Coolidge Dam, by cooperative agreements with the withdrawing agency.
 - a. San Carlos Indian Irrigation Project.
 - b. Power Site Reserve 150.
 - c. Power Site Reserve 590 and Secretarial Order Water Power Designation 4.
15. Complete the U.S. Geological Survey revocation request for Power Project AR-730, Water Power Designation 5, and Power Site Reserve 602 included in Power Site Restoration A-760, located along the Gila River below Coolidge Dam, and within the Needles Eye Wilderness Area. Close the land included in these revocations to all appropriations when the withdrawals are revoked.

Management Concern 3 - Outdoor Recreation and Visual Resource Management

If Alternative D is approved, the following actions will be implemented to resolve the Outdoor Recreation and Visual Resource Management Concern.

1. Retain, as possible, existing scenic qualities on lands along Interstate 10, U.S. Highways 666 and 70, the Apache Pass Road and around Ft. Bowie National Historic Site. Exclude activities, where possible, that detract from open space values.
2. Review project proposals to determine their impact on scenic values. Prescribe needed mitigation measures.
3. Conduct a thorough inventory and evaluation of geologic features and develop a plan for interpretation and/or management of those determined to be of value for outdoor recreation opportunities.
4. Prepare activity plans to consider type and location of recreation facilities needed for visitors to accommodate and enhance recreation experiences while providing control and minimal impact on other activities.
5. Review new road construction proposals to determine the impacts on primitive values and opportunities for providing wayside stops, scenic overlooks, turnouts, interpretive signs, etc.
6. Conduct a thorough inventory to determine the location of unique ecological communities. Develop activity plans to provide for the management and interpretation of these areas.
7. Develop an activity plan for private lands adjacent to each end of Aravaipa Canyon Wilderness that may be acquired in the future.



The 1000-foot cliffs above the Gila River afford spectacular views of the rugged Gila Box.

8. Develop a comprehensive interpretive and education program depicting the biological, cultural and geological values of the Aravaipa Canyon area.
9. Provide day-use facilities along the Gila River near Winkelman, including a single picnic site about one mile below Coolidge Dam.
10. Inventory all Visual Resource Management Class I areas that fall outside the Wilderness and Wilderness Study Area. Manage those areas identified as Class I to provide primarily for natural ecological changes.
11. Manage Visual Resource Management Class II areas. Changes in any of the basic landscape elements caused by a management activity should not be evident in the landscape. Contrasts may be seen but should not attract attention.
12. Manage Visual Resource Management Class III areas. Management activities that cause changes to the basic landscape elements may create contrasts that are evident and begin to attract attention but the changes should remain subordinate to the existing landscape.
13. Manage Visual Resource Management Class IV areas. Contrasts in the landscape, caused by management activities, may attract attention and be a dominant feature in terms of scale but the contrast should repeat the basic landscape elements.

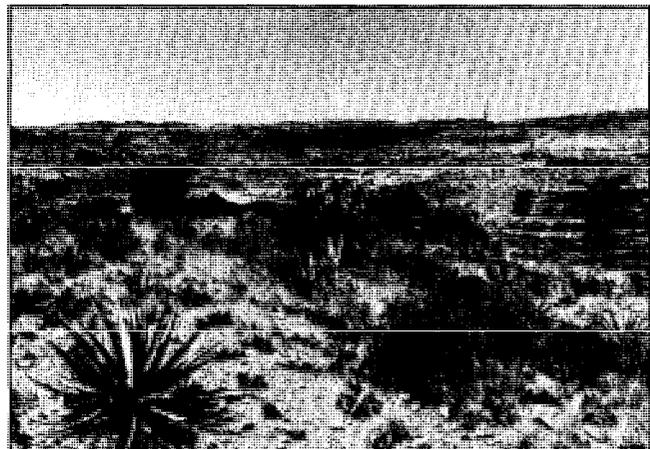
Management Concern 4 - Energy and Minerals

If this alternative is approved, the following actions will be implemented to resolve the Energy and Minerals Management Concern.

1. Continue to make public lands available to mineral entry.
2. Allow common material (sand and gravel) sales in material pits to be established as needed. Refer applicants first to commercial sources.
3. Allow free use of common material sites, as needed, by public agencies. Inventory existing sites to determine management compatibility and suitability for continued use.
4. Withdraw the Gila Box from all forms of appropriation, including mineral entry under the mining laws

and material sales acts. Permit mineral leasing. Issue mineral leases with the following restrictions.

- a. Lease only those minerals that do not require surface excavation for exploration or development (oil, gas or geothermal resources).
 - b. Prohibit leasing in riparian and aquatic habitat and needed buffer areas, pending studies to determine the feasibility and effects of leasing activities.
 - c. Prohibit surface occupancy in riparian and aquatic habitat and the buffer areas except as may be determined allowable by an environmental assessment.
 - d. Prohibit surface occupancy in all wilderness areas.
5. Withdraw the Black Hills Rockhound Area, Round Mountain Rockhound Area and Eagle Creek Canyon from all forms of appropriation, including mineral entry under the mining law, but allow mineral leasing.
 6. Withdraw 40 acres containing the Eagle Creek Bat Cave from all forms of appropriation, including the mining and mineral leasing laws.
 7. Give management emphasis to mineral development in the following areas,
 - a. zeolite deposits in the San Simon Valley.
 - b. Gila Mountains north of Safford and Ft. Thomas.
 - c. Black Rock.



The tops of the Pilares are Inaccessible to livestock, providing an excellent opportunity to study native plants.

- d. the Gila River between Bonita Creek and Spring Canyon.
- 8. Lease geothermal resources with environmental stipulations to protect other resource values.
- 9. Keep the lands adjacent to the Gila River in the Safford Valley open to mineral entry.
- 10. Review all lands closed to mineral entry and determine withdrawals that should be revoked.
- 11. Provide 640 acres for the future expansion of Christmas Mine.

Management Concern 5 - Cultural Resources

If Alternative D is approved, the following objectives and actions will be implemented to resolve the Cultural Resources Management Concern.

- . Manage for Information Potential.
- . Manage for Public Values.
- . Manage for Conservation.

Table 2-21 identifies the actions that will be implemented to achieve each objective. Appendix 12 defines each objective.

1. Conduct an intensive archaeological site inventory and analysis on the public lands within the District to determine location of sites and management needs.
2. Direct archaeological site inventory emphasis to areas subject to disturbance or which are endangered by a specific action.
3. Thoroughly inventory and evaluate archaeological sites and develop a plan for their interpretation, restoration and protection.
4. Consider protective withdrawals as a viable means to attain protection of highly significant archaeological sites from disturbing actions, when other protective alternatives are inadequate.
5. Provide interim and long-term protection of selected cultural resources threatened by agents of deterioration such as wind, and rain.
6. Implement the Safford District Cultural Resources Patrol Plan and initiate a public information and education campaign.
7. Conduct studies to identify and evaluate socio-cultural values held by the public, and locate and evaluate cultural resource properties and areas possessing socio-cultural values.
8. Allocate a select sample of cultural resources to Management Use. Prepare a cultural resource management plan on these properties. Plan and implement studies to determine the effects of other programs and uses on cultural resources.
9. Evaluate the effectiveness and efficiency of cultural resource protection measures.
10. Allocate select cultural resource sites and areas to scientific use and initiate studies directed at filling the primary cultural resource data gaps.
11. Develop an interpretive program on the San Simon Restoration Project.

Management Concern 6 - Soil Erosion

If this alternative is approved, the following actions will be implemented to resolve the Soil Erosion Management Concern.

1. Provide watershed protection by establishing grazing systems that meet vegetation needs and ensure sufficient ground cover to protect the soil surface from erosion.
2. Provide prompt wildfire control.
3. Construct water control structures to provide additional erosion control.
4. Conduct land treatments to increase vegetation cover and reduce soil erosion.
5. Limit watershed practices, in the upper elevations of the Gila Mountains north of Pima, to check dams and other small water control structures.

Management Concern 7- Vegetation

If Alternative D is approved, the following actions will be implemented to resolve the Vegetation Management Concern.

1. Remove or sell vegetation products as a salvage measure on project areas or other areas where surface disturbance is imminent.

Table 2-21. Management Objectives Achieved by Planned Actions-Alternative D

Actions	Manage for Information Potential	Manage for Public Values	Manage for Conservation
1. Inventory District	X	0	0
2. Inventory proposed projects	X		
3. Manage cultural resources	X	0	0
4. Protect through withdrawal	0	0	X
5. Protect selected cultural resources	X	X	X
6. Patrol sites and educate the public	X	X	X
7. Identify public values	0	X	
8. Conduct impact studies of selected cultural resources	X		
9. Evaluate existing protection measures	X	0	0
10. Conduct studies to fill data gaps	X		

X Primary Objective
Source: Safford District Files

0 Secondary Objective

2. Consider applications for vegetation products (jojoba nuts, cactus fruits) on a case-by-case basis.
3. Authorize firewood cutting in cases of emergency energy shortage or other extreme situations requiring special use considerations.
4. Review and make needed revisions to all existing Allotment Management Plans. Develop Allotment Management Plans and grazing systems, consistent with BLM's allotment categorization and management policy, for the remainder of the allotments.
5. Manage vegetation at watering sites to improve or provide habitat (cover), protect cultural resources, decrease erosion, increase forage and protect Threatened and Endangered species.
6. Use land treatment practices to increase forage production and improve range condition.
7. Use vegetation manipulation treatments to increase forage production and improve range condition in the Bear Springs Flat and Ashurst areas. Apply treatments only on suitable sites likely to respond.

8. Use prescribed fire to increase grass production.
9. Use water control and watershed treatment practices to increase vegetation.
10. Control cockleburrs by maintenance spraying.
11. Manage livestock to increase forage production and improve range condition in the Gila Mountains and at Black Rock.
12. Reactivate plant material studies, concentrating on suitable species for watershed rehabilitation and wildlife and recreation needs.
13. Prohibit harvest of ponderosa pine on public lands.

Management Concern 8 - Water Resources

If Alternative D is approved, the following actions will be implemented to resolve the Water Resources Management Concern.

1. Inventory water resources in the Dos Cabezas Mountains to obtain additional information for management of wildlife, particularly Threatened and Endangered species.
2. Manage the Bonita Creek area primarily for water yield and quality.
3. Intensively manage livestock in Bonita Creek to protect vegetation cover, maintain water quality, reduce run-off and increase water percolation for storage to allow for continued discharge flow during dry periods.



A thick cover of native grasses grows atop Sombrero Butte east of Mammoth.

4. Sample Aravaipa Creek weekly for bacterial analysis during peak recreation use. When pollution exceeds established standards for Primary Contact Water, notify the public of the problem so they can decide whether they want to use the area.
5. Enforce state and federal water quality standards for mining operations, in coordination with the state.
6. Collect water quality data at specific locations in response to management concerns.

Management Concern 9 - Air Quality

No management actions are planned.

Management Concern 10 - Paleontological Resources

If this alternative is approved, the following actions will be implemented to resolve the Paleontological Resources Management Concern.

1. Prohibit any proposal that would disturb any object of antiquity or affect the integrity of lands in the 111 Ranch Paleontological Area. Retain lands in public ownership at least until the significance of the area has been evaluated by specialists.
2. Inventory and evaluate geologic features and develop a plan for the interpretation and management of those features of interest to the public. Give particular attention to paleontological sites in the "Breaks" and eroded slopes of Bear Springs Badlands.
3. Develop a sensitivity map of fossil-bearing geologic formations on public lands in the District.

Summary of Environmental Effects

The following Table 2-22 is a summary of the anticipated environmental effects anticipated through implementation of the various alternatives.

Table 2-22. Summary of Environmental Effects

Action	Alternative A Proposed Action)	Alternative B	Alternative C	Alternative D (No Action)
WATER				
1. ACEC management	Low benefits to water quality and quantity by management of 4 ACECs on 17,734 acres.	Low benefits to water quality and quantity by management of 4 ACECs on 78,522 acres.	Low benefits to water quality and quantity by management of 3 ACECs on 27,225 acres.	No significant effects.
2. Restrictions on mining and mineral material sales	Low benefits due to lower water sedimentation on the 2,411 acres with restrictions.	Moderate benefits to water quality from mining restrictions on 11,316 acres.	No significant effects,	No significant effects.
3. OHV designations	Low benefits to water quality from OHV restrictions on 1,310,713 acres by reducing sediment in water.	Low benefits to water quality from OHV restrictions on 1,400,000 acres by reducing sediment in water.	Low impacts to water quality from increased sedimentation due to OHV use on 1,257,513 acres.	Low benefits to water quality by restricting OHV use to existing roads and trails District-wide.
SOIL				
1. Construction and/or repair of detention dams	Moderate benefit. Save 500 ac. feet of soil per year.	Moderate benefit. Save 500 ac. feet of soil per year.	Moderate benefit. Save 500 ac. feet of soil per year.	Moderate benefit. Save 300 ac. feet of soil per year.
2. OHV designations	Designation of 1,310,713 acres as "limited" and 87,879 acres as "closed" - low benefits. 1,708 acres "open" - low impacts.	Restrictions to OHVs on 1,400,000 acres would give a low benefit to soil by reducing soil disturbance and erosion.	88,931 acres as "limited" and 85,384 acres as "closed" would give low benefits by reducing soil erosion caused by vehicles.	Restrictions on OHVs of 1,400,000 acres would provide a low benefit to soil by reducing disturbance and erosion.
RIPARIAN VEGETATION				
1. ACEC management	High benefits on 1,500 acres and 40 miles of riparian vegetation in 5 ACECs.	High benefits to 8,455 acres of riparian vegetation due to management of 4 ACECs.	Moderate benefits to 460 acres of riparian areas in 3 ACECs.	Moderate benefits on 60 riparian areas covering 1,267 acres.
2. OHV designations	Low benefits from limiting vehicle disturbance.	Restrictions on OHV use would provide low benefits by minimizing vegetation disturbance.	Designation of most of the District as "open" would cause moderate impacts to 35 riparian areas that would be used by OHVs.	Designation of most of the District as "limited" would give low benefits to riparian areas that would be used by OHVs.
3. Disposal and acquisition of lands	Disposal of less than 25 acres - low impact. Acquisition of other riparian areas - moderate benefit.	Acquisition of riparian vegetation - moderate benefit.	Acquisition of riparian vegetation - moderate benefit.	Acquisition of riparian vegetation - low benefit.

Table 2-22. Summary of Environmental Effects (continued)

Action	Alternative A Proposed Action)	Alternative B	Alternative C	Alternative D (No Action)
4. Acquisition of instream flow water rights and water rights	Moderate benefits to 5 riparian areas on 350 acres.	Moderate benefit by assuring continual necessary flow to riparian areas.	Moderate benefit by assuring continual necessary flow to riparian areas.	No action.
5. Restrictions on mineral leasing	Low benefits to 2,411 acres of riparian habitat through NSO stipulations.	Low benefits to 2,397 acres of riparian habitat through NSO stipulations.	Low benefits to 570 acres of riparian habitat through NSO stipulations.	Low benefits to 274 acres of riparian habitat through NSO stipulations and mineral withdrawal.
UPLAND VEGETATION				
1. Prescribed land treatments	Low benefits from seedings, prescribed fire, etc.	Low benefits from seedings, prescribed fire, etc.	Low benefits from seedings, prescribed fire, etc.	Low benefits from seedings, prescribed fire, etc.
2. ACEC management	No significant effect.	Low benefits from management of 3 ACECs (72,684 acres) by increasing vegetation density and diversity.	No significant effect.	No significant effect.
3. OHV designations	"Limited" or "closed" OHV designation on 1,398,592 acres would provide low benefits by protecting vegetation from vehicular disturbance.	"Limited" or "closed" OHV designation on 1,400,000 acres would provide low benefits by protecting vegetation from vehicular disturbance.	Designation of 1,257,513 acres as "open" would create low impacts from vehicular disturbance.	"Limited" or "closed" OHV designation on 1,400,000 acres would provide low benefits by protecting vegetation from vehicular disturbance.
WILDLIFE HABITAT				
1. ACEC management	Management of 26,861 acres in 9 areas would give moderate benefits for wildlife by protecting unique habitats and riparian ecosystems. Management of 4,717 acres in 4 areas would give low benefits by protecting necessary habitat.	Management of 32,447 acres in 9 areas would moderately benefit wildlife habitat by protecting and enhancing habitat.	Management of 42,988 acres in 10 areas would give moderate benefits to wildlife habitat by protecting and improving habitat.	Designation of riparian areas as ACECs would provide moderate benefits to wildlife by protecting riparian habitat. Management of Gila River and Mescal Creek would give moderate benefits to 17 priority species.
2. OHV designations	Closure of bighorn sheep lambing areas would give high benefits to bighorn sheep. "Limited" and "closed" areas would give high benefits to 17 priority wildlife species and their habitat.	Closure of bighorn sheep lambing areas would give high benefits to bighorn sheep by reducing human harassment during critical periods. "Limited" and "closed" areas would give high benefits to 36 priority species and their habitat.	"Open" OHV areas would moderately impact wildlife habitat.	"Limited" and "closed" areas would give high benefits to wildlife habitat.

Table 2-22. Summary of Environmental Effects (continued)

Action	Alternative A (Proposed Action)	Alternative B	Alternative C	Alternative D (No Action)
3. Disposal and acquisition of lands	Acquisitions would provide high benefits by acquiring wildlife habitat.	Disposal actions would provide low impacts to wildlife by loss of habitat. Acquisitions would give high benefits by acquiring wildlife habitat.	Disposal of lands in 9 locations provides low impacts due to loss of habitat. Acquisitions would give high benefits by acquiring wildlife habitat.	Acquisitions would give high benefits by acquiring wildlife habitat.
4. Restrictions on mining and mineral material sales	Withdrawal of 9,829 acres from mineral entry, NSO stipulations on 14,052 acres and no mineral materials sales on 12,371 acres would give high benefits to wildlife by protecting their habitat.	Withdrawal of 12,652 acres from mineral entry would highly benefit wildlife habitat. No mineral material sales on 11,316 acres would moderately benefit 17 species. NSO stipulations (21,669 acres) have moderate benefits for 15 species.	Withdrawal of 2,411 acres from mineral entry, NSO stipulations on 7,525 acres and no mineral materials sales on 4,316 acres would give low benefits to 11 priority species by protecting their habitat.	No significant impact.
5. Acquisition of instream flow water rights and water rights	Moderate benefit by providing continued water on 5 streams, giving protection to 15 priority species.	Moderate benefits for 17 species by increased water quality protection.	Acquisition of instream flow water rights on 5 perennial streams and 4 intermittent streams would give low benefits to 3 priority species.	Management of Bonita Creek for Safford's water supply would moderately benefit wildlife by ensuring continued water supply.
CULTURAL/PALEONTOLOGICAL RESOURCES				
1. Restrictions on mining and mineral material sales	Restrictions on Bear Springs Badlands (2,927 acres) would provide high benefits to paleontological resources by protecting them from disturbance.	Restrictions on Bear Springs Badlands (4,127 acres) would provide high benefits to paleontological resources by protecting them from disturbance. Moderate benefits to cultural resources from mining and material sales restrictions on other areas.	NSO stipulations would provide low benefits to three archaeological sites totaling 320 acres.	Withdrawal from mineral entry and NSO stipulations would moderately benefit cultural resources.
2. ACEC management	ACEC management on 6 ACECs for 14,716 acres would provide moderate benefits by protective actions.	ACEC management on 7 ACECs for 35,899 acres would provide moderate benefits by protective actions.	ACEC management on 4 ACECs for 8,853 acres would provide moderate benefits by protective actions.	Designating riparian areas as ACECs would have moderate benefits to cultural resources by protecting the condition of these areas.

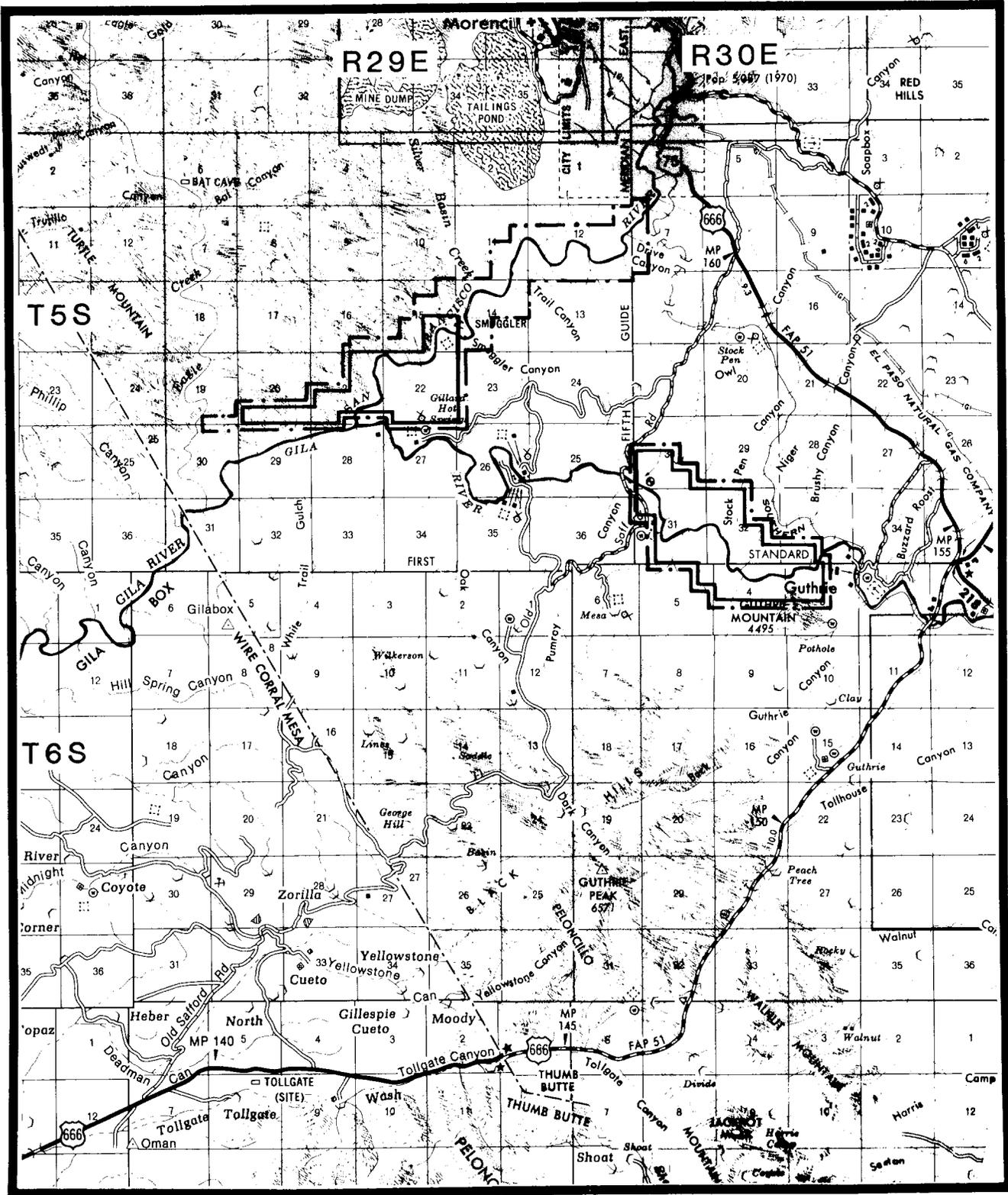
Table 2-22. Summary of Environmental Effects (continued)

Action	Alternative A Proposed Action)	Alternative B	Alternative C	Alternative D (No Action)
3. OHV designations	Closure of 2 ACECs to vehicular use would moderately benefit cultural resources by preventing damage associated with vehicular use.	Closure of 2 ACECs to vehicular use would moderately benefit cultural resources by preventing damage associated with vehicular use.	Designation of 1,257,513 acres as "open" would give moderate impacts to cultural resources by increasing damage by vehicles.	Designation of 1,393,301 acres as "limited" to OHVs would provide moderate benefits by protecting cultural resources from damage by vehicular use.
4. Construction and/or repair of detention dams	High impacts to 37 archaeological sites on 1,300 acres.	High impacts to 37 archaeological sites on 1,300 acres.	High impacts to 37 archaeological sites on 1,300 acres.	High impacts to 37 archaeological sites on 1,300 acres.
SOCIO-ECONOMIC				
1. Restrictions on mining and mineral material sales	Mineral withdrawals on 9,829 acres, NSO stipulations on 14,052 acres and no mineral material sales on 12,371 acres would have a low economic impact by precluding mineral exploration.	Mineral withdrawals on 12,652 acres, NSO stipulations on 21,669 acres, no mineral material sales on 21,316 acres would have a low economic impact on the economy.	Withdrawal of 2,411 acres from mineral entry, NSO stipulations on 7,525 acres and no mineral materials sales on 4,316 acres would have a low impact to the economy.	Withdrawal from mineral entry would have a low impact on the economy.
2. ACEC management	Low benefits to the local economy due to increased primitive recreation use.	Low benefits to the local economy due to increased primitive recreation use.	Low impacts to local economy by decreased primitive recreation use.	Low benefits to the local economy due to increased primitive recreation use.
3. OHV designations	No significant impact.	No significant impact.	Low benefit to the local economy that provides goods and services to OHV enthusiasts.	No significant impact.
4. Disposal of lands	Low impacts to the economy from loss of PILT payments.	Low impacts to the economy from loss of PILT payments.	Low impacts to the economy from loss of PILT payments.	No significant impact.

Source: Safford District Files.

GILA BOX ONA ACEC

MAP 1



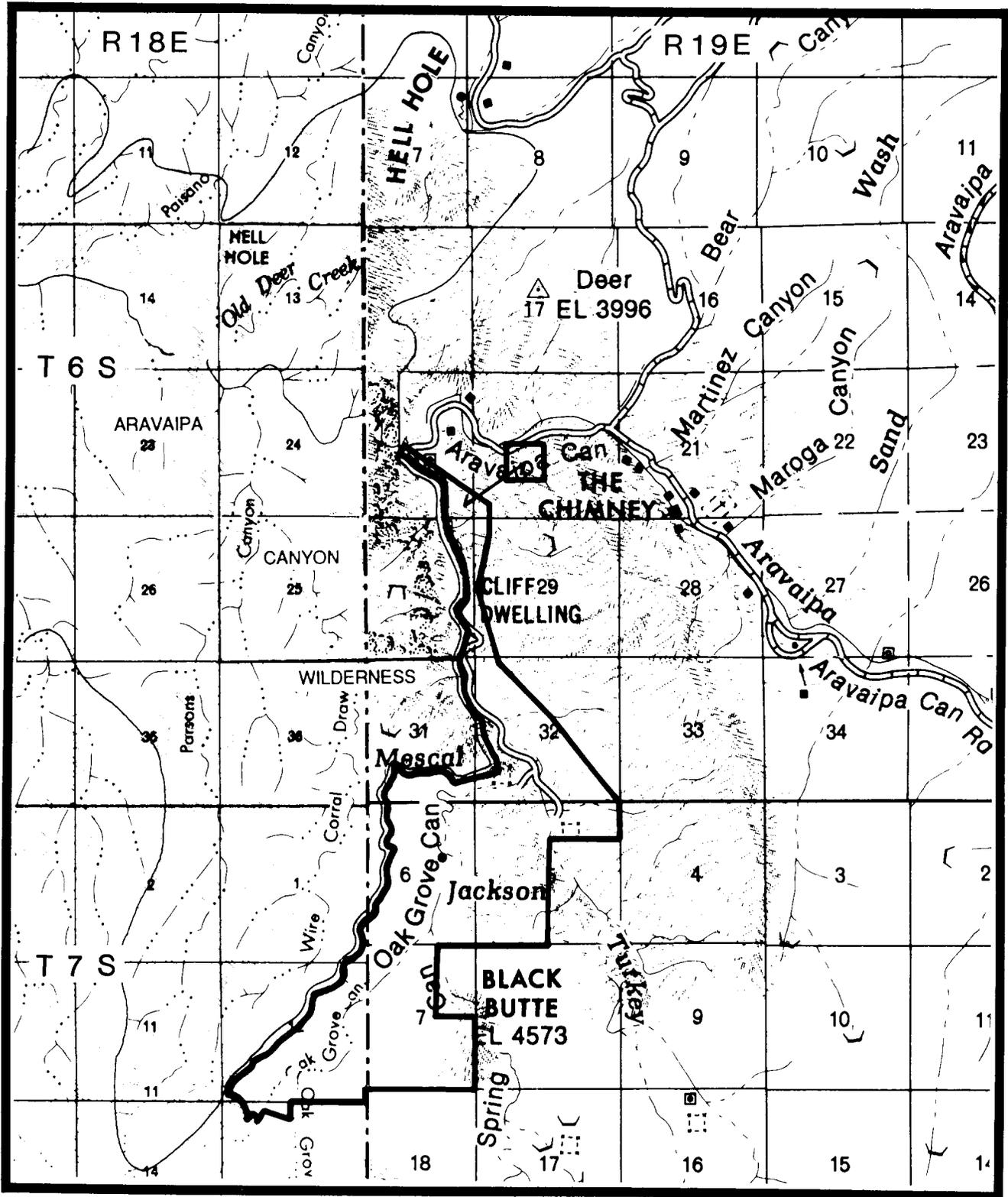
ALTERNATIVE A 

ALTERNATIVE B 



TURKEY CREEK RIPARIAN ACEC

MAP 2

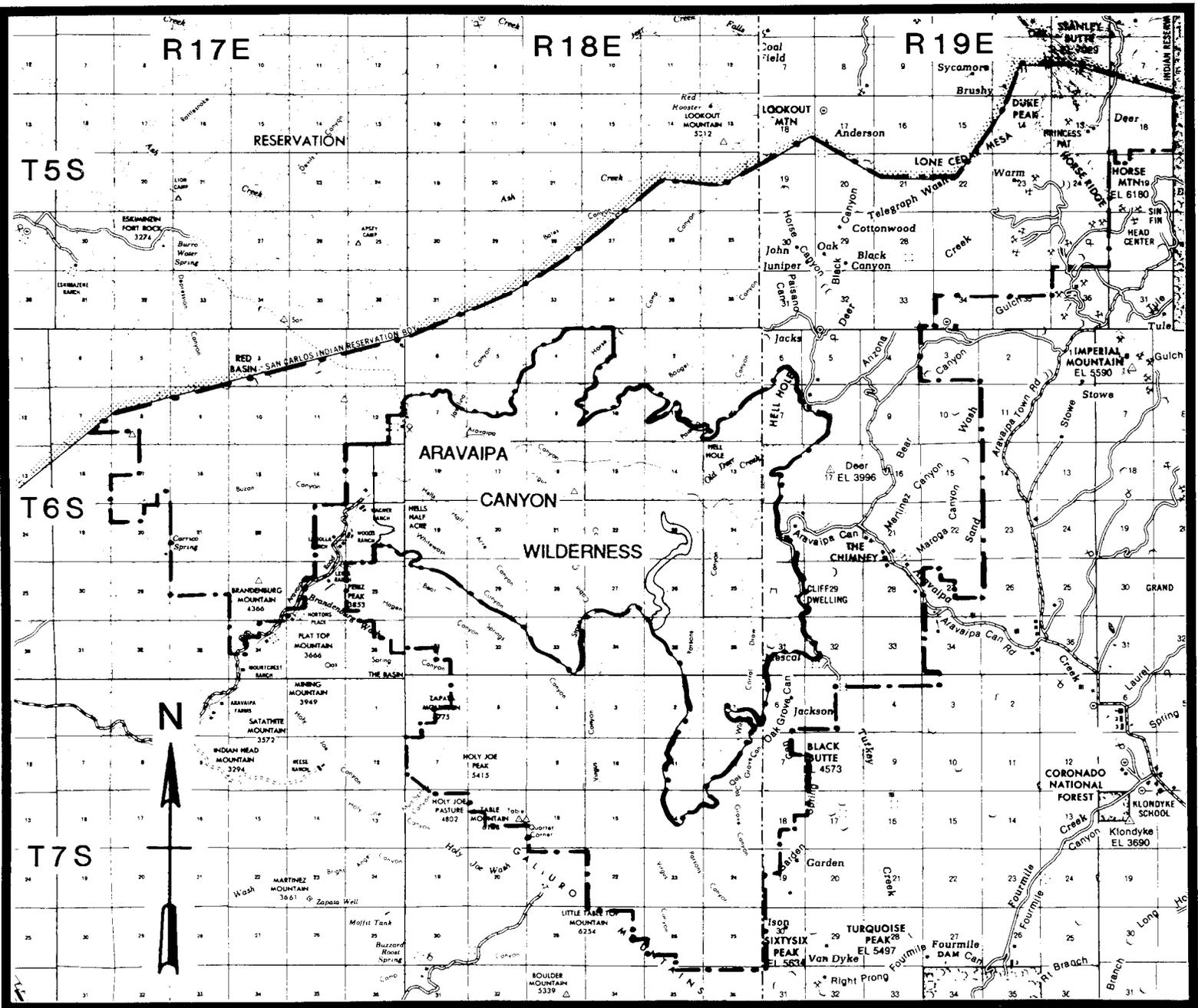


ALTERNATIVE A 
 WILDERNESS BOUNDARY 

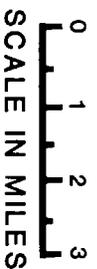


ARAVAIPA WATERSHED ACEC

MAP 3

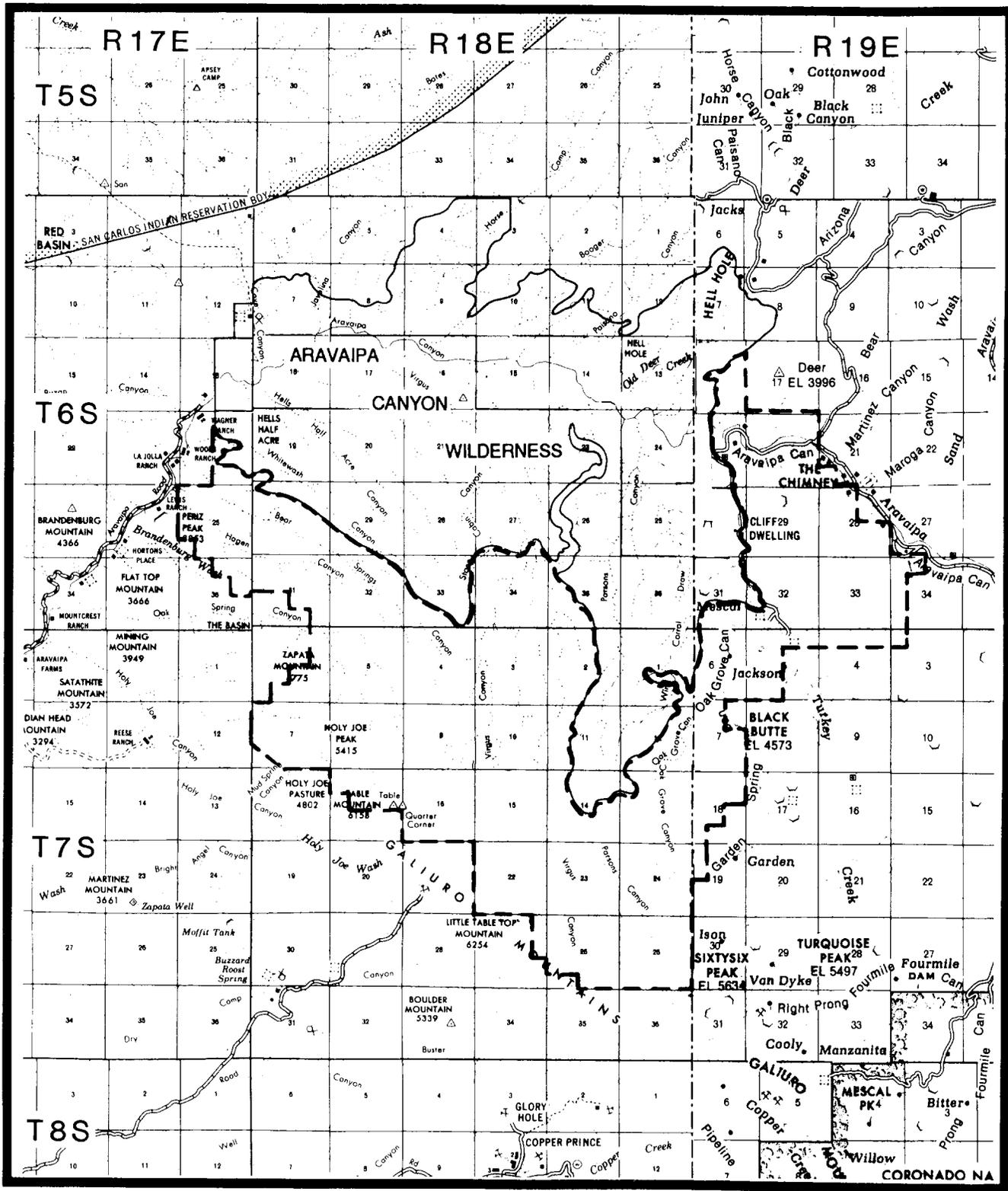


ALTERNATIVE B  WILDERNESS BOUNDARY 



SOUTH RIM ACEC

MAP 4



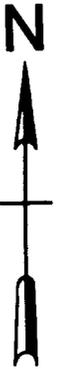
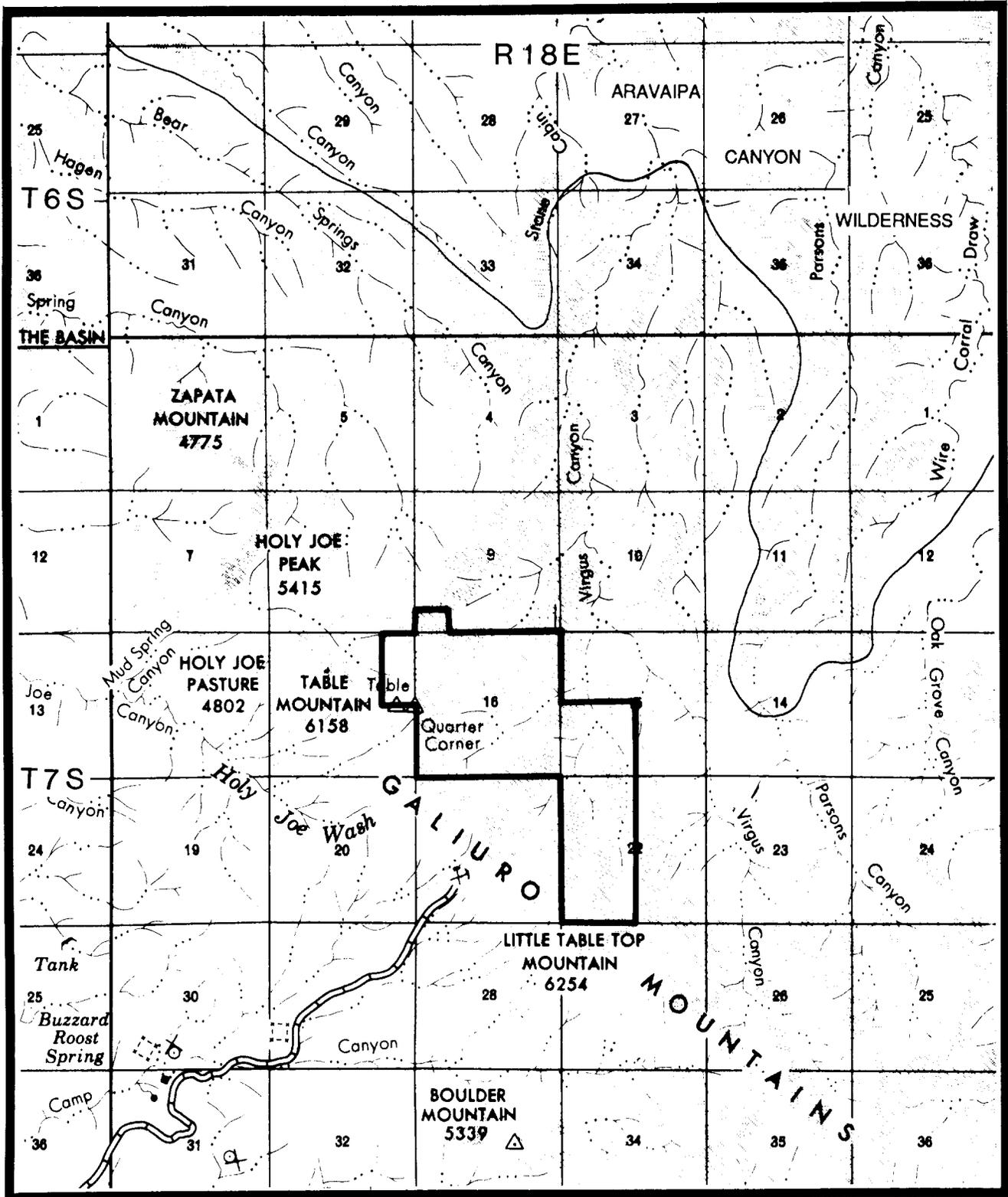
ALTERNATIVE C

WILDERNESS BOUNDARY



TABLE MOUNTAIN RNA ACEC

MAP 5

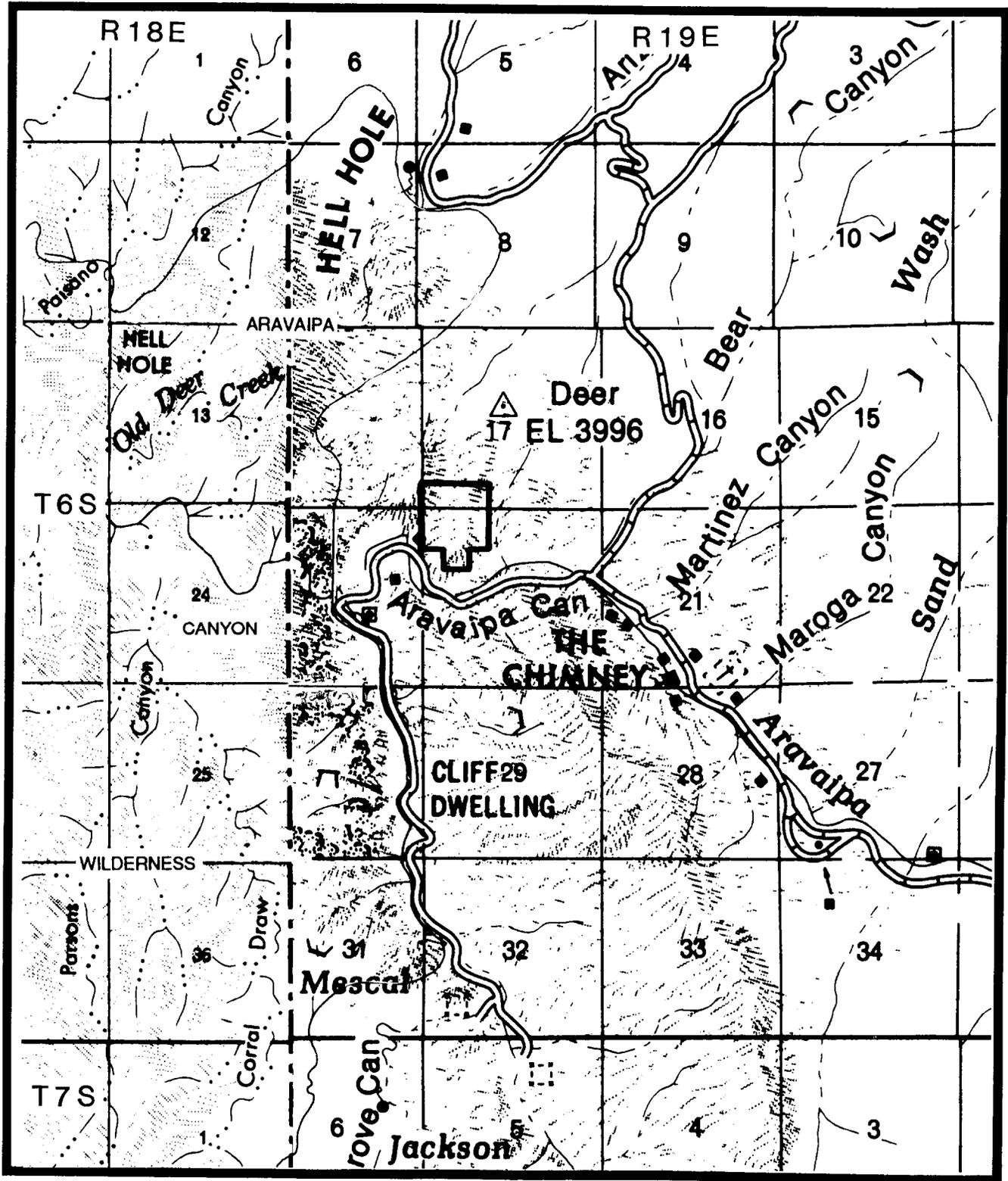


ALTERNATIVES A, B & C 
WILDERNESS BOUNDARY 



DESERT GRASSLANDS RNA ACEC (PILARES)

MAP 6



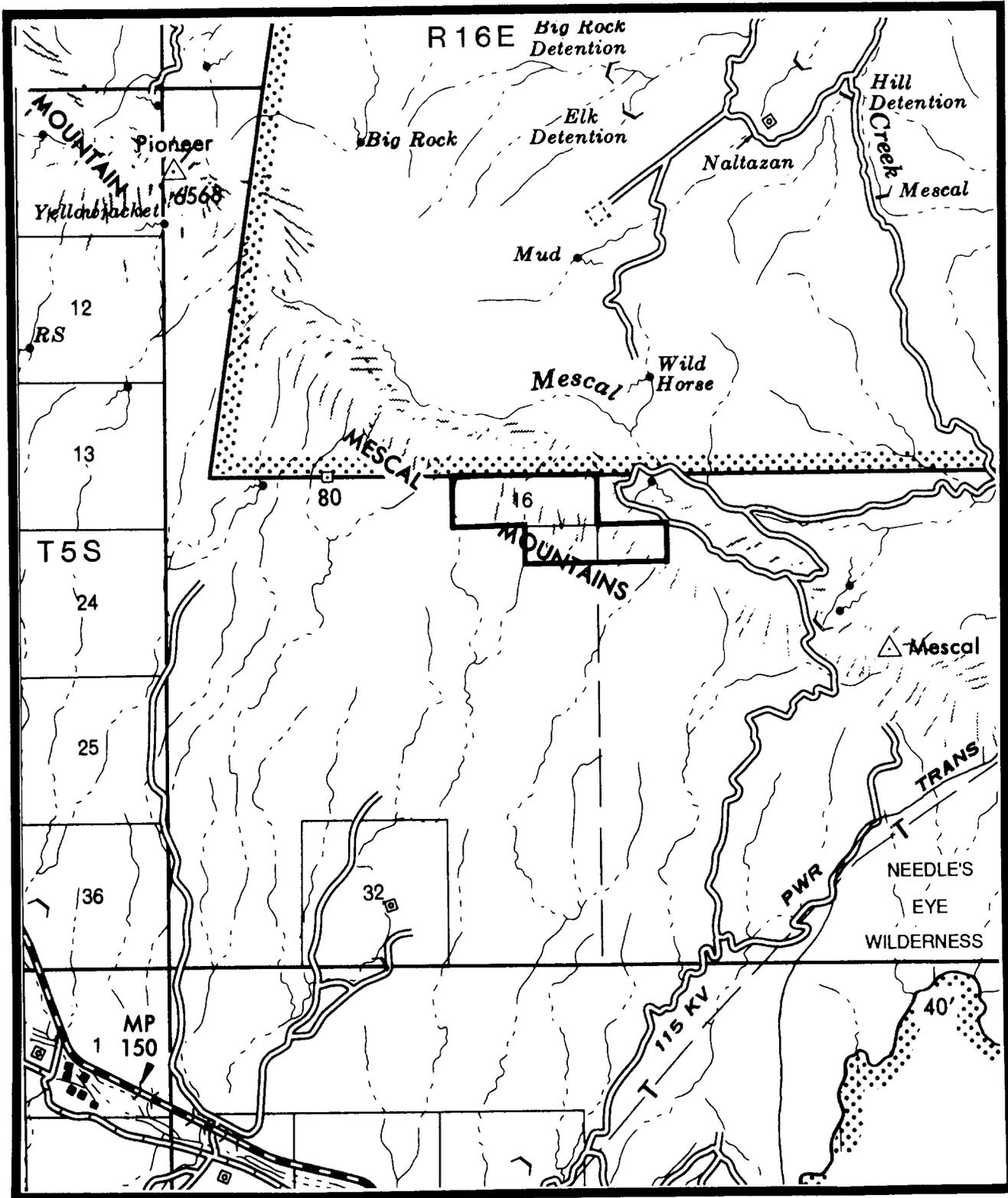
ALTERNATIVES A, B & C 
 WILDERNESS BOUNDARY 



SCALE IN MILES

DESERT GRASSLANDS RNA ACEC (MESCAL RIDGE)

MAP 7

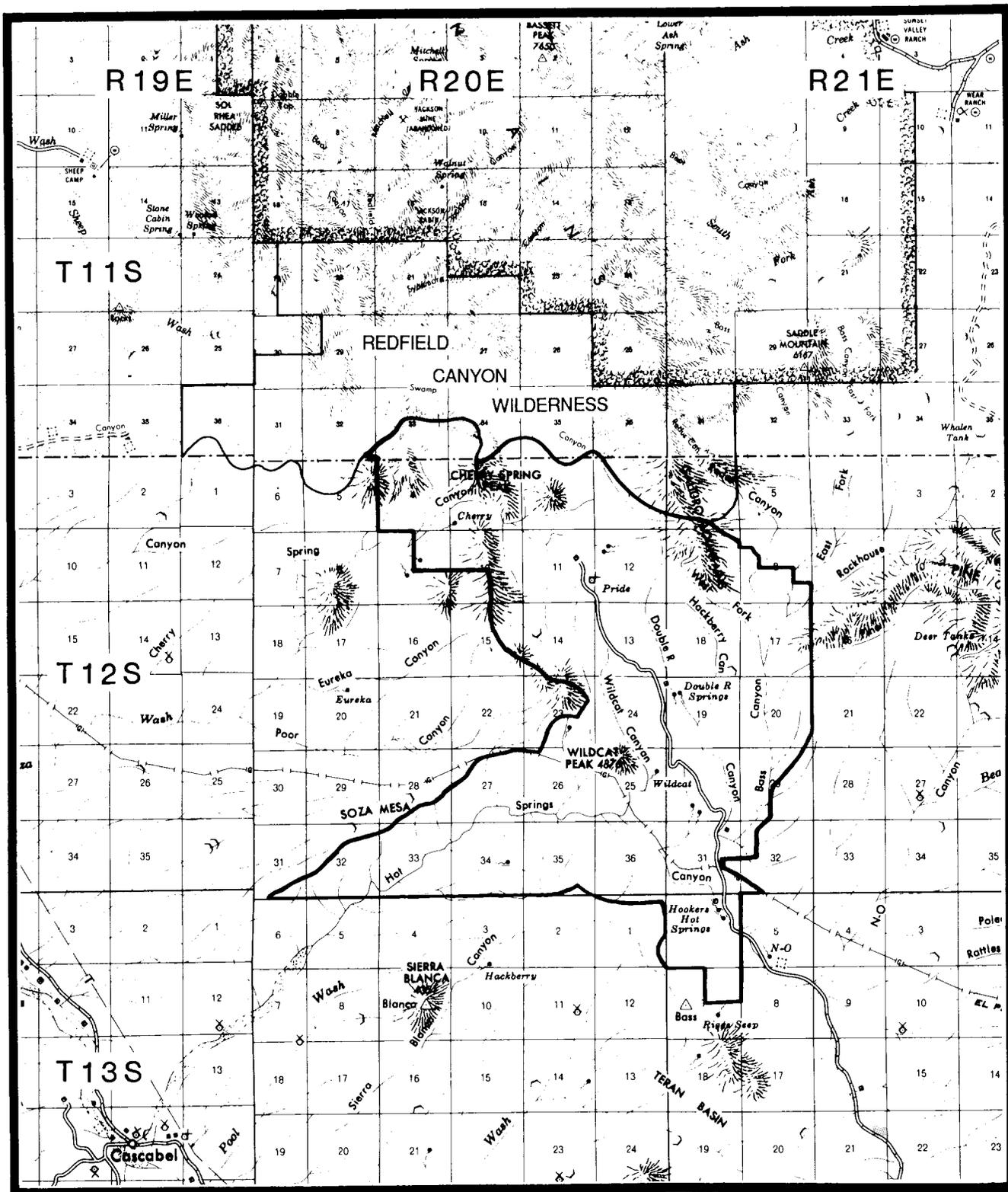


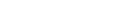
ALTERNATIVES A, B & C 
 WILDERNESS BOUNDARY 



SWAMP SPRINGS-HOT SPRINGS WATERSHED ACEC

MAP 9

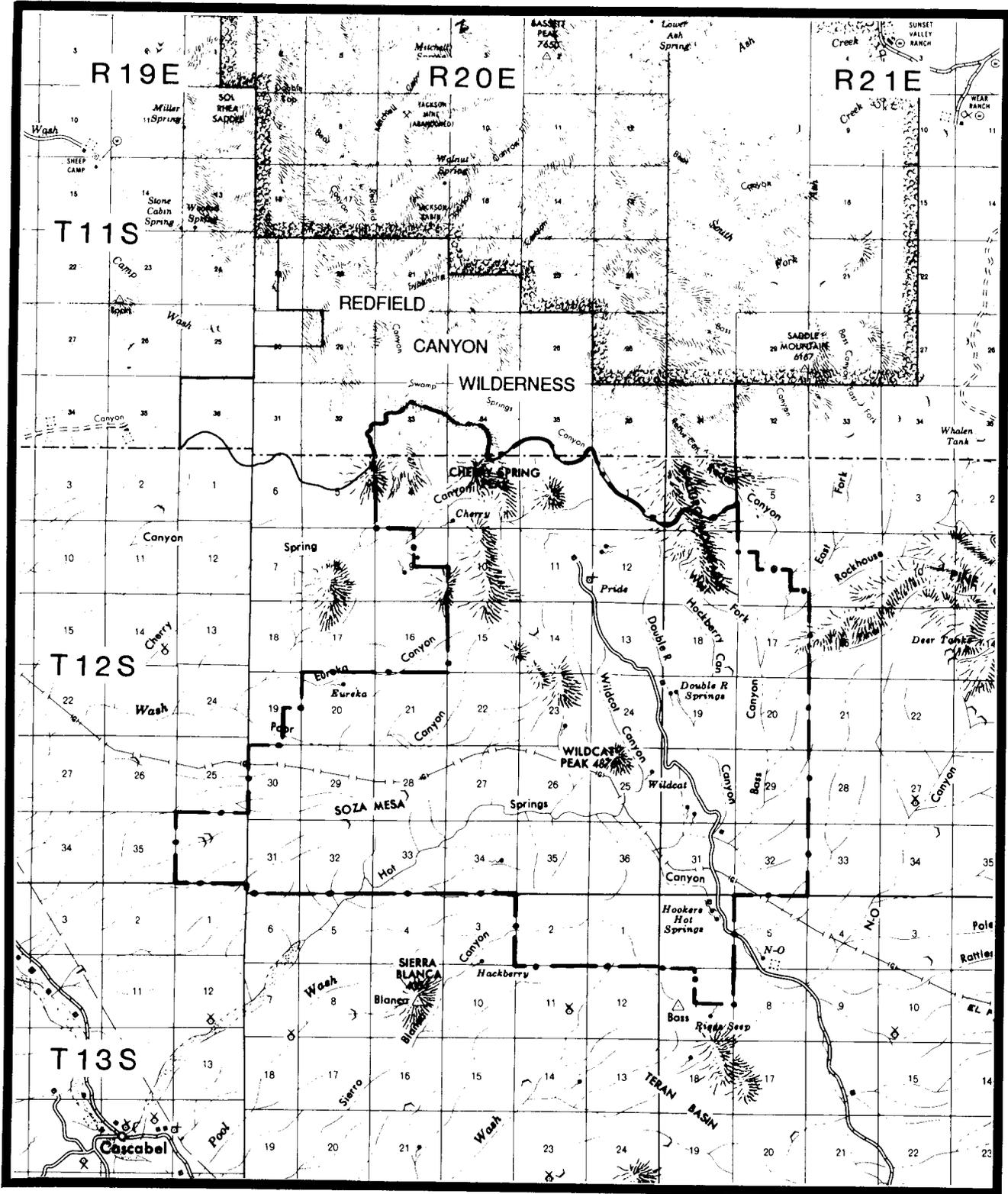


ALTERNATIVE A 
 WILDERNESS BOUNDARY 



MULESHOE RANCH ACEC

MAP 10



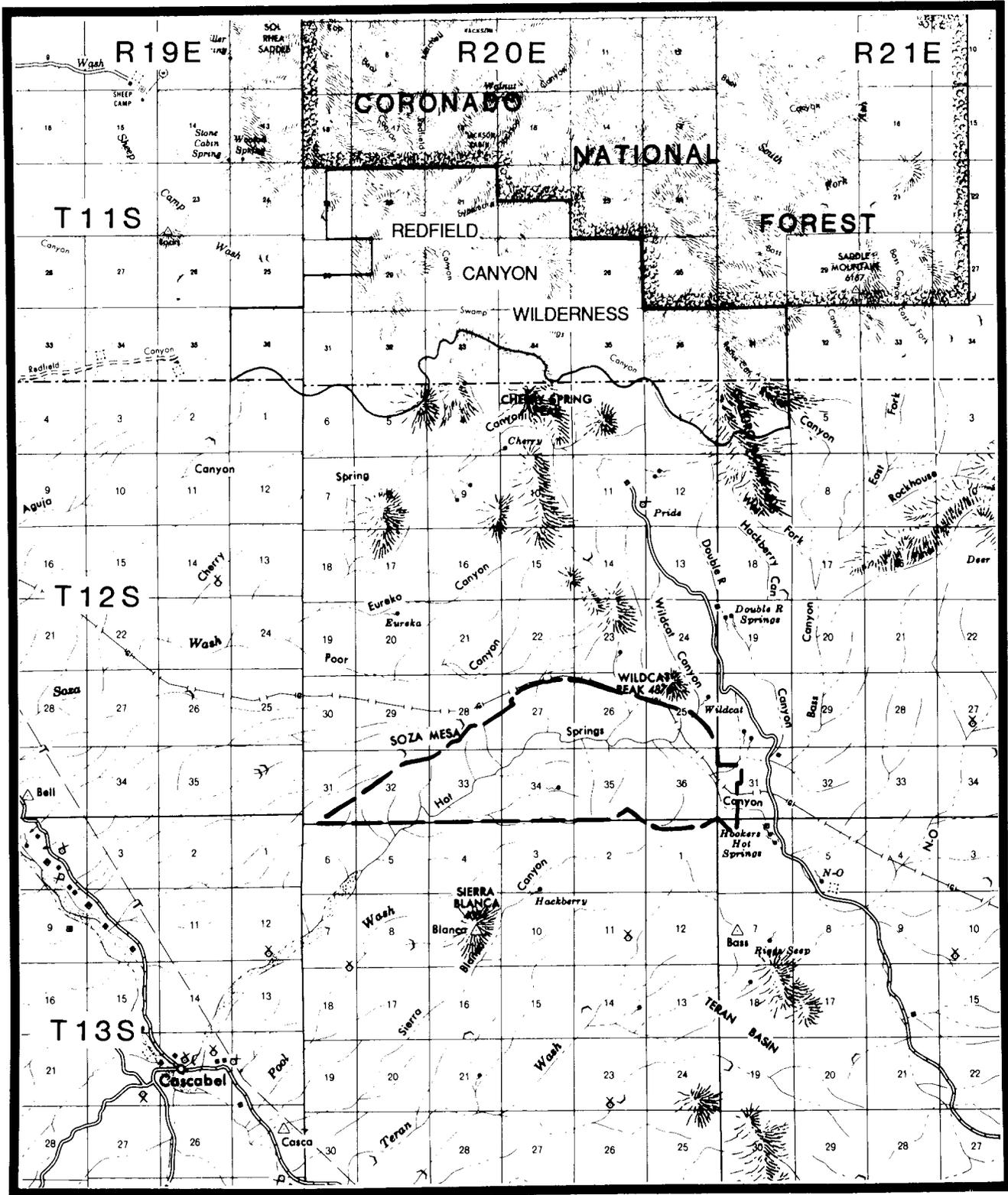
ALTERNATIVE B

WILDERNESS BOUNDARY



MULESHOE RIPARIAN ACEC

MAP 11



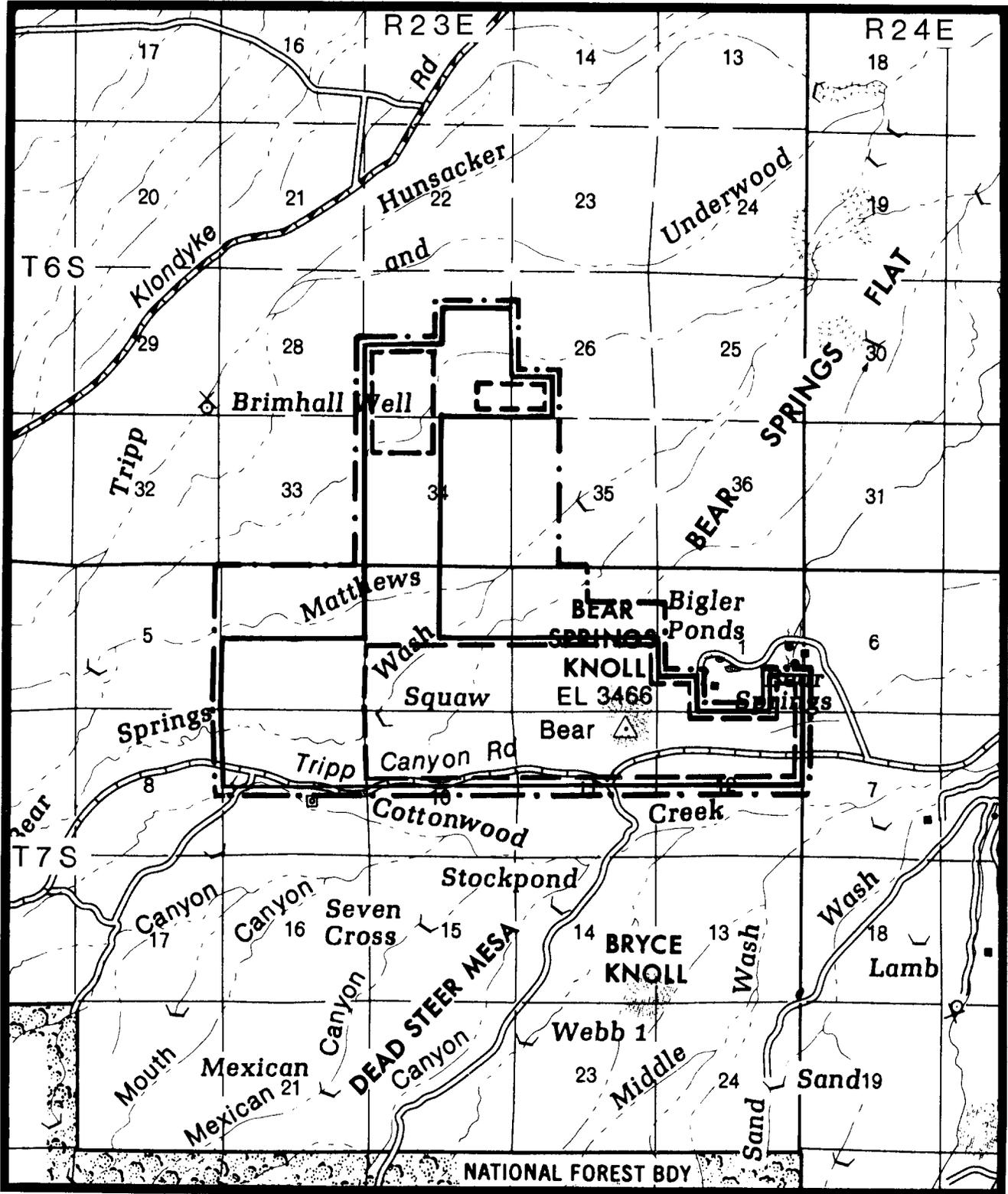
ALTERNATIVE C **— — — — —**

WILDERNESS BOUNDARY **— — — — —**



BEAR SPRINGS BADLANDS ACEC

MAP 12

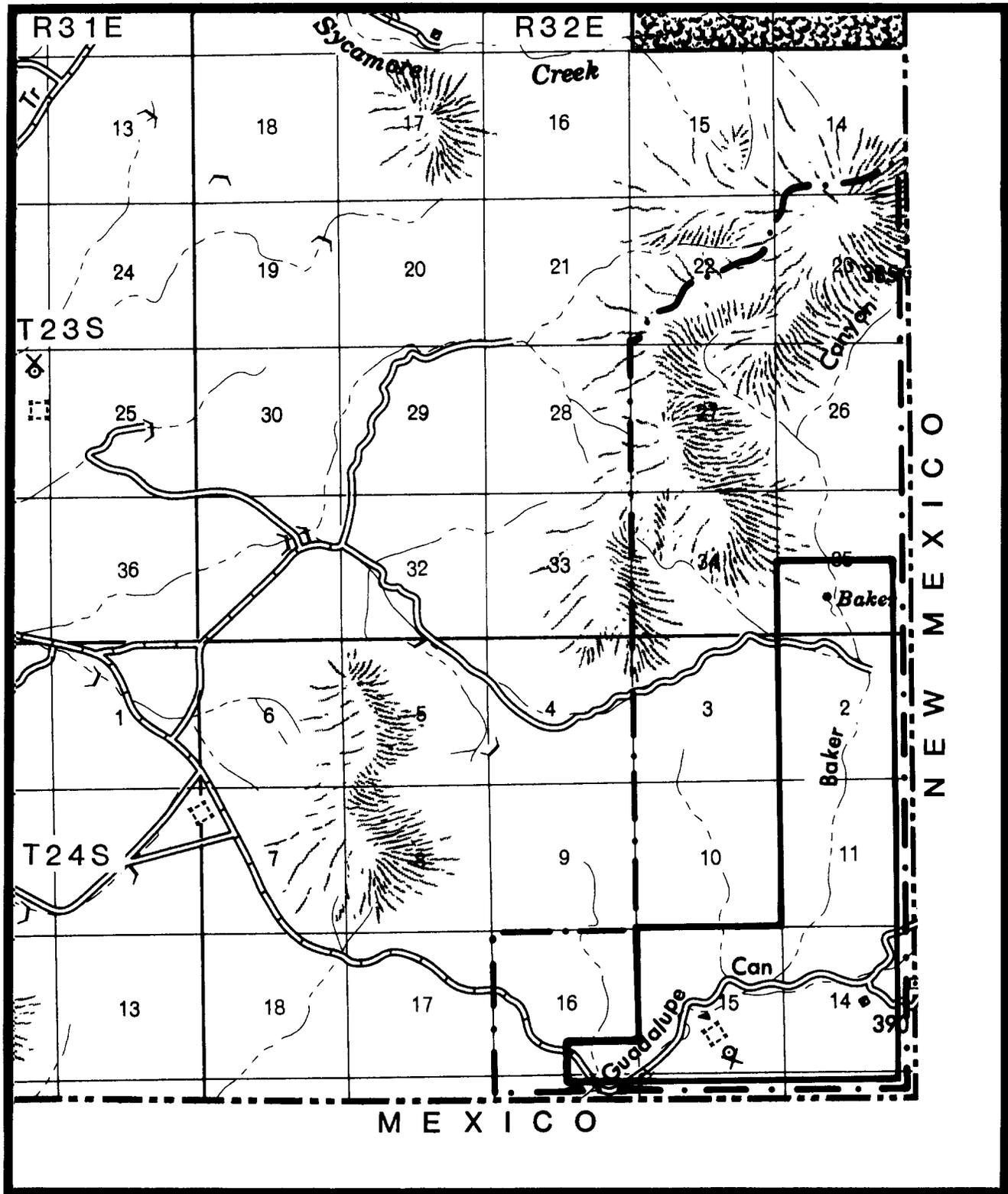


- ALTERNATIVE A
- ALTERNATIVE B
- ALTERNATIVE C



GUADALUPE CANYON ONA ACEC

MAP 13

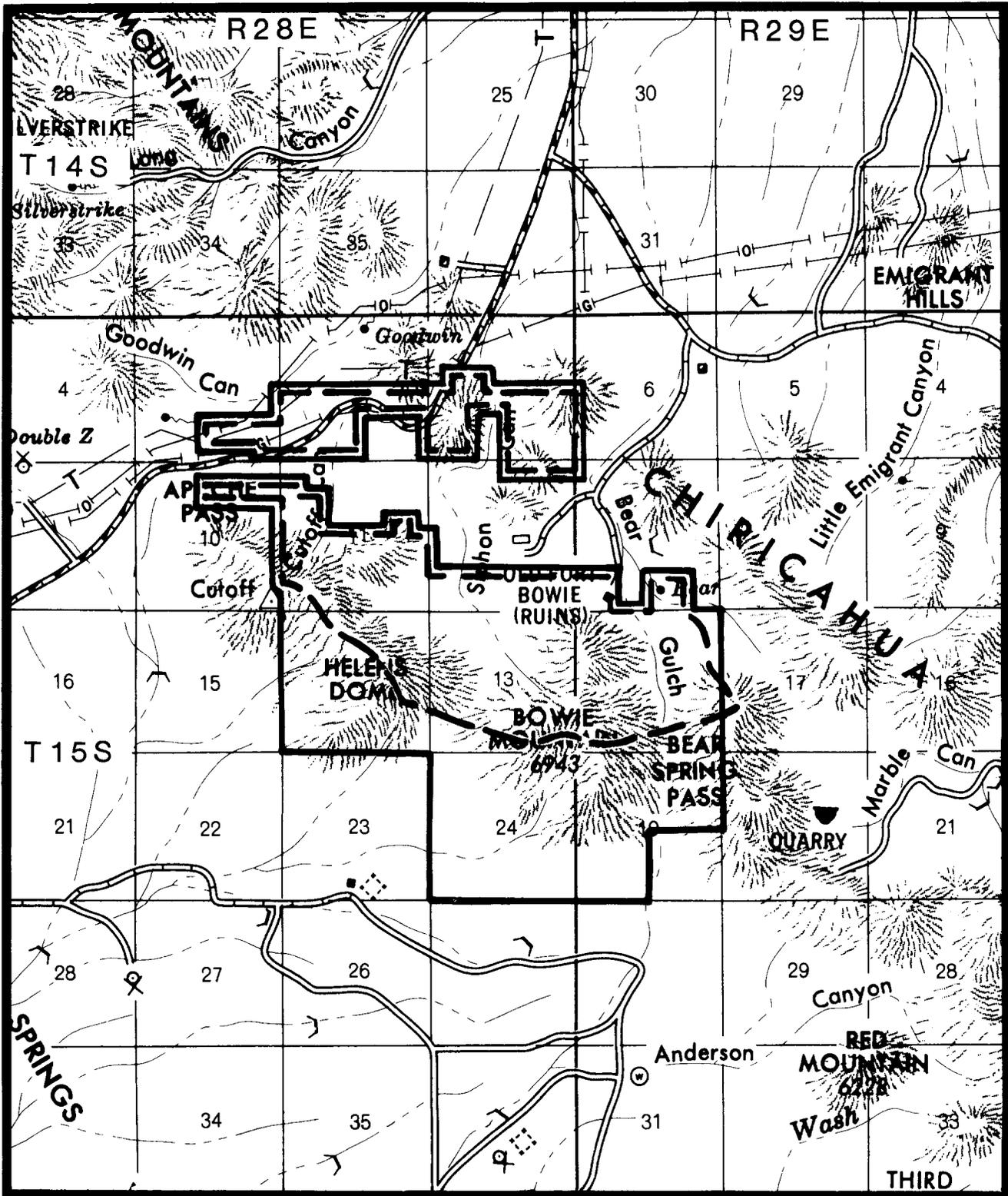


ALTERNATIVES A & C 
ALTERNATIVE B 

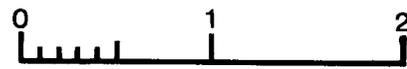


BOWIE MOUNTAIN SCENIC ACEC

MAP 14



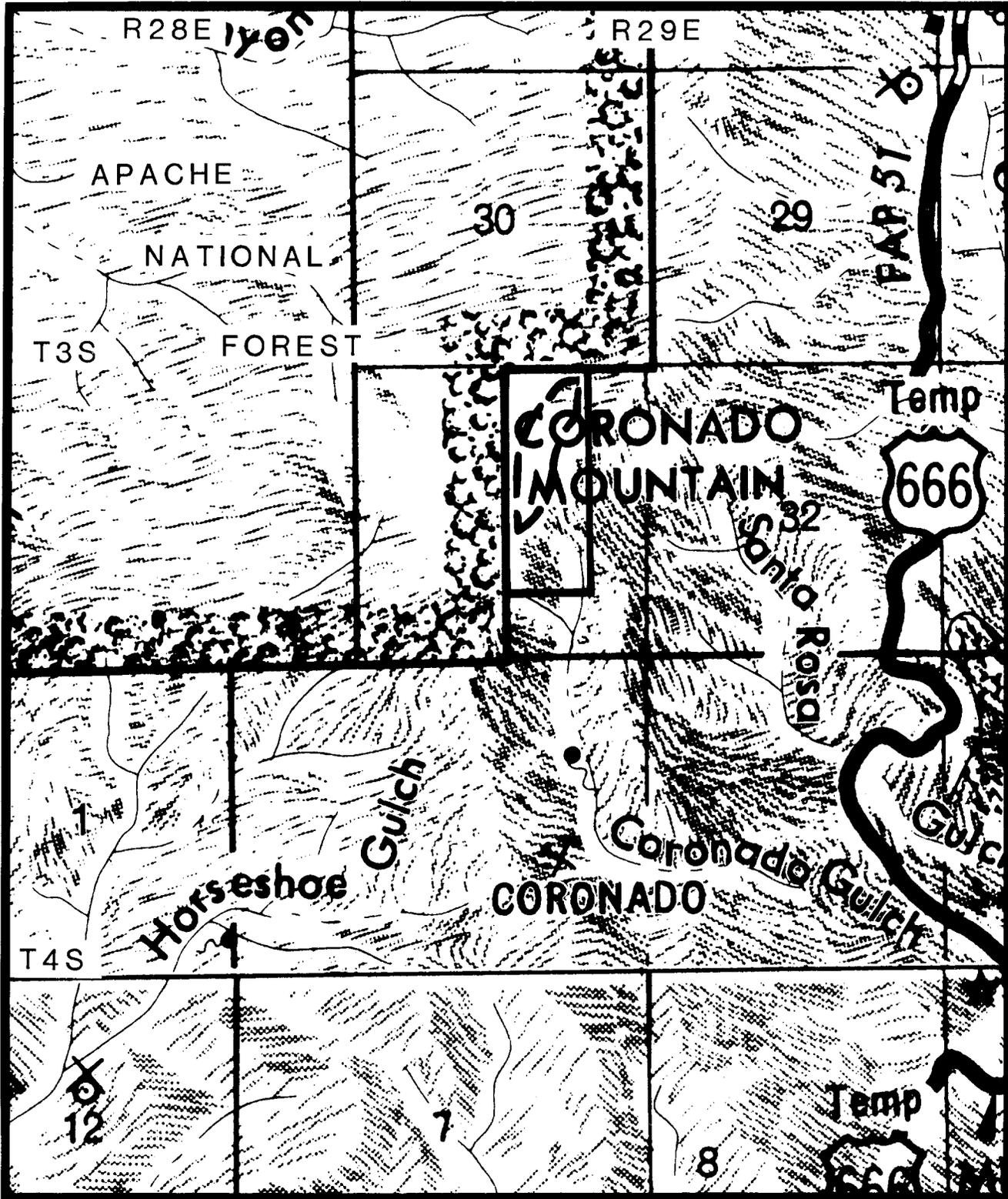
ALTERNATIVES A & B 
ALTERNATIVE C 



SCALE IN MILES

CORONADO MOUNTAIN RNA ACEC

MAP 15

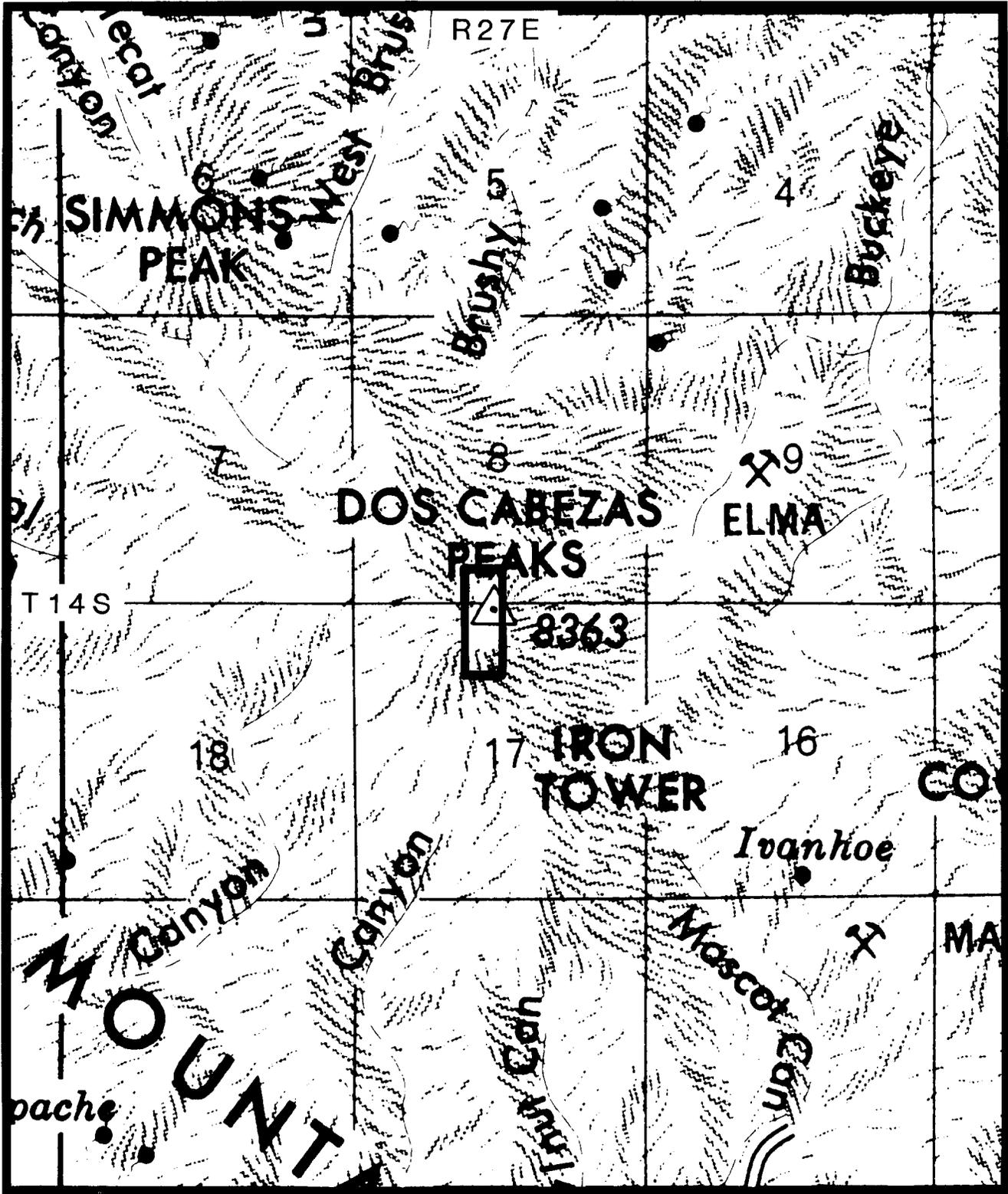


ALTERNATIVES A & B 
ALTERNATIVE C 



DOS CABEZAS PEAKS ACEC

MAP 16



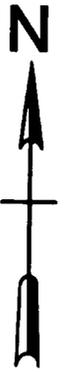
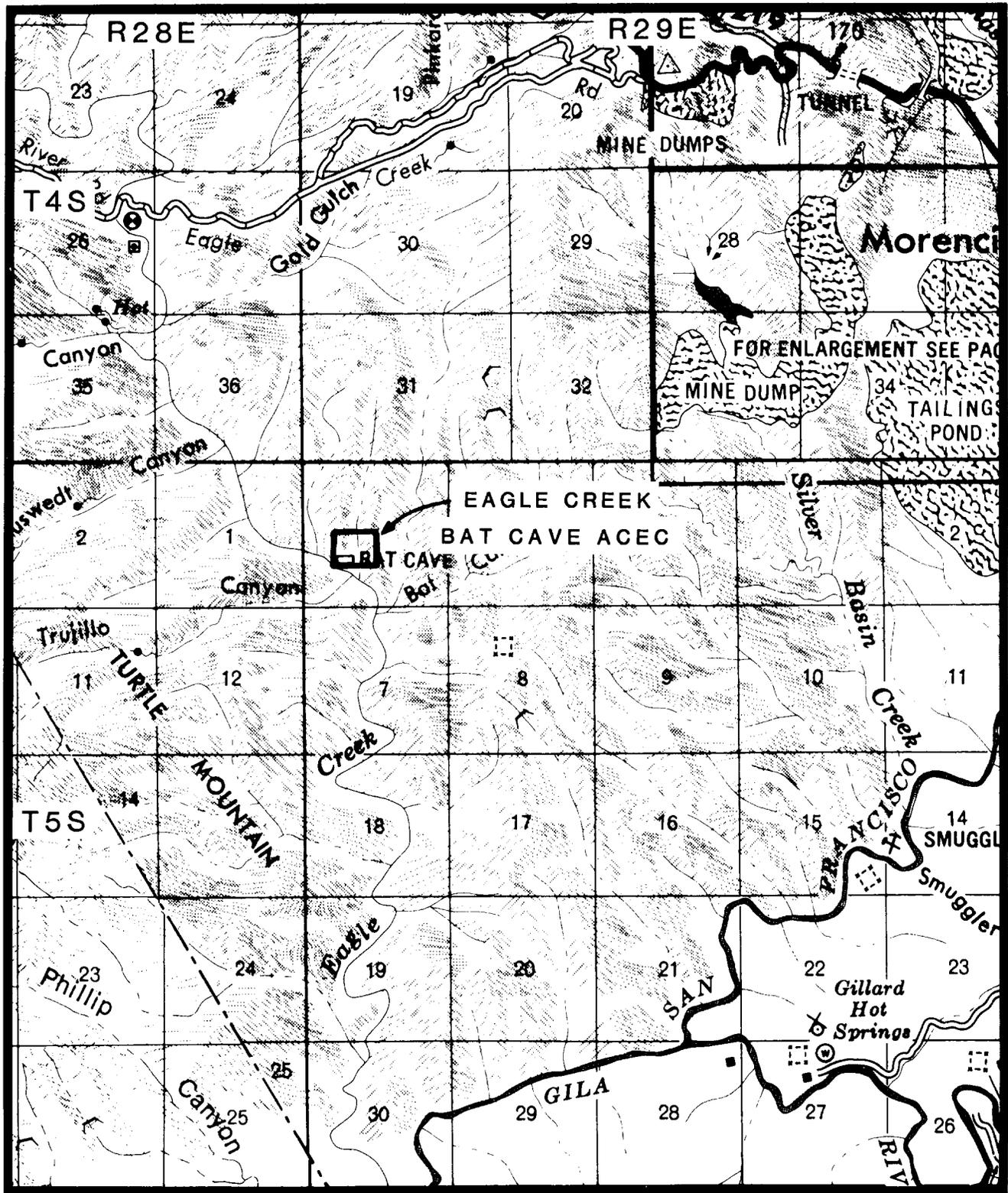
ALTERNATIVES A & B 



SCALE IN MILES

EAGLE CREEK BAT CAVE ACEC

MAP 17



ALTERNATIVES A & C 

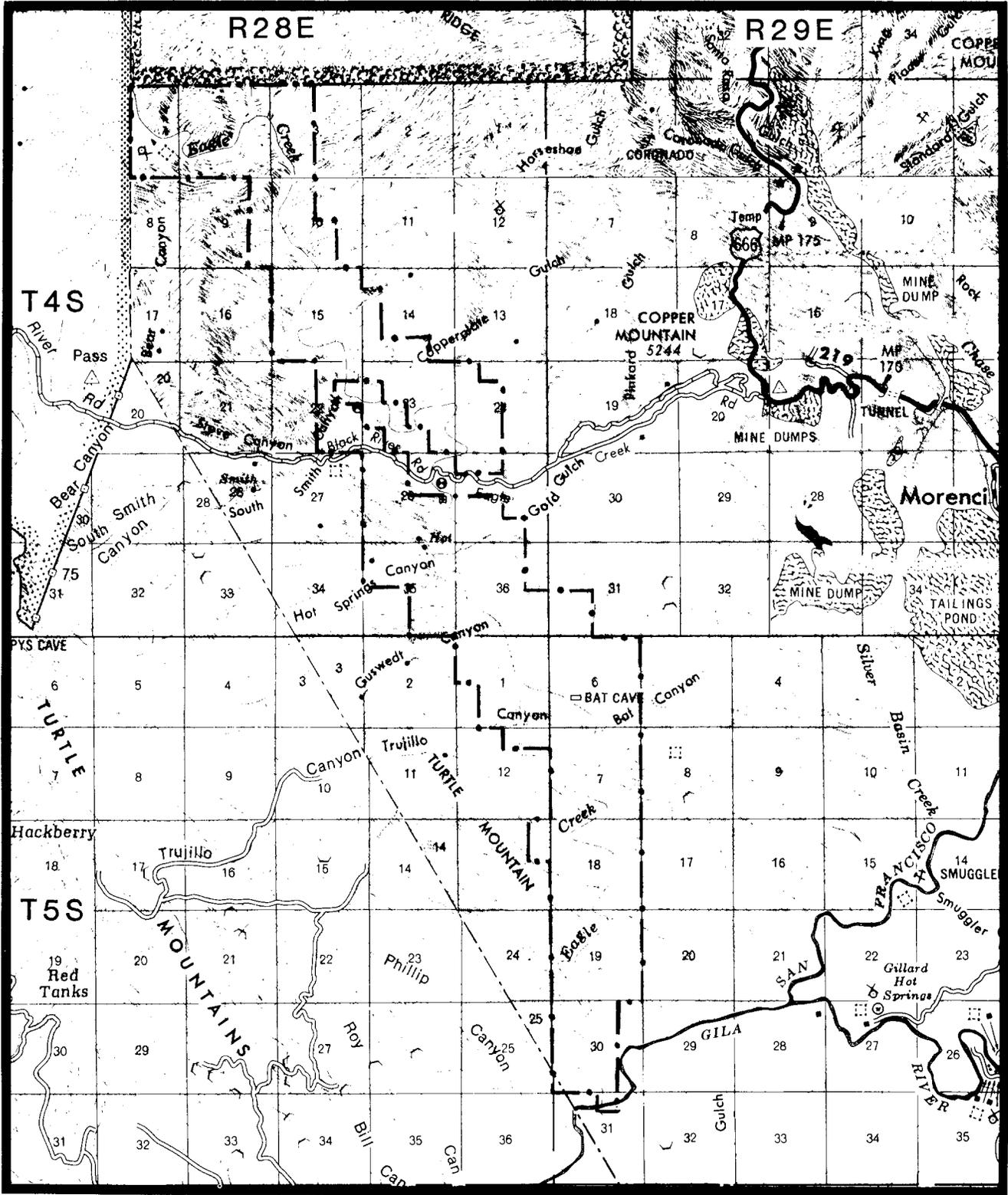


SCALE IN MILES

Basemap © Az. Dept. of Trans.

EAGLE CREEK CANYON ONA ACEC

MAP 18

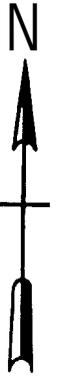
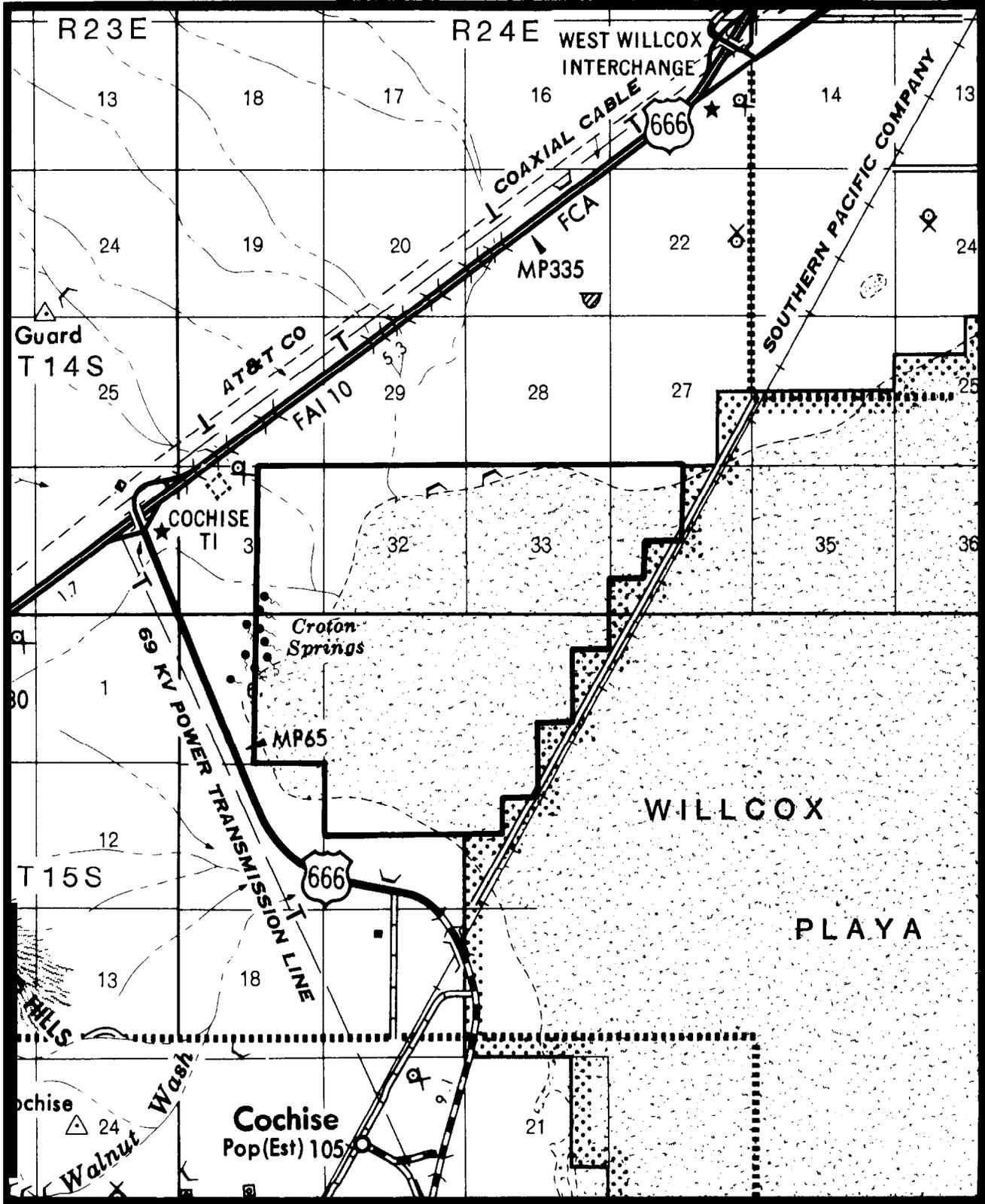


ALTERNATIVE B 



WILLCOX PLAYA NNL ACEC

MAP 19

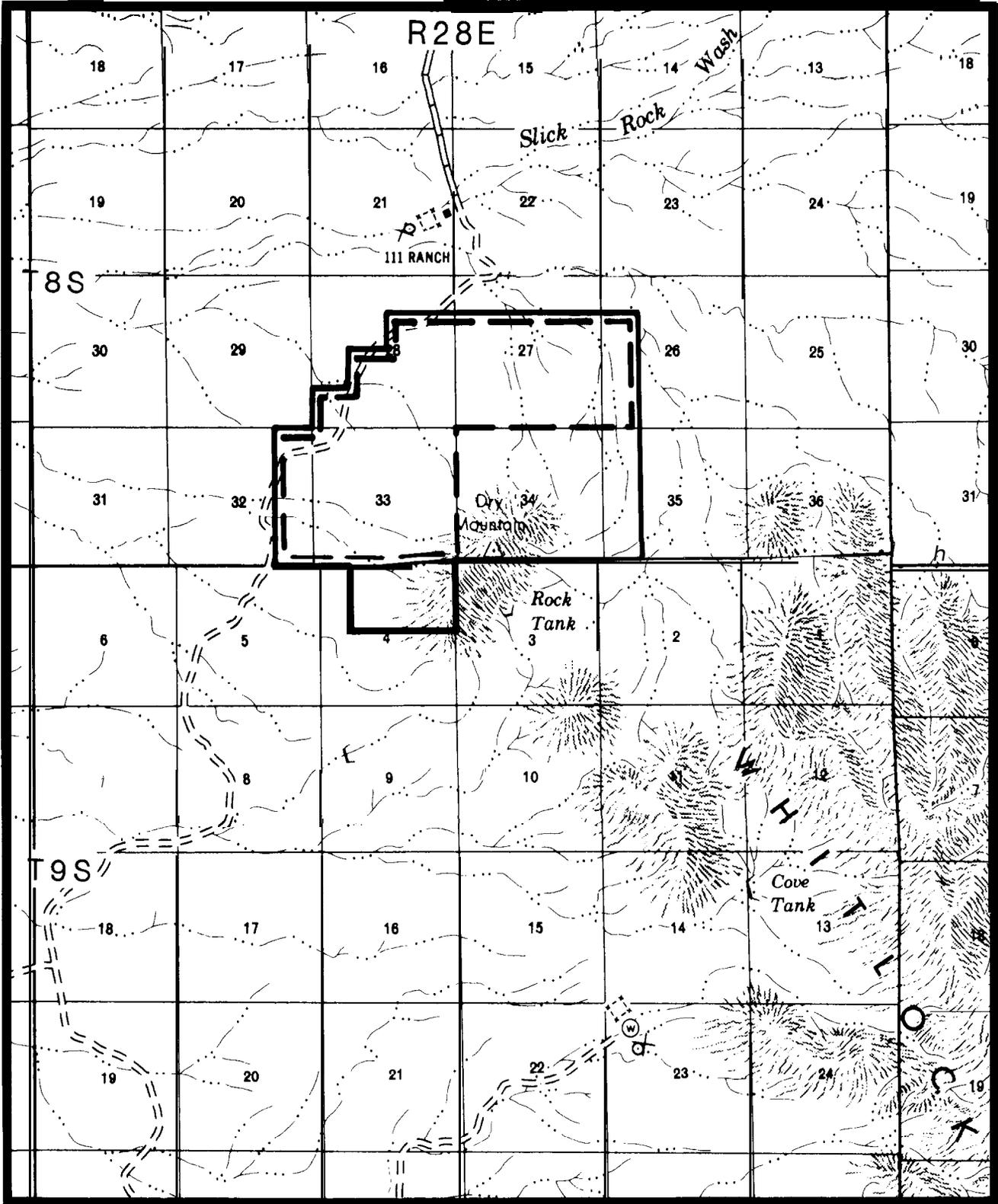


ALTERNATIVES A, B & D

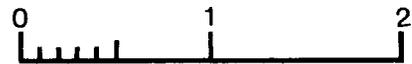


111 RANCH RNA ACEC

MAP 20



ALTERNATIVES A & B ———
ALTERNATIVE C - - - - -

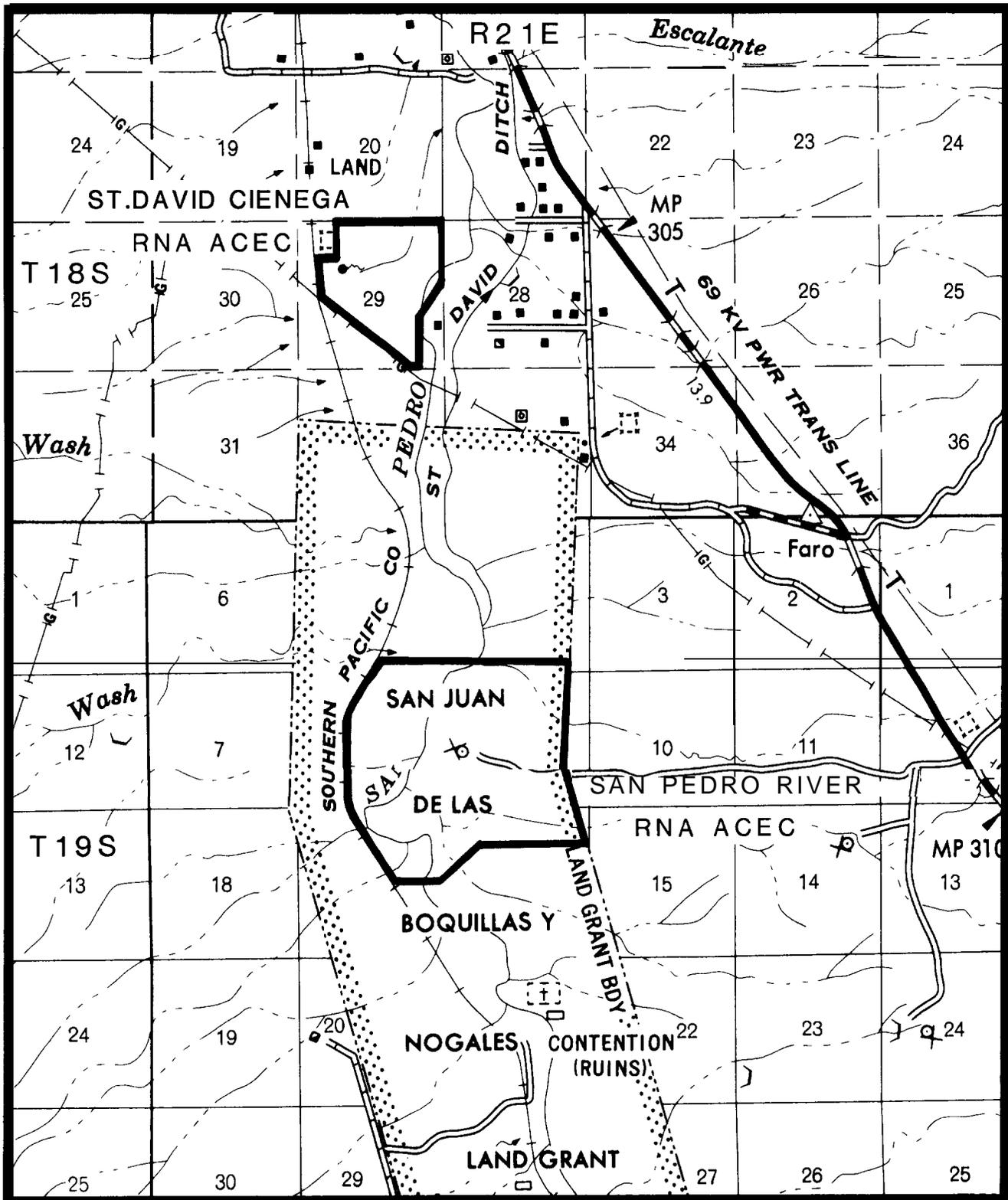


SCALE IN MILES

ST. DAVID CIENEGA RNA ACEC

SAN PEDRO RIVER RNA ACEC

MAP 21



ALTERNATIVES A,B,C & D

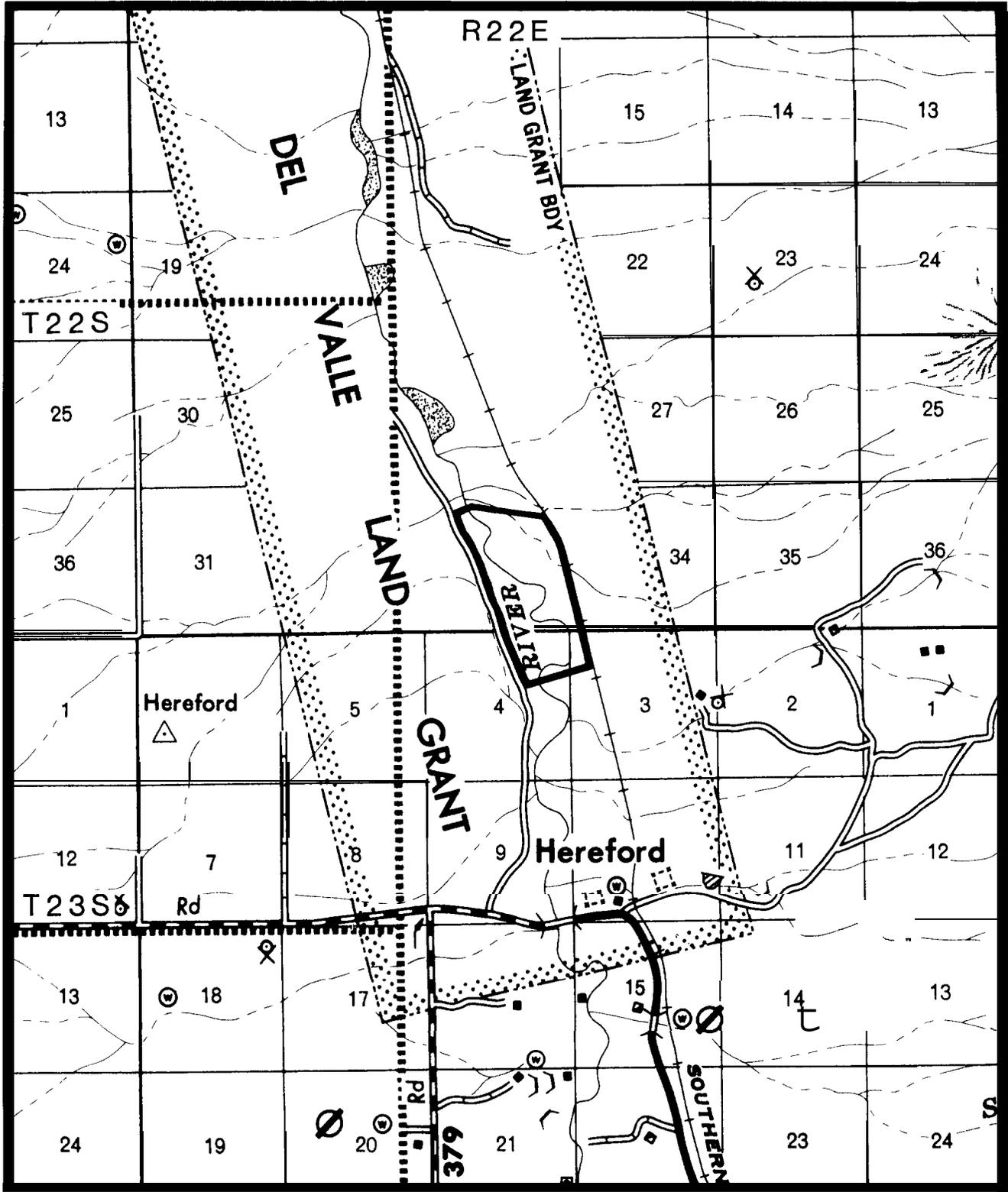


SCALE IN MILES

Basemap © Az. Dept. of Trans.

SAN RAFAEL RNA ACEC

MAP 22

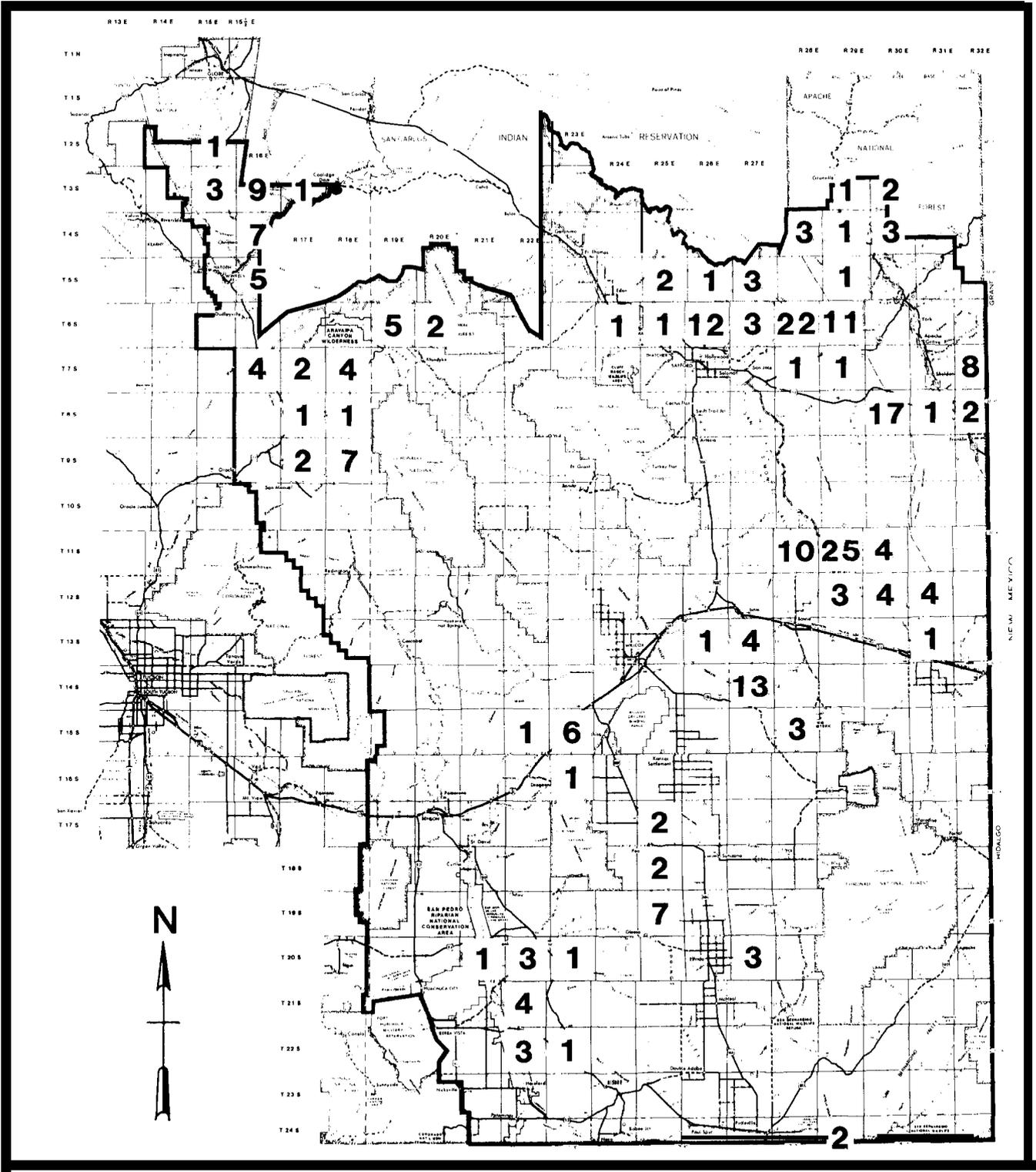


ALTERNATIVES A, B, C & D 



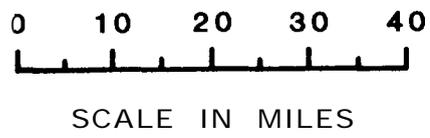
MINING PLANS AND NOTICES BY TOWNSHIP

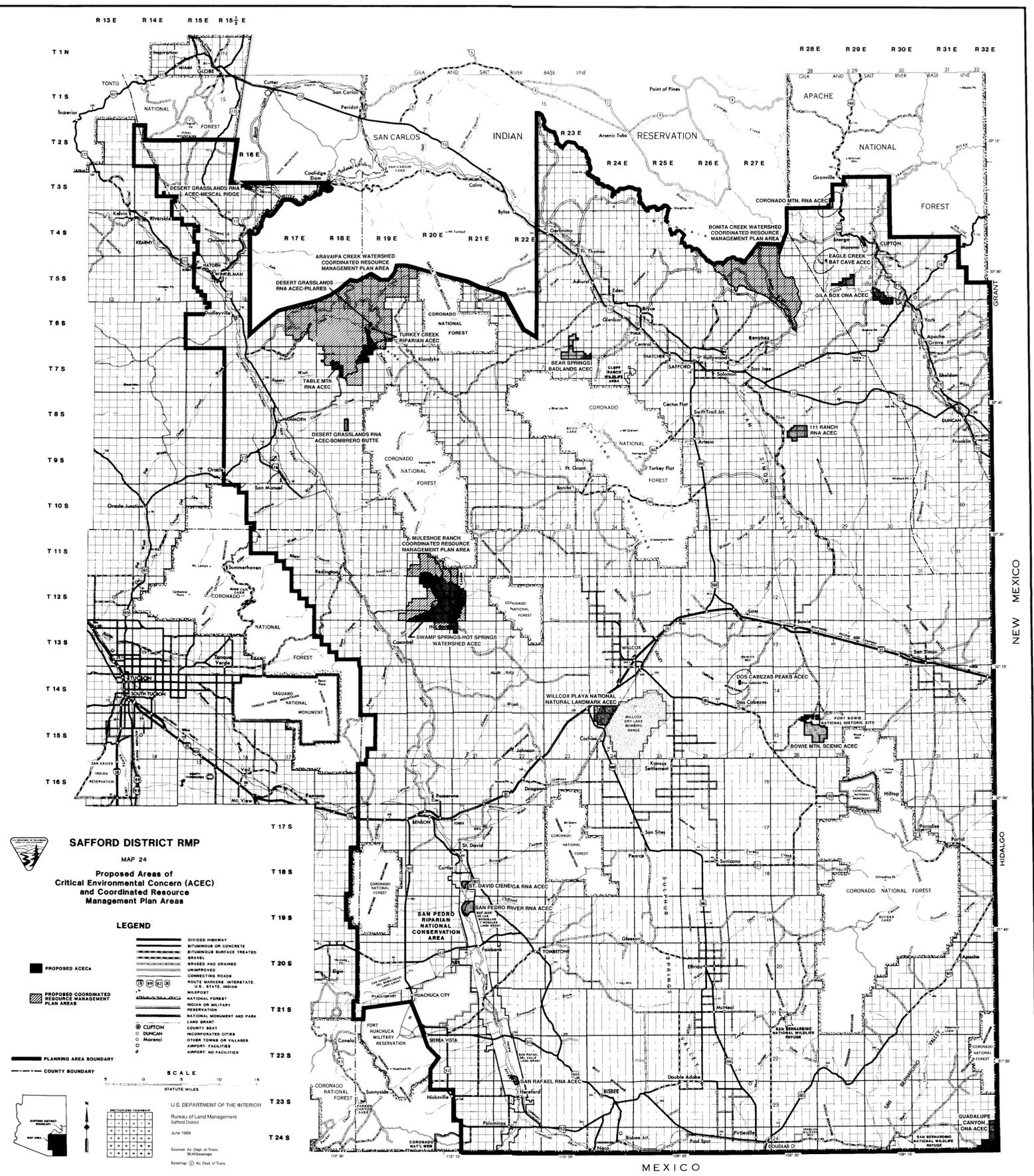
MAP 23



THE NUMBER OF MINING PLANS AND NOTICES RECEIVED FROM JANUARY 1981 ~ JULY 1989, BY TOWNSHIP

7





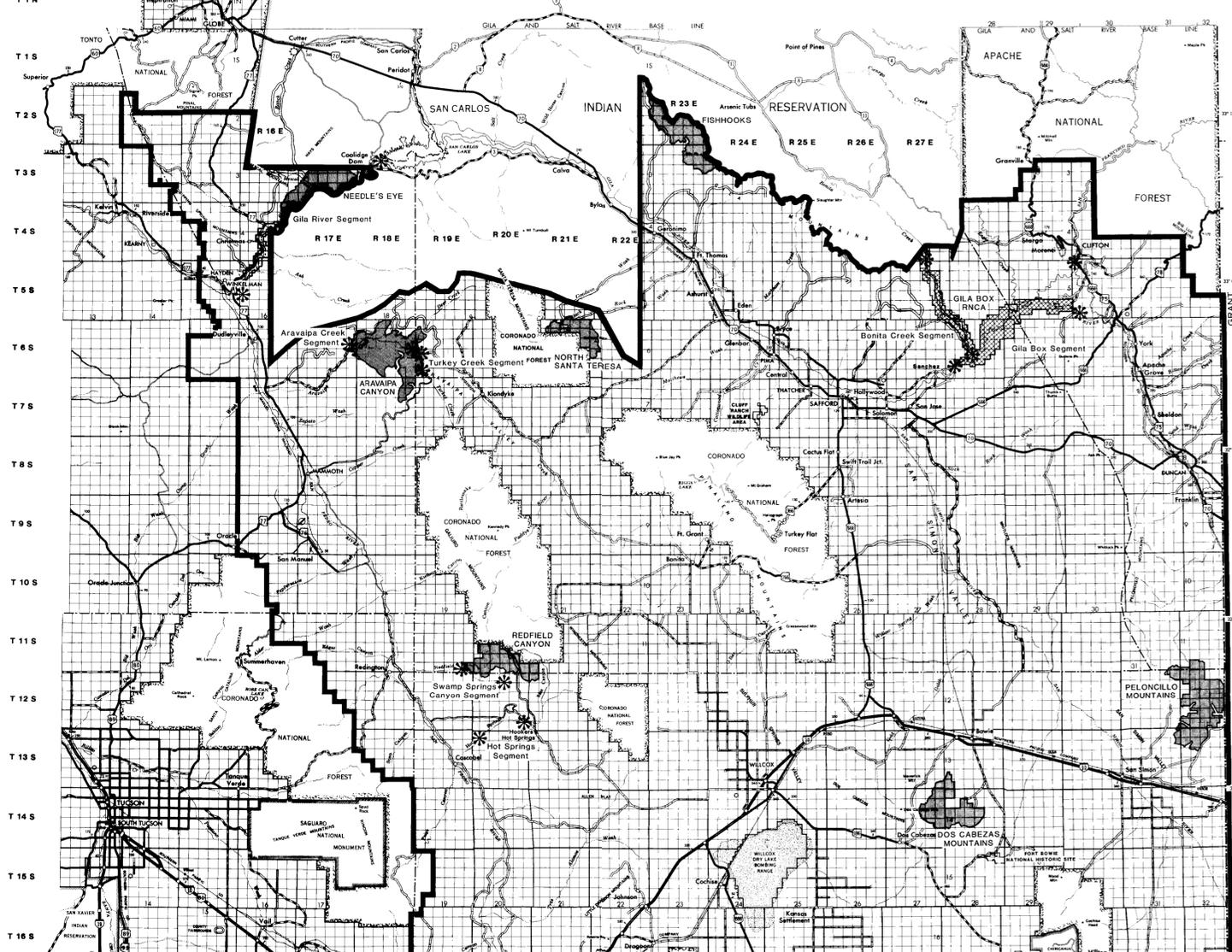
MEXICO

NEW MEXICO

HIDALGO

GUADALUPE CANYON RNA ACEC

R 13 E R 14 E R 15 E R 15 1/2 E R 28 E R 29 E R 30 E R 31 E R 32 E



NEW MEXICO



SAFFORD DISTRICT RMP
MAP 25
**Wilderness Areas,
Riparian National Conservation Areas,
and Eligible Wild and Scenic Rivers**

LEGEND

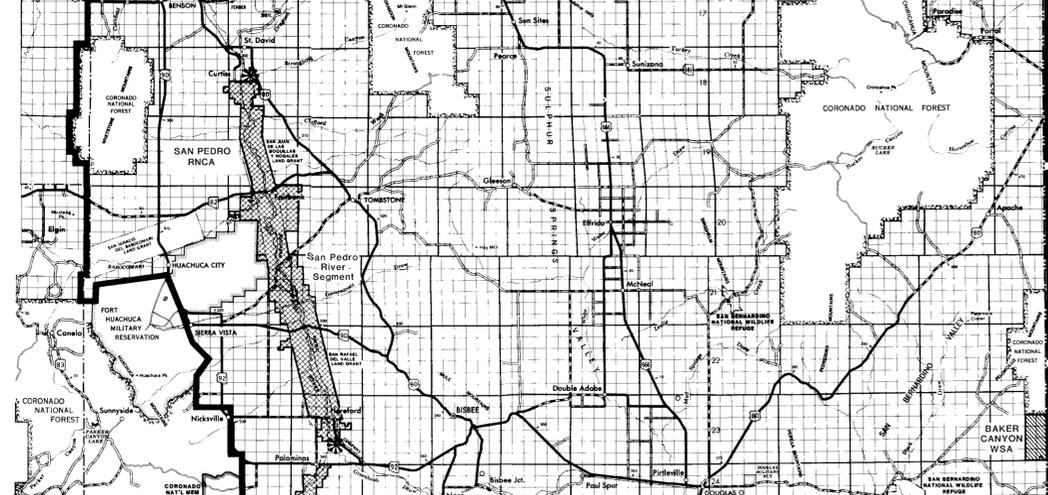
- WILDERNESS AREAS
- RIPARIAN NATIONAL CONSERVATION AREAS
- WILDERNESS STUDY AREA
- ELIGIBLE WILD AND SCENIC RIVERS
- PLANNING AREA BOUNDARY
- COUNTY BOUNDARY

- DIVIDED HIGHWAY
- BITUMINOUS OR CONCRETE BITUMINOUS SURFACE TREATED
- GRAVEL
- UNIMPROVED
- CONNECTING ROAD
- ROUTE MARKER, INTERSTATE
- U.S. STATE, INDIAN
- NATIONAL FOREST
- INDIAN OR MILITARY RESERVATION
- NATIONAL MONUMENT AND PARK
- LAND GRANT
- COUNTY SEAT
- INCORPORATED CITIES
- OTHER TOWNS OR VILLAGES
- AIRWAY FACILITIES
- AIRPORT, NO FACILITIES

SCALE
STATUTE MILES

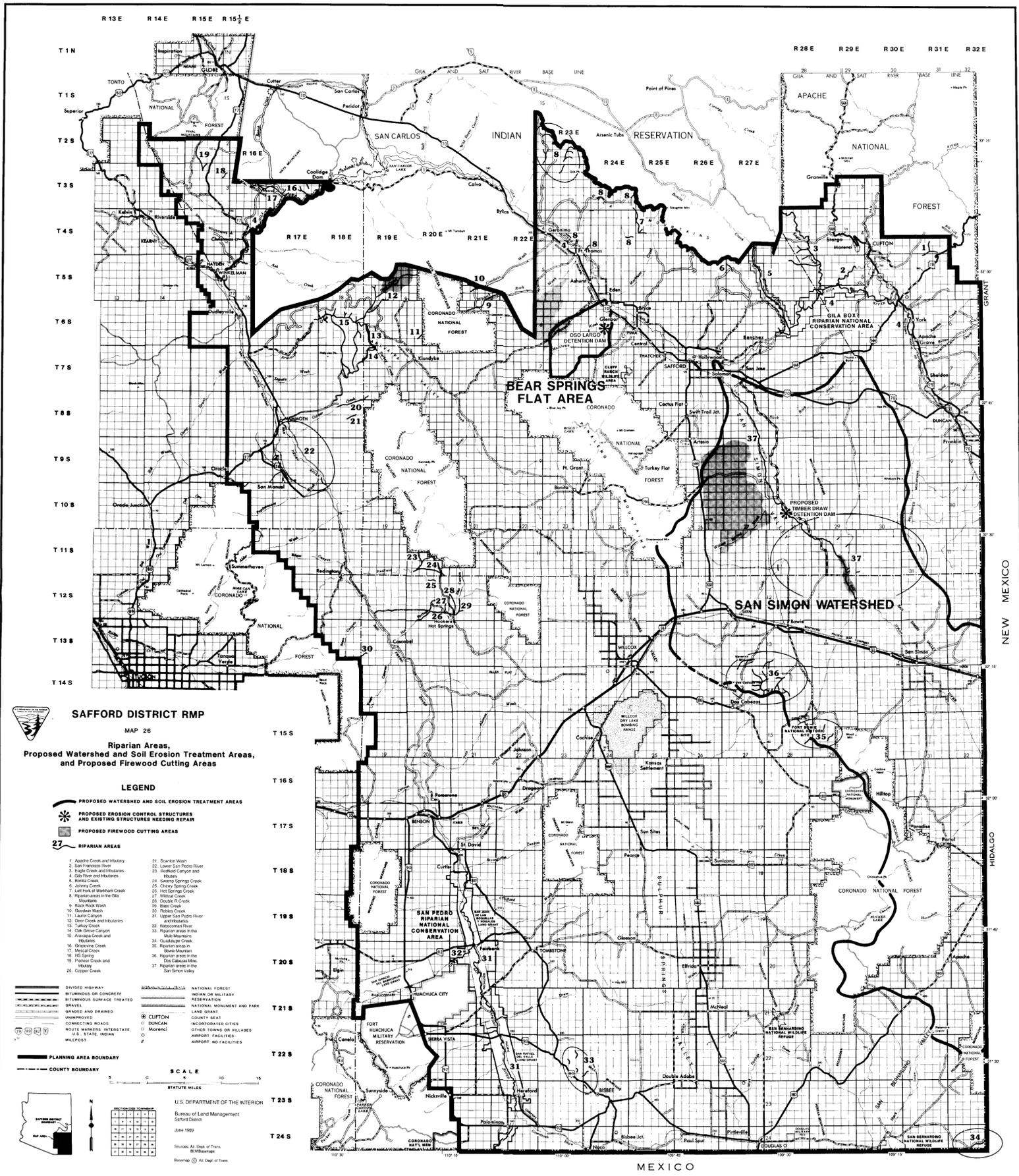
U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Safford District
June 1989
Source: A-1, Dept. of Trans.
Bismarck, © A-1, Dept. of Trans.

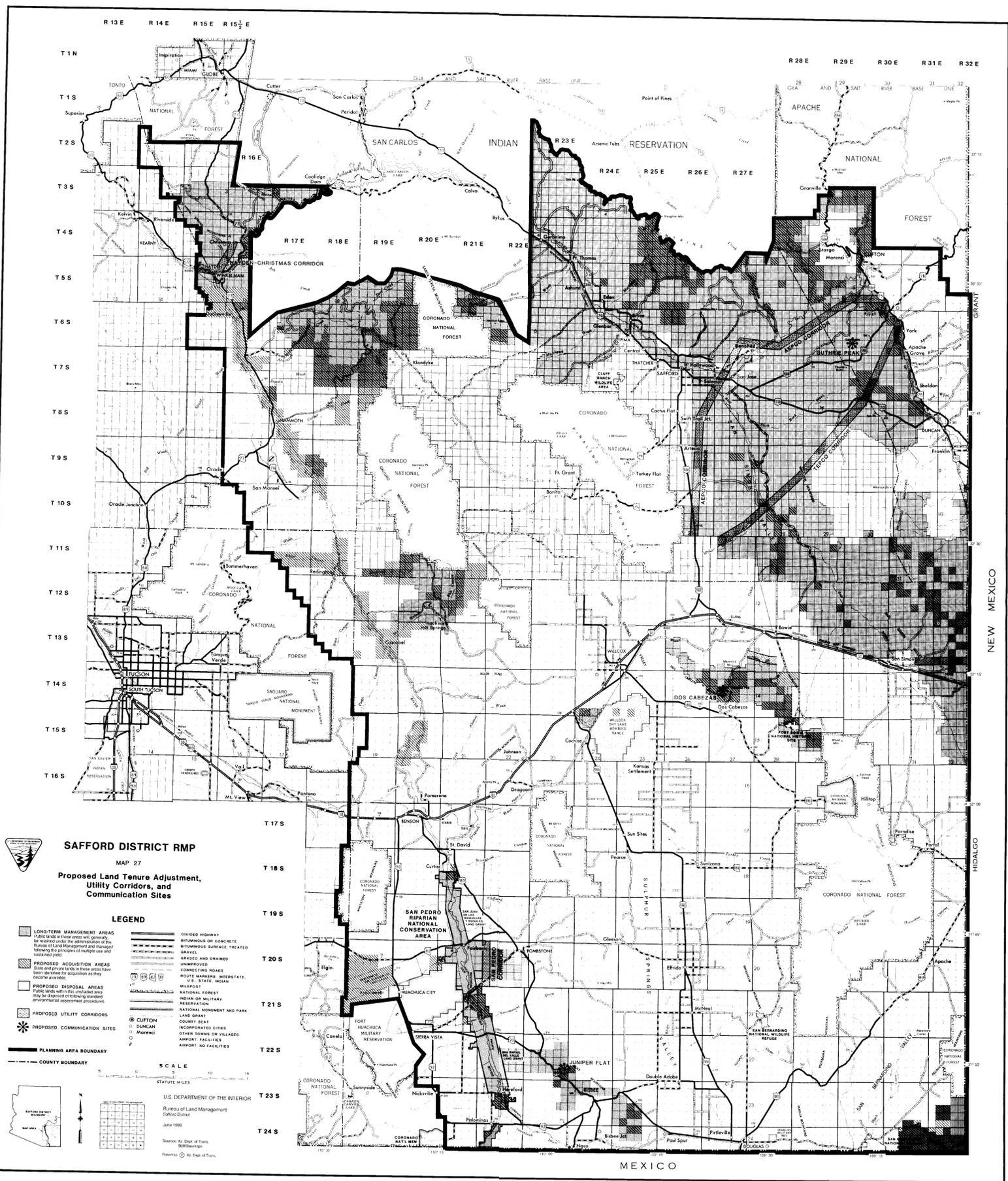
T 17 S
T 18 S
T 19 S
T 20 S
T 21 S
T 22 S
T 23 S
T 24 S



HIDALGO

MEXICO





NEW MEXICO

HIDALGO

MEXICO

SAFFORD DISTRICT RMP
 MAP 27
**Proposed Land Tenure Adjustment,
 Utility Corridors, and
 Communication Sites**



- LEGEND**
- LONG-TERM MANAGEMENT AREAS
Public lands in these areas will, generally, be managed under the authority of the Bureau of Land Management and its agencies following the process of multiple use and sustained yield.
 - PROPOSED ACQUISITION AREAS
State and private lands in these areas have been identified for acquisition as they become available.
 - PROPOSED DISPOSAL AREAS
Public lands with 10% or more of the area designated for disposal under the National Environmental Policy Act.
 - PROPOSED UTILITY CORRIDORS
 - PROPOSED COMMUNICATION SITES
 - PLANNING AREA BOUNDARY
 - COUNTY BOUNDARY
- DIVIDED HIGHWAY
 - BITUMINOUS SURFACE TREATED
 - GRAVEL
 - UNIMPROVED
 - CONNECTING ROADS
 - ROUTE MARKERS, INTERSTATE, U.S. STATE, INDIAN
 - NATIONAL FOREST
 - INDIAN OR MILITARY RESERVATION
 - NATIONAL MONUMENT AND PARK
 - LAND GRANT
 - CITY/TOWN
 - DUNCAN
 - INCORPORATED CITIES
 - OTHER TOWNS OR VILLAGES
 - AIRPORT FACILITIES
 - AIRPORT - NO FACILITIES

SCALE
 STATUTE MILES

U.S. DEPARTMENT OF THE INTERIOR
 Bureau of Land Management
 Safford District
 June 1989

Source: Az. Dept. of Trans.
 BLM Drawings
 Reprints: © Az. Dept. of Trans.

T 17 S
 T 18 S
 T 19 S
 T 20 S
 T 21 S
 T 22 S
 T 23 S
 T 24 S

Introduction

Chapter 3 describes the resources that may be affected by implementing any of the alternatives, including the *Preferred Alternative*. Descriptions are only as detailed as needed for the reader to understand the effects of implementation. Where impacts are slight or nonexistent (climate, topography, natural history) descriptions are brief or omitted. More detailed descriptions of the resources in the planning area are available at the Safford District Office. Additional details on some of the resources may be found in the Appendix section of this document.

Setting

The Safford District is located in southeastern Arizona. See the Safford District Resource Management Plan/ Environmental Impact Statement area map in this document for the location of the District and its boundaries. The planning area for this Resource Management Plan includes all public lands administered by BLM within the District boundary.

The Resource Management Plan area lies within the Basin and Range Physiographic Province south of the Colorado Plateau. The area's northwesterly trending mountain ranges reach elevations of nearly 11,000 feet and are separated by broad, flat or gently sloping basins. The Gila Mountains and the mountainous area near Clifton represent the transition zone between the Colorado Plateau and the Basin and Range Provinces. Among the numerous topographic units are the San Simon, Gila, Sulfur Springs and San Pedro valleys and the Pelloncillo, Dos Cabezas, Gila, Santa Teresa, Chiricahua, Mescal, Galiuro, Dagoon and Mule mountains.

The entire District is drained by the Gila River and its tributaries with the exception of three areas. These three areas are on the south side of the Dos Cabezas Mountains, the Sulfur Springs Valley and the San Bernardino Valley in the extreme southeastern part of the District.

A limited amount of water quality data has been collected at a number of locations. Water from springs and wells is generally considered suitable for human contact and consumption except where livestock have access to the source. Water in the perennial streams is generally not suitable for human consumption because of high bacterial counts but is usable for human contact (recreation). Most of the reservoirs are used as livestock waters and are not suitable for either human contact or consumption. The Bureau of Water

Quality Control, Arizona Department of Environmental Quality, has repeatedly tested the Gila and San Francisco rivers for violations of state water quality standards from mining-related activities. Water quality standards have occasionally been exceeded.

Climatic conditions in the planning area are similar to those throughout the desert Southwest. Alternating lowlands and mountains create abrupt climatic changes over short distances. Higher elevations have cooler temperatures and more precipitation than valleys. Summer days are hot (often above 100 degrees) but usually not unbearable. Average minimum winter temperatures in the higher elevations fall below freezing, and snow is common. Winters in the valleys are relatively mild. Annual precipitation averages 7 to 16 inches in the valleys and 15 plus inches in the mountains, with most of the rainfall in the late summer. Dry conditions are most common from April to July and less severe in the fall. Long, severe droughts occur irregularly and usually last two to five years.



The northern oriole is a common bird in many plant communities in the Safford District.

Affected Resources

Air Quality

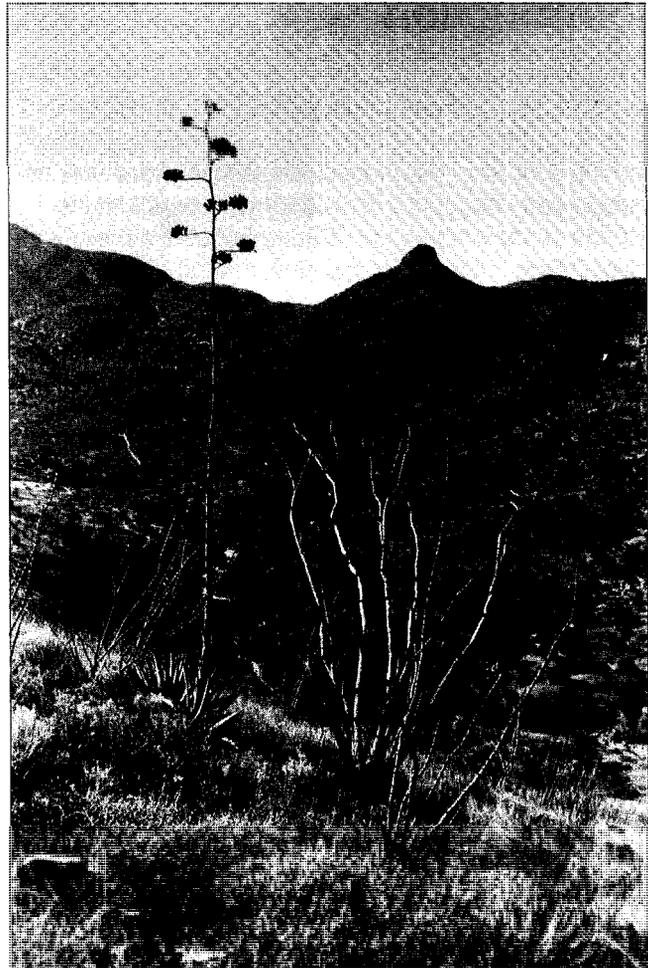
Air quality over the planning area is generally good and the ambient air quality is rated Class II by the State of Arizona. Class II standards allow for moderate deterioration of air quality associated with moderate, controlled industrial and population growth. Sulfur dioxide nonattainment areas are found in the vicinity of Morenci, Globe, Mammoth, Hayden-Winkleman and near the border area of southern Cochise County. The District monitors air quality at a monitoring station located in the Gila Valley. Precipitation samples are collected weekly and have consistently been measured at pH 4.7 over a six-year period. This indicates a fairly strong acid rain condition. The District does not manage any Class I air quality areas. Four Class I areas, however, lie within or are adjacent to the Resource Management Plan area. The designated areas are the Forest Service's Galiuro and Chiricahua wildernesses and the National Park Service's Saguaro National Monument Wilderness East and Chiricahua National Monument Wilderness.

Soil Resource

About 95 percent of the public lands in the Resource Management Plan area are included in modern, published soil surveys conducted by the Soil Conservation Service. The Soil Survey of San Simon Area, Arizona, 1980 and the Soil Survey of Gila-Duncan Area, Arizona, 1981, cover the areas of blocked federal lands in the District. Soil Conservation Service surveys not yet completed that include some federal lands are: Graham County, Arizona, southwestern part; eastern Pinal and southern Gila Counties, Arizona; Cochise County, Arizona, northwestern part; and Cochise County, Arizona, Douglas-Tombstone part. Lands acquired as part of the San Pedro Riparian National Conservation Area were surveyed by Soil Conservation Service in 1987 under contract with BLM. Information on this survey, although not published, is available from either the local Soil Conservation Service or BLM offices.

A total of 35 soil series were mapped in the San Simon Area survey and 42 in the Gila-Duncan survey. These soils ranged from shallow soils on hills and mountains to deep alluvial soils on the valley plains.

Salinity The San Simon Area soil survey identified three soil series, Bluepoint, Gothard and Pridham, on 24,167 acres that are affected by either excess salts or sodium. These soils all occur in the San Simon Valley.



Ocotillo and agave are two of the many plant species on hillsides surrounding Helen's Dome near Bowie Mountain.

The Gila-Duncan Area soil survey, which covers the Gila Resource Area and the northern portion of the San Simon Resource Area, identified no soils with excess salt or sodium problems, although areas too small to delineate on a map do occur.

Soils information received on the San Pedro Riparian National Conservation Area described no soils with salt or sodium problems. Springs in the St. David Cienega area, however, do produce saline waters that affect or will ultimately affect nearby soils.

Watershed condition in the areas of saline/alkaline soils is generally poor. The soils are generally bare of vegetation cover or plant cover is so sparse that little protection is provided to the soil surface from water or wind erosion. Portions of the Gothard soil unit support a cover of alkali sacaton grass that provides some erosion protection. Gothard soils with this type of plant cover are estimated at 1,000 acres.

According to the soil surveys (covering 95 percent of the public land in the Resource Management Plan



area), salinity problems are focused on the San Simon Valley. The only realistic solution to soil salinity problems seems to be to reduce soil erosion and improve watershed conditions to prevent soil salts from migrating downstream.

Erosion The two published soil surveys identified 49,680 acres of severely eroded soils. These soils are the Glendale, Gila, Guest and Hantz soil series.

The vast majority of the acreage, about 40,000 acres, is in the San Simon Valley from just upstream of the town of Solomon to the town of San Simon at Interstate 10. This area has been recognized since the 1930s as an example of severe erosion. Other areas of major erosion are on Railroad Wash southwest of the town of Duncan and Bear Springs Flat west of the town of Pima. The San Pedro Riparian National Conservation Area contains a few hundred acres of eroded soils on the north end, south of St. David.

The published soil surveys identified 221,030 acres of soils in the San Simon and Bear Springs Flat Watersheds with high susceptibility to wind and water erosion. About 150,000 acres occur on public lands and the remaining acreage is on state and private land. About 100,000 acres of the easily erodible soils are in a poor watershed condition. Vegetation cover is absent or so sparse it doesn't adequately protect the soil surface from wind or water erosion. The remaining 50,000 acres of these soils are in good or excellent watershed condition. Numerous small swales and larger drainages support a healthy cover of tobosa grass providing adequate protection for these soils. If native cover is removed or the soil is disturbed on these acres, severe wind and water erosion may occur. All of these soils occur in a bottom or floodplain position that floods frequently.

The Railroad Wash area, outside of Duncan, is currently improving in watershed condition. Structural treatments and livestock grazing management are improving conditions and further structural treatments are not necessary at this time.

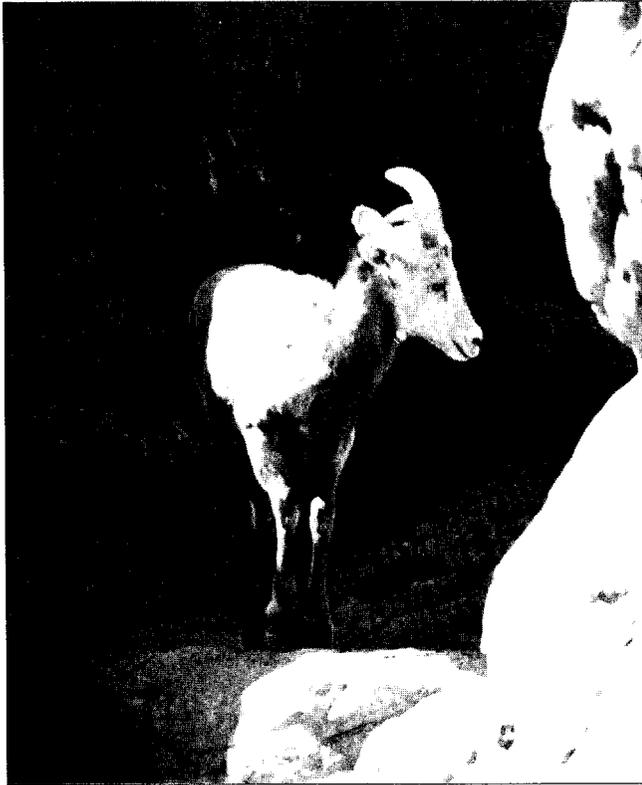
The San Simon drainage has been the scene of erosion control efforts, beginning in 1936 with designation of the San Simon Watershed as a critical watershed. Water-spreading dikes, range seedings and detention dams, both on the main channel and on side channels, have contributed to continuing decreases in soil erosion. Three main-channel and 16 side-channel detention dams, designed to catch soil and fill eroded channels, have been built on the San Simon Watershed. Historically, the Fan Structure has retained an average of 5,500 acre feet of sediment per year. Comparison of aerial photographs taken in 1935, 1953, 1972 and 1978 show that gully formation has decreased on the San Simon watershed as a whole. Over 20,000 acres of rangeland seedings on upland areas have not been successful due to the low rainfall of the areas. Seedings on reclaimed bottomlands have been very successful in terms of erosion control, livestock forage and wildlife habitat development.

With the implementation of livestock management decisions resulting from the *Upper Gila-San Simon Grazing Environmental Statement* (BLM 1978) and the implementation of the *Eastern Arizona Grazing Statement* (BLM 1986), vegetation cover is improving on the watersheds of the Safford District. With an increase in vegetation cover, soil erosion decreases.

The *Upper Gila-San Simon Grazing Environmental Statement* proposed the building of two soil-saving detention dams on the San Simon Watershed. One of these, the Barrier Detention Dam, was built in 1980. The proposed Timber Draw Detention Dam needed to continue rehabilitation of the river channel will be constructed as funds become available.

The Barrier Detention Dam has already had significant effects on the San Simon channel. The old eroded channel has been regraded to the natural contour for about one and a half miles and is continuing to build up the channel farther upstream. Vegetation, both natural and reseeded, is increasing the biomass due to the water spreading effects of the dam. Cattle are currently excluded from about 300 acres above the dam to allow for vegetation improvement.

The Bear Springs Flat area in the Gila Resource Area contains highly erosive soils and numerous headcuts. Rangeland seeding, construction of contour dikes and large detention dams have been built to control soil erosion. Each of these approaches has been only minimally successful. The rangeland seeding was a failure and much of the area only supports annual forbs and grasses to hold the soil. The Oso Largo Detention Dam failed in the floods of October 1983 and funds have not been available for its repair.



A young bighorn traverses the rocky ledges of Aravaipa Canyon.

The San Pedro Riparian National Conservation Area has two areas of accelerated erosion. One is in the northwest part of the National Conservation Area near St. David and the other is in the southern part of the National Conservation Area near Palominas. Watershed activity plans will be written and work implemented to mitigate the impacts of erosion. Removal of livestock from the National Conservation Area for a 15-year period will also help vegetation recover and gullies heal.

Throughout the remainder of the Resource Management Plan area, watersheds are in generally fair to good condition. Surface rock and vegetation cover protect the soil from erosion. Other actions, such as prescribed burning and livestock and riparian area management, are designed to maintain or improve watershed conditions by increasing vegetation cover. These actions are used where rough topography or high costs make structural treatments impractical.

Water Resources

Surface Waters The principal surface waters in the District are the Gila, San Francisco and San Pedro rivers. The Gila and its tributaries drain most of the District except for small parts that drain into the Willcox Playa (a closed basin) near Willcox, Whitewater Draw

north of Douglas and the San Bernardino Valley northeast of Douglas.

Tributaries of importance to other resource programs are Redfield, Hot Springs and Bass canyons and Bonita and Aravaipa creeks. These tributaries are significant because they are free-flowing, unregulated, high quality streams that sustain high quality riparian and aquatic habitat. They also possess significant recreational values. The three rivers and Aravaipa Creek provide water for agriculture (including livestock grazing), local communities, recreation facilities and mining operations. The other streams have their origin on public lands or the San Carlos Apache Indian Reservation where grazing and dispersed recreation are the major activities affecting water. Except during floods, surface waters in these major tributaries maintain their high quality.

The riparian areas represent rare and unique habitat in the Desert Southwest. Human development, overgrazing and extended droughts have significantly reduced the size and number of riparian areas that existed 100 years ago. Riparian areas provide valuable wildlife habitat (including for fish), recreation opportunities, flood control, water quality, nutrient recycling, oxygen production and scenic values. Riparian areas also promote on-site groundwater recharge, improved watershed and channel conditions and reduced erosion. Riparian areas further serve as migration corridors for wildlife by providing habitat continuity between territories.

There are numerous drainages and springs in the District that provide water for wildlife, livestock and riparian vegetation. Some of these are intermittent streams or have perennial flow for only a short part of their entire length. There are also several thousand stock ponds that provide water for wildlife and livestock throughout the District.

Groundwater Discussion of groundwater will be restricted to the artesian wells in the San Simon Resource Area because of their diminishing flows and importance to resource management. Ten artesian wells are located in the northern half of the San Simon watershed north of the towns of Bowie and San Simon. Several wells have ceased flowing and most of the remaining wells have diminished flow. Five of the wells were drilled during the mid-to late 1920's. Of these five, one has ceased to flow. The flow data for all the remaining wells, except for Salt Well, indicates a reduction in flow.

Water Quality Arizona Department of Health Services in 1984 and the University of Arizona in 1985 investigated and documented the quality of water statewide.

That documentation indicated that surface quality is generally good. However, the lack of adequate data is cited as a major hinderance to assessment of water quality in Arizona. Some state and federal surface water quality standards are occasionally violated, due primarily to intense or long-duration storms, resulting in non-point pollution sources.

The District has established an on-going water quality testing program within the study area. Data collection supports other management programs including state, by providing information to base decisions on current or future management actions, such as Unique Waters nominations, monitoring mining pollution, livestock management and reintroduction of extirpated fish. The testing program involves laboratory analysis of samples from selected sites, Water quality data is collected from various streams, springs and wells and are analyzed for variances from established water quality standards. See Appendix 9 for water quality testing sites.

Unique Waters Unique Waters is a special designation program of the State of Arizona designed to protect high-quality waters associated with exceptional recreational, ecological and wildlife values. The designation requires the submission of a nominating petition with rationales for the nomination and proof of the ability to monitor, maintain and manage the stream segment. The designation is approved by the Arizona Department of Environmental Quality.

The District, in coordination with the City of Safford, submitted a nomination for a segment of Bonita Creek for designation as Unique Waters. The rationale centered on the protection of the City of Safford's water supply and the maintenance and enhancement of the associated unique and unusual attributes, such as riparian habitat, native fish populations, recreational use and wildlife. Over the life of the Resource Management Plan, data will be collected and analyzed from the remaining streams to determine their suitability as Unique Waters. The streams that meet the criteria will be formally nominated.

In-stream Flow Water Rights In-stream flow water rights refers to those rights that can be obtained by submitting an application to appropriate a specified quantity of surface water through the Arizona Department of Water Resources. The application requires specific rationales for granting an in-stream flow water right, such as the maintenance of fisheries, riparian habitat, recreational use or wildlife. Also required are the establishment of minimum flows and the development of a hydrologic assessment to demonstrate that the requested quantity of water is available.

In 1981, the District submitted an application to appropriate an in-stream flow water right for a segment of Aravaipa Creek. The Arizona Department of Water Resources issued a permit in March 1989. The Department of Water Resources is prepared to issue a Certificate of Water Right after submission of five additional years of streamflow monitoring data. Since 1985 the District has submitted nine additional applications for instream flow water rights. These were for segments of the Gila and San Francisco rivers; Apache, Mescal and Bonita creeks; and Hot Springs, Redfield, Bass and Swamp Springs canyons. The rationale for the instream flow water rights for all these streams was to protect riparian habitat, native fish populations, wildlife and recreational use. The District has also acquired an application for an instream flow water right for the San Pedro River from the Huachuca Audubon Society and Sierra Club. Perfecting the water right will provide additional protection for the San Pedro Riparian National Conservation Area.

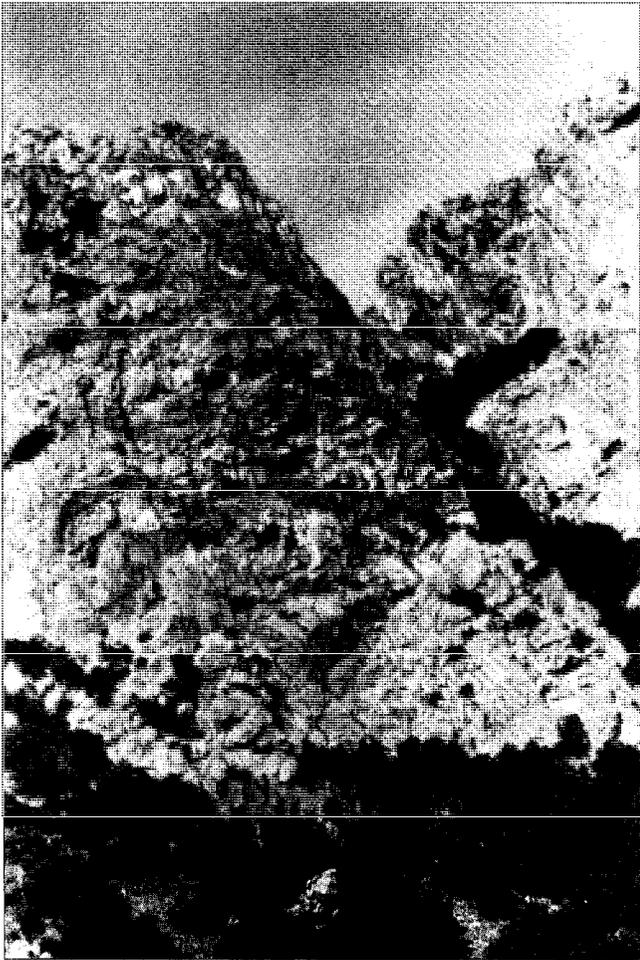
Geology

General Geology

The Safford District is situated in the southern portion of the Basin and Range Physiographic Province. This province is characterized by nearly parallel mountain ranges that trend north to northwest and are separated by broad valleys filled with sediments. The Basin and Range Province in Arizona is subdivided into a mountain region, including the Safford District, and a desert region occurring in the Sonoran Desert of southwest Arizona. The mountain region contains higher and wider mountains with less extensive alluvial valleys than does the desert region. The mountains of the Basin and Range Province represent blocks of rock



Bass Canyon is an enjoyable day hike through tree-lined canyons and flowing water.



The highly visible Dos Cabezas peaks were navigational landmark for early settlers.

bounded by near-vertical normal faults that were upthrown in late Tertiary times. The geology of these mountains is generally complex and variable. The rocks consist mostly of Precambrian phyllites, schists and gneisses; lower to mid-Paleozoic limestones and shales; and volcanic rocks from numerous ages, ranging from Precambrian through late Cenozoic. The geology of the valleys is poorly known because of their sediment cover.

The Basin and Range Province of Arizona is bounded on the north and east by what is called the Transition Zone. This area separates the Basin and Range Province in the southwestern part of the state from the Colorado Plateau Physiographic Province in the northeastern part of the state. The Transition Zone is a poorly defined band up to about 50 miles wide that generally has the rock characteristics of the Colorado Plateau and the complex structural characteristics of the Basin and Range Province. The Colorado Plateau of Arizona "...consists of a thick sequence of locally folded or faulted but, generally, flat-lying and

undeformed, sedimentary rocks overlying a basement complex of granite and schist. Most of the rocks exposed are upper Paleozoic or Mesozoic age, predominantly sandstone or limestone" (McColly and Anderson 1987).

Economic Geology

General

The mineral potential of the district has been rated using the guidance in BLM Manual 3031. A summary of the rating for all mineral resources is presented in Table 3-1. A description of the potential and certainty levels are given in Appendix 11. This mineral resource potential information shows the highest rating for a resource within the District, but does not imply the resource has the potential for uniform occurrence throughout the District.

Locatable Minerals Locatable mineral production in the Arizona portion of the Basin and Range Province has been prolific over the years and has played an important role in the development of the state. Major metallic locatable minerals found in the Province, in general order of importance, include copper, gold, silver, lead, zinc, molybdenum, manganese, tungsten and mercury. Non-metallic minerals include asbestos, barite and fluorite. The economic geology of the Province has been summarized by McColly and Anderson (1987) as follows:

... mineral deposits occurring within the Basin and Range Province are of many types and sizes Important resources of copper, gold, silver, lead and zinc are found in Precambrian-age rocks occurring as veins, massive sulfide deposits, or disseminated deposits. Asbestos, iron, manganese, mercury, uranium and pegmatite minerals also are found in Precambrian host rocks.

Paleozoic rocks, in the Arizona Basin and Range Province, are chiefly important for their role as host rocks for post-Paleozoic base and precious metals deposits. Because of their chemical composition, Paleozoic limestones are favored as host rocks and are a primary ore control at a number of Arizona's largest and most important mines. Mesozoic rocks, including those of Laramide [late Cretaceous] age, are of outstanding economic importance to Arizona mining. Intrusive rocks of this age are associated with nearly all of the larger metal deposits in the Basin and Range Province, as well as many of the smaller ones. Copper, molybdenum, gold and silver are the chief metals recovered from Laramide-age deposits, but lead, zinc

Table 3-1. Mineral Resource Potential Ratings

Mineral Resource	Level of Potential	Level of Certainty
Coal	O-No Potential	D
Oil and Gas	L-Low Potential	C
Geothermal	M-Moderate	C
Sodium	O-No Potential	C
Potassium	O-No Potential	C
Metallic Minerals	H-High Potential	D
Uranium	L-Low Potential	C
Non-Metallic	H-High Potential	D
Common Varieties	H-High Potential	D

Source: Safford District files. See Appendix 11 for a description of certainty levels.

and various other metals and mineral commodities also occur in significant quantities. Laramide-age rocks and associated mineralization are widely distributed in Arizona and where exposed have been extensively prospected.

Locatable mineral potential in the Safford District is evidenced by major producers situated virtually from one end of the District to the other. The Arizona Bureau of Geology and Mineral Technology (Keith et al. 1983) lists 27 mining districts in the Safford District. These districts, their principal commodities and overall value, as determined by McColly and Anderson (1987), are shown in Table 3-2. A number of small, poorly defined districts are not included with this list; nor are areas with mineral potential that are not organized into districts.

Table 3-2. Mining Districts, Commodities Produced and Estimated Values of Each District

Mining District	Commodities Produced	Estimated Value (in \$million)
Aravaipa	lead, zinc, silver, gold and copper	32.5
Ash Peak	silver, gold, manganese, copper and lead	39.5
Banner	lead, copper, silver, gold and zinc	34.8
Bluebird-Cochise	copper, zinc, silver, gold, tungsten and lead	207.1
Bunker Hill	copper-molybdenum, lead, silver and gold	65.1
California	lead, silver, zinc, copper and gold	5.3
Christmas	copper, gold and silver	1,010.1
Copper Mountain	copper-molybdenum, silver, gold, zinc, lead and manganese	25,319.0
Dos Pobres	copper	4,837.4
Dripping Springs	gold, uranium, copper-molybdenum, silver lead and zinc	2.3
Golden Rule	gold, silver, lead and copper	5.2
Lone Star	copper	4,200.0
Mammoth-San Manuel	copper-molybdenum, gold, silver, lead, zinc, uranium and tungsten	17,713.3
Mascot	gold, silver, copper and lead	14.8
Middle Pass	zinc, copper-molybdenum, silver, gold and lead	7.6
Mineral Creek	copper-molybdenum, silver, gold, lead and zinc	15504.1
Pearce	silver, gold, copper, lead and zinc	193.9
Reef	tungsten	1.6
Saddle Mountain	copper, silver, gold, lead and zinc	6.2
Sanchez	copper	1,679.6
San Juan	copper and silver	582.3
Summit	copper, silver, gold and lead	15.0
Swisshelm	lead, silver, zinc, copper and gold	11.0
Table Mountain	copper and gold	22.2
Tombstone	silver, gold, lead, copper, manganese and zinc	427.4
Turquoise	copper, silver, gold, lead and manganese	68.1
Warren	copper, gold, silver, zinc, lead and manganese	9,514.5

Source: McColly and Anderson (1987)

Copper Mountain and Warren are the largest mining districts in the area. The Morenci open pit copper mine in the Copper Mountain District is the nation's largest copper producer, with over a half billion pounds of copper produced in 1987. The Bisbee Mine in the Warren District is presently a small producer of leached copper but has historically been a major producer. Current exploration and development efforts indicate that the Warren District may again become a major producer. Magma Copper Company's San Manuel Mine in the Mammoth District is the nation's largest underground metal mining operation with a production in 1987 of nearly a quarter billion pounds of copper. Cyprus Mineral Company's open pit Christmas Mine (Christmas District) is currently inactive but has been a large copper producer. Large tonnages of copper ore occur in the Gila Mountains north of Safford. Phelps Dodge has developed one underground ore body there but temporarily suspended mining in 1983. There are currently plans for the development of a large open pit copper mine in the Sanchez District, located about 10 miles northeast of Safford.

Other metal producers are located around Tombstone, Pearce, Dos Cabezas, Ash Peak, Johnson and Aravaipa. Commodities produced include copper, gold, silver, lead and zinc. The industrial mineral zeolite is mined in the San Simon Valley. Most current production comes from non-federal lands, since the lands containing producing mines are generally patented mining claims. Recent mining activity on the public lands, as evidenced by the number of mining plans and notices filed in the Safford District Office since 1981 (when such notification became required), is mostly in the areas of Ash Peak, Copper Mountain, Turquoise Mountain, zeolite deposits north of Bowie, and gold placers scattered around the District (see Map 23).

Leasable Minerals Leasable minerals in the Safford District consist primarily of geothermal energy. The District contains three general areas with geothermal potential as well as several thermal wells and springs. The Clifton-Morenci area contains Arizona's two hottest springs (70°C and 82°C). The Safford-San Simon area contains several artesian wells that discharge water up to 49°C. The Willcox area contains wells that discharge water up to 54°C. One well near Pima reportedly produced water at 59°C. The Clifton-Morenci area has been leased for geothermal resources in the past, as has the San Bernardino Valley area. There are currently no geothermal leases on public lands within the District.

There are no known commercial reserves of coal, oil or gas in the District. A few deep exploratory wells were

drilled in the early 1980s but there has been no activity since. Any oil and gas drilling in the District would have to be considered exploratory. The current economic climate precludes much exploratory drilling by oil and gas companies with no change for the foreseeable future. A possible exploration and development scenario for the reasonably foreseeable future is shown as Appendix 10. The only known coal in the area occurs as thin, subeconomic seams of low quality coal on the San Carlos Indian Reservation.

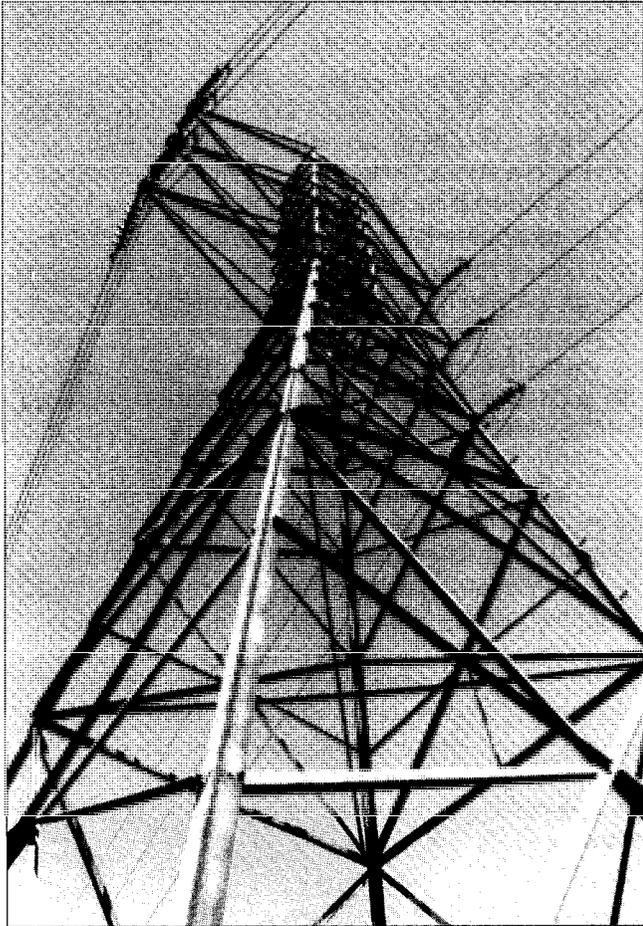
No other significant reserves of other leasable minerals, such as sodium, potassium and helium, are known to occur within the Safford District.

Salable Minerals Salable minerals in Arizona, such as sand and gravel, stone, clay and pumice "...are generally widespread and readily available in most places" (McColly and Anderson 1987). Construction materials, especially sand and gravel, are by far the commodities in greatest demand in the state. Such materials are very common in the District with sand and gravel occurring in virtually every wash and stream. Due to the economics involved in hauling material to the marketplace, most material sites are located within a range of about 10 miles from the point of use.

Lands and Realty

Exchanges The Arizona State Land Department, through a series of grants, in-lieu selections and exchanges since 1912, has acquired lands that created an intermingled land pattern with the public lands. These land ownership patterns have complicated the resource management programs of both agencies. In a cooperative effort to remedy this management problem, a Memorandum of Understanding was signed by BLM and the Arizona State Land Department in March 1985 to initiate a joint land exchange program.

As a result of the on-going exchange program with the state, the public land ownership pattern has been consolidated northeast of Interstate 10 in Graham and Greenlee counties; in the vicinity of Aravaipa Canyon; the Muleshoe Ranch area of the Galiuro Mountains; and north and west of Safford. There are still some isolated parcels of public land, mostly in Cochise County. Many of these parcels were included in exchange proposals, but were dropped because of mining claim encumbrances. Exchanged lands had similar resource values so no significant resources were lost. As a result of exchanges since 1985, 202,406 acres of public lands within the Safford District have been exchanged for 214,731 acres of state lands.



Under the proposed RMP, right-of-way corridors will be established to minimize impacts in sensitive areas.

Approximately 47,668 acres of land along the San Pedro River have been acquired through private and state exchanges. Congressional legislation in November 1988 designated these lands as the San Pedro Riparian National Conservation Area. The purpose of these exchanges was to place high-value natural resources in public ownership.

Recreation and Public Purposes Local governments and non-profit organizations have acquired public land at little or no cost under the *Recreation and Public Purposes Act of 1926*. Either by lease or patent, these lands have been dedicated to specific uses such as parks, schools, landfills or shooting ranges that benefit the public at large. Five parcels of land have been patented (totalling 399 acres) and nine leases issued (totalling 877 acres) under the Recreation and Public Purposes Act during the past 10 years.

Sales There have been some sales of public land within the District. Some tracts are better suited, often because of location, for private ownership rather than public. The sale parcels have not been large, the largest in recent years being 80 acres. The District has

sold 14 parcels of land, totalling 847 acres, during the past 10 years.

Communications Sites Three major communication sites are currently being utilized. The most developed is the Guthrie Peak site, located in the Black Hills east of Safford, supporting 10 primary right-of-way holders. The other two sites, Mule Mountain/Juniper Flats north of Bisbee, and Dos Cabezas east of Willcox have fewer holders. See Map 27. A communication site plan for Guthrie Peak is under development that will dictate the level of development for that site. Projects are pending for the development of site plans for the Dos Cabezas and Mule Mountain/Juniper Flats sites.

Rights-of-Way, Utility and Transportation Rights-of-way for utility and transportation facilities have been granted to qualified individuals, businesses and governmental entities. Issuance is based on identified need and stipulations to protect natural and cultural resources are provided to the applicant. The District has approximately 608 active rights-of-way involving such uses as power transmission/distribution facilities roads and highways, communication sites, telephone lines, irrigation and water facilities, oil and gas pipelines, federal facilities and railroads.

Major transportation and utility systems rights-of-way crossing the Resource Management Plan area are Arizona Electric Power Cooperative, Inc. and Tucson Electric Power Co. transmission lines, and All American Pipeline and El Paso Natural Gas Co. pipelines. Interstate Highway 10 crosses the entire District from east to west.

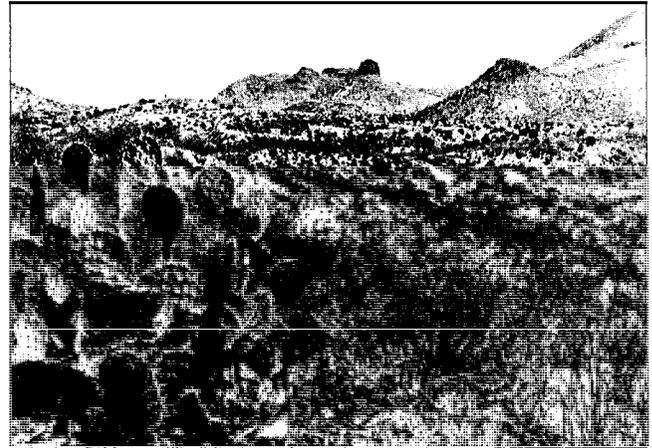
No formal utility corridors have been established. Corridors are often desirable to provide the private sector with secured routes for project planning purposes. Section 503 of the Federal Land Policy and Management Act requires that in order to minimize adverse environmental impacts and a proliferation of separate rights-of-way, corridors will be used to the extent practical.

Withdrawals Certain lands within the Safford District have been withdrawn. Withdrawals withhold an area of Federal land from settlement, sale, location, or entry under some or all of the general land laws. Withdrawals can also transfer jurisdiction of public land to another federal agency.

The following withdrawals are in effect in the Safford District (some of these are multiple withdrawals in the same area and some are overlapping withdrawals):

- Power Site Reserve 602 and Secretarial Order-Water Power Designation — 2,277 acres

- Power Project — 3,310 acres
- Middle Gila River Project — 804 acres
- San Carlos Irrigation Project (three withdrawals) — 9,383 acres
- Power Site Reserve 153 (two withdrawals) — 3,399 acres
- Power Site Reserve 590 and Secretarial Order-Water Power Designation — 2,023 acres
- National Guard Safford — 400 acres
- Charleston Dam and Reservoir (two withdrawals) — 1,989 acres
- Ft. Huachuca and Electronic Proving Grounds (four withdrawals) — 19,599 acres
- Willcox Bombing Range — 27,277 acres
- National Guard Douglas — 640 acres
- Camelback Dam and Reservoir — 14,592 acres



The desert vegetation of the uplands is quite different from the riparian vegetation below in Guadalupe Canyon.

Wildlife Habitat

The Safford District has a rich, diversified terrestrial wildlife fauna consisting of over 300 species of birds, 40 species of herptiles and 80 species of mammals. The existence of these species is due to the habitat diversity present throughout southeastern Arizona. These terrestrial habitats range from the low rainfall Chihuahuan Desert found in much of the southern portions of the District to the moderate rainfall at moderate elevations of the more mountainous regions.

Animal species receiving highest priority for funding and habitat improvement projects are: (1) federally listed threatened or endangered species; (2) priority wildlife species as identified by the Bureau in cooperation with the Arizona Game and Fish Department; and (3) other species, habitats or features of local importance.

Riparian/Aquatic Habitat In Arizona, 60 percent of wildlife species are dependent upon riparian and aquatic habitats. Twenty-eight priority species or communities require riparian/aquatic areas. They are the Colorado squawfish, Gila topminnow, desert pupfish, woundfin, loach minnow, spikedace, Gila chub, Gila roundtail chub, razorback sucker, bald eagle, western yellow-billed cuckoo, gray hawk, Mississippi kite, zone-tailed hawk, common black-hawk, willow flycatcher, belted kingfisher, osprey, spotted owl, ferruginous pygmy-owl, white-faced ibis, Chiricahua leopard frog, plains leopard frog, lowland leopard frog, Mexican garter snake, black bear, turkey and waterfowl. Protection and management of this biological diversity is linked to the 0.5 percent of the land that is riparian and aquatic habitat. Its ecological value is far greater than its proportionate size, and BLM has set a national goal of having 75 percent of its riparian habitat in good or excellent condition by 1997.

The larger aquatic habitats found in the District are the Gila, San Francisco and San Pedro rivers, Aravaipa and Bonita creeks. There are numerous smaller streams, providing isolated aquatic habitat throughout the District. In addition, ponds and springs are important local habitat for some of the 30 species of fish found on public lands.

Because so many priority species and communities on the quality and quantity of these small ecosystems, management efficiency can be enhanced by concentrating on riparian and aquatic habitat rather than on individual species. Physical, chemical and biological linkages between aquatic and riparian areas mean that impacts upon one quickly affect the others. Riparian areas in the Safford District also are important migration corridors through Arizona's deserts for birds moving between tropical wintering areas and breeding areas farther north. The value of riparian habitat extends beyond District, state or national boundaries.

Ferruginous hawks, a federal candidate species, are present in the District during migration and wintering times. The wide range and nonspecific habitat use precludes specific management prescriptions. They feed upon small mammals, therefore, Bureau management programs that maintain early successional communities favored by rodents, benefit ferruginous hawks.

Maternal bat caves are irregularly located throughout the District. Eagle Creek Bat Cave serves as the largest maternity roost for Mexican free-tailed bats, *Tadarida brasiliensis*, in Arizona and the entire Southwest. It now contains well over 100,000 bats, with historic estimates suggesting as many as 100 million. On a national basis, it is second only to some Texas caves. Due to the large number of bats, along with

other small animals, the cave reportedly once held the highest concentration of mammals and, perhaps, vertebrates in the state.

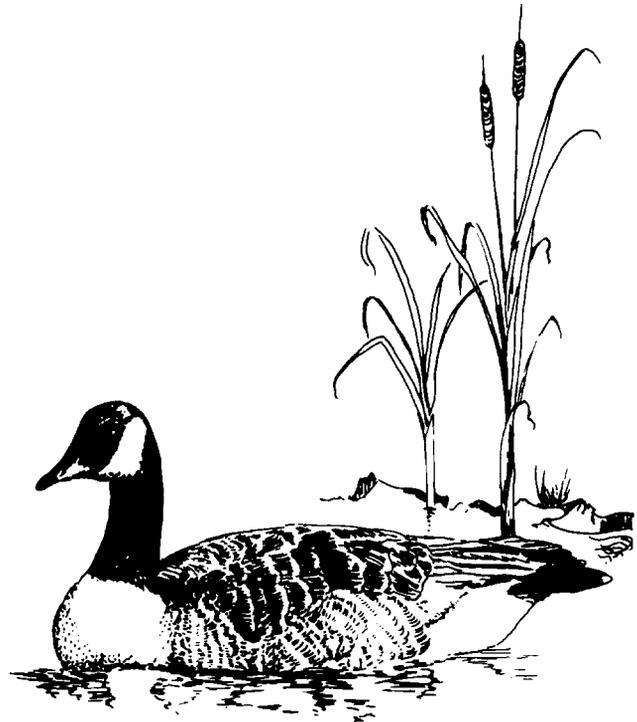
Bats are important for insect control, and Eagle Creek bats are estimated to consume over 80,000 pounds of insects nightly. Bats are also important prey for hawks and falcons.

Mexican free-tailed bats have an extremely low reproductive potential and are very susceptible to human disturbance. Human activities in and near the cave, as well as agricultural pesticides, have led to drastic population declines.

Terrestrial Habitat Priority species include the desert tortoise, bighorn sheep, mule deer, white-tailed deer, Montezuma quail, wild turkey, black bear, pronghorn antelope and Texas horned lizard.

Desert tortoises are restricted to Sonoran Desert areas in the lower San Pedro River Valley. Plant communities used include palo Verde-cactus, desert grasslands and some open chaparral or encinal (oak woodland) patches with southerly exposures. Desert washes appear to be especially important. Systematic transects to determine the range and abundance of the species were begun in 1988. Tentative results indicate desert tortoise may occur at low to moderate densities on 25,000 acres of public lands in the Safford District. The importance of the population of desert tortoise in the San Pedro basin is complicated since this is the northeast limit of the species' range, and its ecological and biological value may not be proportional to its apparent low numbers. Habitats will be categorized by densities and management options and will be protected to the degree required by Bureau policy. Preliminary observations indicate perennial grasses, low shrubs or annual grasses and forbs are important food items depending upon habitat and time of year. A critical feature throughout the District seems to be the presence of natural shelter sites, common along desert washes.

Lands administered by the Safford District contain two subspecies of bighorn sheep. The Rocky Mountain bighorn is found in suitable habitat along the Gila and San Francisco rivers from Bonita Creek on the west to the New Mexico state line on the east. Desert bighorn sheep are found in three major places in the northern part of the District. The largest population, 150-200 or more sheep, is found in and around Aravaipa Canyon Wilderness. A smaller population, 50-100 sheep, is found in the Galiuro Mountains around the Muleshoe Ranch and Redfield Canyon areas. The smallest population, consisting of less than 50 individuals, is located in the Peloncillo Mountains in the east-central



part of the District. Habitats preferred by bighorn sheep are remote, relatively open, precipitous areas with rocky ridges, slopes and canyons. Preferred foraging areas are mostly found within the above mentioned habitats. These foraging areas consist of upland and mountain grasslands, with scattered trees and shrubs. Threats to bighorn sheep include habitat degradation or loss, predators, disease, poaching and human activities.

Desert mule deer occur throughout the District and are the most common big game species. Areas of highest concentrations are the Galiuro, Peloncillo, Dos Cabezas and Mule mountains. Concentrations range from five to seven deer per square mile (Arizona Game and Fish Department 1988). Mule deer prefer semi-arid, sparsely vegetated areas dominated by shrubs, such as mesquite, spicebush and oak, and scattered juniper and oak trees. These preferred habitats are found most often in the rolling hills and open mountain areas. There is some habitat overlap between mule deer and white-tailed deer in the Dos Cabezas, Chiricahua and Mule mountains. The major threats to mule deer are habitat degradation and loss.

The white-tailed deer prefer the oak woodland habitat dominated by oak and juniper trees with scattered shrubs, forbs and abundant perennial grasses. Areas of the highest densities are the Galiuro, Chiricahua, Santa Teresa and Mule Mountains. White-tailed deer populations are considerably lower than those of the mule deer with densities ranging from two to four deer per square mile on these better habitats.

Montezuma quail prefer grassy, open, oak woodland canyons and wooded mountain slopes with bunch-grass. The best habitat in the District is in the Dos Cabezas, Chiricahua, Mule and Galiuro mountains. The major threat to the existing populations is loss of high-quality perennial grasses in oak woodland plant communities.

Wild turkeys prefer oak woodland habitat with nearby riparian vegetation in the mountains of southeast Arizona. Suitable habitat is available in the Dos Cabezas, Chiricahua, Gila, Santa Teresa, Winchester, Galiuro and Mule mountains. The only verified presence of turkeys in the Safford District, however, is in Bonita Creek and Guadalupe Canyon. Turkeys have been observed on Forest Service lands adjacent to the District in the upper San Francisco River area. The current turkey population is estimated to be very low. An opportunity exists to reintroduce the Gould's turkey into suitable habitat in several mountain areas.

In the Southwest, black bears prefer mountainous vegetated areas of chaparral, pinyon-juniper and oak woodlands. Black bears are very adaptable and may be found in all habitats of the oak woodland vegetation types, especially when adjacent to riparian vegetation. The population of black bears is estimated to be moderate to low in these types. Bear numbers depend on the condition of oak woodland and adjacent riparian areas and will vary according to long-term management strategies.

Pronghorn antelope inhabit the semidesert grasslands in southeast Arizona. Habitat preference is open grasslands with scattered shrubs and moderate to high densities of forbs. A small population of pronghorn antelope exists in this habitat on the east slopes of the Peloncillo Mountains along the Arizona-New Mexico border. Pronghorns move unrestricted between the two states in this habitat. In December 1986, 37 pronghorn were released east of the Peloncillo Mountains to supplement the small, declining population of approximately 15 animals. The present population consists of 50 to 60 individuals. Suitable but unoccupied habitat exists in several small areas in the extreme southeastern portion of the District and around the Galiuro Mountains. Threats to pronghorn include disease, poaching, predation and human developments. The small number of animals increases their vulnerability to these threats.

Texas horned lizard habitat includes dry areas in mostly open country with loose soil supporting grass, mesquite and cactus. These lizards appear to be common in parts of the District. Few surface disturbances are so widespread as to jeopardize blocks of habitat, and preferred habitat is seldom exposed to

major disturbances except by mining and livestock grazing. No specific efforts have been made for management of this species.

Other priority species include the peregrine falcon, Sanborn's long-nosed bat, Mexican long-tongued bat, red bat, ferruginous hawk, mountain lion, javelina, quail and dove. These priority species are so widespread or use so many plant communities that management focus is difficult. Generally, good land management practices that balance uses with long-term production, plus standard stipulations on mining actions, provide good protection. Because of the large area occupied, projects are seldom constructed solely for one of these species. Their needs are, however, incorporated into the design and development of all proposed actions.

Peregrine falcons, Mexican long-tongued bats, red bats and Sanborn's long-nosed bats have very specific breeding sites and feeding areas that can be protected by specific Bureau actions. They do, however, forage in a wide area throughout the District at other times of the year. Javelina, mountain lions, quail and dove are present virtually throughout the District at varying densities. They are important either as an important component of the ecosystem, an economic impact upon the livestock industry, or for recreational activities.

Threatened, *Endangered and Special Status Species*
A number of threatened, endangered and special status species are found on public lands in the Safford District. Table 3-3 lists the species and their status.

Livestock Grazing

Livestock grazing is managed through allotment management plans, most of which were developed from decisions resulting from the Upper Gila-San Simon Grazing Environmental Impact Statement (BLM 1978) and the Eastern Arizona Grazing Environmental Impact Statement (BLM 1986). These plans were written for a specific unit of rangeland (allotment) based on multiple-use resource management objectives established through existing land use plans and activity level plans by resource specialists and permittees. An Allotment Management Plan establishes objectives, seasons of use, grazing system, numbers of livestock permitted on the range, range improvements, monitoring plans and evaluation procedures for the allotment.

The District range program manages 129,037 animal unit months of authorized active use and 10,150 animal unit months of non-use in 262 allotments. There are 109 allotments being managed under the guidelines of an implemented allotment management

Table 3-3. Threatened, Endangered and Special Status Wildlife Species

Common Name	Scientific Name	Status		
		Safford	Fed.	State
MAMMALS				
red bat	<i>Lasiurus borealis</i>	B		C
spotted bat	<i>Euderma maculatum</i>	?	2	C
southwestern cave myotis	<i>Myotis velifer brevis</i>	O	2	
California leaf-nosed bat	<i>Macrotus californicus</i>	A	2	C
Sanborn's long-nosed bat	<i>Leptonycteris sanborni</i>	O	E	E
Mexican long-tongued bat	<i>Choeronycteris mexicana</i>	O	2	T
greater western mastiff-bat	<i>Eumops perotis californicus</i>	O	2	
grizzly bear	<i>Ursus arctos</i>	Ex	T	E
Chiricahua western harvest mouse	<i>Reithrodontomys megalotis arizonensis</i>	O	2	
jaguar	<i>Panthera onca</i>	A	E	E
jaguarundi	<i>Felis yagouarundi tolteca</i>	Ex	E	
ocelot	<i>Felis pardalis</i>	Ex	E	E
river otter	<i>Lutra canadensis Sonora</i>	Ex	2	E
Arizona black-tailed prairie dog	<i>Cynomys ludovicianus arizonensis</i>	Ex	2	E
Chihuahuan pronghorn	<i>Antilocapra americana mexicana</i>	B		T
Arizona shrew	<i>Sorex arizonae</i>	?		T
Mexican gray wolf	<i>Canis lupus baileyi</i>	Ex	E	E
BIRDS				
American bittern	<i>Botaurus lentiginosus</i>	W		C
least bittern	<i>Ixobrychus exilis</i>	M		C
boblink	<i>Dolichonyx oryzivorus</i>	A		E
crested caracara	<i>Polyborus plancus</i>	A		C
gray catbird	<i>Dumetella carolinensis</i>	A		T
whooping crane	<i>Grus americana</i>	A	E	
western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	B	-	T
long-billed cuckoo	<i>Numenius americanus</i>	M	2	
black-bellied whistling duck	<i>Dendrocygna autumnallis</i>	O	-	C
bald eagle	<i>Haliaeetus leucocephalus</i>	B	E	E
great egret	<i>Casmerodius albus</i>	M	-	E
snowy egret	<i>Egretta thula</i>	M	-	E
northern aplomado falcon	<i>Falco femoralis septentrionalis</i>	Ex*	E	E
American peregrine falcon	<i>Falco peregrinus</i>	B	E	C
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	B	2	E

Table 3-3. Threatened, Endangered and Special Status Wildlife Species (continued)

Common Name	Scientific Name	Status		
		Safford	Fed.	State
Apache northern goshawk	<i>Accipiter gentilis apache</i>	A	2	C
common black-hawk	<i>Buteogallus anthracinus</i>	B	-	C
ferruginous hawk	<i>Buteo regalis</i>	W	2	T
northern gray hawk	<i>Buteo nitidus maximus</i>	B	2	T
violet-crowned hummingbird	<i>Amazilia violiceps</i>	O	-	C
white-faced ibis	<i>Plegadis chili</i>	M	2	
thick-billed kingbird	<i>Tyrannus crassirostris</i>	B		C
tropical kingbird	<i>Tyrannus melancholicus</i>	M		C
belted kingfisher	<i>Ceryle alcyon</i>	W		C
Mississippi kite	<i>Ictinia mississippiensis</i>	B		C
osprey	<i>Pandion haliaetus</i>	M		T
cactus ferruginous pygmy-owl	<i>Glaucidium brasiliarium cactorum</i>	B	2	E
spotted owl	<i>Strix occidentalis</i>	O	2	T
thick-billed parrot	<i>Rhynchopsitta pachyrhyncha</i>	R	E	E
Sprague's pipit	<i>Anthus spragueii</i>	W		C
western snowy plover	<i>Charadrius alexandrinus nivosus</i>	M	2	C
American redstart	<i>Setophaga ruticilla</i>	M		T
wood stork	<i>Mycteria americana</i>	A	E	
Baird's sparrow	<i>Ammodramus bairdii</i>	W		T
Arizona grasshopper sparrow	<i>Ammodramus savannarum ammolequus</i>	B	2	
elegant trogon	<i>Trogon elegans</i>	M		C
HERPTILES				
Chiricahua leopard frog	<i>Rana chiricahuensis</i>	?		T
lowland leopard frog	<i>Rana yavapaiensis</i>	O	2	C
plains leopard frog	<i>Rana blairi</i>	?		E
Mexican garter snake	<i>Thamnophis eques</i>	B	2	C
Texas horned lizard	<i>Phrynosoma cornutum</i>	B	2	
Sonoran tiger salamander	<i>Ambystoma tigrinum stebbinsi</i>	?	2	E
desert tortoise	<i>Gopherus agassizii</i>	B	2	C
FISH				
bonytail chub	<i>Gila elegans</i>	Ex	E	E
Gila chub	<i>Gila intermedia</i>	B	2	T
Gila roundtail chub	<i>Gila robusta grahami</i>	B	2	T
loach minnow	<i>Tiaroga cobitis</i>	B	T	T
desert pupfish	<i>Cyprinodon macularius macularius</i>	B	E	E

Table 3-3. Threatened, Endangered and Special Status Wildlife Species (continued)

Common Name	Scientific Name	Status		
		Safford	Fed.	State
spikedace	<i>Meda fulgida</i>	B	T	T
Colorado squawfish	<i>Ptychocheilus lucius</i>	Ex	E	E
razorback sucker	<i>Xyrauchen texanus</i>	O	1	E
Gila topminnow	<i>Poeciliopsis occidentalis</i>			
	<i>occidentalis</i>	B	E	T
woundfin	<i>Plagopterus argenteus</i>	Ex*	E	E
INVERTEBRATES				
Bylas springsnail	<i>Apachecoccus arizonae</i>	B	2	
Gila Tryonia snail	<i>Tryonia gilae</i>	B	2	

A = Accidental occurrence
 B = Breeds on public lands
 C = Candidate for state listing
 E = Endangered
 Ex = Extirpated
 M = Migrant
 O = Known occurrence

R = Reintroduced
 T = Threatened
 W = Winter Resident
 ? = Probable
 * = Proposed for reintroduction
 1 or 2 = Candidate for federal listing

Source: Safford District Files

plan. Priorities for managing livestock use are determined through an allotment categorization process that helps determine management priorities. There are currently 60 allotments in the "Improve" category, 37 in "Maintain", and 165 in "Custodial." These categories are defined as follows:

Improve (I) Category criteria

- Present range condition is unsatisfactory and/or needs improvement.
- Allotments have moderate to high resource production potential and are producing at low to moderate levels.
- Serious resource-use conflict and/or controversy exists.
- Opportunities exist for positive economic return from public investments.
- Present management appears unsatisfactory and/or needs improvement.

Allotments in the "I" category require either a change in management practices to improve conditions and achieve a relatively high resource potential or mitigation of serious resource conflicts.

The management objectives for "I" allotments are to improve current resource conditions or resolve conflicts. Therefore, "I" allotments will have first priority for range improvement funding, AMP development, monitoring and use supervision.

Range condition, trend and precipitation will be monitored on all "I" allotments. Utilization and actual livestock use will be monitored on the allotments that receive livestock grazing use. Other studies to monitor water and wildlife habitat will also be conducted.

Maintain (M) Category Criteria

- Present range condition is satisfactory.
- Allotments have moderate or high resource production potential and are producing near their potential (or trend is moving in that direction).
- No serious resource-use conflict/controversy exists.
- Opportunities may exist for positive economic return from public investments.
- Present management appears satisfactory.

Generally, allotments in the "M" category have no serious resource conflicts and range conditions and present management are satisfactory. The



Ash and other riparian trees provide shade for hikers in Atavaipa Canyon Wilderness.

management objective for "M" allotments is to maintain current resource conditions. Range condition and trend, precipitation and actual livestock use will be monitored on "M" allotments by priority ranking as funding permits. "M" allotments will have second priority for funding of range improvements and for AMP development.

Custodial (C) Category Criteria

- Present range condition is not a factor.
- Allotments have low resource production potential and are producing near their potential.
- Limited resource-use conflict/controversy may exist.
- Opportunities for positive economic return on public investment do not exist or are constrained by technological or economic factors.
- Present management appears satisfactory or is the only logical practice under existing resource conditions.

Allotments in the "C" category include those with a small percentage of public land or those with low resource potential where response to management would not yield positive economic returns. The management objective for this category is to employ minimum management to the allotments while protecting existing resource values.

Permittees will assume a major role in range monitoring and range improvement construction for "c" allotments. BLM will conduct periodic use supervision on these allotments.

Currently, the District is heavily involved in monitoring allotments to determine the success of meeting allotment management plan objectives. Monitoring is described in the Safford District Monitoring Plan (BLM 1978 and BLM 1986) and more specifically in completed allotment management plans. Included in the monitoring program are livestock counts, trend and utilization studies, and precipitation data.

Cultural Resources

Cultural resources are identifiable cultural properties and any traditional lifeway value. Cultural properties are the nonrenewable remains of past human activity and consist of: (1) manufactured items such as stone tools, pottery, fire hearths, buildings, works of art, etc.;



(2) non-manufactured items used by people in their natural state such as rock shelters for housing purposes, or the skeletal remains of an animal that had been butchered by a prehistoric hunter; (3) areas where significant human events occurred even though evidence of the event no longer remains; and (4) the natural environment immediately surrounding the actual resource (BLM Manual 8100).

A traditional lifeway value is a group's shared values. These values are useful or important to the maintenance of a specified social and/or cultural groups traditional system of (1) religious belief, (2) cultural practice or (3) social interaction, not closely identified with definite locations. Because traditional lifeway values are abstract, nonmaterial, ascribed ideas, one cannot know about them without being told.

Cultural resources are viewed as part of the history of humankind. Since we cannot learn about past traditional lifeway values without public participation, cultural properties serve as the only link for understanding these nonrenewable resources. To facilitate



The Fishhooks WSA in the Gila Mountain is recommended for wilderness designation.

their discussion, cultural properties are commonly classified according to the cultural period or tradition they represent. A common scheme used in the Southwest classifies cultural resources as being associated with the (1) Paleoindian Period, (2) Archaic Period, (3) Southwestern Cultural Traditions, (4) Proto-historic Period (5) Historic Period or (6) Contemporary Period.

Paleoindian Period This cultural tradition refers to the original New World inhabitants who migrated into North America from Asia during the closing of the Pleistocene, or last great ice age. Most researchers date this period from circa 10,000 B.C. to circa 8,000 B.C. The Paleoindian lifeway was shaped by a highly nomadic existence wherein small social groups or bands would forage the countryside in pursuit of animal and plant resources.

Sites of Paleoindian activity are often extremely difficult to recognize due to the sparse physical remains of these highly nomadic hunters and gatherers. Recognition is further hindered by geological and other natural processes that, in the course of several thousand years, can hide or obliterate even the most highly visible cultural property or archaeological site.

Although Paleoindian sites are extremely rare, the San Pedro River Valley has produced the largest known concentration of such sites in North America. Most of the San Pedro sites have been interpreted as being kill sites where animals, particularly mammoth, were felled and butchered. Several of these sites are considered to be of world-class status because of the information they contain about early people in North America.

Evidence of these big-game hunters is characteristically associated with the distinctively shaped Clovis spear point. Usually these spear points are found alongside other stone tools and the bones of extinct Pleistocene mammals buried beneath soils marking the geological end of the Pleistocene Age in the Southwest.

The significance of Paleoindian sites is that they contain rare information regarding the peopling of the New World and human adaptation to a postglacial environment.

Archaic Period The Archaic Period is believed to have occurred from at least 8,000 B.C. to about A.D. 100. During this period people lived a more settled lifestyle than previously and only hunted modern species of game animals. They also relied on gathering wild plants and, toward the end of this period, began to domesticate plants such as corn, beans and squash. This reliance on vegetal resources is

evidenced by milling tools used for grinding seeds into edible flour and the presence of food storage pits inside the remains of brush houses.

Recognizing Archaic sites from surface observations can be extremely difficult because of their age, lack of distinctively shaped projectile point types, and other kinds of diagnostic artifacts. Because of this, the number of sites is difficult to determine.

The Archaic sites known to exist in the District are in fairly good condition due in part to their relatively unimpressive nature, which usually consists of small surface scatters of stone tools and chipping debris. Buried sites are threatened principally by erosion. Archaic sites located in rockshelters and caves are likely to be damaged by vandals and collectors searching for burial goods, basketry, sandals and other artifacts.

Archaic Period sites are significant in that they represent the most enduring adaptational period of human occupation in the New World. These sites fill a data gap bridging the transition from nomadic big-game hunting to settled village life and agriculture.

Southwestern Cultural Traditions At about A.D. 100 prehistoric societies in the Southwest began to undergo dramatic changes in response to adopting an agricultural way of life based upon a primary food complex of corn, beans and squash. The reliance upon these and other crops allowed these people to spend most of their time in one place. This new lifestyle was marked by a wide-scale population increase, establishment of numerous villages with large agricultural fields and complex irrigation systems, the development of extensive trading networks and regional trading centers, and an elaboration of ceremonial and religious customs.

The basic population groups taking part in these cultural developments were the Mogollon, Hohokam and Anasazi. A fourth cultural group, known as the Salado Complex, appears late in the period and probably represents a restructuring of the three existing traditions. By A.D. 1450 these developments ceased and native groups suffered extensive culture collapse. This was followed by wide-scale population abandonment and the disappearance of whole societies.

Cultural groups during this period are distinguished from each other on the basis of certain diagnostic traits particularly in architecture and ceramics. Mogollon-affiliated sites outnumber the others in the District and tend to be located in mountainous areas and in valleys alongside major drainages and terraces. Many of the so-called Mogollon sites along major drainages display

Hohokam characteristics as well, especially those that date toward the latter part of the period.

Researchers believe these Mogollon-Hohokam "blended" sites show that intense trading relationships existed with the Hohokam people from the Phoenix and Tucson areas. The major trading frontiers appear to have been along the Gila and San Pedro rivers. The Tres Alamos site along the San Pedro River, in part, appears to have been a major Mogollon-Hohokam regional trading center.

Bonita Creek Canyon, located northeast of Safford in the Gila Mountains, is the only area in the District known to contain properties that display Anasazi characteristics. Located along Bonita Creek are numerous cliff dwellings, elaborate rock art paintings and at least one ceremonial cave. This assemblage of sites represents one of the most dense and varied collections of cultural properties in the District.

Properties displaying Salado characteristics occur primarily as villages with associated agricultural fields along the Gila and San Pedro rivers. Most Salado villages have been destroyed by historic and modern farming practices. Relatively little is known about the Salado Complex; it remains somewhat of a puzzle to archaeologists in the Southwest.

Cultural resources from the Southwestern Cultural Traditions are much more elaborate and diverse than those from any other prehistoric time period. This is due to the variety of features and artifacts associated with complex societies. Because of this, these sites are more likely to be damaged by vandals and collectors searching for painted pottery and other elaborate artifacts than damaged from natural processes, grazing, recreation and other uses.

Cultural properties of the Southwestern Cultural Traditions are significant for several reasons. Most important, they show that the area apparently served as a "crossroads." Here the Hohokam from the west and the Anasazi from the north interacted socially and economically with the Mogollon, whose greatest cultural display occurred to the east in New Mexico. This overlap of cultures provides a rich variety of data for investigating the effects of trading relationships between societies, the rise of agricultural societies, and the ability of archaeologists to distinguish former culture groups.

Protohistoric Period. This period, occurring immediately before written history, occurred from about A.D. 1450 to A.D. 1700. The accounts of early Spanish explorers and missionaries in the late 17th century documented the existence of two distinct cultural



groups in southeastern Arizona, the Sobaipuri and the Apache.

The Sobaipuri were first encountered by the Spanish along the San Pedro River where these riverine adapted people were practicing agriculture and some irrigation. They lived in distinctively shaped wattle-and-daub houses known as "jacals." The Sobaipuri abandoned the San Pedro Valley in the mid-18th century due to diseases introduced by the Spanish, the social consequences of the Spanish mission system, and Apache raiding and warfare.

Apache peoples, specifically the Western and Chiricahua Apaches, practiced a hunting and gathering lifestyle. Later, the Western Apache began to practice some limited agriculture. Raiding and warfare were also important economic. The Aravaipa Canyon area harbored an extensive Western Apache settlement. Historic ranching and other related activities are believed to have destroyed most of the evidence of this settlement.

Both Sobaipuri and Apache cultural properties are difficult to recognize. The Apache made a crude, yet distinctive type of pottery. The only known Sobaipuri properties in the District are along the San Pedro River. Apache properties are relatively common within the District, at least theoretically. The number of sites is extremely hard to determine because of the difficulty in identifying them.

Protohistoric sites often contain European artifacts, making them difficult to distinguish from historic sites where Anglo-American remains overlay aboriginal remains. Their significance is that they provide the bridge between unwritten and written history.

Spanish Period (1534-1820) The earlier part (1534-1690) of the Spanish period was characterized by frontier exploration and military campaigns against the Hopi and Zuni in northeastern Arizona and northwestern New Mexico. Access to the Hopi and Zuni areas was generally through the San Pedro and Gila valleys from what is now Mexico. The exact routes are not known due to the lack of accurate historical records. The route, however, is believed to have traversed the San Pedro River until it reached the present day community of Benson. From there it trended north-easterly, passing between the Galiuro and Winchester mountains. The route then went into the Gila Valley by way of the upper Sulphur Springs and Aravaipa valleys. After crossing the Gila River in the vicinity of Fort Thomas, it proceeded over the Gila Mountains and northward to the Hopi and Zuni areas. The route is commonly known as the Coronado Trail. No known cultural properties remaining from this portion of the Spanish Period have been found.

The later part of the Spanish period (1691-1820) reflects the missionary influence of native populations and the military campaigns against the Apache. Numerous architectural sites, settlements and visitas remain as evidence of the Spanish presence. The Presidio of Santa Cruz de Terrenate, located on the upper San Pedro River, is listed on the National Register of Historic Places. Some also believe the site may be the location of the Sobaipuri village of Quiburi.



Ruins of a Butterfield Stagecoach station are located near the Peloncillo Mountains.

Mexican Period (1821-1848) Southeastern Arizona became a possession of Mexico in 1821 as a result of the War of Mexican Independence. The area, however, never really developed a Mexican identity because of its remoteness and sparse population.

Associated with this period is the probable military encampment of Colonel Stephen Watts Kearny, located along the Gila Trail. The encampment is listed on the National Register of Historic Places. Apache raiding and warfare continued throughout this period and traders and trappers, mountain men and bounty hunters spread into Arizona. These relatively few numbers of people involved with these short-term activities left little in the way of cultural properties and artifacts. The significance of the Mexican period is that it marks the beginning of the Anglo-American influence in southeastern Arizona.

Anglo-American Territorial Period (1848-1912)

This period began the development of travel routes, ranching, mining and towns. Settlers created trails, such as the National Register of Historic Places-eligible Safford-Morenci Trail, stage coach lines, such as the Butterfield Overland Stage Line, and military telegraph lines. Significant ranches, such as the Salazar, Muleshoe and Boquillas were established. Additional settlers came into the area to work at the newly created mines and ore-processing sites, such as Morenci, Millville and Contention. Historic farms with elaborate irrigation canals were built by pioneer Mormon farmers. Historic sites are considered significant for the information they contain about the development of the area by American pioneers.

Contemporary Period (1912-Present) Farming, ranching and mining intensified during this period. The Civilian Conservation Corps built soil and water control features during the 1930s to help check erosion caused by overgrazing and farming. Cobble detention dams, rock features and camps that are still in good condition may possess National Register qualities. Isolated cabins and other habitation structures from this period can be dated through historic artifacts if they have not been removed by collectors. Sites associated with copper, lead and gold mining also have considerable local and historical significance.

Paleontological Resources

Paleontological resources (fossils) are the remains or traces of organisms that have been preserved by natural processes in the earth's crust. They are usually associated with sedimentary rocks and deposits rather than with igneous or metamorphic formations. Geologic formations were superimposed over one another

during the course of time and represent the depositional history of the earth's crust. Fossils occurring within this depositional history evidence the biological history of the earth. The earliest invertebrate fossils (those without backbones) are from the Paleozoic Era dating between 250 to 600 million years before the present. Fossils from the Mesozoic Era (65 million to 250 million years before the present) are conspicuous by the absence of reptiles such as the dinosaurs. The current mammalian age or Cenozoic Era began around 65 million years before the present. All of the District's vertebrate fossil sites are from the latter part of this era. Information on Safford District paleontological resources has been taken from a literature search (Lindsay 7979) of all existing records with references to District fossils.

Periodically, fossils become exposed on the surface. These exposures may be localized or, more typically, in numerous localities of varying extent. They occur in association with geologic formations that typically meander throughout the landscape.



White outcrops of diatomaceous earth on 111 Ranch are Pliocene and Pleistocene Age fossilized diatoms.

There are 64 invertebrate sites and 77 vertebrate sites on public lands in the District. The two paleontological areas of greatest significance are both Class I vertebrate sites. The Bear Springs Badlands Paleontological Area, covering approximately 16 square miles, contains fossilized remains of 12 different kinds of animals (Tomida 1987). Most of these were large elephant-like mammals, early horses including a three-toed horse, camel, peccary and cat. These mammals are grouped into the Blancan assemblage and lived from 1.9 million to 4.3 million years before the present. Also located in the Bear Springs Badlands are fossilized footprints of animals from this period. Erosion appears to present the greatest threat to the fossils. Vandalism of sites does not appear to be a problem to date.

The other major fossil area is known as the 111 Ranch Paleontological Area. Although large mammals such as those found at Bear Springs are present, 111 Ranch contains an extensive variety of intact, complete fossils of small mammals as well. The fossils represent one of the better assemblages of the Southwest. They are found in Pliocene deposits that are overlain by deposits of Early and Middle Pleistocene age. The Blancan vertebrate fossils provide a valuable climatological and chronological indicator. The fossils are contained in diatomaceous earth deposits that have been and are still threatened by mining activities.

The Hot Well area may be another area of possible significance. The area has not been extensively studied but does contain vertebrate fossils. Hot Well is an area of rapidly increasing recreational use containing sand dunes and a geothermal spring.

Vegetation

The vegetation resource on public lands within the Safford District is diverse, abundant and important to other resources and to the general ecology of the District. The significance of this resource is reflected in the riparian ecosystems, watershed condition, wildlife habitat, livestock forage, and water quality and quantity.

Riparian Communities The riparian areas of the District are composed of seven different plant communities. These communities are described as follows:

Mixed Broadleaf Riparian This type is a gallery forest with a double-layered canopy. The upper layer is composed of Arizona sycamore, Fremont cottonwood, velvet ash, Arizona walnut, Goodding willow and Bonpland's willow in various combinations of pure stands of a single species to mixed stands of three,

four, or five species. The understory comprises young trees of the above mentioned species as well as shrubs and trees from higher elevations. Forbs and grasses may or may not be present, depending upon disturbances and amount of shade.

Cottonwood-Willow Riparian This community is characterized by a gallery forest of Fremont cottonwood and Goodding willow along major drainages, usually below 3,000 feet elevation. This community is sometimes intermixed with mesquite and tamarisk as well as shrubs, grasses and forbs. The primary grass species associated with it are bermuda grass and giant sacaton.

Mesquite Bosque Large mesquite, with a closed canopy 30 to 45 feet high, characterize this community. A shrub layer may or may not be present. The major grass is giant sacaton. This community is located only along major drainages.

Tamarisk Bosque Tamarisk in pure stands or mixed with other short trees is found in disturbed or eroded areas along lower elevation streams and rivers and may occur on the edges of stock ponds.



Riparian Scrub This type is usually composed of a dense stand of narrowleaf shrubs. Dominant species are usually seepwillow, desert willow or coyote willow. Other species could include mesquite, catclaw and tamarisk.

Oak Riparian A continuous line of large oaks characterize this type, usually found above 4000 feet in elevation. Emory oak, Arizona white oak, Mexican blue oak and chittamwood are usually the dominant tree species. Other chaparral shrubs or mixed broad-leaf riparian tree species are intermixed with these.

Marshlands and Cienegas Associations of cattail, sedges and rushes dominate these areas. Salt grass may also be present at dryer edges.

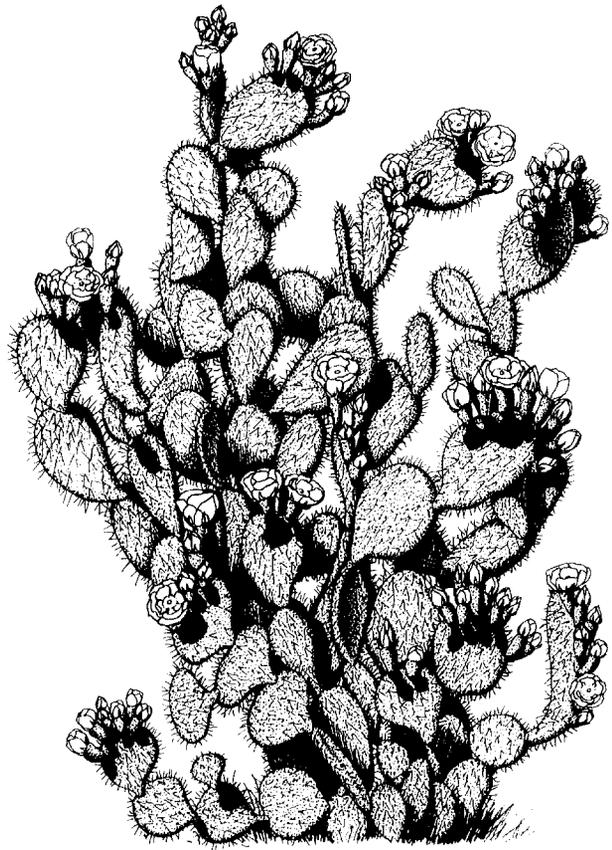
Approximately 7,906 acres (328 miles) of riparian vegetation have been defined in the District meeting the definition used by BLM. Of this acreage, 452 acres (11 miles) are classified as in excellent condition, 3,335 acres (100 miles) in good condition, 3,058 acres (150 miles) in fair condition and 1,061 acres (67 miles) in poor condition. In addition, 191 acres (10 miles) along the San Simon River were considered to have lost all riparian vegetation. Due largely to increased emphasis on riparian management over the past 10 years, the trend of most riparian areas is improving and much of the remainder is static. Overall, nearly 48 percent of the riparian vegetation within the District is classified as in good or better condition.

Upland Communities The District's upland or non-riparian vegetation was mapped into *Up/and Biotic Communities by Brown, Lowe and Pase (1979)*. The communities are described as follows:

Great Basin Conifer Woodland This community consists mainly of various junipers and several varieties of pinyon. Two small areas of public lands within the District contain some Ponderosa pine. Gambel oak is also present at the higher elevations. Mixed shrubs, forbs and grasses are usually present. This community comprises less than one percent of the public lands (about 42,200 acres) in the Safford District.

Madrean Evergreen Woodland This community, also relatively small (about 6,000 acres), is made up of evergreen oaks, various species of juniper and associated shrubs, forbs and grasses.

Interior Chaparral Pointleaf manzanita is the most abundant species in this community. It is associated with scrub oak and silk tassel. It usually forms a community that has a complete canopy cover with virtually no understory vegetation. This community occurs solely on granitic soils and covers less than one percent of the District (about 9,000 acres).



Scrub Grassland Tobosa grass, various grama grasses, shrubs and halfshrubs characterize this community. The most abundant shrubs are mesquite and whitethorn. Dominant halfshrubs are burroweed and snakeweed. This community comprises about 442,800 acres of public lands in the District.

Chihuahuan Desert Scrub This community is composed mainly of shrubs, principally mesquite, whitethorn, tarbush, creosote bush and mariola. Grasses are sparse or non-existent. This association covers about 592,100 acres of public lands in the District.

Sonoran Desert Scrub Dominant species are creosote bush, bursage, brittlebush, palo verde and cactus. This community is most prevalent on the lower portions of the western half of the District, covering about 300,000 acres. Grasses are relatively sparse.

The *End of Year Range Condition Report (1990)* lists about 66,000 acres in excellent condition, 542,000 acres in good, 406,000 acres fair, and 291,000 acres in poor condition and 111,000 acres unclassified. The apparent trend in rangeland condition is improving on

the vast majority of the District. This upward trend in condition is attributed to reductions in livestock numbers, better livestock management and increased rainfall in the past 10 years.

Threatened and Endangered Species

Several federally listed or candidate threatened and endangered plant species are found on public lands in the Safford District. Table 3-4 lists the species and their status.



Erosion of the soft rocks at Red knolls has resulted in a display of many unusual features.

Outdoor Recreation

The public lands provide the setting for a wide variety of recreation opportunities in the District. Though most opportunities are for dispersed activities, developed recreation sites are also present. Activities vary from off-highway vehicle driving to backcountry hiking in Aravaipa Canyon Wilderness or rafting in the Gila Box.

Some of the more common activities include hunting, fishing, hiking, backpacking, horseback riding, rockhounding, picnicking, camping, floatboating, sightseeing, birdwatching and nature study, photography and off-highway vehicle driving. Many of these activities do not require developed facilities.

Table 3-4. Threatened and Endangered Plant Species

Common Name	Scientific Name	Safford Status	Federal Status
PLANTS			
beeplant	Cleome multicaulis	?	2
night blooming cereus	Cereus greggii transmontanus	0	3c
Cochise pincushion cactus	Coryphantha robbinsorum	?	T
Arizona hedgehog cactus	Echinocereus triglochidiatus arizonicus	0	E
Pringle's fleabane	Erigeron pringlei	0	2
Lemmon's fleabane	Erigeron lemmonii	?	2
Bar-tram's echeveria	Graptopetalum bartramii	?	2
needle spine pineapple cactus	Echinomastus erectocentra	0	2
rosewood	Vauquelinia pauciflora	0	2

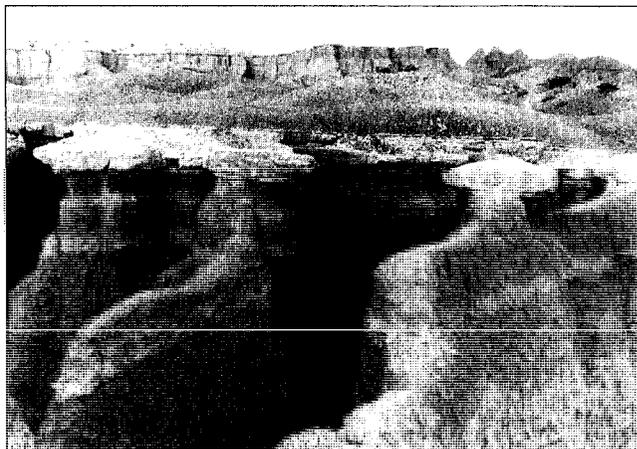
0 = Known occurrence
 ? = Probable occurrence
 E = Endangered
 T = Threatened
 2 = Federal candidate for listing
 3C= Larger representation than previously believed

Source: Safford District Files

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Pringle's fleabane	Erigeron pringlei	0	2
Lemmon's fleabane	Erigeron lemmonii	?	2
Bar-tram's echeveria	Graptopetalum bartramii	?	2
needle spine pineapple cactus	Echinomastus erectocentra	0	2
rosewood	Vauquelinia pauciflora	0	2

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Source: Safford District Files

Some facilities have been developed, however, for the benefit of the public. Fourmile Canyon Campground near Klondyke is used primarily by hunters and visitors to Aravaipa Canyon Wilderness. Three picnic sites have been built -two on the Gila River between Safford and Clifton, and a third at the foot of the Dos Cabezas Mountains near Bowie. Limited facilities are provided elsewhere. Signs, trash barrels, visitor register boxes and parking areas are provided at two rockhound areas, Safford-Morenci and Aravaipa Canyon Wilderness trailheads, and three access points to the San Pedro Riparian National Conservation Area. The old Safford-Clifton road has also been designated as the Black Hills Backcountry Byway and provides sightseeing opportunities for the public.

Areas of concentrated recreation use include hiking and backpacking in Aravaipa Canyon Wilderness; picnicking on the Gila River at the Old Safford-Clifton Road Bridge and Spring Canyon; picknicking on the Gila River near Winkelman, camping and picnicking at Bonita Creek; off-highway vehicle driving in the Gila Box (summer); northeast of Sierra Vista, and the Hot Well Dunes in the San Simon Valley southeast of Safford; floatboating the Gila and San Francisco rivers through the Gila Box (spring); and big and small game hunting Districtwide. Birdwatching and nature study occur mostly in riparian areas, particularly at Bonita Creek, Eagle Creek, Muleshoe Ranch, Guadalupe Canyon, Aravaipa Canyon and the San Pedro River.

The quality of the recreation experience in the District varies with the activity and the expectations people have of their experiences. High-quality experiences are generally available for most of the activities, though at times crowding and lack of facilities or information can diminish the experience. To maintain the wilderness setting and the quality of the backcountry experience, use of Aravaipa Canyon Wilderness is limited to 50 people per day. Special recreation use permits are issued by the District to control the numbers of visitors to protect the fragile resource and the wilderness experience.

Data on recreation use statistics is kept for Aravaipa Canyon Wilderness, Fourmile Canyon Campground, the two rockhound areas, the picnic site at the Old Safford-Clifton Road bridge and the three entry points to the San Pedro Riparian National Conservation Area. Use levels are generally stable Districtwide. Off-highway vehicle use at Hot Well Dunes, and floatboating in the Gila Box appear to be gaining in popularity. Visitor use is anticipated will continue increasing on the San Pedro and Gila Box Riparian National Conservation Areas as facilities are developed and the public lands are opened to further recreation use. Designated wilderness areas are also expected to receive increased recreation use.

Visual Resources

The landscape features of the District are varied and thus so is the visual, or scenic quality. While perceptions of scenery are individually determined, certain landscape features can be assessed. The form, line, color and texture (basic landscape elements) of the topography, soil, vegetation and human developments all affect a scene. Generally, a landscape with a harmonious variety of the basic elements will be more interesting and appealing.

Since the Basin and Range Physiographic Province is an area of broad, gently sloping valleys with rugged mountains rising abruptly above them, this Province includes a variety of landscape types with many scenic areas. The rugged topography of the Black Hills and the Gila, Mescal, Whitlock, Peloncillo, Mule and Dos Cabezas mountains provide varied landscapes and scenic views. The canyons of the Gila and San Francisco rivers and Aravaipa, Redfield and Swamp Springs creeks also provide interesting and scenic views. The combination of landform and vegetation creates outstanding scenery in other parts of the District, including the San Pedro River, Black Rock and Guadalupe Canyon. Soil erosion in the Bear Springs Flat area has created some interesting and scenic topographic features. Areas with less topographic and vegetation variability, and thus less scenic quality, include the creosote flats at the base of the Gila Mountains and the desert shrubs and grasslands along the San Simon River Valley.

Agricultural modification is evident along the Gila River from Safford to Fort Thomas, Interstate 10 near Bowie and San Simon, the Gila River near Duncan and the Aravaipa and San Pedro valleys. Mineral development has created significant changes to the landscape in the mountains north of Clifton and Morenci, in the Dripping Springs Mountains at Christmas, in the San Pedro Valley near San Manuel and in the San Simon Valley north of Interstate 10.

Visual resource management is a process used by BLM to identify and manage the scenic quality and to reduce the impact of development activities on the scenery. To manage the visual resources, management classes have been developed that describe the degree of landscape modification permissible (see Appendix 6 for management class definitions). Wilderness study areas are managed as Class II areas during the wilderness review process, unless previously designated Class I in prior planning. Table 3-5 identifies current acreage in the District by VRM class.

Table 3-5. Visual Resource Management Classes by Acreage

VRM Class	Acreage
I	131,716
II	17,287
III	489,063
IV	646,774
Unclassified	115,160
Total	1,400,000

Source: Safford District Files

Areas of Critical Environmental Concern and Other Types of Special Management

The District currently has no designated Areas of Critical Environmental Concern. Through the San Pedro Riparian Management Plan (BLM 1989), however, three Research Natural Area Areas of Critical Environmental Concern were recommended and those recommendations will be carried forward and implemented in this Resource Management Plan (see Maps 21 and 22). The San Pedro Area of Critical Environmental Concern proposals are:

St. David Cienega designate 350 acres to preserve a remnant cienega for scientific research.

San Pedro River designate 1,340 acres to preserve a cottonwood/willow riparian area, mesquite bosques and Chihuahuan Desert scrub vegetation for scientific research.

San Rafael designate 370 acres to preserve an alkali and giant sacaton grassland and a cottonwood-willow riparian area for scientific research.

The Willcox Playa (2,475 acres, eight miles southwest of Willcox) is a National Natural Landmark and has been managed to preserve the Pleistocene lakebed since its designation.

During the planning process, 34 areas were nominated as Areas of Environmental Concerns for consideration in this Resource Management Plan. See Tables 3-6 and 3-7. Dual nominations were received on several areas the nominated areas. A brief description of their values, and the determination of whether the areas qualify for consideration as Areas of Environmental Concerns. Areas of Environmental Concern proposals are referenced for various alternatives throughout Chapter 2, with a more detailed analysis of each area in Appendix 2.

Wild and Scenic Rivers

As required by FLPMA and the subsequent Guidelines for Fulfilling Requirements of the Wild and Scenic Rivers Act, BLM must study rivers that qualify for potential addition to the National Wild and Scenic Rivers System. Two rivers in this area (the Gila and San Francisco) were identified by the National Park Service in 1982 as needing further study, and are addressed in this document as well (See Appendix 3).

The Wild and Scenic River study process involves making an eligibility, classification and suitability determination. This Resource Management Plan/ Environmental Impact Statement will address only eligibility and classification as required by the Guidelines and will defer the suitability determination until a later date due to the need for further public involvement. Only through the detailed suitability assessment and further public involvement will BLM make a recommendation through the Secretary of the Interior to Congress on suitable Wild and Scenic Rivers. Only Congress has the authority to designate a Wild and Scenic River through this process.

Wilderness

On November 28, 1990, the Arizona Desert Wilderness Act was signed by President George Bush. The District now has seven designated wilderness areas: Aravaipa Canyon, Redfield Canyon, Fishhooks, Needles Eye, North Santa Teresa, Peloncillo Mountains and Dos Cabezas mountains totalling 84,622 acres. The remainder of the wilderness study areas which were not declared wilderness are now released from further study and returned to multiple use. Baker Canyon still remains as a Wilderness Study Area, but will be considered in future New Mexico wilderness legislation or released for other uses. Although the Gila Box was released from future study as wilderness, Congress declared the area a Riparian National Conservation Area.

Table 3-6. Area of Critical Environmental Concern Nominations

Nominated Area	Values/Hazards Requiring Special Management	Qualified for Study?
1. Aravaipa Canyon	riparian veg., native fish, T&E, wildlife, water quality	yes
2. Bass, Hot Springs, & Redfield Canyons	riparian veg., native fish, T&E wildlife, water quality	yes
3. Bonita Creek	city water supply, native fish, riparian veg., cultural resources	yes
4. Black Rock	unique vegetation, T&E wildlife	yes
5. Day Mine	aquatic, riparian vegetation	no
6. Dry Spring	relict riparian area	yes
7. Eagle Creek	scenery, riparian veg., sensitive wildlife	yes
8. Fishhook Canyon	riparian vegetation	no
9. Gila Box	scenery, riparian, T&E wildlife, native fish, geologic formations, recreation, cultural resources	yes
10. Gila River Canyon below Coolidge Dam	riparian veg., T&E wildlife, scenery, geologic formations	no
11. Gila River Mesquite Bosque	remnant vegetation type	yes
12. Javelina Peak	paleontological, wildlife	no
13. Johnny Creek	scenery	no
14. Markham Creek	riparian veg., T&E wildlife	no
15. Mescal Creek	riparian veg., native fish	no
16. Mescal Mountains	relict desert grasslands, T&E plant	yes
17. Muleshoe Coop Management Area	riparian veg., T&E wildlife, native fish, water quality	yes
18. Pilaes and Sombrero Butte	relict desert grasslands	yes
19. Salt Creek	riparian veg., wildlife, cultural resources	no

Table 3-6. Area of Critical Environmental Concern Nominations

Nominated Area	Values/Hazards Requiring Special Management	Qualified for Study?
20. Swamp Spring Canyon	riparian veg., sensitive wildlife, native fish	yes
21. Sycamore Canyon	riparian veg., scenery	no
22. Turtle Mountain	wildlife, scenery	no
23. Trujillo Canyon	riparian veg., scenery	no
24. Turtle Mountain	relict desert grassland	no
25. Bear Springs Badlands	paleontological resources, scenery	yes
26. Red Knolls	natural hazard	no
27. Baker/Guadalupe Canyons	riparian, T&E wildlife, vegetation, scenery	yes
28. Bowie Mtn/Apache Pass	scenery, T&E wildlife, cultural resources	yes
29. Dos Cabezas Peaks	historic landmark, vegetation, scenery	yes
30. Government Peak	geologic formations, scenery, cultural resources	no
31. Happy Camp, Howell and Tar Box Canyons	scenery, historic sites, riparian	no
32. Peloncillo Mountains	geologic formations, cultural resources, wildlife, scenery	yes
33. San Francisco River	riparian, wildlife, native fish, cultural resources	no
34. San Simon Cienega	riparian wetland	no
35. Willcox Playa	natural landmark, T&E plants and wildlife, geologic formation, cultural resources	yes
36. Coronado Mountain	unique vegetation	yes
37. 111 Ranch	paleontological resources	yes

Source: Safford District Files

Table 3-7. District Wilderness Status

Location	Total Acreage
<i>Designated Wilderness</i>	
1. Needle's Eye	9,201
2. North Santa Teresa (Black Rock)	6,590
3. Fishhooks	10,883
4. Peloncillo Mountains	19,650
5. Dos Cabezas Mountains	11,988
6. Redfield Canyon (Galiuro Add.)	6,600
7. Aravaipa Canyon	19,710
<i>National Conservation Area</i>	
8. Gila Box Riparian NCA	20,900
9. San Pedro Riparian NCA	54,189
<i>Wilderness Study Area</i>	
10. Baker Canyon	812
11. Hoverrocker**	22 N.M. acreage
12. Peloncillo Mountains**	4,061 N.M. acreage
<i>Areas released from further study</i>	
13. Gila Box	17,831
14. Turtle Mountain	17,422
15. Day Mine	17,309
16. Javelina Peak	18,853
17. Bowie Mountain	6,156
18. Hoverrocker (Arizona)	2,769

*Entire WSA in New Mexico

Source: Safford District Files

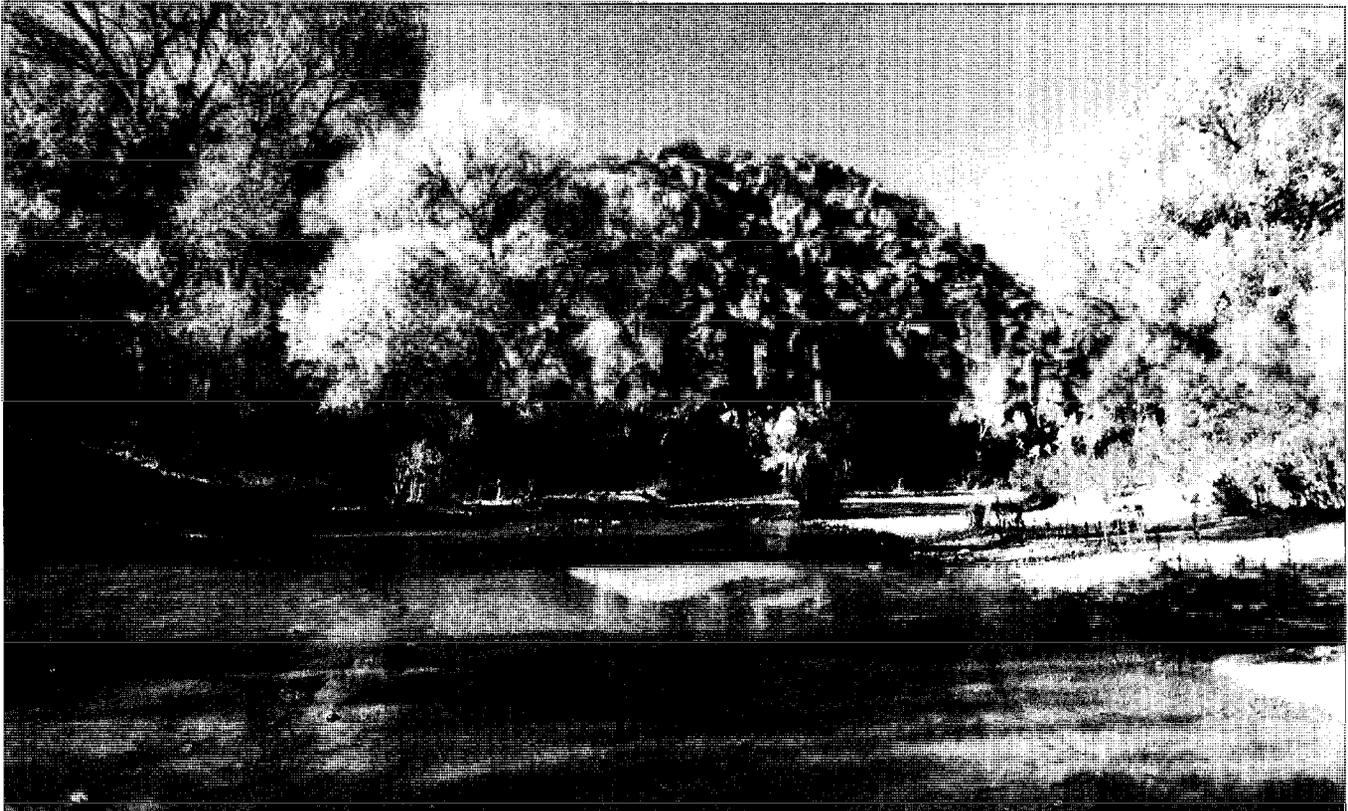
Fire Management

The fire management program in Safford District is separated into two different components, the wildfire suppression component and the prescribed fire component.

Wildfire During the past eight years, the District has averaged over 18 fires annually, burning slightly over 1,826 acres per year. These figures represent an increase from 10 fires each year and 1,310 acres per year for the previous 10 years. Increased frequency can be attributed to improved record keeping, an increase in winter and spring rainfall, and to increased



The coati spends hot summer afternoons napping in the shade of wooded canyons.



The San Pedro Riparian National Conservation Area, dedicated in 1989, is one of the best remaining desert riparian areas in the Southwest.

forage conditions due to intensive range management efforts brought about since the completion of the grazing EIS.

Present fire policy dictates that suppression action be taken on all fire starts, with the most intensive action taken when life, property or critical resources are threatened. Such areas have been delineated and planned for in the District Fire Management Plan.

One of the more critical vegetation types in the District is the Mixed Broadleaf Riparian. The components of this type are very susceptible to fire damage. Ordinarily, there are not enough contiguous fuels to successfully carry a fire very far and most fires in this type are small.

The more significant fires with respect to size occur in the scrub grasslands in the higher elevations, in the Sonoran Desert Scrub, in the higher elevations and in the Chihuahuan Desert Scrub. The amount of annual rainfall plays a very significant role in fire size and intensity, since rainfall affects the presence of fine fuels (grasses) needed to carry the fire from one area to the next.

Prescribed Fire has been used to a limited extent in the past for vegetation manipulation to reduce

heavy brush concentrations, to open areas for increases in grass species or better forage quality and to provide easier movement of both livestock and wildlife. Such fires are restricted to those times and places where control of the fire can be maintained. Certain conditions (prescriptions) must be met before ignition and maintained during the burning. Because of the difficulty of meeting prescription conditions, this technique of vegetation manipulation has not been extensively used. Where it has been used, however, the results have been favorable. Increased use of prescribed fire as a resource management tool is currently being planned.

Social and Economic Conditions

The Resource Management Plan socio-economic conditions of each of these counties. The source of the information is the *Arizona Statistical Review (Valley National Bank 1988)*.

Greenlee County Greenlee County, named for Mason Greenlee, an early southeastern Arizona pioneer, was created in 1909. Its topography consists of mountain ranges, river valleys and deserts. The County has a land area of 1,838 square miles. Land

ownership is 79 percent federal, 12 percent state and 9 percent private. The major communities are Clifton, the county seat, (4,215 people, 1988 estimate) and Duncan (690 people). The unincorporated mining town of Morenci is also located in the county. County population in 1980 was 11,406. The estimated population for 1988 was 9,500, a 17 percent decrease. Population projections for the year 2000 are 9,100, a continued decrease. Population density in 1988 was 5.2 people per square mile.

The principal industries of Greenlee County are copper mining and smelting, ranching and tourism. The following Table 3-8 shows employment figures.

Personal income totalled \$77,400,000 in 1986, down from previous years. Per capita income was \$9,003, 32 percent lower than the state average of \$13,300. Per capita income, however, was comparable or higher than previous years in Greenlee County. The following Table 3-9 shows economic indicators for Greenlee County.

Table 3-8. Employment in Greenlee County

Employment Status	Monthly Avg.-1987	June 1998
Total Employed	2,950	2,675
Unemployed Number	275	275
Rate (seasonally adjusted)	8.5%	9.7%
Non-farm Wage and Salary	3,175*	2,875
Manufacturing	25	75
Mining	1,575	1,600
Construction	625	225
Transportation & Public Utilities	50	50
Wholesale/Retail Trade	225	225
Finance, Insurance & Real Estate	25	25
Services	125	125
Government	525	550
Farm and Agricultural Related Wage & Salary and Self-Employed		No figures available.

*Many non-farm Wage and Salary employees work in Greenlee County but reside elsewhere.

Source: Arizona Statistical Review, Valley National Bank, 1998.

Table 3-9. Economic Indicators in Greenlee County

Indicator	1977	1987	% Change
Population	11,900	9,600	- 19.3%
Wage & Salary Employment	3,825	3,175	- 17.0%
Retail Sales	\$30,179,000	\$37,736,000	+ 25.0%
Bank Deposits	\$29,761,000	\$45,117,000	+ 51.6%
Vehicle Registrations	10,016	7,731	- 22.8%
Motor Fuel Consumption (gals.)	4,930,000	3,670,584	- 25.5%

Source: Arizona Statistical Review, Valley National Bank, 1988.

Graham County was probably named after Lieutenant Colonel Graham, a member of an 1850s survey party. The Gila River crosses the county from east to west and many farms flourish along its banks. The county has a land area of 4,630 square miles, with 22 square miles of water. Land ownership is 38 percent federal, 18 percent state, 37 percent Indian reservation and 7 percent private. The leading towns are Safford, the county seat, (7,755

people, 1988 estimate), Thatcher (3,485) and Pima (1,935). County population in 1980 was 22,862. The estimate for 1988 was 24,800, an increase of 8.5 percent. Population projections for the year 2000 are 26,300, an increase of 15 percent from 1980. Population density in 1988 was 5.4 people per square mile.

The principal industries of Graham County are farming and ranching, tourism and recreation. The following Table 3-10 shows employment figures.

Table 3-10. Employment in Graham County

Employment Status	Monthly Avg.-1987	1988
Total Employed	6,975	7,300
Unemployed		
Number	775	750
Rate (seasonally adjusted)	10.0%	9.1%
Non-Farm Wage and Salary	4,825	5,000
Manufacturing	200	200
Construction	175	200
Transportation & Public Utilities	150	150
Wholesale/Retail Trade	1,275	1,625
Finance, Insurance & Real Estate	125	125
Services	800	875
Government	2,100	1,825
Farm & Agricultural Related Wage & Salary and Self-Employed	2,150	2,300

Source: Arizona Statistical Review, Valley National Bank, 1988

Table 3-11. Economic Indicators in Graham County

Indicator	1977	1987	% Change
Population	21,000	24,700	+ 17.6%
Wage & Salary Employment	4,175	4,825	+ 15.6%
Retail Sales	\$71,241,000	\$78,427,000	+ 10.1%
Bank Deposits	\$59,342,000	\$98,779,000	+ 66.5%
Vehicle Registrations	14,727	18,083	+ 22.8%
Motor Fuel Consumption (gals.)	13,230,000	9,174,342	- 30.7%

Source: Arizona Statistical Review, Valley National Bank, 1988

Personal income totalled \$185,100,000 in 1986, higher than previous years. Per capita income was \$7,810, 41 percent lower than the state average of \$13,300. Per capita income, however, was higher than previous years in Graham County. Table 3-1 1 shows economic indicators for Graham County.

Gila County Gila County was named for the Gila River and is dominated by desert and mountainous terrain. The county has a land area of 4,752 square miles, with 41 square miles of water. Land ownership is 59 percent federal, 1 percent state, 37 percent Indian reservation and 3 percent private. The leading towns are Payson (7,745 people, 1988 estimate), Globe, the county seat (6,435), and Miami (2,545). County population in 1980 was 37,080. The estimate for 1988 was 40,500, an increase of 8.5 percent. Population projections for the year 2000 are 45,800, an increase of 19 percent from 1980. Population density in 1988 was 8.5 people per square mile.

The principal industries of Gila County are copper mining and smelting, ranching, lumber, tourism and recreation. The following Table 3-12 shows employment figures.

Personal income totalled \$357,200,000 in 1986, up steadily from previous years. Per capita income was \$8,997, 32 percent lower than the state average of \$13,300. Per capita income, however has increased from previous years. Table 3-1 3 shows economic indicators for Gila County.

Pinal County Pinal County probably received its name from the Western Apache word meaning deer. The county is divided into two distinct regions in geography and economy. The eastern part is characterized by mountains and copper mining. The western region is mainly low desert valleys and irrigated agriculture. The county has a land area of 5,344 square miles, with 30 square miles of water. Land ownership is 16 percent federal, 35 percent state, 23 percent Indian reservation and 26 percent private. The leading towns are Casa Grande (17,660 people, 1988 estimate), Apache Junction (15,950), Coolidge (7,720), Eloy (7,345), Florence, the county seat (6,890), and Superior (4,860). County population in 1980 was 90,918. The estimate for 1988 was 110,300, an increase of 17.5 percent. Population projections for the year 2000 are 149,100, an increase of 39 percent from 1980. Population density in 1988 was 20.6 people per square mile.

Table 3-12. Employment in Gila County

Employment Status	Monthly Avg.-1987	June 1988
Total Employed	10,800	10,900
Unemployed		
Number	1,500	1,350
Rate (seasonally adjusted)	12.2%	10.9%
Non-farm Wage & Salary	10,250	10,525
Manufacturing	1,300	1,325
Mining	1,275	1,375
Construction	675	600
Transportation & Public Utilities	425	400
Wholesale/Retail Trade	2,150	2,425
Finance, Insurance & Real Estate	275	275
Services	1,700	1,750
Government	2,450	2,375
Farm & Agricultural Related Wage & Salary and Self-Employed	550	375

Source: Arizona Statistical Review, Valley National Bank, 1999.

Table 3-13. Economic Indicators in Gila County

Indicator	1977	1987	% Change
Population	34,300	40,100	+ 16.9%
Wage & Salary Employment	10,075	10,250	+ 1.7%
Retail Sales	\$104,160,000	\$142,522,000	+ 36.8%
Bank Deposits	\$93,827,000	\$230,193,000	+145.3%
Vehicle Registrations	31,399	46,471	+ 48.0%
Motor Fuel Consumption (gals.)	20,443,000	20,059,033	- 1.9%

Source: Arizona Statistical Review, Valley National Bank. 1989

The principal industries of Pinal County are farming and ranching, copper mining, tourism and manufacturing. Table 3-1 4 shows employment figures.

\$13,300. Per capita income, however, has increased from previous years. The following Table 3-1 5 shows economic indicators for Pinal County.

Personal income totalled \$939 million in 1986, up steadily from previous years. Per capita income was \$9,170, 31 percent lower than the state average of

Cochise County Cochise County was named after the famed Chiricahua Apache leader. The county has a land area of 6,219 square miles. Land ownership is

Table 3-14. Employment in Pinal County

Employment Status	Monthly Avg.-1987	June 1988
Total Employed	33,425	33,675
Unemployed		
Number	4,175	3,275
Rate (seasonally adjusted)	11.1%	8.3%
Non-Farm Wage & Salary	28,900	20,100
Manufacturing	3,525	3,750
Mining	3,775	3,900
Construction	1,500	1,300
Transportation & Public Utilities	1,100	1,225
Wholesale/Retail Trade	5,125	5,250
Finance, Insurance & Real Estate	800	800
Services	4,175	4,200
Government	8,900	8,675
Farm & Agricultural Related Wage & Salary and Self-Employed	4,525	4,575

Source: Arizona Statistical Review. Valley National Bank. 1989

Table 3-15. Economic Indicators in Pinal County

Indicator	1977	1987	% Change
Population	87,100	107,200	+ 23.1%
Wage & Salary Employment	23,625	28,900	+ 22.3%
Retail Sales	\$276,745,000	\$362,742,000	+ 31.1%
Bank Deposits	\$163,348,000	\$477,941,000	+ 192.60%
Vehicle Registration	64,037	100,822	+ 57.4%
Motor Fuel Consumption(gal.)	43,824,000	65,373,638	+ 49.2%

Source: Arizona Statistical Review, Valley National Bank. 1988.

24 percent federal, 34 percent state and 42 percent private. The leading towns are Sierra Vista (34,290 people, 1988 estimate), Douglas (14,105), Bisbee, the county seat (8,065), Willcox (4,045) and Benson (3,975). County population in 1980 was 85,686. The estimate for 1988 was 102,400, an increase of 16 percent. Population projections for the year 2000 are 129,000, an increase of 33.5 percent from 1980. Population density in 1988 was 16.5 people per square mile.

The principal industries of Cochise County are farming and ranching, tourism and military. Table 3-16 shows employment figures.

Personal income totaled \$960,300,000 in 1986, up steadily from previous years. Per capita income was \$9,952, 25 percent lower than the state average of \$13,300. Per capita income, however, has increased from previous years. The following Table 3-17 shows economic indicators for Cochise County.

Table 3-16. Employment in Cochise County

Employment Status	Monthly Avg.-1987	June 1988
Total Employed	31,850	31,525
Unemployed		
Number	3,050	2,900
Rate (seasonally adjusted)	8.7%	8.3%
Non-farm Wage and Salary	24,700	24,600
Manufacturing	1,300	1,150
Mining	100	100
Construction	1,125	1,200
Transportation & Public Utilities	1,550	1,600
Wholesale/Retail Trade	5,425	5,375
Finance, Insurance & Real Estate	675	650
Services	4,350	4,525
Government incl. military	10,075	10,000
Farm & Agricultural Related		
Wage & Salary and Self-Employed	7,150	6,925

Source: Arizona Statistical Review, Valley National Bank 1988.

Table 3-17. Economic Indicators in Cochise County

indicator	1977	1987	% Change
Population	80,700	100,300	+ 24.3%
Wage & Salary Employment	18,900	24,700	+ 30.7%
Retail Sales	\$232,229,000	\$329,854,000	+ 42.0%
Bank Deposits	\$195,431,000	\$412,864,000	+111.3%
Vehicle Registrations	60,226	81,251	+ 34.9%
Motor Fuel Consumption (gals.)	50,297,000	40,721,989	- 19.0%

Source: Arizona Statistical Review, Valley National Bank 1998.

Payments in Lieu of Taxes (PILT) As required by law, the federal government makes a payment to each county that has federal lands (public land, national forest, national parks, etc.) in its boundaries. This payment is called a Payment in Lieu of Taxes and is made to compensate county governments for tax revenues that would be collected if federal lands were in private ownership. Table 3-18 identifies the payments that were made to the counties in the Safford District in 1990.

expanded as more and more people use these lands. There is an interest or advocacy group associated with nearly every program BLM manages. As such, public attitudes about how BLM manages the public lands cover the entire spectrum from support to opposition. Because there are so many uses of the public lands, there are many opportunities for user conflicts. As such, a decision that one user may find agreeable, may adversely affect or preclude the desired activity by another user.

Public Attitudes and Perceptions With the growth of the Bureau into intensive management of the multiple uses, BLM constituents have also grown. Public involvement in management of the public lands has

Table 3-18. PILT Payments by County in 1990

County	PILT Payment	1988 Est. Population	Federal Entitlement Acres
Cochise	\$611,561	102,400	955,238
*Gila	706,085	40,500	1,794,355
Graham	589,379	24,800	1,126,016
Greenlee	89,769	9,500	929,292
* Pinal	359,429	110,300	940,851

*Only parts of these counties are in the Safford District

Source: Safford District Files

Introduction

Chapter 4 identifies the significant environmental consequences of implementing specific actions proposed in each alternative, including the *Preferred Alternative*. The level of analysis for each element of the environment depends on the degree of impact expected. Each specialist evaluated the environmental consequences of the actions in every alternative to determine the degree of impact that was anticipated. These determinations form the basis of this chapter. The interdisciplinary team concluded that no significant impacts would occur to topography, air or climate. They will not be addressed further in this document.

Approval of all actions recommended in the alternatives will be subject to: (1) the completion of the appropriate type of National Environmental Policy Act document (Administrative determination, Categorical Exclusion Record, Environmental Assessment or Environmental Impact Statement) and (2) clearances as required by the Endangered Species Act, etc.

Assumptions

The impact analysis was based on the following assumptions:

1. Funding and personnel would be available to fully implement any alternative.
2. The definition of long-term is 5 years or more. All impacts are long-term unless otherwise noted.
3. Native American religious practices shall receive due consideration under the provisions of the *American Indian Religious Freedom Act*.
4. National Environmental Policy Act compliance documents will be prepared to determine the significance of environmental impacts from the implementation of activity plans or site-specific actions.
5. Inventories for cultural resources and Native American values will occur on areas of proposed land uses. Protection of significant values will occur through avoidance and mitigative actions. Compliance with Section 106 of the *National Historic Preservation Act of 1966* and its implementing regulations in 36 CFR 800 will be completed before starting specific projects resulting from decisions in this plan.
6. All impacts are direct unless otherwise noted.

7. Only those effects that are significant are listed. Positive effects are called benefits and adverse effects are called impacts.

Effects of the Alternatives on the Environment

Alternative A (Preferred Alternative)

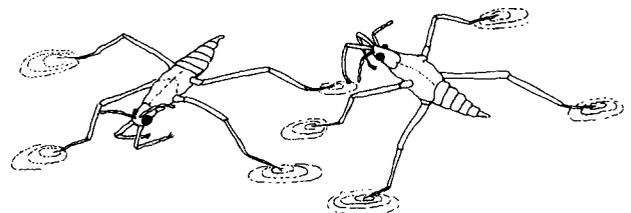
Water - Management prescriptions for four Areas of Critical Environmental Concern totalling 17,734 acres would provide low benefits to both water quality and quantity. Preservation of these areas would provide protection of water quality by reducing erosion and sedimentation, while promoting vegetation growth.

Withdrawal from mineral entry (2,411 acres), prohibition of surface occupancy for mineral leasing activities (6,869 acres) and prohibition of mineral material sales (6,869 acres) could give low benefits to water quality. This is because potential surface disturbances associated with these activities would not occur, thereby reducing sedimentation in local waters.

Restricting off highway vehicles to existing roads and trails or prohibiting use in certain areas (1,398,592 acres) would provide low benefits to water quality by reducing soil erosion and sedimentation in streams and rivers in the District.

Soil - The construction of Timber Draw detention dam and the repair of Oso Largo detention dam would prevent approximately 500 acre-feet of soil from leaving the watershed each year. The Timber Draw dam would accelerate the filling of the eroded San Simon River channel, and the repair of Oso Largo detention dam would rehabilitate eroded areas in Bear Springs Wash. These actions would have a moderate benefit.

Limiting off highway vehicles to existing roads and trails in most of the District would reduce soil erosion, a



low benefit. The designation of the Hot Well Dunes (1,708 acres) as open for off highway vehicle use would cause accelerated erosion on those acres, a localized low impact.

Riparian Vegetation - Management prescriptions for the Areas of Critical Environmental Concern containing riparian vegetation (Gila Box Outstanding Natural Area, Turkey Creek Riparian, Swamp Springs-Hot Springs Watershed and Guadalupe Canyon Outstanding Natural Area) would highly benefit riparian areas. Over 1,500 acres and 40 miles of riparian vegetation would improve one condition class.

Actions limiting vehicle use to existing roads and trails would provide high benefits to riparian vegetation by limiting disturbance from vehicles.

Disposal actions would have an insignificant impact on riparian systems since less than 25 acres of riparian areas would be removed from BLM management. Acquisitions would add to the riparian system, offsetting the 25-acre loss. These planned acquisitions would give moderate benefits by providing additional management and protection. Acquisition of in-stream

flow water rights would give high benefits to five riparian areas involving 350 acres by ensuring continued streamflow for riparian vegetation protection and survival.

Use of no surface occupancy stipulations for mineral leasing activities in riparian areas (2,411 acres) would provide low benefits to riparian vegetation because activities that would disturb the vegetation would not be permitted. Mineral leasing activities would have to occur out of the riparian zone.

Upland Vegetation - Land treatments would have a low benefit to vegetation. Generally, only small areas (less than 2,000 acres each) are thought to be suitable for land treatment. The lack of adapted plant species, discontinuous fuels, topographic limitations and economic considerations all make large-scale land treatments impractical.

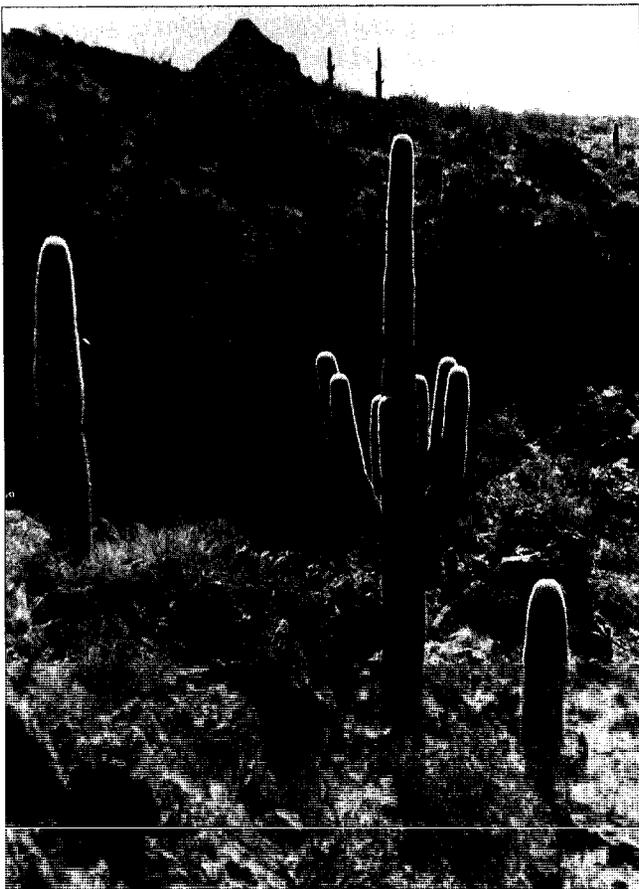
Restricting off highway vehicles to existing roads and trails or prohibiting use in certain areas (1,310,713 acres) would provide low benefits by protecting vegetation from vehicular disturbance.

Wildlife Habitat - Areas of Critical Environmental Concern designation of nine areas totalling 26,861 acres would give protection and moderate benefits to 18 wildlife species by increasing and improving habitat. Management of Gila Box Outstanding Natural Area, Turkey Creek Riparian, Swamp Springs-Hot Springs Watershed, Dos Cabezas Peaks, Guadalupe Canyon Outstanding Natural Area, and Eagle Creek Bat Cave Areas of Critical Environmental Concern would give high benefits to wildlife habitat by preserving unique habitat (bat cave, etc.) or riparian ecosystems. Designation of Table Mountain Research Natural Area, Desert Grasslands Research Natural Area, Bowie Mountain Scenic and Coronado Mountain Research Natural Area Areas of Critical Environmental Concern would provide low benefits to wildlife habitat by protecting necessary habitat from disturbances.

Designation of bighorn sheep lambing areas as limited or closed to off highway vehicle use would provide high benefits to the sheep by reducing disturbances, thereby increasing lamb survival. off highway vehicles limitations and closures would highly benefit 17 priority wildlife species and their habitat.

Management actions planned for priority wildlife species (spring protection, prescribed burning, etc.) and habitats would have a moderate benefit to wildlife.

Land acquisitions would provide high benefits to wildlife by providing more land under BLM management. Withdrawal of 9,829 acres from mineral entry, NSO



Canyons in the foothills of the Gila Mountains mark the easternmost range of the saguaro.

stipulations on 14,052 acres and no mineral materials sales on 12,371 acres would provide high benefits to wildlife habitat by protecting it from disturbance.

Acquisition of water rights would legally ensure a water supply in five streams, affecting 15 priority species. This would result in a moderate benefit.

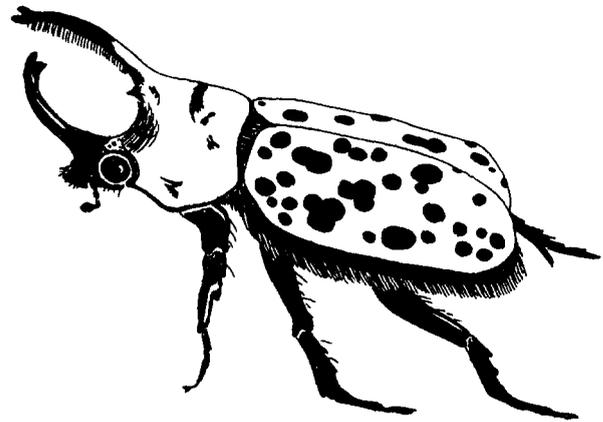
Cultural/Paleontological Resources - Withdrawal from mineral entry, no surface occupancy stipulations and closure to mineral material sales would highly benefit the paleontological and cultural resources on 2,927 acres of the Bear Springs Badlands Area of Critical Environmental Concern. Areas of Critical Environmental Concern management prescriptions for six areas, totalling 14,716 acres, would provide moderate benefits to cultural resources through protective actions. The action to close three Areas of Critical Environmental Concern (the Oak Grove Canyon part of Turkey Creek Riparian, Desert Grasslands Research Natural Area and Willcox Playa National Natural Landmark) to vehicles would moderately benefit cultural resources, preventing damage associated with vehicular use and visitor accessibility.

Construction of Timber Draw Dam would cause high impacts to a potentially eligible National Register Archaeological District containing 37 archaeological sites on 1,300 acres. Impacts would be primarily from loss of scientific data due to burial of archaeological resources, inundation and construction effects. Impacts would be reduced through intensive mitigation prior to construction.

Socio-economic - Withdrawal from mineral entry of 9,829 acres, no surface occupancy stipulations on 14,052 acres and the prohibition of mineral material sales on 12,371 acres would generally have, on a districtwide basis, a low impact on the economy, by precluding mineral exploration and extraction.

The only proposed mineral withdrawal in a highly "favorable area" (terminology by the U.S. Bureau of Mines) is the Coronado Mountain Area of Critical Environmental Concern, located on the western margin of the Copper Mountain mining district. This is a relatively large district, noted mostly for its porphyry copper deposits. Impacts to the mining industry should not be significant however, since the Area of Critical Environmental Concern occupies only 120 acres on the margin of the mining district and the district itself covers over 50 square miles.

Four of the areas proposed for mineral entry withdrawal are in areas of "moderately favorable" potential (Bureau of Mines terminology). Two of these (Eagle Creek Bat Cave Area of Critical Environmental Con-



cern and Yuma Wash) are less than 200 acres. Because very little land would be withdrawn, the impact on mining would be low in these areas. The other two areas (Bowie Mountain Scenic and Table Mountain Research Natural Area Areas of Critical Environmental Concern) are fairly large (1,220 and 2,230 acres respectively) and these could have a moderate to high impact on mining. The rest of the lands proposed for mineral withdrawal are not in areas with known potential and would, therefore, have a minimal impact on the industry.

Although there has been no production, the leasable minerals, oil, gas and geothermal energy are considered by the BLM to be prospectively valuable in scattered areas throughout the District. While all public lands (except wilderness areas) are open to the mineral leasing laws, a few areas would have no surface occupancy stipulations. These stipulations would have essentially no impact on geothermal activity since all such areas are either small (no larger than 160 acres) or are located along riparian zones.

This same situation holds true for prospectively valuable oil and gas lands except for the Bear Springs Badlands Area of Critical Environmental Concern. The relatively large size of this Area of Critical Environmental Concern (2,927 acres) probably precludes all of its lands being reached by the drill bit and thus the no surface occupancy stipulations for this Area of Critical Environmental Concern could have a moderate impact on the oil and gas industry in the District.

Mineral materials such as sand and gravel are common throughout the District, and even with restrictions on their sale in a few areas, no shortages are expected. The largest impact to the mineral materials industry would be the restrictions of such sales in riparian zones. However, given the ample supplies of these materials in the numerous dry washes in the district, such impacts should be insignificant.



Great horned owls are a common nocturnal raptor in southwestern Arizona.

The local economy would receive low benefits from the designation of Areas of Critical Environmental Concern and wilderness. Designation of these areas would result in increased primitive recreation use, adding to the diversification of tourism economies in the local communities. Areas of Critical Environmental Concern designations would result in the loss of 2,760 animal unit months of grazing.

The impacts to the economy on a districtwide basis from the disposal of 99,670 acres of public lands would be low. Any potential impacts from disposal would be offset by the benefits to the economy from acquisition of 108,562 acres.

Conclusion

The selection of this alternative would give moderate to high benefits to paleontological and cultural resources through the protection measures provided by Area of Critical Environmental Concern designation. The construction of Timber Draw Dam would cause high impacts to archaeological sites in the project area.

The implementation of the *Preferred Alternative* would provide moderate to high benefits to wildlife habitat and riparian vegetation through protection of habitat in Areas of Critical Environmental Concern management prescriptions. Restrictions on off highway vehicle use and mining and mineral leasing activities would also

have high benefits for wildlife habitat by minimizing disturbance to wildlife and their habitat.

Restrictions on mining, mineral leasing activities and off highway vehicle use would provide low benefits to soil and water quality. Construction or repair of detention dams would have a moderate benefit to soil retention in the San Simon River channel and the Bear Springs Flat area. Upland vegetation would receive low benefits from land treatments and restrictions on off highway vehicles use.

Mineral withdrawals, no surface occupancy stipulations, and restrictions on mineral material sales would have a low impact on segments of the local economy dealing with minerals extraction and exploration on a districtwide basis.

Alternative B

Water - Management prescriptions for four Areas of Critical Environmental Concern, totalling 78,522 acres, would give low benefits to water quality and quantity. Actions that restrict vehicles to existing roads and trails (1,309,646 acres) or deny their use (90,354 acres) would provide low benefits to water resources by reducing the silt in runoff. Withdrawal from mineral entry (17,220 acres), no surface occupancy stipulations for mineral leasing (21,729 acres), and prohibition of mineral material sales (21,948 acres) would reduce soil disturbance, providing moderate benefits for water quality.

Soil - Restrictions of vehicles to existing roads and trails or denying their use on 1,400,000 acres would provide a low benefit to soil by reducing soil disturbance and erosion. The construction of Timber Draw Dam and reconstruction of Oso Largo Dam would help regrade eroded areas and reduce soil erosion by about 500 acre feet per year causing a moderate benefit.

Riparian Vegetation - Management of four Areas of Critical Environmental Concern would protect over 8,455 acres of riparian vegetation. These actions would provide a high benefit to riparian vegetation.

Restricting vehicles to existing roads and trails or prohibiting their use in some areas would give a low benefit to riparian zones by minimizing vegetation disturbance.

Private land acquisitions would increase riparian vegetation under BLM management, a moderate benefit. Requiring no surface occupancy stipulations for mineral leases on 2,397 acres of riparian vegetation

would provide low benefits by protecting it from the disturbance of mineral leasing activities.

Unique Waters designations and acquisition of instream flow water rights would provide moderate benefits to riparian vegetation by ensuring a minimum continual flow needed to maintain riparian vegetation communities.

Upland Vegetation - Management prescriptions for Aravaipa Watershed and Muleshoe Riparian Areas of Critical Environmental Concern (72,684 acres) would enhance the vegetation by increasing the density and diversity of species and result in a low benefit to vegetation. Any successful revegetation method implemented on the Bear Springs Flat area that increases vegetation would provide low benefits.

Limiting or denying off highway vehicle use on 1,400,000 acres would provide low benefits to upland vegetation by protecting it from destruction by vehicles.

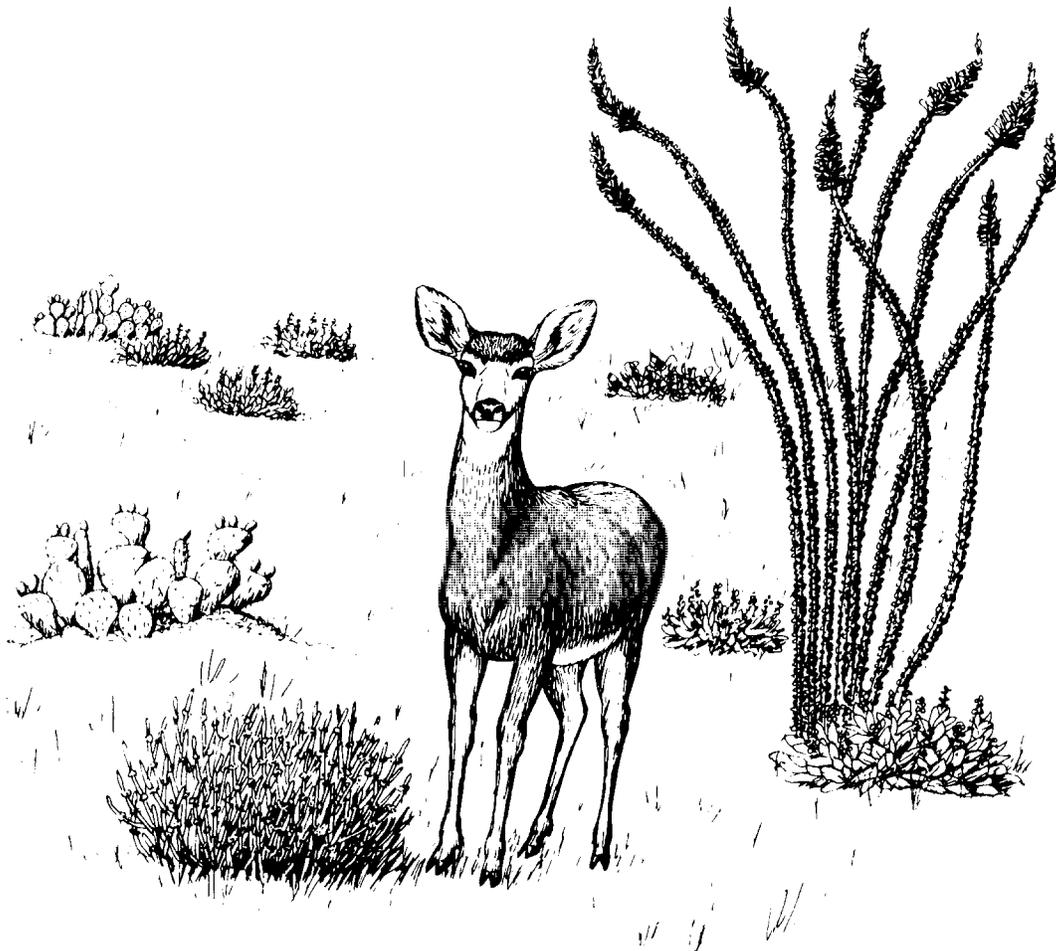
Wildlife Habitat - Designation and management of Gila Box Outstanding Natural Area, Muleshoe, Guadalupe Canyon Outstanding Natural Area, Eagle Creek Canyon, Dos Cabezas Peaks and Bowie Mountain Scenic Areas of Critical Environmental

Concern (80,279 acres total) would moderately benefit wildlife habitat. Management prescriptions for these areas provide for monitoring water quality, improving riparian vegetation and placing restrictions on mining activities. These prescriptions would benefit 15 priority wildlife species and their habitat.

Closing bighorn sheep lambing areas to vehicles would provide high benefits to the sheep by reducing disturbances during critical periods. Off highway vehicle limitations and closures would highly benefit 36 priority wildlife species and their habitat.

Management actions planned for priority wildlife species and habitats (spring protection, prescribed burning, etc.) would give a moderate benefit to wildlife.

Disposal of 67,716 acres of public lands would have negligible districtwide effects on wildlife habitat since the criteria for disposal would not permit lands with high-quality habitat to be traded or sold. In addition, approval of disposal actions will have National Environmental Policy Act compliance documentation. Acquisition of state or private lands having wildlife habitat would supply high benefits since these lands would be managed by BLM for the benefit of wildlife.





Withdrawal from mineral entry in seven areas (12,652 acres) would highly benefit all priority species through protection of their habitat from mining activities. Prohibiting mineral material sales on 21,948 acres would provide habitat protection for 17 species, a moderate benefit. No surface occupancy stipulations (21,669 acres) would give moderate benefits for 15 species.

Monitoring water quality would give moderate benefits for 17 species in riparian areas by increased water quality protection.

Cultural/Paleontological Resources - Withdrawal from mineral entry, no surface occupancy stipulations and closure to mineral material sales would highly benefit paleontological resources on 4,127 acres of the Bear Springs Badlands Area of Critical Environmental Concern. Proposed minerals restrictions on other public lands elsewhere in the District would give moderate benefits to cultural resources by eliminating activities that would damage the resource.

Area of Critical Environmental Concern management prescriptions for seven Areas of Critical Environmental Concern, totalling 35,899 acres, would provide moderate benefits to cultural resources through protective actions. The closure of two Areas of Critical Environmental Concern to vehicles would moderately benefit cultural resources by preventing damage associated with vehicular use and visitor accessibility.

Construction of Timber Draw Dam would cause high impacts to a potentially eligible National Register Archaeological District containing 37 archaeological sites on 1,300 acres. Impacts would be primarily from loss of scientific data due to burial of archaeological resources, inundation and construction effects. Impacts would be reduced through intensive mitigation prior to construction.

Socio-economic - Area of Critical Environmental Concern designations and additions to wilderness would cause low benefits to the local economy by diversifying recreation opportunities in the area.

Withdrawal from mineral entry of 12,652, no surface occupancy stipulations of 21,669 acres and the prohibition of mineral materials sales on 21,948 acres would generally have a low impact on the economy because of the extensive nature of the resource within the District.

Six of the areas proposed for withdrawal are in areas having moderately favorable potential (Bureau of Mines terminology). Coronado Mountain, Eagle Creek, Bowie Mountain Scenic, and Table Mountain Research Natural Area Areas of Critical Environmental Concern and Yuma Wash range from 160 to 3,600 acres and due to the total amount of acreage, the impact on mining would be moderate to high on those lands in the district having moderately favorable potential. The rest of the lands proposed for mineral withdrawal are not in areas with known potential and would, therefore, have a minimal impact on the industry.

Geothermal sources are the only known leasable energy potential. This occurs in scattered areas throughout the District. Six Areas of Critical Environmental Concern, particularly the Gila Box Outstanding Natural Area Area of Critical Environmental Concern, have geothermal energy potential. Impacts to the geothermal industry, however, would be minimal because of the no surface occupancy stipulations in five of the Areas of Critical Environmental Concern. No restrictions on leasing are placed on the sixth, the Swamp Springs-Hot Springs Watershed Area of Critical Environmental Concern. Although the no surface occupancy stipulation prohibits drilling in the Areas of Critical Environmental Concern, standard directional drilling practices are allowed from outside the Areas of Critical Environmental Concern.

Mineral materials are found throughout the District and no shortages are expected.

Impacts to the economy from disposal of public lands would be low. When public lands are exchanged or sold, there could be a decrease in the Payment in Lieu

of Taxes payment because of the decrease in the acreage of federal land in a county. When public land is exchanged with the state, the loss of Payment in lieu of Taxes money is mitigated by a payment made by the state. State law SB-1231, approved by the Governor on July 13, 1988, provides counties with a payment similar to the federal Payment in lieu of Taxes payment. When public land is transferred to private ownership, the loss of Payment in lieu of Taxes money is compensated by the addition of these lands to the property tax rolls.

Conclusion

The implementation of this alternative would provide high benefits to paleontological resources by protecting known fossil deposits. Moderate benefits would be gained for wildlife habitat, riparian vegetation, cultural resources and soils. Low benefits would result to upland vegetation. The construction of Timber Draw Dam would result in high impacts to archaeological sites in the project area. Low economic impacts would result from mineral restrictions. Low economic benefits would result from Areas of Critical Environmental Concern and wilderness recreation use.

Alternative C

Water - Protective management prescriptions for three Areas of Critical Environmental Concern, totalling 27,225 acres, would result in low benefits to water quality and quantity. Designation of 1,257,513 acres open to off-highway vehicle use would result in water quality and quantity impacts that would range from minimal to high depending on the amount of use in any particular area. Impacts would be due to increased sedimentation caused by soil erosion.

Soil - Restricting vehicles to existing roads and trails (88,931 acres) or denying their use (85,384 acres) would have low benefits to soil by reducing disturbance and erosion. The construction of Timber Draw dam and reconstruction of Oso Largo Dam would help regrade eroded areas and reduce soil erosion in floodplains by about 500 acre-feet per year. This would be a moderate benefit.

Riparian Vegetation - Management prescriptions for three Areas of Critical Environmental Concern would increase riparian vegetation quality from fair to good on 460 acres and maintain or improve other areas in good or better condition, a moderate benefit. Acquisition of in-stream flow water rights on five perennial streams and four intermittent streams would provide moderate benefits by assuring a minimum flow of water needed for riparian plant species.



Designation of most of the District as open for off-highway vehicle use would cause moderate impacts to 35 riparian areas that would be used by off highway vehicles. Acquisition of state and private lands through exchange would give moderate benefits by the addition of riparian vegetation to public ownership and BLM management.

No surface occupancy stipulations for mineral leasing activities on 570 acres of riparian vegetation would provide a low benefit to riparian areas. Activities that would disturb riparian areas would not be permitted, unless located outside these areas.

Upland Vegetation - The objective of land treatments is to decrease invading woody plants and increase grasses and forbs for wildlife, watershed condition and livestock. Proposed land treatments would have low benefits on upland vegetation communities. Designation of 1,257,513 acres as open to off-highway vehicle use would have a range of impacts from minimal to high depending on the level of off-highway vehicle use in a particular area. The impacts on upland vegetation would be direct effects of vehicles on the vegetation resource.

Wildlife Habitat - Designation of 10 Areas of Critical Environmental Concern, totalling 42,988 acres, would provide moderate benefits to wildlife habitat by protecting against disturbance and loss of habitat.

Designating 57,214 acres as limited to existing roads and trails for off-highway vehicle use and 85,273 acres as closed would provide moderate benefits to 16 priority species by limiting or eliminating disturbance from vehicular use. Designating the remainder of the



area open to off highway vehicles would have impacts varying from low to high depending on the intensity and extent of use.

Any low impacts caused by disposal actions would be mitigated through actions developed in approved site-specific disposal plans. Each of these plans must comply with National Environmental Policy Act requirements. High benefits would result from acquisition of habitat through state and private exchanges.

Establishment of right-of-way exclusion areas in Guadalupe Canyon Outstanding Natural Area, Coronado Mountain Research Natural Area, and 111 Ranch Research Natural Area Areas of Critical Environmental Concern would result in low benefits to wildlife by prohibiting construction of pipelines, powerlines or roads that would disturb habitat.

Withdrawal from mineral entry of 2,562 acres, issuing mineral and energy leases with no surface occupancy stipulations on 7,525 acres and prohibiting the sale of mineral materials on 4,316 acres would result in low benefits for 11 priority species by protecting their habitat from disturbance.

Acquisition of instream flow water rights on five perennial streams and four intermittent streams would provide low benefits to three priority species.

Cultural/Paleontological Resources - Requiring no surface occupancy stipulations for three archaeological sites (totalling 320 acres) would provide a low benefit to the protection of these sites. Activities associated with mineral leasing would have to take place off-site, eliminating any possible disturbance to cultural resources. Management prescriptions (limiting off highway vehicle use, requiring mining plan, etc.) for four Areas of Critical Environmental Concern, totalling 8,553 acres, would provide moderate benefits to cultural and paleontological resources.

Designating most of the District (1,257,513 acres) open to off highway vehicles use would have localized low to

high impacts to cultural resources due to the possibility of increased soil erosion, theft, vandalism and destruction of sites by vehicles. Limiting off highway vehicles to existing roads and trails or closing areas to vehicles in the remainder of the District would provide low benefits to cultural resources by preventing damage associated with vehicular use and visitor accessibility.

Construction of Timber Draw Dam would result in high impacts to a potentially eligible National Register Archaeological District that contains 37 archaeological sites on 1,300 acres. Impacts would be caused primarily from loss of scientific data due to burial of archaeological resources, inundation and construction effects. Impacts would be reduced through an intensive mitigation effort prior to construction.

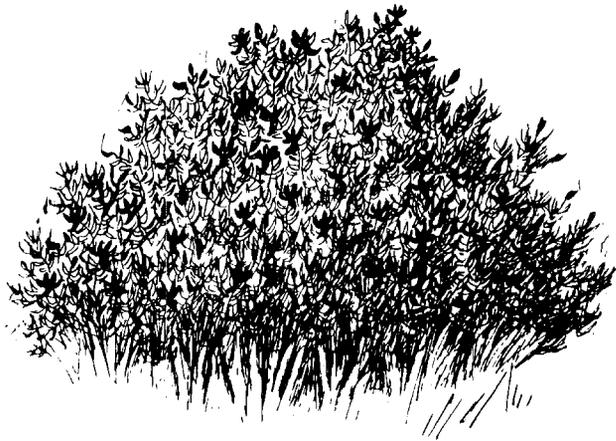
Socio-economic - There would be withdrawal from mineral entry of 2,411 acres, no surface occupancy stipulations on 7,525 acres and the prohibition of mineral material sales on 4,316 acres. Because this is a relatively small amount of land the impacts on the Districtwide economy would be low.

One area proposed for withdrawal, Bowie Mountain Scenic Area of Critical Environmental Concern, is in an area having "moderately" favorable potential (Bureau of Mines terminology). Because only 2,411 acres of the entire District are proposed for withdrawal from mineral entry, the impact on the mining industry and the economy would be low. The rest of the land proposed for mineral withdrawal are not in areas with known potential and would, therefore, have a minimal impact on the industry.

No leasable mineral withdrawals are proposed under this alternative. Four Areas of Critical Environmental Concern have geothermal energy potential. Geothermal sources which occur in scattered areas throughout the district are the only known leasable energy potential. Impacts to the geothermal industry, however, would be minimal because of the no surface occupancy stipulations. No restriction on leasing are placed on the sixth, the Muleshoe Riparian Area of Critical Environmental Concern. Although the NSO stipulation prohibits drilling in the Area of Critical Environmental Concern, standard directional drilling practices are allowed.

Mineral materials are found throughout the District and no shortages are expected.

Impacts to the economy on a Districtwide basis from disposal of 99,670 acres of public lands would be low. Any potential impacts from disposal would be offset by the benefits to the economy from acquisition of 97,190 acres.



Conclusion

Management of Areas of Critical Environmental Concern would provide moderate benefits to riparian vegetation and cultural and paleontological resources. Off highway vehicle use, however, would cause localized moderate to high, and possibly significant impacts to riparian areas, wildlife habitat and cultural and paleontological resources from disturbance caused by vehicles. The construction of Timber Draw dam would result in high impacts to archeological sites but moderate benefits to soils by regrading a highly eroded area.

Mineral entry withdrawals, no surface occupancy stipulations for mineral leasing and prohibiting mineral material sales would provide low benefits to riparian vegetation, wildlife and their habitat and cultural and paleontological resources.

The mineral industry would realize few impacts due to decreased opportunities from withdrawals of 2,411 acres from mineral entry and mineral materials restrictions on 4,316 acres of riparian habitat.

Alternative D No Action

Water - Restricting vehicles to existing roads and trails would reduce erosion, giving low benefits to water quality. Actions taken to protect desert washes would enhance vegetation cover and provide low benefits to water quality by reducing soil erosion. Construction of water control facilities would provide moderate benefits to water quality by reducing the rate of runoff, thereby decreasing the amount of erosion and sediment in the water.

Soil - Restricting vehicles to existing roads and trails would provide low benefits to soil by reducing the amount of erosion caused by physical disturbance of soil surfaces and the destruction of vegetation. Devel-

oping grazing management plans would moderately benefit soils by increasing vegetation density and diversity.

Construction of the Timber Draw Detention Dam would moderately benefit soil by reducing erosion. This construction would reduce soil loss by about 300 acre-feet per year. A low benefit would be achieved through the use of vegetation manipulation on the Bear Springs Flat area. Increasing vegetation cover would reduce erosion.

Riparian Vegetation - Management of riparian areas as Areas of Critical Environmental Concern would moderately benefit riparian vegetation through management prescriptions designed to improve and protect riparian vegetation. These designations would benefit 60 riparian areas covering about 1,267 acres. Management of livestock grazing in riparian areas would highly benefit those areas by providing for improved seedling establishment and increased survival of young plants.

Protection of vegetation cover from livestock grazing at natural and artificial waters would provide low benefits to riparian vegetation.

Designating off-highway vehicle use as limited to existing roads and trails would give low benefits to riparian areas by reducing vegetation disturbance caused by off-highway vehicles.

Low benefits to 570 acres of riparian vegetation through the imposition of no surface occupancy stipulations.

Upland Vegetation - Restricting vehicles to existing roads and trails would give low benefits to vegetation by reducing the disturbance caused by off highway vehicles. Continued development of livestock grazing systems, construction of water control facilities and application of land treatments would give low benefits to vegetation by preventing its destruction and encouraging increased vegetation density and vigor.

Effective wildfire suppression, in the long term, would not allow the natural development of vegetation diversity and control of shrubs by natural fire. In the short term, wildfire suppression would provide low benefits by protecting wildlife habitat and livestock forage from destruction. Vegetation manipulation in the Bear Springs Flat area would give low benefits to the vegetation density and diversity.

Wildlife Habitat - Management of riparian areas as Areas of Critical Environmental Concern would moderately benefit wildlife species due to the protection of

riparian habitat. Management prescriptions for Mescal Creek and the Gila River would provide a moderate benefit to 17 priority wildlife species found in those areas. Protection or enhancement of riparian areas would moderately benefit wildlife species dependent upon that habitat type.

Actions to retain or acquire lands important to wildlife would provide high benefits depending on the wildlife habitat types involved. Providing livestock management, by limiting numbers and season of use, on 10 ephemeral allotments would highly benefit desert tortoise habitat by providing adequate forage at critical times. Off-highway vehicle limitations and closures would highly benefit wildlife habitat.

Providing protection of vegetation around natural and artificial waters would provide moderate benefits to wildlife by providing critical food and cover.

Management of Bonita Creek for Safford's water supply would moderately benefit wildlife by ensuring continued water supply.

Cultural/Paleontological Resources - Restricting vehicles to existing roads and trails would moderately benefit cultural and paleontological resources. Those actions designed to protect riparian areas would provide moderate benefits to cultural and paleontological resources since riparian areas typically have high concentrations of historic and prehistoric archaeological sites.

Development of water control facilities in the lower elevations of the Gila Mountains, Bear Springs Flat and Ashurst area would give low benefits to cultural and paleontological resources by reducing soil erosion that destroys the resources. Construction of Timber Draw dam would result in high impacts to a potentially eligible National Register Archaeological District that contains 37 archaeological sites on 1,300 acres. Impacts would be primarily from loss of scientific data due to burial of archaeological resources, inundation and construction effects.

Socio-economic - There would be no measurable benefits or impacts to the existing environment from implementation of this alternative.

Conclusion

Continuation of current management practices would provide low benefits to water resources by controlling off highway vehicle activity that causes soil erosion and sedimentation of streams and rivers. This alternative would also provide moderate benefits to soil, wildlife

habitat, riparian vegetation and cultural and paleontological resources. The construction of Timber Draw Dam would result in high impacts to archaeological sites in the project area.

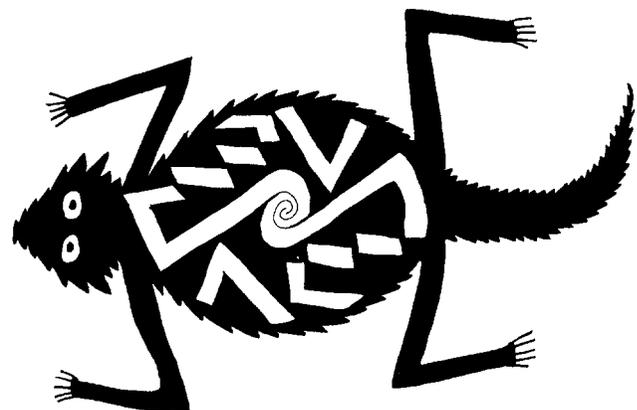
Mining and mineral leasing restrictions would cause low impacts to the economy. Designation of Areas of Critical Environmental Concern would provide low benefits to the economy of local tourism industries.

Mitigating Measures

No specific mitigation measures have been identified in this Resource Management Plan/Environmental Impact Statement that would reduce the anticipated impacts of implementing the Preferred Alternative. Mitigation will be incorporated when BLM begins implementing the specific actions of the Resource Management Plan. At that time, an environmental assessment will be prepared to analyze the expected impacts of each project and identify needed mitigation measures to deal with those impacts.

Unavoidable Adverse Impacts

The following impacts are expected to remain when the Preferred Alternative is implemented and the mitigation measures developed by BLM are applied. Closure of Areas of Critical Environmental Concern to mineral entry, mineral leasing or mineral material sales would result in low impacts to the local economy.



Cumulative Impacts

Since 1970 the administration of public lands in the Safford District has been governed by a number of Management Framework Plans. Although some of the Management Framework Plans were developed prior to National Environmental Policy Act and the Council on Environmental Quality Regulations, a review completed in 1981 by Arizona State Office specialists indicated all were in compliance with the Council on Environmental Quality regulations.

Thus, BLM public land management in the Safford District has fully conformed to the spirit and intent of National Environmental Policy Act. Public participation in issue identification and review has been used in developing 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 National Environmental Policy Act and the Council on Environmental Quality regulations, BLM plans for the past 20 years have undergone intergovernmental consultation and coordination, and a governor's 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 1610.2 and 1610.1) no significant cumulative adverse effects on this or other plans, or from this or other plans are anticipated in the foreseeable future.

Short-Term Use versus Long-Term Productivity

Proposed disposals of public land would increase resource management efficiency during the short and long term. Acquisitions, through state and private exchanges, would also improve the management efficiency of the public lands.

Proposed land treatments and detention dams would destroy vegetation in the short term but would improve productivity of the land in the long term. Firewood cutting would increase the short-term use of the cutting areas but would not affect long-term productivity.

Irreversible and Irretrievable Commitments of Resources

Implementation of the Preferred Alternative would cause the following irreversible and irretrievable commitments of resources. Soil erosion, caused by off highway vehicle use on 1,708 acres designated open, would be an irreversible and irretrievable commitment of resources.

Land disposals would cause the permanent loss of those lands from public use because most disposals are by state or private exchange. Inadvertant disposal of lands containing archaeological or paleontological resources to private entities would result in the loss or destruction of those resources since they would no longer be under BLM protection. Any disturbance to cultural or paleontological resources would be irreversible. Any loss of those resources would be irretrievable and they could not be replaced. Construction of Timber Draw Dam could inadvertently result in irreversible and irretrievable losses to archaeological sites.



Introduction

The Safford District Resource Management Plan/ Environmental impact Statement was prepared by an interdisciplinary team of resource specialists from the Gila Resource Area, the San Simon Resource Area, and District Resources Staff. Writing the Resource Management Plan/Environmental Impact Statement began in September 1988 following a process beginning in 1987 that included a series of public scoping meetings, interagency coordination and the preparation of the management situation analyses. Coordination and consultation efforts have continued throughout the planning process.

Scoping and Public Participation

The District invited public participation throughout the development of this Resource Management Plan/ Environmental Impact Statement. The following list summarizes the actions taken.

September 1987 **Mailout** and news release advising public of intent to develop a plan and Environmental Impact Statement and to invite them into the process.

September 1987 Notice of Intent to Prepare the Safford District Resource Management Plan published in *Federal Register*.

Oct. 27 Nov. 5, 1987 Public scoping meetings held in Safford, **Willcox**, Bisbee, Tucson, Winkelman and Mesa, Arizona.

January 21, 1988 Scoping meeting with Arizona Game and Fish Dept.

February 12, 1988 Safford District Grazing Board briefing.

March 11, 1988 Safford District Advisory Council briefing.

April 1, 1988 Draft issues and concerns sent to public for review.

November 1988 Final issues and concerns sent to public.

December 1989 Draft Resource Management Plan/Environmental Impact Statement sent to public for comment.

February 1990 Public meetings held in Safford, Bisbee, Tucson and Winkelman.

September 1990 Safford District Advisory Council to review comment letters and responses.

December 1990 Safford District Grazing Board meeting.

In addition, BLM specialists have met with interested parties in the field and other locations. Consultations with Arizona Game and Fish Department, Arizona State Land Department, Forest Service and Soil Conservation Service to coordinate data collection, planned actions and to exchange information have taken place on a routine basis.

List of Agencies, Organizations and Persons to whom copies of this document have been sent

Federal Agencies

Advisory Council on Historic Preservation
Department of Agriculture
Animal and Plant Health Inspection Service
Forest Service
Soil Conservation Service
Department of Defense
US. Army Corps of Engineers
U.S. Air Force
Department of Energy
Department of the Interior
Bureau of Mines
Bureau of Indian Affairs
Bureau of Land Management, Phoenix District, Arizona
Bureau of Land Management, Las Cruces District, New Mexico
Bureau of Reclamation
Fish and Wildlife Service (Ecological Services)
Geological Survey
National Park Service
Department of Transportation
Federal Aviation Administration
Environmental Protection Agency

Arizona State Agencies

Arizona Commission of Agriculture and Horticulture
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 Game and Fish Department
 Arizona Natural Heritage Program
 Arizona Office of Economic Planning and Development
 Arizona Oil and Gas Commission
 Arizona Outdoor Recreation Coordinating Commission
 Arizona State Clearinghouse
 Arizona State Historic Preservation Office
 Arizona State Land Commissioner
 Arizona State Parks Board
 Arizona State University
 Arizona Water Resources Department
 Bureau of Geology and Mineral Technology
 Governor of Arizona
 Governors Commission on Arizona Environment
 Mineral Resource Department
 Northern Arizona University
 University of Arizona

New Mexico State Agencies

New Mexico State Historic Preservation Officer

Local Agencies

City of Benson
 City of Bisbee
 City of Clifton
 City of Douglas
 City of Duncan
 City of Morenci
 City of Safford
 City of Sierra Vista
 City of Tombstone
 City of Willcox
 City of Winkelman
 Cochise County Board of Supervisors
 Cochise County Planning and Zoning Department
 Gila County Board of Supervisors
 Gila County Planning and Zoning Department
 Graham County Board of Supervisors
 Graham County Planning and Zoning Department
 Greenlee County Board of Supervisors
 Greenlee County Planning and Zoning Department
 Pinal County Board of Supervisors
 Pinal County Planning and Zoning Department
 Southeast Arizona Governments Organization

Indian Tribes and Councils

Ak-Chin (Maricopa) Papago
 Gila River Pima Tribal Council
 San Carlos Apache Tribal Council
 Salt River Pima Tribal Council
 Tohono O'odham (Papago) Tribal Council
 White Mountain Apache Tribal Council

Other Organizations

Abel's Guiding and Outfitting
 Alamo Ranch Company
 American Motorcyclist Association
 American Rivers
 Aravaipa Homeowners Association
 Arizona Archaeological Council
 Arizona Cattlegrowers Association
 Arizona Desert Bighorn Sheep Society
 Arizona Desert Racing Association
 Arizona Mining Association
 Arizona Native Plant Society
 Arizona Riparian Council
 Arizona Small Miners and Prospectors Association
 Arizona Trail Riders
 Arizona Whitewater Expeditions
 Arizona Wildlife Federation
 ASARCO, Inc.
 Bat Conservation International
 Bella Vista Ranches, Ltd.
 Bisbee Women's Action Group
 Bob's Bargain Barn
 BP Minerals America
 Cochise-Graham County Cattlegrowers Association
 Columbia Gas and Development Corporation
 Cyprus Minerals Company
 Defenders of Wildlife
 Earth First!
 El Paso Natural Gas Company
 Friends of Arizona's Rivers
 Gila River Tours
 Graham County Electric Cooperative
 Greater Arizona Bicycling Association
 Greenlee County Cattlegrowers Association
 Homestake Mining Company
 Huachuca Audubon Society
 Huachuca Hiking Club
 J&J Cattle Company
 Kennecott Exploration
 Kerr-McGee Corporation
 Magma Copper Company
 Maricopa Audubon Society
 McDonald Cattle Company
 Missouri Department of Conservation
 Muleshoe Ranch
 Museum of Natural History, Univ. of Ill.
 Urbana-Champaign
 National Audubon Society
 National Off-Road Bicycle Association
 National Parks and Conservation Association
 National Public Lands Task Force
 National Wildlife Federation
 Natural History Museum of Los Angeles County
 Natural Resource Defense Council
 Nevada Outdoor Recreation Association

Northern Arizona Audubon
 Oak Ranch
 Pacific Western Land Company
 Phelps Dodge Corporation
 Pima Trails
 Preserve America's Wolves
 Public Service Company of New Mexico
 Reeves Mountain School of Self Reliance
 San Manuel Arizona Railroad Company
 Sierra Club
 Sierra Cycles
 Sierra Ready Mix
 Sonoran Resources
 Southern Arizona Hiking Club
 Southwest Gas Company
 Southwestern Research Station (American Museum of
 Natural History)
 Sulphur Springs Valley Electric
 Tenneco Arizona Property Corporation
 The Amerind Foundation
 The Desert Tortoise Council
 The Nature Conservancy
 The Wilderness Society
 True Oil Company
 Tucson 4-Wheelers
 Tucson Audubon Society
 Tucson Electric Power Company
 Tucson Rod and Gun Club
 Valley Telephone Cooperative, inc.
 Whole Earth Adventures, Inc.
 Wick Broadcasting, Inc.
 X-X Partnership
 ZR Hereford Ranch
 Yuma Audubon Society

Elected Representatives

Federal

Representative Jim Kolbe
 Representative Jon Kyl
 Representative John Rhodes
 Representative Bob Stump
 Representative Morris K. Udall
 Senator Dennis DeConcini
 Senator John McCain

State

Representative Bart Baker
 Representative Bill English
 Representative Reuben Ortega
 Representative Mike Palmer
 Senator Gus Arzburger

List of Preparers

- Al Alvarez, Realty Specialist, Gila Resource Area — has worked for BLM for 14 years and has a B.S. degree in Animal Science from the University of Arizona. Al was responsible for the Fire Management portion of the Draft Resource Management Plan/Environmental Impact Statement and for the Lands and Realty portion of the Final Resource Management Plan/Environmental Impact Statement.
- Al Bammann, Wildlife Biologist, Gila Resource Area — has worked as a Raptor Research Biologist for BLM for six years, Wildlife Biologist for nine years. Al has B.S. and MS. degrees in Wildlife Biology from Humboldt State University. He is a member of the core team and developed the wildlife, riparian and Area of Critical Environmental Concern portions of the Resource Management Plan for the Gila Resource Area.
- William Brandau, Supervisory Range Conservationist, Gila Resource Area — has worked for BLM 13 1/2 years. He received a B.S. degree in Recreation and Parks and an MS. degree in Range Management from Texas A & M University. Bill served on the core team.
- Jerrold Coolidge, Assistant Team Leader, District Manager's Staff — has been with BLM 19 years. He has both a B.S. and M.S. in Botany from the University of Idaho. He wrote the Resource Management Plan/Environmental impact Statement and assisted in the direction of the planning team.
- Olga Diaz, Editorial Clerk, Division of Administration — has 13 years experience with BLM. She attended Eastern Arizona College for three years and one year at the University of Arizona. Olga was responsible for word processing and editing.
- Diane Drobka, Natural Resource Specialist, Gila Resource Area — has worked for BLM for nine years and for the Forest Service for one year. Diane has a B.S. in Wildlife Ecology from the University of Arizona. She provided many of the illustrations and photography for the document and was responsible for input for portions of the text for wildlife habitat in the Gila Resource Area.
- James Gacey, Wildlife Biologist, San Simon Resource Area has 12 years experience with the Forest Service and over four years with BLM. Jim has a B.A., Biological Science degree from Northwest Nazarene College and an M.S. degree in Zoology from Arizona State University. He developed the wildlife portion of the Resource Management Plan for the San Simon Resource Area.

Darlene Haegele, Realty Specialist, San Simon Resource Area — has 11 years experience with BLM, four of which have been as a Realty Specialist. Darlene attended the University of Utah. She prepared the lands and realty portions of the Resource Management Plan for the San Simon Resource Area.

John Herron, Archaeologist, San Simon Resource Area — has four years experience with BLM and worked at the Museum of Northern Arizona for two years. John has B.A. degree in Archaeology from the University of Arizona. He developed the archaeology and paleontology parts of the draft plan for the San Simon Resource Area.

Larry Humphrey, Natural Resource Specialist, San Simon Resource Area — has worked three years for Soil Conservation Service and 17 years for BLM. Larry has a B.S. degree in Animal Science from the University of Arizona. He served on the core team and developed the soils, watershed and vegetation parts of the Resource Management Plan/Environmental Impact Statement.

Steve Knox, Team Leader, Division of Resource Management — has worked for BLM for 14 years. Steve has a B.S. degree in Watershed Management from the University of Arizona. He directed development of the Resource Management Plan.

Roland Loomis, Mining Engineer, Division of Resource Management — has worked for BLM for 13 years. He received a B.S. in Engineering from the U.S. Coast Guard Academy and from the University of Arizona. Ron provided geological and minerals input to the draft.

Kathy McQuestion, Archaeologist, San Simon Resource Area — has five and a half years experience as an archaeologist with BLM. Kathy has a B.A. degree from the University of Wisconsin-La Crosse in Anthropology. She has done graduate work in Archaeology at Eastern New Mexico University and the University of Utah. Kathy developed the archaeology and paleontology sections of the draft plan for the San Simon Resource Area.

Kenneth Mahoney, Outdoor Recreation Planner, Gila Resource Area — has worked 11 years for BLM. Ken has a B.S. degree in Leisure Studies from the University of Utah. He prepared the recreation, visual resources, wilderness and wild and scenic rivers portions of the draft plan for the Gila Resource Area.

Randy Massey, Realty Specialist, Gila Resource Area — has worked for BLM for a total of 14 1/2 years, 11 1/2 as a range conservationist and three years as a realty specialist. Randy attended Brigham Young University, graduating with a B.S. degree in Range Science. He developed the lands and realty portions of the draft plan for the Gila Resource Area.

Greg Merchant, GIS Specialist, Division of Administration — has worked for over six years for BLM as a range technician and as a computer (GIS) technician. Greg attended the University of Nevada-Las Vegas, Northeast Nevada Community College and Eastern Arizona College. He provided GIS support for the entire plan.

Delbert Molitor, Hydrologist, Division of Resource Management — has worked seven years for the Forest and Range Experimental Station in Boise, Idaho and 12 years for BLM. Del has a B.S. degree in Hydrology from Utah State University. He provided hydrologic and air quality input for the water resources, watershed and air quality portions of the plan.

Robert Pascoe, District Engineer, Division of Operations — has worked for BLM for over five years and has had four years experience in private industry in mining operations. Bob has a B.S. degree in Mining Engineering from the University of Arizona. He provided input to the minerals portions of the draft plan.

Sandra Phillips, Legal Clerk, Division of Resource Management — has worked for BLM for 12 years. Sandy received an AAS degree in Office Services from Eastern Arizona College. She was responsible for word processing and editing.

Elaine Rowley, Accounting Technician, Division of Administration — has 19 years experience with BLM. Elaine was awarded an AA degree in General Education from Eastern Arizona College. She also attended Northern Arizona University and Arizona State University. Elaine was responsible for word processing and editing.

Darrell Sanders, Archaeologist, Gila Resource Area — has five years experience with BLM and two years with the Forest Service. Darrell was awarded a B.A. degree in Anthropology from California State University at Chico and has completed the classroom requirements for an M.A. in Anthropology from the same university. He also attended Medocino Community College and the University of Nevada-Las Vegas. He developed the archaeological and paleontological portions of the plan.

Tom Schnell, Outdoor Recreation Planner, San Simon Resource Area — has worked for BLM for three years. Tom received a B.S. degree in Resource Management from University of Wisconsin-Stevens Point. He provided recreation, visual resources, wild and scenic rivers and wilderness input to the document for the San Simon Resource Area.

Deb Smith, Outdoor Recreation Planner, Gila Resource Area — has worked for BLM for five years. Received a B.S. degree in Recreation Administration from the University of Idaho. She provided recreation, visual resources, wild and scenic rivers and wilderness input for the Gila Resource Area.

Larry Thrasher, Geologist, Division of Resources — has worked for BLM for four years. Larry received a B.S. degree in Geology from the University of Maryland and an MS. degree in Geology from the University of North Dakota. He provided geological, minerals and energy input.

Pete Zwaneveld, Outdoor Recreation Planner, San Simon Resource Area — has worked for the National Park Service and nearly 12 years for BLM. Pete has a B.S. degree in Outdoor Recreation from Utah State University. He developed the recreation, Areas of Critical Environmental Concern, wilderness, wild and scenic rivers and visual resources portions for the San Simon Resource Area.

Saff ord District Off ice Assistance

John Augsberger, Wildlife Biologist
Ray Brady, District Manager
Meg Jensen, Gila Resource Area Manager
Gay Kinkade, Archaeologist
Lynn Saline, San Simon Resource Area Manager
Tom Terry, Realty Specialist

Arizona State Off ice Assistance

Bob Archibald, Realty Specialist
Beverly Ashbrook, Cartographic Technician
Sue Richardson, Wilderness
Eugene Dahlem, Wildlife Biologist
Mike Fisher, Fire Management Officer
Jim Renthall, Hydrologist
Steve Meszaros, Cartographic Technician
Keith Pearson, Planning and Environmental Coordinator
Alan Rabinoff, Geologist
George Ramey, Range Conservationist
Sue Richardson, Wilderness
Gary Stumpf, Archaeologist
Larry Taddia, Supervisory Cartographic Technician
Bruce Talbot, Outdoor Recreation Planner

Public Comments and Responses

Public comments were received from the following individuals, organizations, agencies or companies. They are displayed in two formats, the first being in the order of receipt and the second in an alpha-numeric arrangement.

Public Comment Register

The following is a list of the public comment letters in the order of receipt. *Denotes a response was made to letter.

- *1. Bailey, Rex
- *2. State Historic Preservation Officer
3. Southern Arizona Guides and Outfitters Association
- *4. Bureau of Mines
- *5. Holladay, Bobbie
- *6. Serafine, Ellen and John Brumage
7. Klump, Wayne D.
8. Lazaroff, Cheryl S.
- *9. Aravaipa Property Owners Association
- *10. Owens, Rex
- 11. Notestine, Jim
- *12. Preserve Arizona's Wolves
13. Tucson Rod and Gun Club
- *14. San Carlos Apache Tribe
- 15. Escott, Carol
16. Tetreault, Rheel
17. Curry, L.B.
18. Stevenson, Mark
19. Cabin, Sue Wallace
- *20. Patrick, Vernon W.
- 21. Martin, Ronald P.
22. Iser, Jerry
23. Newton, Lola T.
24. Zinsli, Gabriel
25. Frye, Harry D.
26. Huston, Jack V.
27. Drown, Julie
28. Carter, Frances C.
29. Coleman, Kristen
30. Necker, William C.
31. Stevenson, Dorothy
32. Creeden, Sharon
33. Zaukas, Helen
34. Ritch, June K.
35. Schramm, Marian
36. Tilsch, John W.
37. Juhasz, Andrew J.
38. Fritz, William D.
39. Calder, Dr. William A.

40. Pelech, Walter and Dorothy
41. McCauley, William J.
42. Schwab, Robert G.
43. Furniss, W. Todd
44. Pfaff, Kenneth
45. Foster, Milton P.
46. Ackerman, T.R.
- *47. San Carlos Apache Tribe
48. Ayers, Daniel D.
49. Partin, Margery and Marvin
50. Klump, Wayne
- *51. The Nature Conservancy New Mexico
- *52. The Warne Company
53. Hayward, Bruce J.
54. Kuihen, Helen S.
55. Dow, Jane
56. Lund, Robert E.
57. McMurray, William J.
58. Triplett, DeWayne
59. Bowie Chamber of Commerce
60. Buchsbaum, Robert
- *61. Alder, Rodney
62. Ferguson, Ray
- *63. Knostman, R.W.
- *64. Wolf, Jack
65. Kole, Marion
- *66. Notestine, Jim
67. Miller, Dorothy and Jack
- *68. Schanz, Mary C.
69. Safford District Grazing Advisory Board
70. Arizona Department of Environmental Quality
71. Lambrechtse, Rudi
72. Janis, June and Harry
73. Shafer, Winifred J.
- *74. Swanson, John R.
75. National Speleological Society
- *76. National Museum of Natural History
77. Poulos, Bonnie
78. Foster, Catherine L.
79. Uhl, Louise S. and John H.
- *80. Mayercek, Daniel R.
81. Petition signed by 21 people
82. Fischer, Dan
- *83. Arizona Earth First
84. Hollender, Tom
85. Siwek, Erwin
- *86. Sidner, Ronnie
87. Pamperin, John
88. Denver Wildlife Research Center
- *89. Pima Trails Association
90. Sidner, Ronnie
- *91. GSA Resources, Inc.
92. Taylor, Thomas J.
- *93. California Department of Health Services
94. Arizona Department of Environmental Quality
95. Hoffmeister, Donald F.
- *96. Pima Trails Association
- *97. Geldmacher, Don and Bev
- *98. Werner, Frances W.
99. Fish and Wildlife Service
- *100. Fish and Wildlife Service
101. Gasser, Margaret E.
- *102. Van Gasse, Jerry
- *103. Whole Earth Adventures
104. Gila River Tours
- 105. Davis, Russell
106. Arizona Trail Riders
107. Straley, P.E.
108. Bell, L. Stephen
109. Vetault, Sarah C. and Robert E.
- *110. d'Orgeix, Alva
- *111. Phelps Dodge Mining, Inc.
- *112. American Rivers
- *113. The Desert Tortoise Council
114. Petition signed by 7 people
115. McDonald, Pratima
- *116. Meyer, Francie and Walter
- *117. Bagnara, Joseph T.
- *118. Indiana Bat/Gray Bat Recovery Team
- *119. Rodda, Gordon
- *120. Bureau of Reclamation
121. Graham County Board of Supervisors
122. Petition signed by 21 people
123. San Carlos Apache Tribe
- 124. Huachuca Audubon Society
- *125. Cox, Kenneth D. Sr.
126. Cochise-Graham Cattle Growers Association
- *127. Pamperin, John
128. Wuerthner, George
- *129. Maricopa Audubon Society
- *130. DeNormandie, Phillip Y.
- *131. Rolls, Judi
- *132. Arizona Desert Bighorn Sheep Society, Inc.
133. Bat Conservation International, Inc.
134. Atlee, William S.
- 135. Bisbee Women's Action Group
136. Pressel, Douglas
137. Frey, Don
138. Fish, Cathe'
139. Burgess, Jeff
140. Ciaramitaro, Mr. and Mrs. Joseph
- 141. Heiser, Noel
- *142. Pokorny, Martin
- *143. Beckel, Bettina
- *144. Schell, Amy E.
- *145. Daily, Kathy
- 146. Friends of Arizona Rivers
- *147. Fischer, Dan
- 148. Pamperin, John
- 149. Hage, Mary Jean
- 150. Flood, Timothy J.
151. Platts, Geoffry
- 152. San Carlos Apache Tribe
- *153. Coronado National Forest

- 154. Fonseca, Julia
- *155. Williams, Steven M.
- *156. Sierra Club
 - 157. Los Angeles Natural History Museum
- 158. Levick, Lainie
- 159. Walsh, Jim
- 160. Kagan, Randy S.
- *161. Adams, Larry D. and Frances Werner
- *162. Environmental Protection Agency
- *163. The Arizona Native Plant Society
- *164. Menges, Jeff
- *165. Leupke, John and Norma Tapia
- *166. Arizona Cattlegrowers Association
- *167. Tucson Rod and Gun Club
- 166. Brown, Matthew R.
- 169. Williams, Caryl Mary
- 170. Woodin, Elizabeth T.
- *171. El Paso Natural Gas Company
- 172. The Arizona Nature Conservancy
- *173. The Wildlife Society
- *174. Arizona Game and Fish Department
- 175. Wells, Linda K.

- 29. Coleman, Kristen
- *153. Coronado National Forest
- *125. Cox, Kenneth D. Sr.
 - 32. Creeden, Sharon
 - 17. Curry, L.B.
- 145. Daily, Kathy
- *105. Davis, Russell
- *130. DeNormandie, Phillip Y.
 - 88. Denver Wildlife Research Center
- *110. d'Orgeix, Alva
 - 55. Dow, Jane
 - 27. Drown, Julie
- *171. El Paso Natural Gas Company
- *162. Environmental Protection Agency
 - *15. Escott, Carol
 - 62. Ferguson, Ray
- *147. Fischer, Dan
 - 82. Fischer, Dan
- *100. Fish and Wildlife Service
 - 99. Fish and Wildlife Service
 - 138. Fish, Cathe'
- 150. Flood, Timothy J.
- 154. Fonseca, Julia
 - 78. Foster, Catherine L.
 - 45. Foster, Milton P.
 - 137. Frey, Don
- 146. Friends of Arizona Rivers
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- 91. GSA Resources, inc.
- 101. Gasser, Margaret E.
- *97. Geldmacher, Don and Bev
- 104. Gila River Tours
- 121. Graham County Board of Supervisors
- 149. Hage, Mary Jean
 - 53. Hayward, Bruce J.
- 141. Heiser, Noel
 - 95. Hoff meister, Donald F.
 - *5. Holladay, Bobbie
 - 84. Hollender, Tom
- *124. Huachuca Audubon Society
 - 26. Huston, Jack V.
- *118. Indiana Bat/Gray Bat Recovery Team
 - 22. Iser, Jerry
 - 72. Janis, June and Harry
 - 37. Juhasz, Andrew J.
 - 160. Kagan, Randy S.
 - 50. Klump, Wayne
 - 7. Klump, Wayne D.
 - *63. Knostman, R.W.
 - 65. Kole, Marion
 - 54. Kuihen, Helen S.
 - 71. Lambrechtse, Rudi
 - a. Lazaroff, Cheryl S.
 - 165. Leupke, John and Norma Tapia
 - 158. Levick, Lainie

This second list is alpha-numeric.

- 46. Ackerman, T.R.
- *161. Adams, Larry D. and Frances Werner
 - *61. Alder, Rodney
- 112. American Rivers
 - *9. Aravaipa Property Owners Association
- 166. Arizona Cattlegrowers Association
 - 70. Arizona Department of Environmental Quality
 - 94. Arizona Department of Environmental Quality
- *132. Arizona Desert Bighorn Sheep Society, Inc.
- *83. Arizona Earth First
- *174. Arizona Game and Fish Department
 - 106. Arizona Trail Riders
 - 134. Atlee, William S.
 - 48. Ayers, Daniel D.
- *117. Bagnara, Joseph T.
 - Bailey, Rex
 - 133. Bat Conservation International, Inc.
 - 108. Bell, L. Stephen
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 - 59. Bowie Chamber of Commerce
- 166. Brown, Matthew R.
 - 60. Buchsbaum, Robert
 - 4. Bureau of Mines
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 - 139. Burgess, Jeff
 - 19. Cabin, Sue Wallace
 - 39. Calder, Dr. William A.
 - *93. California Department of Health Services
 - 28. Carter, Frances C.
 - 140. Ciaramitaro, Mr. and Mrs. Joseph
- *126. Cochise-Graham Cattle Growers Association

- 157. Los Angeles Natural History Museum
- 56. Lund, Robert E.
- *129. Maricopa Audubon Society
- *21. Martin, Ronald P.
- *80. Mayercek, Daniel R.
- 41. McCauley, William J.
- 115. McDonald, Pratima
- 57. McMurray, William J.
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- *116. Meyer, Francie and Walter
- 67. Miller, Dorothy and Jack
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- 75. National Speleological Society
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- 23. Newton, Lola T.
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- *10. Owens, Rex
- *127. Pamperin, John
- *148. Pamperin, John
- 87. Pamperin, John
- 49. Partin, Margery and Marvin
- '20. Patrick, Vernon W.
- 40. Pelech, Walter and Dorothy
- 122. Petition signed by 21 people
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- 114. Petition signed by 7 people
- 44. Pfaff, Kenneth
- *1 11. Phelps Dodge Mining, Inc.
- *89. Pima Trails Association
- '96. Pima Trails Association
- 151. Platts, Geoffry
- *142. Pokorny, Martin
- 77. Poulos, Bonnie
- '12. Preserve Arizona's Wolves
- 136. Pressel, Douglas
- 34. Ritch, June K.
- *119. Rodda, Gordon
- *131. Rolls, Judi
- 69. Safford District Grazing Advisory Board
- 123. San Carlos Apache Tribe
- '14. San Carlos Apache Tribe
- *152. San Carlos Apache Tribe
- 47. San Carlos Apache Tribe
- *68. Schanz, Mary C.
- *144. Schell, Amy E.
- 35. Schramm, Marian
- 42. Schwab, Robert G.
- *6. Serafine, Ellen and John Brumage
- 73. Shafer, Winifred J.
- 86. Sidner, Ronnie
- 90. Sidner, Ronnie
- *156. Sierra Club
- 85. Siwek, Erwin
- 3. Southern Arizona Guides and Outfitters Association
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- 31. Stevenson, Dorothy
- 18. Stevenson, Mark
- 107. Straley, P.E.
- *74. Swanson, John R.
- 92. Taylor, Thomas J.
- 16. Tetreault, Rheel
- *163. The Arizona Native Plant Society
- *172. The Arizona Nature Conservancy
- *113. The Desert Tortoise Council
- *51. The Nature Conservancy New Mexico
- *52. The Warne Company
- *173. The Wildlife Society
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- *102. Van Gasse, Jerry
- 109. Vetault, Sarah C. and Robert E.
- 159. Walsh, Jim
- 175. Wells, Linda K.
- '98. Werner, Frances W.
- *103. Whole Earth Adventures
- 169. Williams, Caryl Mary
- *155. Williams, Steven M.
- 64. Wolf, Jack
- *170. Woodin, Elizabeth T.

1

Form 1600-16
(April 1984)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Plan Name

Safford District RMP

RECORD OF PUBLIC PARTICIPATION
IN THE PLANNING PROCESS

Date of Contract

1-4-90

Name(s) of Individual(s) or Group(s)

Rex Bailey

Location of Contract

Safford P.O.

Bureau Interviewer(s) or Moderator(s)

Al Baumman

INTERVAL OF PUBLIC INVOLVEMENT

- Phase I - Review of Annual Schedule and Projected New Starts
- Phase II - Scoping to Guide Planning (Issue Identification, Planning Criteria, and Planning Information)
- Phase III - Review of Draft Plan and Draft Environmental Impact Statement
- Phase IV - Review of Management Decisions including Changes from Protests and Governor Review
- Phase V - Review of Plan Use and Implementation

TYPE OF PUBLIC PARTICIPATION (CHECK AS MANY AS APPLICABLE)

- Individual Contact
- Small Group Discussion
- Public Meeting
- Written Statements
- Questionnaires or surveys
- Other (specify)

Summarize briefly public input. (Use additional sheets if necessary. Attach worksheets, rosters, press releases, etc. as appropriate.)

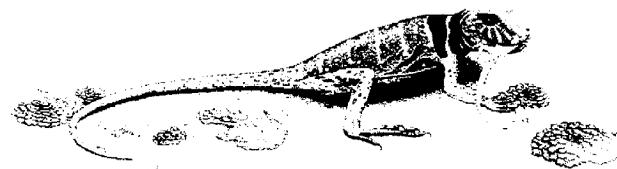
1-1 He was in the office to coordinate volunteer activity and said he'd seen an area open to wood cutting in the middle of the San Simon and wanted to know how we could justify cutting out there. I explained that it would be allowed as part of a revegetation effort - the soils were stable and we thought we could get better vegetation - grasses - to come in. He was concerned about the impact to wildlife.

Prepared by

Albaum

Date

1-4-90





ARIZONA STATE PARKS

800 W. WASHINGTON
SUITE 415
PHOENIX, ARIZONA 85007
TELEPHONE 602-542-4174

ROSE MOFFORD
GOVERNOR

STATE PARKS
BOARD MEMBERS

JONI BOSH
CHAIR
PHOENIX

WILLIAM G. ROE
VICE CHAIR
TUCSON

RONALD PIES
SECRETARY
TEMPE

DEAN M. FLAKE
SNOWFLAKE

DUANE MILLER
SEDONA

ELIZABETH TEA
DUMCARR

M. JEAN HASSELL
STATE LAND COMMISSIONER

KENNETH E. TRAVOUS
EXECUTIVE DIRECTOR

COURTLAND NELSON
DEPUTY DIRECTOR

2-1

January 10, 1990

Frank Rowley
Acting District Manager
Bureau of Land Management
Safford District Office
425 East 4th Street
Safford, AZ 85546

RE: Safford District Resource Management Plan and Environmental Impact Statement (RMP/EIS), DOI-BLM

Dear Mr. Rowley:

I have reviewed the draft report referenced above and am submitting the following comments pursuant to Section 110 of the National Historic Preservation Act:

1. Regarding cultural resources, all four alternatives (Alternatives A through D) are similar to the extent that each will ultimately result in high impacts to 37 archaeological sites in localities of proposed dam construction and repair, most notably construction of the Turkey Draw Dam. The draft further states that the Bureau of Land Management is committed to developing measures to mitigate the effects of such undertakings on properties determined eligible for the National Register of Historic Places.
2. The sections describing specific cultural resources management actions under each of the alternatives are excellent. They are clearly written and reflect extremely responsible stewardship on the part of the BLM.
3. The four alternatives differ with respect to specific actions the BLM will undertake to preserve or otherwise enhance cultural resources. In our opinion, Alternative A offers the most beneficial program for cultural resources; for that reason, Alternative A is our "Preferred Alternative."
4. We would like to suggest that you add to Alternative A one of the actions proposed under Alternative B; namely, that the BLM nominate a, least, six eligible cultural properties in the Safford District to the National Register of Historic Places within the lifespan of the Resource Management Plan. Presently, Alternative A demonstrates no clear commitment to the nomination of properties to the National Register. By placing eligible properties on the Register, the BLM would place such resources in an advantageous position to receive enhancement funds, should such funds be available in the future and restricted to Register-listed properties.

CONSERVING AND MANAGING ARIZONA'S HISTORIC PLACES, HISTORIC SITES, AND RECREATIONAL, SCENIC AND NATURAL AREAS

F. Rowley
January 10, 1990
Page 2

Thank you for providing us the opportunity to comment on this resource management plan/environmental impact Statement draft. Your continued cooperation in complying with the provisions of the National Historic Preservation Act is appreciated.

Sincerely,

Pa. H. Stein
Preservation Planner

for Shereen Lerner, Ph.D.
State Historic Preservation Officer

3

Southern Arizona Guides and Outfitters Rssociation

"Outdoor Adventures by True Professionals"

1/26/90

Steve Knox, R.M.P. Team Leader
B.T.M.
425 E. 4th St.
Safford, Ariz. 85546

Dear Steve,

After receiving your "Resource Management Plan", I would like to make my comments in a general sense.

I am in favor of all your longer alternatives to wilderness proposals. There are plenty of places to go in a vehicle if some desire and these lands you designated need future protection.

After spending many years on the Pinalosa, which has not been grazed for years, I must admit I fell into the group that would rather see indigenous wildlife on B.T.M. lands rather than cattle. Much of the land submitted by the B.T.M. that is grazed, looks like hell and I think you know it. The time has come to respond to the public demand for less cows and less degradation of our land.

2534 N. Treat Ave. • Tucson, Arizona 85716 • 602-325-4166

2

Southern Arizona Guides and Outfitters Rssociation

"Outdoor Adventures by True Professionals"

If any fee increases or cattle reductions are in your plan, then I am for these proposals.

Hope I've been of some help.

Yours,



Gary Blue, President

2534 N. Treat Ave. • Tucson, Arizona 85716 • 602-325-4166



United States Department of the Interior

BUREAU OF MINES

P. O. BOX 25086
BUILDING 20, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

Intermountain Field Operations Center

February 1, 1990

Memorandum

To: Mr. Steve Knox, RMP Team Leader, Bureau of Land Management, Safford District Office, 424 E. Fourth Street, Safford, Arizona 85546

From: Chief, Intermountain Field Operations Center

Subject: Review of Draft Safford District Resource Management Plan and Environmental Impact Statement (RMP/EIS)

Personnel of the Bureau of Mines, Intermountain Field Operations Center, reviewed the subject draft Safford District Resource Management Plan and Environmental Impact Statement as requested by Frank Rowley, District Manager.

The draft is fairly complete concerning minerals within the Safford District; however, the Bureau of Mines (BOM) believes that a gold deposit at the Table Mountain Mine area, near the Table Mountain RNA ACEC, has not been adequately considered. In 1989, BOM personnel identified a portion of the Table Mountain RNA ACEC as having geologic conditions favorable for occurrences of base and Precious metals. The Table Mountain mine is on two patented mining claims within sections 15 and 22, T. 7 S., R. 18 E. We identified a subeconomic resource of at least 35,500 short tons of jasperoid breccia averaging 0.034 oz gold/st at the mine. The jasperoid breccia which hosts the gold mineralization extends into the Table Mountain RNA AEC. Closing mineral entry to this area would affect future exploration and possible development of this deposit. Also, the two patented claims do not show up as private land on any of the maps in the draft.

We believe that alternative D would have the least effect on future minerals exploration and development. The Stafford District is an area where world-class copper deposits occur. There is the possibility that other yet-undiscovered world-class deposits exist within the district and that the document should discuss that possibility. We suggest careful Planning be done so that future deposits will not be closed to mineral entry and thereby deny future exploration and development. It is encouraging to see evidence that BOM input on minerals appears to have helped land-planners determine boundaries in the Aravaipa and Mule Shoe study area additions.

William Cochran
William Cochran



5

February 5, 1990

John Augsburger
District Biologist
BLM - Safford District
425 East 4th St.
Safford, AZ 85546

Dear John,

I tried contacting you by phone but I guess you never received my message. I will be unable to attend the February 13 meeting dealing with the RMP but had some concerns I wanted to express I just received me copy of me RMP so have not had an opportunity to review it. My questions may be answered in that document.

I am me Founder Director of preserve Arizona's Wolves (P.A.W.S.) a coalition of citizens working for me preservation and eventually me reintroduction of the Mexican wolf. We work closely with me Arizona Game and Fish Department and me U. S. Fish and Wildlife Service in following me Mexican Wolf Recovery Plan. At the present time our prime focus is on public education and as you may have heard we are presenting a major symposium on March 23 and 24 at ASU entitled Arizona Wolf Symposium '90. See enclosed flier

5-1
Because me Safford District includes lands within me former range of me Mexican wolf (*Canis lupus baileyi*) it is possible in me future that certain lands might be considered as potential reintroduction sites. My question is, does me RMP take into consideration management of habitat and prey to enable a recovery program to take place? Naturally, me main prey base would be deer with me addition of rabbits and smaller rodents. Naturally, the ideal site would have a minimum of conflict from livestock operations. There are still some fairly remote, pristine areas from which unsubstantiated reports of wolf sightings occur whether these are large coyotes, escaped wolf-dogs or actually Mexican wolves that may range up from Mexico remains to be determined.

Please let me know what plans, if any, are in progress to provide for a future reintroduction of this endangered species

Thank you,

Bobbie Holaday

Bobbie Holaday, Founder Director
1413 East Dobbins Rd.
Phoenix, Arizona 85040

(602) 268-1089

6

Ellen Serafini and John Brumage
ZEKE'S GENERAL STORE
CENTRAL, ARIZONA 85531

(602) 428-4426

February 12, 1990

BUREAU OF LAND MANAGEMENT
SAFFORD DISTRICT
425 East Fourth Street
Safford, A.Z. 85546

Gentlepersons:

This letter is to comment on the management plan for the Safford District. One of the objectives of the plan is to improve access to BLM lands by the public. We feel that this is a very important goal, for, although we cannot all mine copper or range cattle, everyone can go out and enjoy nature.

Unfortunately, many of the private interests to whom government lands have been leased are attempting to restrict public passage through their lands.

6-1 |

We therefore suggest that the BLM, as a REQUIREMENT for the leasing of public land, or the granting of an easement to construct roads through public land, demand that that the public be permitted to pass freely across any connecting roads in order to make use of BLM areas.

In order for the public to be informed, the ELM should post all roads entering public land. When the road passes through private the signs should read:

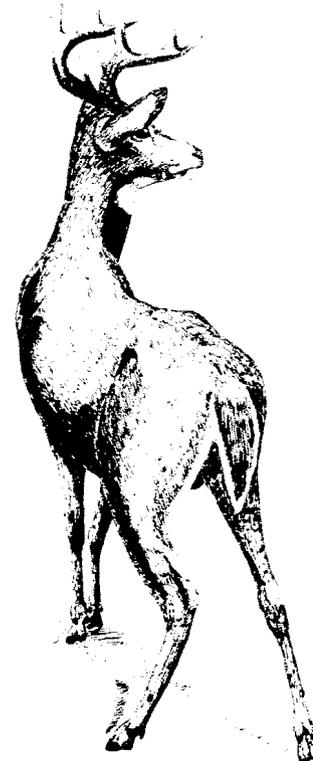
BLM ACCESS ROAD
passing through
PRIVATE LAND
next .5 miles
do not leave road

Of course this is just an idea for the wording, but the abusive sign posted by the BRYCE cattle co. "Private Property, no trespassing, gate may be locked at any time" is just an example of how the public is being excluded from our own land.

Thank you for your attention to this matter.

Yours Truly,


Zeke's General Store



PROTEST

We protest the Safford District Resource Management Plan and Environmental Impact Statement, in its entirety and intent.

The intent of the Government and Bureau of Land Management is to manage, control, steal, acquire, and take our Private Property.

We Protest the Governments power and so called legal avenues to propagandise, brainwash, manipulate, control, manage, steal, take away, and acquire our Property and Rights.

We protest the creation of Javelina Peak, Peloncillo Mtns., and Dos Cabezas Mtns., Wilderness Areas, as all three are within our ranch and would cause an undue hardship on us, and adversely effect our lives and livelihood.

This is to serve notice on the Government or anyone that might turn loose or plant any Animal or Predator within a 500 mile radius of Bowie, Arizona, That they are responsible and liable for any and all damages that said Animal or Predator might do.

All thru the RMP/EIS, the B. L. M. plans to acquire or steal Private Property and access across Private Property in Cochise and Graham County.

This is to serve notice on the Government and B. L. M. that we own a big portion of this area, and have Grandfathered Rights since 1880.

We OBJECT vehemently to the Government taking away our property and Rights.

Wayne D. Klump 2/8/90
 Klump Bros. by Wayne D. Klump Date
 Box 316, Bowie, Arizona 85605
 State of Arizona, County of Cochise
 Subscribed and sworn to before me on
 8th Day of February 1990
Richard W. ...
 Notary Public
 Notary Expiration Date 2/6/1993

FEB 09 1990 11AM E
5.00 2

CLAIM

The Klumps claim the following described real property in Cochise County Arizona in its entirety .

All of Sections 1,12,13,14,15,16,22,23,24,25,26,35,436 S1/2 Sec.8; S1/2Sec.9; S1/2Sec.10; S1/2Sec.11; S1/2Sec.17; E1/2NE1/4Sec.21; N1/2, S1/2Sec.27 NW1/4, N1/2Sec.34; All in T.13S. R.31E.
 All of 1,13S. R.32E.
 All of Sec. 2,3,4, & all of Sec. 5,6,10,11 N. of S.P.R.R. R.O.W. All in T.14S.R.32E.
 S1/2Sec.32; W1/2Sec.35. All in T.12S. R.32E.
 All of Sec. 2,3,4,5,6,7,8,9,10,16; W1/2Sec.15, N1/2Sec.17, N1/2Sec.18, NW1/4Sec.21, All in T.14S. R.27E.
 All of Sec. 1,12,15,16,17,20,21,22,28,29,32,33, N1/2, S1/2Sec.13; N1/2Sec.14; S1/2, E1/2NE1/4Sec.11; S1/2Sec.23; W1/2, W1/2NE1/4Sec.34; S1/2Sec.30; NW1/4, N1/2NE1/4, NW1/4Sec.31 All in T.14S. R.26E.
 All of T.13S. R.27E.
 All of T.12S. R.27E.
 All of Sec. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20,21,22,23,24,25,26,27, 28,34,35,36, N1/2, SE1/4Sec.19; N1/2NE1/4, SE1/4NE1/4Sec.29; NE1/4Sec.33; All in T.13S. R.26E.
 All of Sec. 31,32,33,34,35,36, S. of S.P.R.R. R.O.W. All in T.12S. R.26E.
 All of Sec.36 S. of S.P.R.R. R.O.W. in T.12S. R.26E.
 All of Sec. 1,12,23,26,27,33,34,35, All of Sec. 2 S. of S.P.R.R. R.O.W.; N1/2Sec.11; S1/2Sec.14; S1/2Sec.13; S1/2, NW1/4, S1/2NE1/4Sec.24; E1/2, E1/2NE1/4, S1/2NE1/4Sec.22; S1/2, S1/2NE1/4Sec.28; SE1/4Sec.29; E1/2NW1/4, S1/2NE1/4, S1/2NE1/4Sec.32 All in T.13S. R.26E.
 NE1/4, NW1/4NE1/4, S1/2NE1/4Sec.3; NW1/4Sec. 4; NE1/4, E1/2NW1/4, NE1/4NE1/4, S1/2NE1/4Sec. 5; SE1/4NE1/4Sec.6 All in T.14S. R.25E.
 All of Sec. 1,3,6,7,8,9,10,18,19,30,31, S1/2, NE1/4Sec.2; W1/2Sec.4; E1/2Sec.5; N1/2Sec.11; N1/2Sec.12; SE1/4, SE1/4NE1/4, S1/2NE1/4Sec.13; NW1/4, N1/2NE1/4Sec.16; S1/2NE1/4Sec.17; S1/2Sec.20; N1/2, SE1/4Sec.24; W1/2Sec.29; NW1/4Sec.32 All in T.12S. R.26E.
 All of Sec. 22,26,27,35, E1/2Sec.21; E1/2Sec.28; S1/2Sec. 32; W1/2, W1/2NE1/4Sec.33; S1/2Sec.23 All in T.12S. R.32E.
 CHAMBERS... W. Sec. 8-10-11
 SE1/4Sec.19; S1/2Sec.20; all of Sec.29,30, All in T.14S. R.28E.
 All of Sec. 18,30; N1/2Sec.19 All in T.12S. R.29E.
 W1/2Sec.6; SW1/4, W1/2NE1/4Sec.5; W1/2, NW1/4NE1/4Sec.8; E1/2NE1/4, S1/2NE1/4Sec.10; S1/2, S1/2NE1/4Sec.11; S1/2NE1/4Sec.12; NE1/4NE1/4, SE1/4NE1/4Sec.14; NW1/4, S1/2, NE1/4Sec.15; N1/2Sec.25; S1/2Sec.27; All of Sec. 34; SW1/4, S1/2NE1/4Sec.35; SE1/4, S1/2NE1/4Sec.36 All in T.13S. R.26E.
 NE1/4, NE1/4NE1/4Sec.16; W1/2Sec.17; NE1/4NE1/4, SE1/4NE1/4, NE1/4, E1/2NE1/4Sec.18; NW1/4, SW1/4, S1/2NE1/4Sec.19; NE1/4Sec.21; S1/2NE1/4Sec.25; S1/2Sec.26; S1/2NE1/4Sec.27; S1/2Sec.28; NE1/4, E1/2NE1/4, NW1/4NE1/4, NE1/4NE1/4Sec.29; W1/2, W1/2NE1/4, E1/2NE1/4, S1/2NE1/4Sec.30; All of Sec.31, 33,35,36; N1/2, S1/2Sec.34 All in T.13S. R.26E.
 All of Sec. 5,6,7,12,13,14,15,20,21, W1/2Sec.11; S1/2, NW1/4Sec.16; S1/2, N1/2NE1/4Sec.17; E1/2NE1/4Sec.19; NE1/4Sec.30; N1/2Sec.29 All in T.14S. R.29E.
 S1/2Sec.6; All of Sec.7,18, All in T.14S. R.30E.



900202570
OFFICIAL RECORDS
COCHISE COUNTY
DATE 02/09/90
HOUR 11

900202570

REQUEST
KLUMP, WAYNE
CHRISTINE RHODES-RECORDER
FEE : 9.00 PAGES : 2

CLAIM page 2

Our claim and rights date back to 1880 (Eighteen hundred eighty) and are legally acquired and grandfathered. We claim this property as our private property. We claim all minerals, coal, oil, gas, water, geothermal, gravel, and all known and all unknown substances to the center of the earth. We claim the air, air space, water, gasses, all living things, all dead things, and any and all substances to the heavens and beyond. We claim the right to store and use any and all substances on, above, and under said lands. We declare that this land is outside of any government or governmental agency's control or jurisdiction. The government, city, local, county, state, or federal shall have no claim whatsoever to any of the above described property. This land shall not be subject to eminent domain, taking, seizure, steal, or whatever name or method that the government might use to take our property away. Legislation shall be on a temporary and lease basis only. There shall be no hunting, fishing, trapping, or trespassing without prior written permission. Klumps shall not be liable or responsible for damages to anyone. We base our claim on continuous and uninterrupted use, and the intent of the Constitution of the United States of America and the homestead act was to put all lands into private ownership.

W. Klump
W. KLUMP

State of Arizona, County of Cochise
Subscribed and sworn to before me on this
8th day of February 1990
Christine Rhodes
Notary Public

Notary Expiration Date June 4, 1993

900202570

FEB 09 1990 11AM E
5.00 2

PROTEST

We protest the Safford District Resource Management Plan and Environmental Impact Statement, in its entirety and intent.

The intent of the Government and Bureau of Land Management is to manage, control, steal, acquire, and take our Private Property.

We Protest the Governments power and so called legal avenues to propagandise, brainwash, manipulate, control, manage, steal, take away, and acquire our Property and Rights.

We protest the creation of Javeline Peak, Peloncillo Mtns., and Dos Cabezas Mtns., Wilderness Areas, as all three are within our ranch and would cause an undue hardship on us, and adversely effect our lives and livelihood.

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We OBJECT vehemently to the Government taking away our property and Rights.



REQUEST OF
KLUMP, WAYNE
CHRISTINE RHODES-RECORDER
FEE : 9.00 PAGES : 1

900202571

Wayne D. Klump 2/8/90
Klump Bros. by Wayne D. Klump Date
Box 316, Bowie, Arizona 85605

State of Arizona, County of Cochise
Subscribed and sworn to before me on this
8th Day of February 1990
Christine Rhodes
Notary Public

Notary Expiration Date June 4, 1993

8

Draft Safford District Resource Management Plan
Public Comment Form

Issue/Management Concern: Issue 2 (ACEC), 3 & 4

Comment: I support your designation of several ACEC's
in the Safford District and your efforts to
protect T+E species. Please continue to preserve
& improve as many large areas of habitat as you
can.
Riparian areas must have cattle excluded to remove
replace riparian vegetation. Riparian areas/washes are unsuitable for
grazes.
As for ORVs - please continue them to established
roads & do not allow any entry to threatened
areas. Tortoises and other wildlife/plants
cannot tolerate ORV use.

Congratulations on your designation of & protection for
palaeontological / ecological resources

Name: Cheryl S. Lazoff
Representing: _____
Address: 5742 E Waverly Pl.
Tucson AZ 85712
Date: 2-14-90

9

ARAVAIPA PROPERTY OWNERS ASSOCIATION, INC.

February 12, 1990

Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

RE: BLM DRAFT PLAN FOR THE SAFFORD DISTRICT

Dear Mr. Knox:

The Aravaipa Property Owners Association (APOA) appreciates the opportunity to review and comment on the BLM Resource Management Plan (RMP) for the Safford District. The plan obviously represents a tremendous amount of work, and our membership applauds the BLM for the increasing awareness of environmental conservation reflected in most of the plan objectives.

APOA members agree, however, that certain proposed BLM actions will erode, rather than maintain, environmental integrity and conservation in Aravaipa Canyon.

APOA'S major concerns are the proposals in alternatives A, B, and C to open for public access; Oak Spring Canyon Road, Whittaker Ranch Road, Wagner Ranch Road, and Wood Ranch Road.

Aravaipa Canyon and its approaches are an extremely fragile environment. APOA members feel that the road openings would have a highly negative impact on the entire area. These and other specific APOA concerns are appended to this letter.

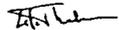
APOA members **STRONGLY OPPOSE** opening Oak Spring Canyon Road, Wagner Ranch Road, and Wood Ranch Road. We do understand, however, that BLM is under pressure to provide access into the high country. Of the proposed roads, we feel Whittaker Ranch Road would have the least negative impact on the Canyon. Therefore, we would consider supporting BLM efforts to gain access through Whittaker Ranch Road in return for dropping access through the other three roads.

Because the "open house" format for the public meeting, February 15, does not appear to present an adequate forum for discussion of our concerns, APOA respectfully requests that the BLM respond in writing or send a representative to meet with association members.

Most residents of this end of the Canyon feel that the BLM has been a good neighbor. In the projected Pinal County plan for our area, a major consideration will be to coordinate our plan with the BLM plan for the Wilderness. We are certain that both the

Bureau and APOA wish to continue this amicable relationship.

Sincerely,



Lola T. Newton, Vice-President



Susan Luebbermann, Secretary
Aravaipa Property Owners Association

ATTACHMENT

CC: Ray Brady, BLM District Manager
Hon. Dennis DeConcini, U. S. senate
Hon. John McCain, U.S. Senate
Hon. Jim Kolbe, U.S. House of Representatives

Aravaipa Property Owners Association, Inc.
c/o Lola T. Newton
AC Star Route Box 4205
Winkelman, AZ 85292

602/357-6247

ATTACHMENT
Page 1

ARAVAIPA PROPERTY OWNERS ASSOCIATION - COMMENT, CONCERNS, OBJECTIONS
REGARDING THE DRAFT BLM SAFFORD DISTRICT RESOURCE MANAGEMENT PLAN

APOA'S MAJOR CONCERNS ARE THE PROPOSALS IN ALTERNATIVES A, B, AND C TO OPEN CURRENTLY PRIVATE ROADS IN THE CANYON (Oak Spring Canyon Road, Whittaker Ranch Road, Wagner Ranch Road, Wood Ranch Road) FOR PUBLIC ACCESS.

Opening these roads will defeat BLM conservation objectives for Aravaipa Canyon and can seriously affect the health and lifestyle of Canyon residents.

ENVIRONMENT - (Management Concern 7) The BLM is concerned about air quality. So is the APOA.

Opening the roads will

Significantly intensify dust pollution due to increased traffic on Aravaipa Road and on the roads leading to the high country. In the past two years we have already experienced a heavy increase in traffic and dust particulates.

Increase fire danger. As more people use the roads the potential rises for careless smoking and failure to adequately extinguish cooking fires.

WATER RESOURCES - (Management Concern 8) The BLM is concerned about water quality. So is the APOA.

Opening the roads will

Increase the amount of trash and garbage that will directly and indirectly pollute creek water. Residents already "police" the areas along the road and creek, where everything from disposable diapers to old chair frames are discarded. With more people using roads to the table lands, there will also be more picnickers and more unhealthy garbage along the creek. Garbage in the back country can pollute through runoff.

CULTURAL RESOURCES - (Management Concern 5) The BLM is concerned about destruction of cultural resources. So is the APOA.

Opening the roads will

Increase the destruction and vandalism of prehistoric sites in the area as more "treasure hunters" have access. Given the terrain, it would obviously be impossible to monitor and prevent such activities.

ATTACHMENT
Page 2

CRIMINAL ACTIVITIES - APOA is concerned

Opening the roads

Will encourage criminal activity, particularly activity that is drug related. Drug incidents have already occurred in the Canyon, and unquestioned access to the high country can only provide an open invitation for drug dealing and other types of criminal behavior.

DAMAGE TO PRIVATE PROPERTY - APOA is concerned

Opening the roads

Will further aggravate an already existing problem of property damage, stock management, and vandalism on private land. Land owners have an ongoing problem with cut fences, gates left open, branding wood supplies burned, and damage to equipment. Open access will exacerbate current problems.

Over many years, residents have had problems with picknickers. At one time problems were so severe that Pinal County Sheriff's Department sent personnel to camp at the creek during holiday weekends.

MAINTENANCE, MONITORING, SAFETY - APOA is concerned

If the roads are opened

Who will maintain them? Currently, the ranchers who own the properties maintain the roads to manage their lands.

Does the BLM propose to improve and maintain the roads?

APOA members can see only an increase in the problems cited above if public access is facilitated through road improvement.

Who will monitor for unlawful use and activities?

Given the existing national economic situation, monitoring activities in the high country would undoubtedly be a very low funding priority. Additionally, as previously cited, nature of the terrain makes monitoring extremely difficult.

Is the BLM prepared for increased search and rescue?

As more people use the high country, potential rises that there will be accidents and individuals becoming lost. Search and Rescue is expensive and often dangerous.

ATTACHMENT
Page 3

OTHER CONCERNS

1. On page 23 of the RMP, item 6 states, "Obtain legal access, for public and administrative use, across private lands in 37 locations Districtwide ... and across other ... private lands as determined in the future."

Most property owners are willing to provide access for BLM administrative use and to a limited extent to known public; however, we object to both the currently recommended road openings and to any projected future openings in this area of Aravaipa Canyon.

2. On page 34, item 12, Brandenburg Mountain is designated VRM III, which on page 257 provides only that BLM would "partially retain the existing character of the landscape." Brandenburg Mountain is an important visual resource in the Canyon, as well as the habitat of big horn sheep. APOA requests BLM to designate Brandenburg Mountain, VRM Class I.

S-1

10

1
1/15/1990

Rex Owens

"CO-1 Box 3219

Eden, AZ. 85535

Bureau Of Land Management

425 E. 4th Street

Safford, Az. 85546

Mr. Steve Knox, RMP Team Leader:

In reviewing the RMP/EIS document and draft, I would like your Alternative A (The Preferred Alternative). but with a few minor considerations. Allotment Management Plans should include input from permit holder (Rancher) to BLM on wildlife monitoring and habitat areas. We seem to have hunting seasons overlapping and extended, such as regular hunting season, Black Powder, Pistol, Bow and Arrow and etc., for different species of wildlife. "ma" activities should somehow be restricted for periods, more so that habitat degradation or loss does not take place. The permittee and BLM should have high priority when establishing these seasons. AMP establishes objectives and priorities for management of livestock use, but the rancher can only complain about cattle being driven away from water and grazing, gates being left open and etc., for extended hunting seasons. As I continue, note I also hunt and feel the Ariz. Fish and Game need some help. It seems that during these extended seasons the cultural resources are found to be damaged. The rancher or permittee will more the likely help patrol

10-1

10-2

the cultural resources when they are brought to his attention.

BLM studies along with AMP development, monitoring water and wildlife habitat are proving to be satisfactory. The present management should be congratulated in the development of the RMP/EIS along with the interdisciplinary teams of Resource Specialists that brought the RMP/EIS about.

I feel after reviewing the alternatives (Preferred Alternatives) as identified, that the Alternative A provides a balanced approach to multiple use and should be implemented. The Management Concern 5 - Cultural Resources is most important and the actions to accomplish the objectives very good. I would like to see this as planned implemented.

The Safford District Resource Management Plan and Environmental Impact Statement Draft provides comprehensible information to all concerned.

Yours truly



Rex Owens

11

February 15, 1990

Bureau of Land Management
Safford District Office
Safford, AZ 85546

Ref: Safford District RMP/EIS dated December 1989

Gentlemen:

While better than most BLM RMP's, this Draft EIS still falls far short of adequate protection of important natural resource values in the Safford District. Alternative B was far better than the Preferred Alternative for ACEC's but still provides less than minimal protection of District resources. Alternative B and the Preferred Alternative should also recommend Fishhook Canyons, Markham Creek, Mescal Mountains and Turtle Mountain as ACEC's. The Dos Cabezas Peak ACEC should be at least 200 acres in size.

All the ACEC's should have livestock grazing eliminated, be withdrawn from all mineral activity and prohibit OHV's except on roads. There is no way to protect special values such as flora, fauna, paleontological and archaeological; and continue to allow the above activities. For the most part, ACEC's need more rigid protection than Wilderness, especially livestock grazing.

Wild and Scenic River recommendations were pretty good in Alternative B but Wilderness recommendations were totally inadequate. All the studied WSA's have outstanding wilderness values and should have been recommended. It is Congressional responsibility to decide after you have reviewed them for their Wilderness characteristics. Day Mine, Gila Box, Turtle Mountain, Javelina Peak, Peloncillo Mountains, Bowie Mountain, Baker Canyon including additions, Apache Box and Hoverrocker all have exceptional Wilderness values.

All private land in Guadalupe Canyon should be acquired and it along with Baker Canyon and the adjacent Forest Service Bunk Robinson should be designated Wilderness and the BLM lands should be ACEC status.

Multiple use does not mandate that all public acreage must be used for all potential uses. Far too many Safford District acres are dedicated to maximizing livestock and mining uses and OHV recreation - a disproportionate amount. There is no way to avoid inadvertent damage to cultural resources, minimize soil erosion and optimize wildlife and biological diversity; and allow livestock grazing, mining and OPEN OHV use on the same lands.

The Savory (Holistic?) grazing method should not be permitted in the Safford District. This area never had the large herds that Savory is predicated on. Savory was a failure in Africa. It is just another smokescreen for additional overgrazing in the Southwest.

Although only Congress can eliminate grazing on public lands, the BLM should notify Congress in this RMP/EIS of the severe damage being done to public lands by livestock grazing and the impossibility of continuing grazing levels and meeting the resource protection objectives.

11-3

I do applaud your plan to get 75% in good to excellent condition by a 15 year plan. I urge you to go to 95% Excellent by 2002. You will not if you continue to allow grazing in seasonally.

The Timber Draw Retention Dam should have archaeological surveys and mitigation be much diminished if livestock grazing is eliminated in its watershed.

In summary, although this Plan is I've perused, it still falls far short of District's natural resource base. commodity production over resource grazing; it is heavily subsidized that we have subsidies from free money would be a better but still weak. We have recommended many ACEC's, the have minimal to no protection from that yields pseudo ACEC's. I urge in your plan.

Sincerely,



Jim Notestine

PO Box 461
Sonoita, AZ 85637

11-1

11-2

February 18 1990

John Augsburger
District Biologist
BLM-Safford District
42 5 East 4th Street
Safford, AZ 85546

Dear John,

Thank you for mailing me a copy of the Safford RMP for my review. The document identifies four chief issues of concern on which I will comment briefly.

1. Access I should like to see access in sensitive areas limited to authorized use only to prevent further desecration of resource values
2. ACECs and other types of special management designate all identified candidate ACECs as official ACECs to preserve important resource values. The two segments of the Gila and San Francisco Rivers should be designated as wild and scenic rivers. I have not seen the final list of wilderness areas designated in the current BLM Wilderness Bill, but I believe that the areas adjacent to Aravaipa Canyon and Galiuro Wilderness areas were included as wilderness areas
3. Off-highway vehicles - recreational use of these vehicles should be restricted in ACECs and other sensitive lands, including riparian areas
4. Riparian areas priority protection should be afforded these important areas. Arizona has already suffered loss of many riparian areas and we must protect ALL remaining riparian areas for the preservation of wildlife species and for our own water sources. All watersheds must be protected from overuse from recreational use, overgrazing of livestock and destruction from OHVs

I would like to comment specifically on the objectives and actions to be implemented to resolve the Wildlife Habitat Management Concern. The proposed Alternative A omits highly important species under item 1 on page 30. Subitem b only identifies "Species identified for reintroduction in Fish and Wildlife Service plans - aplomado falcon and wounding". It is crucial to future reintroduction of endangered species that this be replaced with subitem b under Alternative B on page 50 which reads "Species extirpated from the Safford District - aplomado falcon, wounding, grizzly bear, wolf".

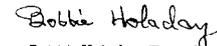
12-1

ocelot, jaguar, Colorado River squaw fish, black-tailed prairie dog and river otter" (italics supplied)

Future reintroduction of the endangered Mexican wolf (*Canis lupus baileyi*) is the also the responsibility of the Fish and Wildlife Service and if found to be feasible, would be administered by the Arizona Game and Fish Department. Commenting specifically on the Mexican Wolf Recovery Plan of 1982, it is imperative that all candidate potential reintroduction sites be maintained with emphasis placed on preserving habitat suitable for reestablishment of the Mexican wolf. Studies by the Arizona Game and Fish Department identified 15 potential reintroduction sites, several of which fall under the administration of the BLM Safford District. These studies were done in conjunction with the Fish and Wildlife Services request that Arizona and New Mexico come up with possible reintroduction sites. While in-depth feasibility studies of these sites have yet to be made, these habitats must be maintained to encourage large deer populations, healthy vegetative cover and good water supplies. The AGFD is currently conducting a public attitude survey to determine how various segments of the public perceive the wolf. Following the completion of this study, it is hoped by many who believe in reestablishment of endangered species, that further studies will be made of the potential sites by qualified biologists. It is therefore imperative that every effort be made in the Safford District RMP to make this a priority item.

Thank you for your consideration of this important matter. Please notify me of the action taken to correct this matter. For your information, I enclose information a forthcoming Arizona Wolf Symposium which you may be interested in attending.

Sincerely,



Bobbie Holaday, Founder/Director
Preserve Arizona's Wolves

1413 East Dobbins Rd
Phoenix, Arizona 85040

copies Ken Russell, Assistant Deputy Director, USFWS
Terry Johnson, Endangered Species Coordinator, AGFD

13

Draft Safford District Resource Management Plan
Public Comment Form

Issue/Management Concern: ALL THE ISSUES

Comment: Access without it we can not use our BLM lands. We urge you to Trade or Buy out right of way ingress-egress conservation easements in to our BLM lands so we can all enjoy them. We feel that if a lessee denies the public from that land that he or she is leaving from the BLM then that person or corporation should be terminated from leasing that BLM land in the future.

We support the ACEC and other types of special management purposes.

We support the OEE-Highway Vehicles use as proposed. staging it in semesters and letting it be in others.

We support the protection of all riparian areas as proposed.

We support the Gila Wild and Scenic River (Coolidge Dam to Winkelman) and (Gila Box). Please look in to at least foot access from Hwy to Dam along river.

We appreciate the right to comment on these issues and we appreciate the use of our BLM land.

Name: Albert R. Wentz
Representing: Tucson Rod & Gun Club
Address: CONSERVATION CHAIRMAN
P.O. Box 12921 Tucson AZ 85732
Date: 2-21-90

14

THE SAN CARLOS APACHE TRIBE

P.O. BOX 0
SAN CARLOS, ARIZONA 85550



Buck Kitcheyan
Tribal Chairman
Ronald Edwards
Tribal Vice Chairman

(602) 475-2361

February 21, 1990

Mr. Ray A. Brady, District Manager
Bureau of Land Management
Safford District
425 E. 4th Street
Safford, AZ 85546

Dear Mr. Brady:

The San Carlos Apache Tribe requests that you present to the San Carlos Apache Tribal Council, as part of your trust responsibilities to the Tribe, a brief overview of the Safford District's draft Resource Management Plan. In this overview of the RMP, we desire that you specifically address the issues and concerns which affect the Tribe or its resources.

As I am sure that you are well aware, the reservation shares a large border with the Safford District. San Carlo* Apache Tribal Members compose a significant and unique group of public land users within your district. However, I am concerned that you do not appreciate the full dimension of the Federal/Indian trust relationship. This is a government-to-government relationship and is not the sole domain of the Bureau of Indian Affairs. More specifically, it is the Department of the Interior which is charged with the responsibility of upholding this trust, including the Bureau of Land Management where its management affects the trust obligations of the Federal government toward trust lands and resources of Native Americans.

Some of the specific areas which we desire addressed are:

1. How does the plan address the issues and concerns associated with the common boundary that we share and the management of resources common to both management

14-1

- 14-1 | jurisdictions? (ie. watersheds, wildlife habitats, Areas of Critical Environmental Concern, wilderness areas, livestock trespass, fuelwood trespass, etc.)
- 14-2 | 2. Does the RMP create a format for resolving questions concerning the legal boundaries of the reservation (where it borders the Safford District) as established through the Executive Orders of November 9, 1871, December 14, 1872, and August 5, 1873?
- 14-3 | 3. What common border areas, because of common resource* management concerns, does the BLM wish to develop Cooperative Management Agreements with the San Carlos Apache Tribe and are these addressed in the RMP?
- 14-4 | 4. How did the Bureau of Land Management involve the Tribe, Tribal Authorities and Tribal Members in the planning process and how does the Safford District intend to involve these groups in the continuing RMP process?
- 14-5 | 5. How are the cultural needs of the San Carlos Apache Tribe and members addressed (ie. the need to gather emory oak acorns, pinyon nuts, and medical, ceremonial and religious materials)? Were attempts made to involve San Carlos Apaches in the identification and protection of important Apache historical, religious or ceremonial sites or other ethno-historical uses of the natural resources within the Safford District?
- 14-6 | 6. Were environmental education plans included within your RMP and if so were the San Carlos, Pt. Thomas, and Globe School Districts included within these plans?
- 14-7 | 7. Was an attempt made to determine if the San Carlos Apache Tribe has or is developing a resource management plan which would affect the resources management on the Safford District?

Tribal Council meetings are held the first Tuesday of every month: there are two council meetings scheduled before the end of your comment period. Please arrange a briefing for one of these meetings by contacting myself or my secretary, Mrs Barbara Manulito, at 475-2361 and requesting to be placed on the Agenda.

The San Carlos Apache Tribe wishes to foster a spirit of cooperation in which the resource management goals of both parties can be achieved and one in which the trust obligations of the Federal government can be met. In light of these requirements, the San Carlos Apache Tribe has recently begun a similar resource planning project which we refer to as the Integrated Resource Management Plan (IRMP). Many similar issues and concerns will be addressed in our

planning process. We welcome your agencies full participation in the development of this management framework.

Sincerely,



TRIBAL CHAIRMAN
SAN CARLOS APACHE TRIBE

cc: Mr. Wilson Barber, Phoenix Area Director, BIA
Mr. Allen Anspach, Superintendent, San Carlos Agency, BIA
Mr. Lynn Engdahl, Acting Arizona State Director, BLM

15

Draft Safford District Resource Management Plan
Public Comment Form

Issue/Management Concern: Reparian areas and marginal habitate areas.

Comment: I want to thank you for your presentation of the work BLM has done and inviting the public to make comment. I also wish to thank you for the moratorium on cattle grazing in the San Pedro Reparian Area. The River has blossomed in those particula- trees.

I am aware that you can't repair all reparian areas because that is your job. I would love to see you manage all the reparian areas as you have done with the San Pedro for the purpose of returning these precious spots of nature back to its prestine state. The reparians areas can not be preserved without keeping cattle off of them. For they graze the native plants into extinction and destroy the wildlife habitate just by being there doing what cows do.

15-1

I'm asking you to put a long term moratorium of livestock grazing on all reparians areas if BLM is managing. I cannot stress this enough. Do it before we completely lose all of those precious areas. I understand there is only 7% left of the total south west which still has "Prestine" conditions. That's not much. In addition no livestock grazing on marginal habitat areas.

I also strongly oppose all A.D.C. "predator" killing on BLM land. Altho Rabies Control is necessary if the animal is acting like it has rabies.

I am part of the "public" and we have a decision on how the BLM land will be used because it is public land. I speak strongly against killing of "predators" on BLM land.

Again, I appreciate your good management of multiuse land use. I do have a concern about the use of Herbicides and Pesticides. The scientist try and tell us that the poisons break down quickly. This is not true. They don't break down that quick and as they do some breaking down they leave toxic residue. If you want to rid certain plants on your land, let me know, I can get a volunteer group to pull the noxious plants much easier and quicker than you could spraying.

~~Representative~~ Name: Carl Escott
Address: P. O. Box 1560
Bisbee, Ariz. 85603
Date: March 3rd, 1990
432-4292

16

District Manager
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Feb 28, 1990

I have read your RMP with interest. Being a member of the Tucson Rough Riders my CONCERNS are with the effects of the plan on roads and trails. I can see a lot of hard work went into preparing this plan. It provides protection for environmental areas and allows vehicle access at the same time. Of the four plans I find plan C to be most suitable. Plan B is totally unacceptable due to the restrictive nature of the plan. I applaud your plan to obtain legal access across private lands.

Sincerely


Rheel Tetreault
1960 W. Brittain Dr.
Tucson, AZ 85705

17

L. B. Curry
1040 Private Place
Lake Havasu City AZ
86403

March 3, 1990

Steve Knox, RMP Team Leader
Bureau of Land Management
425 E 4th St. Sedona AZ 85546

Regarding the Sedona District Resource Management Plan and Environmental Impact Statement draft of January 1990. Even "Alternative D" (No Action) is far too much action. Please leave everything just as it is - close no roads - withdraw no mining areas - no artificial game cover - no wildlife studies - no more erosion control structures etc. Please re-read the "BLM Mission" printed inside the front cover - particularly the last sentence bearing in mind that yield means income not output! In these austere times we cannot afford your grandiose restoration. Wildlife is being adequately managed and provided for by the state of Arizona. Many of your erosion control structures have failed and at most inoperative times, causing greater havoc than if they had never been built. Your archaeological examination of sites with a backhoe have utterly destroyed the site for archaeological study.

Copies of this letter are being sent to Arizona's Congressional delegation and in accompanying letters I am volunteering to guide them or their delegates to numerous failed erosion control structures, destroyed archaeological sites, numerous failed transplantations etc.

L. B. Curry

In other words, it's time to get the BLM back down to earth! Your mission is not to restore the desert to what it may have been before the white man came. It's time to get your budget into the world of reality and live within your means. No expenditures above or beyond the income from the land.

Taxpayers have had enough of your "Empire Building" - cut your budget - cut your staff. BLM employees contribute nothing to the GNP but do make a substantial contribution to the Trade imbalance.

I know that asking the BLM to be profit making is too much to hope for, but bear in mind we can't afford the way you are operating now.

cc
Senator Dennis D. Conner
Senator John McCain
Rep. John J. Rhodes III
Rep. Morris Udall
Rep. Bob Stump
Rep. John Kyl
Rep. Jim Kolbe

Gincerely

L. B. Curry

18

Dear Mr. Knox,

3-5-90

I write in support of limitation of ORV access to BLM land. ORV use is nearly synonymous with desert destruction. Since ORV users are non-critical ~~users~~ ^{users} to use, observe the results, and rest assured that limitation is the best policy.

I also support your plan to establish Areas of Critical Environmental Concern. Arizona has lost so much habitat already that BLM needs to expand its ~~current~~ ^{current} efforts at protection. Preservation benefits everyone. Your efforts are appreciated. Sincerely,
Mark Stevenson
420 E. Mark Vista #207
Tucson, AZ 85712

19

March 6, 1990

Mr. Steve Knox
BLM
Safford District
425 E. 4th St.
Safford, AZ 85546

Dear Mr. Knox:

Many of the areas that you manage are quite sensitive to human use and abuse, in particular from off-road vehicle use. I urge you to establish the necessary Areas of Critical Environmental Concern to protect in eastern Pima County from further abuse by off-road vehicles.

Sincerely,

Sue

Sue Wallace Cabin
8780 E. Placita Bolivar
Tucson, AZ 85715

Dear Sirs:

These are my
comments for
the record regarding
your pending
RMP. Here's
hoping you moderate
your anti-mountain
bicycle views. -v.p.

I've had a chance to look over your
current Draft Resource Management Plan, and
I must say that I'm very unhappy with
your attempts to deny reasonable access
to mountain bike riders.

20-1 First, I object strongly to your
lumping mountain bicycles in with "ORVs"
like jeeps, trucks and motorcycles in
a transparent attempt to curtail our
trail access. Mountain bikes, unlike
"ORVs", have only a minimal environmental

impact -- certainly
horse, and virtually
typical hiker -- an
bicycles don't der
from using most
lands horses and

Further, I obj
apparently held by
BEM that mountai
incompatible with ot.
Nothing could be fi
Successful mutual
mountain bikers and
trail users has been

21

western U.S., and there is no valid reason why mountain bikers should not be able to share the trails with other users in the Safford District. This view is not popular with some environmental and equestrian groups, but they need to be exposed for the selfish elitists that they are.

In short, mountain bikers want to be treated fairly -- not only because our tax monies support your activities as much as any other groups, but primarily because allowing mountain bikers fair access to public lands is simply the right thing to do.

Sincerely, Vernon W. Patrick

To: Mr. Ray A. Brady
District Manager

3/6/90

Dear Sir:

As an avid mountain bike enthusiast, I was very disappointed by reading your current draft Resource Management Plan for the Safford District. I believe that it is very unfair to group mountain bikes in with off-road vehicles such as 4-wheel drives and motorcycles. As far as comparative damage is concerned, it is apparent by looking at various trails that mountain bikes cause far less degradation than a shod horse, and only slightly more than a person hiking in heavy hiking boots. By classing mountain bikes with motorized vehicles, the BLM is denying us access to important areas of southern Arizona's back country. We believe that we have just as much right to enjoy these tax-supported areas as others groups who, it should be noted, have their own narrow interests served by keeping us out. Mountain bikes are a fun and low impact way to enjoy the outdoors which the BLM is protecting and managing for all of us--not just the select and influential few. With the ever increasing interest and support of mountain bikes, as indicated by the now 5 million being sold every year, more and more people are choosing off-road bicycling as their primary means of recreation, and will soon be a force that must be dealt with equitably. Conflicts between interest groups can best be dealt with through increased education, not by blatantly discriminating against one group or another. I would be pleased if my concerns as well as those of other biking enthusiasts were given more attention in any revisions of the Safford District RMP.

Sincerely,

Ronald P. Martin

Ronald P. Martin
9210 E. Calle Kuehn
Tucson, AZ 85715

22

Draft Safford District Resource Management Plan
Public Comment Form

Issue/Management Concern: ACEC - Access

Comment: If any access is to be considered at all it must be allowed only to hikers or horse back riders. Off-road vehicles would be fatal to the Aravaipa ecology.

Name: Jerry Iser
Representing: APDA Inc.
Address: 2276 WINKELMAN
WINKELMAN AZ 85292
Date: 3-1-90

23

LOLA T. NEWTON
AC STAR ROUTE BOX 4205 WINKELMAN, AZ 85292

COMMENT: DRAFT SAFFORD DISTRICT RESOURCES MANAGEMENT PLAN

Issue: Public access to roads in western Aravaipa Canyon

Comment: The BLM proposal to open roads to public access in this area can have only negative impact on a sensitive environmental area and current residents. Over the past three years, there has already been a steady increase in; traffic, dust pollution, and vandalism -- including damage to a windmill, corrals, and fences.

Further, until the sheriff's office sent personnel to patrol on several holiday weekends, we had incidents of blatant trespassing, threats, and every type of human garbage tossed on the stream banks, into the water, and along the road. We have an ongoing problem with trash and garbage as it is.

Opening the roads to the public will not only increase the number of people and vehicles coming to the area, but will also exacerbate all the problems. Individuals who have so little regard for the environment are not going to behave any better when they have open access to the high country. Moreover, open access will be an invitation to use the more remote areas for all types of illegal activities, especially drug related.

The BLM is certainly not going to monitor problems along Aravaipa Road; and, obviously, the Agency could never have enough staff to enforce regulations for use of access roads or land in the high country. Currently, property owners do, at least, provide some control of persons using their private roads for access.

We recognize that federally owned lands belong to the public and that the public should have reasonable access. Nonetheless, we feel that the BLM should be looking at other routes of access, even if it entails future road building to the north of Aravaipa Canyon and in from the San Pedro River valley.

We respectfully request that proposals to purchase or acquire right-of-way over private roads in western Aravaipa be deleted from the Resource Management Plan.

Finally, we appreciate that the BLM has been a good neighbor in the Canyon.



March 10, 1990

24

8425 North 56th Avenue
Glendale, Arizona 85302
(602) 937-6536

March 9, 1990

Mr. Steve Knox
RMP Team Leader
BLM
425 E. 4th street
Safford, Az. 85546

Dear Mr. Knox,

I am in receipt of the Safford District RMP/EIS. I congratulate you and your co-workers on this good piece of work.

I have a couple of comments regarding your preferred alternative.

Alternative B should be the preferred alternative because it:
has higher number of ACEC acres
greater number of acres closed to OHV
recommends the San Francisco river as suitable for inclusion in the Wild & Scenic River System
this alternative stresses conservation more than A or C

I like the definition of limited OHV use, whereas these vehicles will be confined to existing roads and jeep trails as identified in your review process. Option C is unacceptable as far as OHV use is concerned.

I like your management of the San Pedro RNCA and the idea of building Timber Draw Dam on the San Simon. I approve your filing for as many in-stream water flows as possible.

Please continue to emphasize recreation and wildlife protection and reduce grazing and mining activities. You are the stewards of the nicest BLM lands in Arizona. Thank you.

Sincerely yours,


Gabriel Zinsli

25

3/12/90

Steve Knox RMP Team Leader
Bureau of Land Management
425 E. 4th St
Safford, Az 85546

I obtained and have studied the RMP.
Of the four alternatives outlined in detail I support Alternative B

I support alternative B because:

1. It benefits 4000 acres of riparian vegetation.
2. It restricts OHV use, closing 1,400,000 acres
3. Improves wildlife habitat on 101,739 acres
4. Closes Big Horn sheep lambing areas
5. Protects archeological & paleontological sites
6. Restricts cattle grazing in critical areas.

I support alternative B because it best protects the acreage of Mulechore areas. Our grandchildren and other children will be able to hike and camp there as we have.

I strongly urge the BLM to work closely with the Nature Conservancy and accept their help and advice.

Sincerely,


HOWARD
186 EL MENDOCINO
ONKEN VALLEY, AZ 85814

26

3-10-90

DEAR R.M.P. TEAM LEADER

I WOULD LIKE YOU TO KNOW THAT I
SUPPORT ALTERNATIVE B OF THE CURRENT
RESOURCE MANAGEMENT PLAN.

THE WILD AREAS AND THE WILDERNESS
NEED ALL THE PROTECTION THAT WE CAN GIVE.
THERE ARE PLENTY OF JOBS AND PLACES TO LIVE.
WE DON'T NEED ANY MORE DEVELOPEMENT OF
ANY KIND.

I WOULD ALSO LIKE TO GET RID OF
THE COWS.

YOURS FOR A FUTURE
Jack V. Huston

JACK V. HUSTON
RT #1 Box 694
MIAMI ARIZONA
85539

27

Mr Knox:

3-12-90

In regards to the Safford Dist Resource
Mgt Plan, I have 2 comments:

- 1) Do not open up + improve roads in the
Muleshoe + Aravaipa areas. These are
critical habitat areas + shouldn't be
accessible to off-road vehicles.
- 2) Do establish "Areas of Critical
Environmt'l Concern" to protect
important cultural + environmt'l
sites.

Jule Brown

28

Dear Mr. Knox, March 16, 1990
Please support Alternative B in your RMP.
It provides the best protection for the Aravaipa &
Muleshoe - as well as other areas.
Arizona is rapidly becoming over-populated &
now is the time to preserve important environ-
mental areas - & protect dwindling wildlife.
Altho I drive a Bronco, I feel it is important
to restrict OHV use.
I hope the BLM will work with the Nature
Conservancy & act wisely.
Sincerely yours,
Lynn K. C. H.

29

March 16, 1990

U.S. Department of the Interior
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Gentlemen:

I am writing to you regarding the high country south of Aravaipa Creek:
specifically the old Woods Ranch Allotment at the West End.

As a horse owner, I feel that this area has great potential for trail
riding. It is within a reasonable distance from Tucson and many riders
would welcome the use of trails in this area.

We hope that it will not be opened to ORV use. There are roads that
occasional 4-wheel-drivers can use. There are roads that could stand some
ORV use, but any unlimited opening could prove to be extremely detrimental
to the land. These watersheds above the Creek are important to this
riparian area, if erosion is caused by off-road driving the area could be
ruined.

We hope you will think favorably about horseback and hiking use.

Sincerely,


Kristin Coleman
Member, Pima Trails Association

30

Mr. Wm C. Heald
250 Camino Del Sendero Hwy 110
Green Valley, AZ 8584



MARCH 17, 1990

MR. STEVE KNOX
R.M.P. TOUR LEADER
B.L.M.
425 E. FOREST ST.
SAPPHIRE, AZ 85546.
DEAR SIR,

I HAVE BEEN ABLE TO EXAMINE YOUR
PROPOSED RESOURCE MANAGEMENT PLAN AND BOTH
PART A COPY OBTAINED FROM THE AZ NATURE
CONSERVANCY AND THE SUMMARY PUBLISHED
IN DOUGLASS SPRING 1989 (SUMMIT MOUNTAIN,
TUCSON AZ). I DO NOT THINK YOUR
ALTERNATIVE "A" GIVES ADEQUATE PROTECTION
TO ARIZONA CANYON AND CREEK. BEFORE ALL
ARIZONA CANYON IS THE MOST BEAUTIFUL
CANYON IN THE USA BEFORE THE GRAND
CANYON. IT SHOULD BE PROTECTED AS
MUCH AS POSSIBLE AS IS FOR YOUR
AND MY CHILDREN, GRAND CHILDREN ETC

MY OPINION IS THAT ALTERNATIVE "B"

PAGE 2

WILL PROVIDE MUCH BETTER MANAGEMENT
PROTECTION OF BOTH NATURAL AND
CULTURAL RESOURCES WHILE ALLOWING
FOR USE AND DEVELOPMENT.

I FEEL THAT BLM ALONG WITH
NATIONAL FORESTS, AND NATIONAL PARKS
SHOULD BE VERY CONCERNED WITH PRESER-
VATION OF OUR RESOURCES AS WELL AS
DEVELOPING PRACTICAL USES

THANK YOU FOR GIVING ME THIS
OPPORTUNITY TO EXPRESS YOU OF MY
FEELINGS

YOURS TRULY

William C. Heald

31

845 W. La Colandrea
Green Valley, AZ 85614
March 15, 1990

Dear Mr. Knox,

As a member of the Nature Conservancy and an avid hiker and nature photographer, I am writing to urge you to adopt Alternative B of the Resource Management Plan. I hope you will work closely with the Nature Conservancy and listen to their reasons why this is the best plan for protecting our precious wilderness habitat, wildlife and vegetation from thoughtless or selfish abuse and exploitation. The Aravaipa and Muleshoe areas are very special! It is so important to protect them not only for the wildlife who are dependent on that area and for the human beings who enjoy seeing nature unspoiled, but also for our children and grandchildren! We must learn to care for all the creatures of God's Creation and live in harmony with them, for their sake and also for our own in the long term. Too long we have thought only of our own financial gain or selfish use. We must become responsible stewards - caretakers - of the earth and all kinds of life.

Support Alternative B!

Sincerely yours,
Jacoby Atencosa
(Mrs. Betty Atencosa)

32

1507 Placita Travis
Green Valley, AZ 86514

March 17, 1990

Steven Knox, RMP Team Leader
Bureau 01 Land Management
425 E. 4th Street
Safford, AZ 85546

Dear Mr. Knox,

I am writing to support Alternative B for the Resource Management Plan. I think it will be the best alternative to protect the Aravaipa and Muleshoe areas because it restricts cattle grazing and off highway vehicle use.

I am a hiker and a birdwatcher and I value any action to preserve the natural beauty of the Arizona wildlife and plants.

Sincerely,

Sharon Creeden
Sharon Creeden

33

126 La Soledad
Green Valley, AZ 85614
March 16, 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 47th Street
Safford, AZ 85546

Dear Mr. Knox:

It has **come** to my attention that the BLM is considering several plans in regard to management of the **wilderness** areas of Aravaipa and Muleshoe.

My husband and I are **avid** hikers and have hiked in the Aravaipa Creek area both last year and this year. It is a beautiful wilderness **area** and **we** would be **sorry to learn** of **any** plan that **would** change **its** present use.

I realize that you **are** always under pressure from special **interest** groups to change the use of the land to benefit them **specifically**. **However**, it is **important**, too, to consider what **is** best for the land in the long term and **what** is **best** for the future generations of **Americans** who love the land for its sheer beauty.

Of the four alternative plans that have been proposed, I feel that Plan **B** would best protect the wilderness habitat, wildlife & flora. I would urge you to implement Plan **B** and to work closely with the **Nature** Conservancy and accept their help and advice.

Sincerely,

Helen Zaukas

Helen Zaukas

34

Steve Knox, RMP Team
Bureau of Land Management
425 E 47th St
Safford, AZ 85546

Dear Sir:

I have reviewed
for resource manage-
ment district & strongly
I have hiked & am
in both the Aravaipa
areas. Plan B is
in my opinion.

The Nature Conservancy
job helping to manage
areas. I hope the
with them & accept

35

221 W. La Canea
Green Valley, Az. 85614
March 19, 1990

Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, Az. 85546

Dear Steve Knox:

I strongly support Alternative B for the Aravaipa and Muleshoe Areas where it is most important that Off Highway Vehicles, as well as Cattle Grazing, be restricted.

Along with nine other people, I hiked Aravaipa Canyon in October after waiting a year to receive the permit. It was a rare and breathtaking experience. Aravaipa Canyon is a National treasure that should be carefully protected from overuse and abuse because of its riparian vegetation, archaeological sites and wildlife habitat so that future generations may enjoy them as we are now doing. I urge you to work closely with the Nature Conservancy--Accept their Advice and Help--Everyone will Benefit.

Sincerely,
Marian Schramm
Marian Schramm
602-625-6644

36



MEMORANDUM from the desk of

JOHN W. TILSCH

Mr. Steve Knox
RMP Team leader
Bureau of Land Management
425 E 4th Street
Safford, Ariz. 85546

Dear Mr. Knox

As information, I am a member of the Green Valley Hiking Club and an active working member of Friends of Madera Canyon.

I am very interested in protecting and preserving the wilderness area of our beautiful State and strongly urge you to support alternative B.

The increasing use of off highway vehicles is particularly damaging to both animal and plant life.

Thank you
John Tilsch
John Tilsch
285 E. Camino Verde
Green Valley Ariz
85614

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17 MARCH 1990

MR. STEVE KNOX
RMP TEAM LEADER
BUREAU OF LAND MANAGEMENT
425 E. 4th STREET
SAFFORD AZ 85546

DEAR MR. STEVE KNOX

REQUEST YOU SUPPORT
ALTERNATIVE B SINCE IT
BEST PRESERVES THE ARAVAIDA
AND MULESHOE AREAS.

PROBABLY THE MOST
MOST IMPORTANT FEATURES OF
ALTERNATIVE B:

RESTRICTS OFF HIGHWAY
VEHICLE USE - CLOSING 1,400,000
ACRES TO OHV USE.

IMPROVES WILDLIFE HABITAT
BY MANAGEMENT OF 101,700 ACRES.

CLOSES BIG HORN SHEEP LAMBING
AREAS DURING CRITICAL PERIODS

PROTECTS ARCHAEOLOGICAL AND
PALEONTOLOGICAL SITES.

THANK YOU


ANDREW A. TUTTLE

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March 18, 1990

Steve Knox, RMP Team Leader

Bureau of Land Management
425 E. 4th St.
Safford, Az. 85546

Dear Sir,

I have been privileged with an opportunity to read the Safford District R.M.P. and E.I.S. It certainly appears to be a thorough study for your area of concern. As a frequent visitor to many of the areas covered by the study my analysis of the report leads me to urge you to reconsider the choice of Alternative A as the "preferred alternative". Other approaches are available which can be much more restrictive on some issues and still preserve the multiple use concept. Alternative B would be a great step forward in protecting archeological and paleontological sites, over-grazing in critical areas, Big Horn Sheep lambing areas and delicate riparian vegetation. It would also close additional sensitive areas to off highway vehicle use.

We must all act wisely and decisively now to protect our vanishing wild areas. This can be done without ignoring the rights of hunters, fishermen or OHV users. Alternative B will accomplish all these things much more effectively than the "preferred" alternative as designated in the RMP and EIS.

Sincerely,


William D. Fritz

909 Quail Dr.
Green Valley, Az. 85614

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1322 Condesa Primera
TUCSON, ARIZONA 85718
17 March 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Dear Mr. Knox:

I would like to make comment on the draft RMP/EIS for the Safford District. Through the 1980s, our nation went through an attempt to go back to the 1950s. It did not work. The world, the nation, and our state are not like they were four decades ago, and we cannot go back. The impossibility of the "good old days" is the compound product of population growth (from 151 to 251 million) and technological impacts. Those impacts do not stop at the state line, but are connected to global climate, demand for our products, and natural cycles of water, carbon, etc. The latest news of computer modelling of global climate envisions increasing heat and drought, the kind that grew little grass in the past summer, making intensive grazing even more impossible than it has been recently.

Hence planning for use of a national resource in the form of public lands in southeastern Arizona cannot be limited to the viewpoint of traditional livestock, grazing and hunting. Just as sure as there is a BLM, the images of cowpokes in the saddle and gun racks in the pickup is fading to a last refuge in the movies. There is more demand for the service functions of natural lands than for the beef, more need for protection of natural systems than provision for vehicular access. There is also more need for information than what is currently available in the DEIS and the assumptions underlying the alternatives. The only alternative that approaches an ecosystem view, alternative B, has in common with A and C the rebuilding of roads that caused previous erosion (e.g. Virgus Canyon Road,, erosion that is incompatible with "Management Concern 7- Vegetation", p. 40.

The Galiuro Mountain system has been the scene of not mere predator control, but if news accounts have been accurate, of prolonged agonizing deaths for black bear and mutilations of killed cougar. The causal-nature of the predator problem has not been addressed, so we have nothing to refute the grapevine notion that over-harvesting of native ungulates has left the predators without sufficient natural prey. Hence a aggravated demand for domestic stock as the food source. Open up more roads, increase deer harvest, and what will that do for predator and rancher?

Vehicular access to natural lands is rendered obsolete by wider concerns of energy conservation, biological diversity, carbon dioxide imbalance from excessive burning of fossil fuels and devegetation such as results from vehicular abuse and overgrazing by domestic stock.

1

To run bulldozers back into the south rim uplands above Arivaipa, which are already showing poor ability to heal from past insults, is to ignore the writing on the wall: brute force is no longer the solution to our needs. The hunting and grazing pressures cannot be sustained. There are simply too many of us to hunt, and any short-term alleviations will be seen in the longer run to have been unsustainable land degradation.

Similarly, the Arizona economy is no longer dependent on beef production, but on urban-based technologies. Quality of life will become increasingly a matter of natural contrasts and escapes, careful watershed management, protection of biotic diversity and natural heritage. This has, in part, been the thrust of recent Arizona wilderness legislation, which has provided another contrast to this RMP/DEIS which seems a nostalgic Safford of the 50s view: put cows on the limited grass and jeeps of hunters on the uplands.

Considering what we taxpayers must pay for, ultimately, in downstream flood control, recovery plans for T & E species, range-management subsidies to cover what grazing fees do not meet, and the host of social costs of land abuse, the time for the Bureau to leave the 50s is now. You have a very important role in the national ecology, but not that envisioned in past land use patterns.

Hence I urge a modification of Alternative B to include the "no action" alternative as regards re-opening of rutted roads into the hills. Thank you.

Sincerely yours,


Dr. William A. Calder

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5122 East Citrus Street
Tucson, Arizona 85712
March 19, 1990

Steve Knox
B. F. M. Safford District
425 East 4th Street
Safford, Arizona 85546

Dear Mr. Knox:

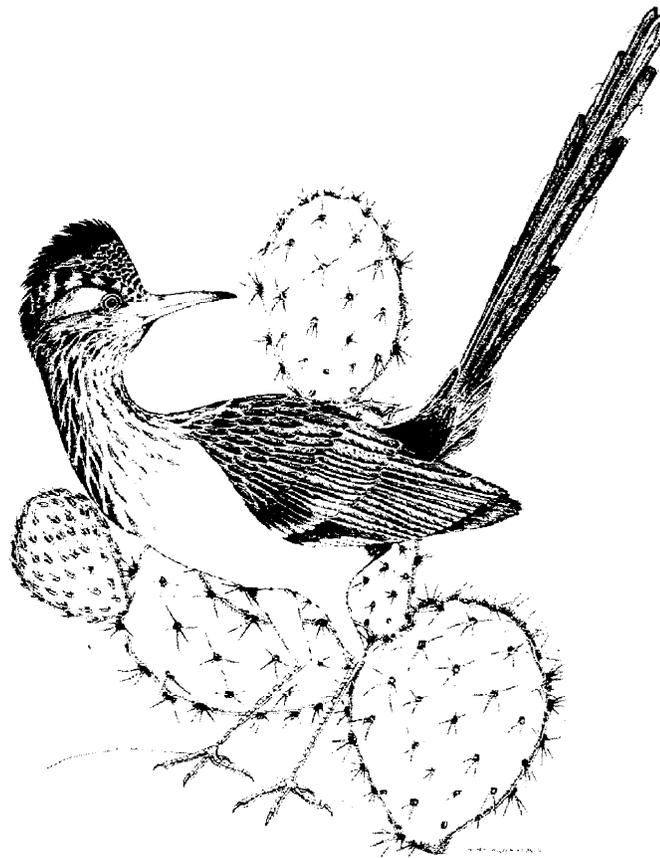
We would like to comment on the
Safford District Resource Management Plan.

No^{more} roads should be opened to off-
road vehicle use - there are enough of them already.

Especially - no more roads in the Aravaipa Canyon
and Muleshoe Ranch areas!

All important natural and
cultural resources should be protected as Areas
of Critical Environmental Concern.

Sincerely,
Walter + Dorothy Pelech



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1742 N. Louis Lane
Tucson, Az. 85712
March 18, 1990

Mr. Steve Knox,
RMP Team Leader
Bureau of Land Management
425 S. 4th Street
Safford, Az. 85546

Dear Mr. Knox:

It is my understanding that your office is soliciting public input regarding increased protection for the Eagle Creek area with its cave which serves as a maternity colony for Tadarida brasiliensis.

The Mexican free-tailed bat and the Eagle Creek Cave have special significance for me since I spent my early childhood in Morenci where my father was a mining engineer and the bulk of my professional life as a professor at the University of Arizona. There I was involved, with some of my graduate students, in research on bat physiology. In connection with that we joined Dr. Cockrum's students annually in a study trip to Eagle Cave for the purpose of banding bats. Thus, I have known of the cave and have been interested in the bats for most of my life.

I am now retired and have not been to the cave for quite a few years. It is my understanding, however, that the population is greatly reduced partly due to the excessive use of pesticides in the Yaqui and Mayo Valleys of Mexico and partly due to local factors in Arizona. I have seen the results of pesticides (presumably) in Mexico where the grounds in front of caves used for stop-overs during the Tadarida migration were virtually paved with bat bones and the populations of living bats within dropped alarmingly. If it were not for the fact that Tadarida is amazingly resistant to such poisons, the species would have been extinct long ago. Certainly it needs all the help we can give it now. The value in terms of insect control in the Safford Valley alone is enough reason aside from the many other considerations.

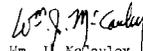
As a child I recall that the population of bats at Eagle Cave was very large though I had no way then of knowing how large. When I was last there we estimated it at somewhere between 20 and 30 million. This was based on the fact that they occupied all of the space down to our waist level. The number caught in a butterfly-net and estimates of the total area of occupation led to these figures -- and we didn't even count the area within the large crack in the roof of the cave because we had no way of measuring it even roughly!

The area has historic value that is also worth protection in my opinion. The fruit trees growing near the cave (I assume some still survive) belonged to a man by the name of Miguel Soto. I remember visiting him and staying several days in his open shack when I was about 9 years old. We walked down to the junction with the Gila River where he caught a mud turtle. The turtle was added to the pot of beans when we returned and proved to be pretty good eating! I also recall camping with my parents in the grotto upstream from the pump station on Eagle Creek.

The canyon has unique beauty with its high conglomerate walls and riparian bottom. Not many years ago we saw signs of beaver cuttings on the edges of the stream and an impressive list of other wildlife regularly seen in the canyon could easily be compiled. I'm sure you are as aware of that situation as anyone.

If there is anything that I can do to help insure adequate protection for the Eagle Creek area and especially for the cave, I hope you will contact me. My telephone number in Tucson is (502) 326-5079

Very sincerely,



Wm. J. McCauley
Professor emeritus
Biological Sciences

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Form 1600-16
(April 1984)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTPlan Name
Safford District
Draft RMP
Date of Contract
3/21/90RECORD OF PUBLIC PARTICIPATION
IN THE PLANNING PROCESS

Name(s) of Individual(s) or Group(s)

Robert G. Schwab, UC-Davis, professor of wildlife

Location of Contract

telephone (916-752-3209) or (1245)

Bureau Interviewer(s) or Moderator(s)

Diane Drobka

INTERVAL OF PUBLIC INVOLVEMENT

- Phase I - Review of Annual Schedule and Projected New Starts
- Phase II - Scoping to Guide Planning (Issue Identification, Planning Criteria, and Planning Information)
- Phase III - Review of Draft Plan and Draft Environmental Impact Statement
- Phase IV - Review of Management Decisions including Changes from Protests and Governor Review
- Phase V - Review of Plan Use and Implementation

TYPE OF PUBLIC PARTICIPATION (CHECK AS MANY AS APPLICABLE)

- Individual Contact Small Group Discussion Public Meeting Written Statements
- Questionnaires or Surveys Other (specify)

Summarize briefly public input. (Use additional sheets if necessary. Attach worksheets, rosters, press releases, etc. as appropriate.)

Mr. Schwab called to tell us he supports increased protection for Eagle Creek Bat Cave,

Prepared by

Diane Drobka

Date

3/21/90

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W. TODD FURNISS

3/21/90

3361 S PLACITA MESQUITES, GREEN VALLEY, AZ 85644

Pete's Ken Knox:

I'd like to go on record as supporting alternative B of the Safford District Management Plan because of its superior provision for protecting the area for present and future non-destructive use. I encourage you to work with the Native Community in this, taking advantage of their help and research results.

Sincerely, W. Todd Furniss

Fairport
March 16

Dear Sir;

I understand you are looking at different plans for managing the Safford District. It appears to me that the alternative B plan would best protect the Aravaipa and Muleshoe Areas not only for the present but for many years in the future.

Also the views of the nature ~~conservation~~ ~~groups~~ seem to always favor the best interests of our wildlife and land, so I think it is well worthwhile to include these people in your planning.

Thank you

Kenneth Hoff

111 S. 1st St.

PO Box 14

85614

I realize cattle played a big part in building Arizona but times have changed and all cattle grazing should be removed from public land. It is a national (over)

see the cattle die
vegetation in Arizona.
a lot of money was
taken and yet they
public land and
time for the

45

3488 S. Via del Papagayo
Green Valley, Arizona 85614

March 21, 1990

Mr. Steve Knox, RMP Team Leader
Bureau Of Land Management
425 East 4th street
Safford, Arizona 85546

Dear Mr. Knox:

Because I am deeply concerned about the condition of the Aravaipa and Muleshoe areas, I strongly urge you to adopt Alternative B for protecting these areas.

Alternative B will restrict the use of off-highway vehicles, improve wildlife habitats, protect the big horn sheep, and in many other ways preserve the beauty of this exceptional natural area. If the BLM will work with the Nature Conservancy and accept their help and advice and adopt Alternative B, these worthy goals can be achieved.

Your help will be greatly appreciated by this concerned citizen.

Sincerely yours,

Milton P. Foster

Milton P. Foster

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3/21/90

Mr. Steve Knox
B. L. M.
425 E 4th St. Safford, AZ

Dear Mr. Knox:

Of the various BLM plans for future land usage I would like to urge the implementation of alternative B.

This plan appears to provide the greatest long term advantage to the largest number of people through protection of the area concerned.

There doesn't seem to be any urgent need in our state to further expand environmentally sound practices.

I would hope the BLM would also work cooperatively with the Nature Conservancy on these proposals.

Thank you
T. R. Ackerman

Mr. Tracy R. Ackerman
1200 West Florida Oakes
Green Valley, AZ 85614

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THE SAN CARLOS APACHE TRIBE

RECREATION & WILDLIFE DEPARTMENT
P.O. Box 97
San Carlos, Arizona 85550
(602) 475-2853



KITCHENAM

RONALD EDWARDS
Vice Chairman

22 March 1990

Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th street
Safford, AZ 85546

Dear Steve,

In pursuit of our discussion of 21 March 1990, here are the comments of the San Carlos Apache Tribe, Recreation & Wildlife Department, regarding the Safford District RMP:

47-1

1) The map that is included in the draft RMP should not be published in the final report, unless it is modified to correct the southern boundary of the San Carlos Apache Reservation, specifically that portion bordering the Coronado National Forest.

47-2

2) The Ranch Creek road, or the road going south from Cutter to the reservation boundary, should not be open to the general public. It should remain under its present status, i.e., whereby any non-tribal member on it is required to have in possession a San Carlos recreation, hunting, or fishing permit. In addition, the road should be gated and locked (by either the BLM or the tribe) at the reservation boundary, to alleviate some of the surveillance/enforcement expense to the San Carlos same ranger program. Eliminating access at this point would also provide some insurance to the San Carlos wildlife management program that no poaching activities in the Mesquits and Hayes Mountains would be aided by vehicular access from the south. The map, of course, should illustrate closures.

This recommendation should cause no hardship to anyone, as the area south of the reservation boundary is already accessible from highway 77 in the Dripping Springs area. Also, if the BLM permittee would benefit by frequent access from the north, the tribe could provide that person with a key to the gate.

THE SAN CARLOS APACHE TRIBE

RECREATION & WILDLIFE DEPARTMENT
P.O. Box 97
San Carlos, Arizona 85550
(602) 475-2853



BUCK KITCHENAM
Chairman

RONALD EDWARDS
Vice Chairman

47-3

3) Cattle allotments should not be provided in Ranges 17-18E, Townships 5 and 6S, west of the confluence of Deer Creek and Aravaipa Creek. One of the most important herds (economically and aesthetically) of desert bighorns in the world frequents this area, both north and south of the reservation boundary.

Bighorns have been historically prone to decimation caused by cattle-spread diseases. The Aravaipa-San Carlos population suffered some type of (as yet unknown) disturbance in 1989-1990, possibly disease related. The San Carlos Apache Tribe invested approximately \$50,000 in the well-being of this herd in 1989 alone. Willingness-to-pay for the privilege of hunting sheep of this population has been upwards of \$70,000. The low-profit industry of cattle ranching should not be allowed to jeopardize this gemstone of wildlife ecology.

Sincerely,

Brian Czech

Brian Czech, wildlife biologist

cc: San Carlos Game & Fish Commissioners, San Carlos Recreation & Wildlife Department director Jim Higgs

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3-20-90

Mr. Steve Knox
RMP Team Leader
BLM
425 E. 4th St.
Safford, AZ 85546

Dear Mr. Knox

I have reviewed the Safford District RMP/ES Draft and have the following comments:

- I support Alternative B instead of Alternative A as it would maximize benefits for wildlife habitat, riparian vegetation, and paleontological resources;
- Ref. ISSUE 2, Alt. A, I would like as much of the Gila River designated as Wild and Scenic as possible;
- Ref. ISSUE 4, Alt. A, I would like the BLM to try for 100% riparian areas to be in good or excellent condition and not settle for 75%;
- On ACC's, I support the Nature Conservancy's nominations and encourage the BLM to work closely with this

group.

Thank you for your
consideration and keep up the good
work

David D. Ayer, P.E.

Margery and Marvin Partin

3/22/94

Steve Knox, RMP Team Leader
 Re: Comments on Sep/Jrd District
 Resource Mgmt Plan

Concerning the above project
 my wife and I support alter-
 native "B". We feel "B" benefits
 4000 acres of Riparian Vegetation
 and restricts off Highway vehicle
 use closing approx 1/2 million
 acres to OHV use. #3 it improves
 wildlife habitat by mgmt of
 101,734 acres. #4 closes Bighorn
 sheep lambing areas which
 is a plus. #5 protects archae-
 ological & paleontological sites.
 #6 restricts cattle grazing
 in critical areas.

(over)

We strongly urge the
 BLM to work closely with
 the Nature Conservancy in
 this project.

We hikers (I'm a leader
 in the Green Valley Hiking
 Club) really hope alter-
 native "B" is followed.

Sincerely

Marvin L Partin
 3391 Placita Encinas
 Green Valley, Az
 85614

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Box 316
Bowie, Az. 85605
3/20/90

Steve Knox
RMP Team Leader
Bureau of Land Management
Safford Ariz. 85546

Dear Mr Knox,

Enclosed are recorded
copies of protest and claims.
They are recorded in Cochise and
Graham Counties.

Please include these in
your final RMP/EIS.

Sincerely,
Wayne Klump
Wayne Klump

Enc.
1 Protest
2 Claims

Certified Mail # P127564026
Return Receipt Requested

PROTEST

We protest the Safford District Resource Management Plan and Environmental Impact Statement, in its entirety and intent.

The intent of the Government and Bureau of Land Management is to manage, control, steal, acquire, and take our Private Property.

We Protest the Governments power and so called legal avenues to propagandize, brainwash, manipulate, control, manage, steal, take away, and acquire our Property and Rights.

We protest the creation of Javelina Peak, Feloncillo Mtns., and Dos Cabezas Mtns., Wilderness Areas, as all three are within our ranch and would cause an undue hardship on us, and adversely effect our lives and livelihood.

This is to serve notice on the Government or anyone that might turn loose or plant any Animal or Predator within a 500 mile radius of Bowie, Arizona, That they are responsible and liable for any and all damages that said Animal or Predator might do.

All thru the RMP/EIS, the B. L. M. plans to acquire or steal Private Property and access across Private Property in Cochise and Graham County.

This is to serve notice on the Government and B. L. M. that we own a big portion of this area, and have Grandfathered Rights since 1880.

We OBJECT vehemently to the Government taking away our property and Rights.



FEE # 900202571
OFFICIAL RECORDS
COCHISE COUNTY
DATE HOUR
02/09/90 11
REQUEST OF
KLUMP, WAYNE
CHRISTINE RHODES-RECORDER
FEE : 9.00 PAGES : 1

DOCKET 423 PAGE 674

900202571

Wayne D Klump 2/8/90
Klump Broc. by Wayne D. Klump Date
Box 316, Bowie, Arizona 85605
State of Arizona, County of Cochise
Subscribed and sworn to before me on this
8th Day of February, 1990
Shirley Angle
Notary Public
Notary Expiration Date June 6, 1993

STATE OF ARIZONA, County of Graham--ss.
I do hereby certify that the within instrument was filed and recorded at the request of Wayne Klump
on Feb. 23, 1990 at 11:30 o'clock P. M. Docket # 423
Page 674 Records of Graham County, Arizona Indexed in MISC.
Witness my hand and official seal the day and year first above written.
SHIRLEY ANGLE, County Recorder
By *Shirley Angle*

FEB 09 2010 11AM
5.00
E
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CLAIM

The Klumps claim the following described real property in Cochise County Arizona in its entirety .

All of Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

The Klumps claim the following described real property in Graham County Arizona in its entirety:

All of Sec. 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36; E½ Sec. 7; E½ Sec. 18; E½ Sec. 19; E½ Sec. 30; E½ Sec. 31; SE¼ Sec. 1 All in T.11S. R.27E.
All of Sec. 32, 33, 34, 27, SE¼ Sec. 31; W½ Sec. 35; W½SW¼ Sec. 26; S½ Sec. 28 All in T.10S. R.28E.
All of T.11S. R.28E.
All of Sec. 16, 17, 20, 21, 22, 27, 28, 29, 32, 33, SW¼SW¼ Sec.4; S½SE¼ Sec.5; E½ Sec.8; W½SE¼ Sec.9; W½ Sec.15; SE¼ Sec.18; E½ Sec.19; E½ Sec. 30; E½ Sec. 31; W½, NE¼ Sec. 34; All in T.10S. R.29E.
All of Sec. 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 29, 30, 31, 32; SW¼, W½SE¼, S½SE¼ Sec.6; S½, NE¼, SW¼ Sec. 12 All in T.11S.R.29E.
All of Sec. 7, 16 in T.11S. R.30E.

Our claim and rights date back to 1880 (Eighteen hundred eighty) and are legally acquired and grandfathered. We claim this property as our private property. We claim all minerals, coal, oil, gas, water, geothermal, gravel, and all known and all unknown substances to the center of the earth. We claim the air, air space, water, gasses, all living things, all dead things, and all substances to the heavens and beyond. We claim the right to store and use any and all substances on, above, and under said lands. We declare that this land is outside of any government or governmental agency control or jurisdiction. The government, city, local, county, state, or federal, shall have no claim whatsoever to any of the above described property. This land shall not be subject to eminent domain, taking seizure, steal, or whatever name or method that the government might use to take our property away. Legal access shall be on a temporary and lease basis only. There shall be no hunting, fishing, trapping, or trespassing without prior written permission. Klumps shall not be liable or responsible for damages to anyone. We base our claim on continuous and uninterrupted use. The intent of the Constitution of the United States of America and the Homestead act was to put all lands into private ownership.

STATE OF ARIZONA, County of Graham, is Fee # 9-00 No 527
I hereby certify that the within instrument was filed and recorded at
the office of L. Klump 2-8-90 3:15 P.M.
in Document # 423 Page 415 and indexed in CLAIMS
I witness my hand and official seal the day and year aforesaid.
CHRISTINE ANGLE
COUNTY RECORDER BY *Christine Angle*

L. Klump
L. KLUMP Date
State of Arizona, County of Graham
Subscribed and sworn to before me on this
9th day of February, 1990
Christine Angle
Notary Public
Notary Expires 3/10/92



Fee # 900202570
OFFICIAL RECORDS
COCHISE COUNTY
DATE HOUR
02/09/90 1 1

REQUEST OF
KLUMP, WAYNE
CHRISTINE RHODES-RECORDER
FEE : 9.00 PAGES : 2

415

Ray A. Brody
March 21, 1990
Page 2

51-2

We agree with the proposed management prescriptions for the Guadalupe Canyon OWA ACEC contained in your Preferred Alternative with the following exception. The livestock prescription should include additional language as underscored, "develop and implement an allotment management plan to manage livestock that will minimize impact on riparian zones." In general the Draft RMP appears to be well thought out and easily understood. We commend the planners for their careful consideration in recommending protection measures for critical biological resources.

We appreciate the opportunity to comment on this plan. Please retain the New Mexico Field Office of The Nature Conservancy on your mailing list for the Safford District.

Sincerely,



William W. Dumire
Public Lands Coordinator

WWD/as

cc: Area Manager, Mimbres Resource Area, BLM
Peter Warren, AZFO

GUADALUPE CANYON, HIDALGO COUNTY

Guadalupe Canyon, located at the southern end of the Peloncillo Mountains in the southwest corner of New Mexico, is known as one of the premier areas in the U.S. for diversity of bird species including many that are only known from this canyon and a few other sites. The area was recommended for consideration for special management by virtually every biologist that was contacted in advance of the survey. A biological investigation was conducted for The Nature Conservancy by Esteban Muldavin in 1987 and the canyon was visited by Dumire in May, 1986. Because of these visits and numerous other records from previous investigations, another site visit in 1989 was not deemed necessary.

Biological Resources

The overlapping of Chihuahuan Desert, Sonoran Desert and Sierra Madrean biogeographic provinces coupled with perennial flowing water in Guadalupe Canyon results in extraordinary biological diversity and many sensitive or endangered species. The riparian zone at the bottom of the canyon is characterized by a gallery forest dominated by Arizona sycamore and Fremont cottonwood which border the creek bed and are occasionally found on small alluvial terraces. Netleaf hackberry and Arizona walnut are common along the perimeter of the gallery forest and velvet ash, soapberry, and Goodking willow are also common tree components. On the drier, more elevated terraces mesquite bosques are dominated by velvet mesquite. The immediate side slopes and uplands become woody shrublands dominated by redberry juniper and velvet mesquite in combination with numerous shrubs including sotol, beargrass, cholla, *Yucca schottii*, and *Anisacanthus thurberi*, among many others.

Mauquilinga pauciflora, a State Endangered, Federal Candidate plant, is known in New Mexico only from this area. There are no known other Federal or State listed endangered plants but a number of State listed Sensitive plants occur here including *Anisacanthus thurberi*, *Oenothera texana*, *Ipomopsis neocombii*, *Oxalis pilosa*, *Penstemon superbus*, *Sarcocolla wrightii*, *Senecio salicinus*, *Sphaeralcea sprevi*, and *Yucca schottii*.

The listed animals in Guadalupe Canyon and vicinity are even more impressive. The area is noted for its high diversity of bat species including the southern yellow bat, a State Endangered mammal. But it is the avifauna for which Guadalupe Canyon is noted worldwide. The State Endangered birds that are regularly or occasionally found here include Bell's vireo, buff-collared nightjar, common black-hawk, elegant trogon, Gila woodpecker, four species of hummingbirds (violet-crowned, lucifer, broad-billed and Costa's), northern beardless-tyrantlet, thick-billed kingbird, and varied bunting. State Endangered amphibians include the Colorado River toad. State Endangered reptiles found here are the green rat snake, Gila monster, mountain skink, and giant spotted whiptail.

Other Resource Values

Undoubtedly archaeological and other cultural resources exist here but no survey

Mimbres Resource Area: SMA Survey
Page 82

Relevance and Importance

This area clearly meets the relevance criteria because it has significant wildlife resources in the numerous species that enter the U.S. from Mexico including many threatened and endangered animals. The area meets the importance criteria because of the national significance of the avifauna and unique botanical and plant community resources. The area was evaluated for National Natural Landmark status in 1982 (Dick-Peddie, 1982) and was judged to have the highest national significance.

Special Management Attention

This area currently is designated as an Outstanding Natural Area which restricts energy mineral leasing (USDI, 1976). The New Mexico portion of Guadalupe Canyon is adjacent to an ACEC proposed in the Preliminary Draft Safford Resource Area Management Plan which is currently under public review. It is recommended that management prescriptions for this ACEC parallel those for the adjacent ACEC in Arizona. Private inholdings should be acquired as they become available.

Current Land Use

The proposed ACEC is surrounded by a combination of private and public land. Livestock grazing and public recreation, mainly birdwatching, is the principal land use. The proposed Guadalupe Canyon ONA/ACEC in the BLM Safford District is on adjacent land in Arizona to the west.

Boundary Recommendations

The entire area within the existing Outstanding Natural Area is recommended for ACEC designation, a total of 3,691 acres. This boundary includes both the New Mexico and Arizona portions of the ONA. The Draft Safford District RMP/EIS proposed the Arizona portion as an ACEC (USDI, 1989c). A map is not included in this report, since the boundary is contingent upon the final Safford District RMP.

Further Study Needed

None known at this time.

Evaluation Summary

This area is highly recommended for ACEC designation because of the extraordinary diversity of plant and animal species coupled with the great number of endangered animals, especially birds.

Mimbres Resource Area: SMA Survey
Page 83

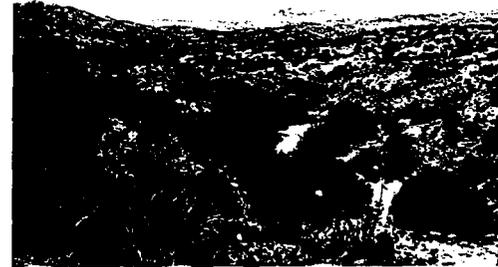


Photo 43. The overlapping of the Chihuahuan Desert, Sonoran Desert and Sierra Madrean biogeographic provinces results in extraordinary biological diversity in the proposed Guadalupe Canyon ACEC.



Photo 44. The sycamore-dominated riparian area of Guadalupe Canyon provides a migration corridor for many Mexican wildlife species.

Mimbres Resource Area: SMA Survey
Page 84

POTENTIAL BIOLOGICAL
SPECIAL MANAGEMENT AREAS IN THE
MIMBRES RESOURCE AREA, BUREAU OF LAND MANAGEMENT

A survey to identify and evaluate sites within
the Mimbres Resource Area that may meet the
agency's relevance/importance criteria for designation as
Areas of Critical Environmental Concern

Prepared for the Bureau of Land Management

by
The Nature Conservancy
New Mexico Field Office
William W. Dummire, Principal Investigator

January 15, 1990

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SAN SIMON CIENEGA, HIDALGO COUNTY

This area, about 15 miles north of Rodeo, NM, was once a productive waterfowl site. The New Mexico Dept. of Game and Fish constructed a lake and several ponds in the late 1940's but San Simon Creek stopped flowing in 1952, probably due to the pumping of the subsurface water table for agricultural irrigation. In 1966 NM G&F along with AZ F&G initiated a program aimed at restoring habitat for the Mexican duck which was Federally Listed at the time. When the Mexican Duck was removed from the Endangered Species List in 1978, the expensive pumping of water to fill the cienega was halted. Cottonwoods died, dikes were breached and the area gradually lost much of its riparian character. Today the only large body of permanent water is CCC Lake on San Simon Creek on the Arizona side. The area was recommended for consideration for special management largely based on a high degree of ~~interest~~ in this site in the past and the numerous records of endangered animal species, mostly dating back to the time when true cienega conditions prevailed. The area was visited by Dumire and Barlow on August 14, following the overflight of the area by Dumire, Florence and Wootten, on July 12, 1989.

Biological Values

Today a few shallow ponds remain on the New Mexico side, most of which are silting in and being infiltrated by cattail and salt cedar. There are stands of Fremont cottonwoods on higher ground on the east side of the old cienega but there is no sign of younger trees or cottonwood reproduction. Bordering the shallow ponds and cattail marshes is a mesquite/alkali sacaton grass habitat type with a low diversity of forbs especially annuals such as sunflowers. Grazing impacts are heavy in this zone. The higher ground surrounding this cienega supports a mesquite/creosote bush habitat type typical of the desert pavement in this region.

In 1986 Dumire observed a black-shouldered kite roosting in the cottonwoods at the southern end of the cienega. In 1989 Merhege (pers. comm.) reported three pairs of Harris hawks in the area, an increase over previous recent years. The area probably still supports a population of Bell's vireos, a State Endangered species, and the presence of State Endangered ground-doves, is still probable within the general area. However, it is unlikely that other endangered species formerly found here such as the Gila chub and olivaceous cormorant are present in the area today.

Other Resource Values

San Simon Creek is rich in pueblo period archeological sites but there is no known survey for the cienega area.

Relevance and Importance

Because of the gradual deterioration of this area over the y- it is difficult to make a case for San Simon Cienega meeting the relevance/importance criteria

for a biological ACEC. If the 1/3 of the cienega that spills into Arizona were to be included, a stronger case could be made. However, the Safford Resource Area has declined to designate this as an SMA in their current Resource Management Plan, therefore only the New Mexico portion could be considered here. In 1974 the area was evaluated and recommended for designation as a National Natural Landmark (Potter, 1974) but changes here over the past 15 years surely have lowered the significance of this area.

Special Management Attention

The Las Cruces/Lordsburg MFP Amendment/EIS (USDI, 1983) established restrictions on energy mineral leasing in the cienega to protect wildlife and riparian habitat. In 1981 the San Simon Cienega Habitat Management Plan was revised with new objectives including waterfowl habitat management, terrestrial management for deer and javelina, emphasis on avifauna, and limited recreation. This plan called for the reduction of water use and discontinuation of pumping.

Current Land Use

The area surrounding the potential ACEC is a combination of public, state and some private land. Current general use of this area is low intensity ranching.

Boundary Recommendations

A precise boundary is not recommended here since the Safford, AZ, Resource Area has stated that the portion of the cienega in Arizona should not be included in any proposed ACEC (Zwaneveld, pers. comm.). The two Resource Areas need to come to some kind of agreement before a boundary can be proposed.

Evaluation Summary

The area is marginally recommended for ACEC designation because of the riparian and cienega community which supports a large number of waterfowl and other bird species, assuming that an agreement can be made with the Safford Resource Area to give the entire cienega special management attention.

52

the Warne Company

March 23, 1990

Bureau of Land Management
425 E. 4th street
Safford, AZ 85546

Att: Steve Knox

I have reviewed the Safford District Resource Management Plan Environmental Impact Statement Draft dtd January 1990, and submit comments herein.

I am sympathetic to the desire for BLM to designate areas and to "block up" land ownership to accommodate/facilitate the federal programs and charge. However, as a owner that has invested rather heavily in lands within two of the proposed areas I am a little more than concerned about the negative financial impact the BLM program will no doubt have on future values of private lands within the subject areas prescribed by BLM. Zoning and use of the properties will unquestionably be influenced by BLM presence along with their program(s), thereby stifling opportunities for development within the private sector. It seems that such a owner would have little or no option regarding the use of his property other than trade it, at a value controlled mostly through the market made primarily by BLM, for other properties that BLM has designated as disposable. Much of the disposable properties that remain available are light years from being of use to anyone, if ever. The present methodology of property appraising predicated on the free market system is abrogated under this plan, leaving the private land owner to decompose financially.

Other comments regarding the draft:

(1) Alternative A - Summary page iii 2nd pare:
. . .provide moderate benefits to vildlife habitat and high benefits to riparian vegetation.

Observation: Appears to me to be a somewhat contradictory statement.

52-1

4455 East Camelback Road • Suite 290E • Phoenix, Arizona 85018 • Telephone (602) 952-8312

Steve Knox
Bureau of Land Management
March 23, 1990
Page Two

(2) Alternative A - Summary page iii 4th pare:
. . .restrictions on mineral material sales would have a low impact on segments of the local economy dealing with materials extraction and exploration.

Observation: This is a general statement which I'm sure With adequate research would be found to be Untrue in one or more specific instances.

Thank you for this opportunity to comment.


J.E. Warne, Jr.

JWJ/gg

53



Faculty Senate

Western New Mexico University

22 March, 1990

To Whom It May Concern:

I am writing in regard to protection of the Eagle Creek Bat Cave. I am familiar with the cave, having worked there in the early 1960's. We spent 3 or 4 days banding 35,000 Tadarida brasiliensis at that time. Band returns from these came from as far away as Sinaloa, Mexico; Carlsbad and Silver City, New Mexico. The evening flight was a spectacle that I shall never forget. We estimated about 6 to 8 million bats occupying the cave at that time. We calculated the amount of food consumed each night based on size, amount and kinds of insects. Our estimate was that 40 tons of insects were consumed each night. From the direction and height of flight, we suspected that the main feeding area was over the Safford Valley. The few food samples that we took included mostly weevils.

Keeping this in mind, I think it is important that an ACEC be established in the vicinity of the bat cave to protect this valuable resource. And, I think it is important that a fence as well as a very substantial gate be established around the cave entrance to exclude people. The preservation of this colony is obviously important, not only for esoteric and biological reasons, but for the benefit of the farmers and ranchers down stream. I urge the authorities in charge to do whatever is possible to keep the colony at maximum potential. There are relatively few large Tadarida roosts in the Southwest and each needs to be taken care of, left unmolested and protected. The larger the colony, the greater the benefit to nearby communities.

As an incidental aside, I applaud any effort to set aside a portion of the Eagle Creek riparian forest for protection. The other wildlife of these uncommon places are important to our culture and life. As human population increases more and more in Arizona and New Mexico, these places become increasingly important to our heritage and well being.

Thank you for your attention.

Sincerely yours,


BRUCE J. HAYWARD
Prof. Biol. Sci.
Western New Mexico Univ.

P.O. Box 680

Silver City, New Mexico 88062

54

March 24, 1990
1038 Paseo Quinta
Green Valley, AZ. 85614

Dear Yr. Knox:

Since you are the Safford District RMP Team Leader, I am addressing my letter to you. Of the four alternatives outlined in the latest RMP, I wish to tell you that I support Alternative B and why:

- 1) It would benefit and protect 4000 acres of riparian vegetation.
- 2) It would restrict the use of 1,400,000 acres to "off hiway vehicles".
- 3) Through proper management, it would help to improve over 101,000 acres of wildlife habitat.
- 4) It would close areas that are important to Big Horn Sheep lambing time and to their protection.
- 5) It would protect archaeological and paleontological sites.
- 6) It would restrict and control the grazing of cattle in critical areas.

And since the Arivipa and Muleshoe areas are such unique places, I hope I can help preserve them for my grandchildren to enjoy in the future as I have enjoyed them at this time.

It is also my hope that the BLM and the Nature Conservancy will work together closely to help preserve the issues on this bill. Please support the Alternative B.

Thank you.

Sincerely,



55

JANE DOW
1413 w. Camino Del Pato
Green Valley, AZ. 85614

March 22, 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ. 85546

Dear Mr. Knox:

I'm writing this letter in hope that it doesn't fall on "deaf" ears. My concern is that in today's world with the pressures to "progress" we overlook the "down-the-road" results.

The Alternative B plan, in my estimation, seems to best protect the wilderness habitat. The riparian areas, particularly in Arizona, are so important. The vegetation in them helps with the eco balance.

The wildlife would be protected during critical periods from harassment. The big horn need the undisturbed lambing-maintaining time free from human interference.

Unrestricted cattle grazing in critical areas also needs control. Since they roam freely they are able to graze and trample delicate growth needed in the future.

I also would be happy to see large scale restrictions placed on OHV use. Unfortunately many OHV owners do not care about the wonderful landscapes available to them. They are "pirating" many of the plants, shrubs, trees, cactus, etc., from these areas. Their tire tracks and litter are disgusting. As a hiker, I've seen what they do.

I support alternative B plan because it best preserves the ARAVAIPA and MULESHOE areas. Generations from now will be able to enjoy this area if we act wisely non.

I do urge the BLM work closely with the Nature Conservancy, accepting their advice and help.

Sincerely

- p - L - -
Jane Don

56

ROBERT E. LUND
1901 WEST MACHTA EMBATE
GREEN VALLEY, ARIZONA 85614

23 March 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 East Fourth Street
Safford, AZ 85546

Dear Mr. Knox:

I am writing relative to the Safford District Resource Management Plan (RMP).

Plan B is the best of the four alternatives. This plan protects the wilderness habitat, wildlife, and flora.

Perhaps its most important feature is that Plan B restricts off-highway vehicle use, closing 1,400,000 acres to such vehicles. It, also, closes bighorn sheep lambing areas (decreasing human harassment during critical periods), and restricts cattle grazing in critical areas.

Other important features of Plan B are that it benefits 4000 acres of riparian vegetation and improves wildlife habitat by management of over 100,000 acres.

In particular I support Plan B because it best preserves the Aravaipa and Muleshoe Reserves. If we act wisely now, future generations will benefit and be able to enjoy the outdoor experiences we have known.

In conclusion, I urge the BLM to work closely with the Nature Conservancy and accept their sage help and advice.

Sincerely,


Robert E. Lund

57

W.J. McMURRAY, NEW 10111
3150 S. CALLE ANHOLD
GREEN VALLEY, AZ 85614

MARCH 25, 1990

Bureau of Land Management
425 E. 4th St.
Safford, AZ 85546

Attention: Steve Knox, RMP Team Leader

Dear Mr. Knox:

I read in yesterday's paper that BLM and the Nature Conservancy had signed a pact toward the goal of protecting our ecosystems on 270 million U.S. acres.

I hope that this means for Muleshoe and the Aravaipa areas that plan "B" alternative will be chosen. I am particularly concerned with the Off Highway Vehicles and the destruction to the land caused by those who use them.

Having been a volunteer with the Coronado Forest Service for five years I have discovered that each person seems to want his particular form of recreation every place he goes. I feel that if he wishes to ride horses or a roller coaster he should go to where those are available. Certainly once our natural resources are destroyed there is no way to get them back.

I SUPPORT RESOURCE MANAGEMENT PLAN "B". Thank you.

Yours truly,

Wm. J. McMurray

58

1280 West via Del Petirrojo
Green Valley, Arizona, 85614
March 26, 1990

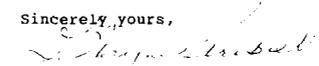
Mr. Steve Knox
Bureau Of Land Management
425 East 4th Street
Safford, Arizona 85546

Dear Mr. Knox:

I wish to express my concern regarding the Safford District Resource Management Plan. Of the four plans proposed for the future development of this district, I am in support of Plan B. Plan B appears to be the most viable alternative for protecting the wilderness habitat because it restricts off highway vehicle use, thus protecting vegetation which in turn stabilizes the environment for wildlife and flora. It also provides for the best protection of archaeological sites.

I would also urge the Bureau of Land Management to work closely with The Nature Conservancy to maintain these areas for us and future generations. If we act wisely now, everyone should benefit.

Sincerely yours,


DeWayne Triplett

59

March 5, 1990

Mr. Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, Arizona 85546

Dear Mr. Knox:

In reviewing the Draft RMP, the Bowie Chamber of Commerce encourages the BLM to designate the Hot Wells Dunes as a special recreation management area.

In the proposal that the rancher, Pete Brawley has presented to you it appears that all interests could be met. The need for recreation would be limited to 1700 acres therefore protecting the rest of the resource from off road vehicles. Grazing rights would be secured with adequate water being placed on private land for cattle. And most importantly wildlife would be assured of less intervention by people as they would logically move out of the area and down into the San Simon to take advantage of the newly created water source.

Bowie Chamber of Commerce needs would be met also. Bowie is the gateway to the area and further recreation in our area would benefit our local economy.

In the future it will be compromises such as this by all interests that will maintain multiple use of our public lands as mandated by Congress.

Sincerely,

BOWIE CHAMBER OF COMMERCE

Bud Eyrich
Bud Eyrich, President

BE:tb

60

March 26, 1990

Steve Knox, RMP Team Leader
Bureau of Land Management
425 E 4th Street
Safford, AZ 85546

Dear Mr Knox,

I strongly support Alternative B for preservation of the Aravaipa and Muleshoe Areas. Also urge you to work closely with the Nature Conservancy of which I am a member.

Thank you.

Sincerely yours,



Robert Buchsbaum
POB 781
Green Valley, AZ 85622

61

Draft Safford District Resource Management Plan
Public Comment Form

Issue/Management Concern: BLACK ROCK WILDERNESS PROPOSAL

March 27, 1990

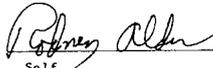
Comment: I would like to protest the inclusion of the area you refer to
as Jackson Mountain Wilderness as part of the Black Rock Wilderness
Proposal.

61-1

The reasons being:

1. I, as the lessee of Jackson Mountain allotment (which
makes up 60% of the proposed wilderness) was not
notified of the pending inclusion into a wilderness
status.
2. In my opinion, it isn't suitably located to qualify
for wilderness designation. There are several man
made tanks and roads crossing into and out of the
area in several directions. Also there are developed
springs and pipe lines that need to be maintained for
the benefit of cattle and wildlife. Older members of
this family have helped on this ranch for the last
thirty some years, but the change in status will pre-
their participating in ranching activities if roads
are eliminated.

In the Safford District Resource Management Plan, Environmental
impact statement book, on page 92, Black Rock RNC-ACEC, alternative
B, I think is very wise. The reason being it is a very scenic and
sensitive area.

Name: 
Representing: Self
Address: P.O. Box 457
Pima, Arizona 85543
Date: March 27, 1990

62

District Manager, Safford District
Bureau of Land Management
425 East 4th
Safford, Arizona 85546

Dear District Manager:

The Osolargo Detention Dam has done an excellent job in protecting a large part of Bear Springs flat from erosion. The two washes that run into it, Matthews ville and Tripp-Underwood, were huge cuts ten feet deep and one hundred feet wide before the dam was built. Now the Matthews ville wash is a three foot wide three foot deep grassy ditch; and Tripp-Underwood has nearly leveled out for one quarter mile upstream. It would be a terrible waste to allow this structure to fail completely, all improvements upstream would be lost. Downstream, if the dam failed during heavy rains it could be dangerous to the Eastern Arizona railroad and highway 70 as well as Dodge Nevada Canal. I sincerely hope that Bureau of Land Management can maintain Osolargo as it should be maintained.

Sincerely,

Roy Ferguson

63

March 24, 1990

13760 Tabeguache Road
Nathrop, CO 81236

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Dear Mr. Knox:

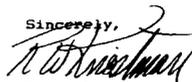
After reviewing the Safford District Resource Management Plan/Environmental Impact Statement Draft, I would like to make a couple of comments as a consulting geologist interested in the field of economic geology.

There are not many BLM districts in the United States that contain mining districts with cumulative metal production in excess of \$81 billion such as exists in the Safford District, yet only a small amount of space is devoted in the Draft to such resources. This past production plus unspecified nonmetal output and the potential for additional discoveries indicate that the Resource Management Plan should maximize the area available for exploration and mineral development where warranted.

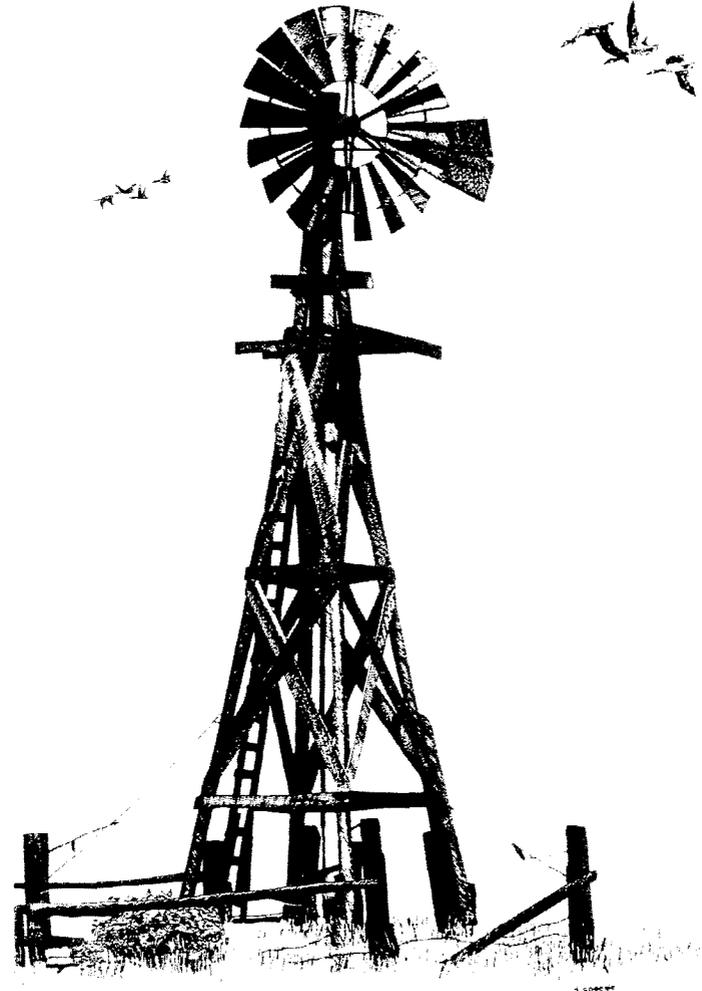
The value of mineral output cited in the Draft apparently does not include the significant amount of nonmetallic or industrial mineral commodities produced in the district. An example of this is the zeolite being mined in the San Simon Valley north of Bowie where production since 1962 is valued in excess of \$40 million. This mineral resource is an important commodity for environmental cleanup and other beneficial uses, and its utilization should increase in importance with time.

I am uncertain from this Draft as to the impact a "Riparian Area" designation would have on future mining within that area. In particular, the zeolite resource occurring in San Simon Valley Riparian Area 37 warrants development as markets dictate, and I can see no justification to inhibit reasonable development in this area. Encouraging development of this unique resource should be a goal of this Resource Management Plan.

I am somewhat surprised at the large size of Riparian Area 37 shown by the "circle" on Map 34 compared with other so designated areas within the District. The area seems disproportionately large relative to the amount of stream drainage and man-made ponds in the area.

Sincerely,

R. W. Knostman

63-1



64

4754A La Villa Marina
Marina del Rey, Calif 90292
March 24, 1990

Steve Knox
RMP Team Leader
BLM, Safford AZ.

Dear Mr Knox:

Although I live in California. I visit Arizona often, and indeed plan to move there one of these days. Thus I feel I have a wee vested interest in all things Arizonian, including RMP reports. My normal Arizona wanderings take me to Organ Pipe, the Huachucas, the Chiricahuas, and to Aravaipa, the latter being one of the subjects in your RMP report.

One of the things that make Aravaipa so spectacular, is its remoteness and inaccessibility. If you want to see Aravaipa, you have to WALK!! Although I am 58 years old, I still believe things worth seeing should take some effort, not a roll-by in a 4X4. And I am not against 4X4's...just the abuses which are sometimes horrendous. My motor home is a 4X4, and my city truck is also 4X4. I try and obey the rules, and wish most others did too. It is against the unthinking, uncaring empty heads that I rebel.

I applaud your earnest and well intentioned RMP effort. It is very ambitious. But just perhaps, given current manpower and budget realities, the loft of your goals could easily outstrip the reasonableness of their attainment. The report was very detailed, perhaps too much so to one outside the BLM and trying to get to the core issues. I would think it best to concentrate people and money on fewer goals and attain them. Wildlife habitat, not user/use, should be the primary goal for such a unique spot as Aravaipa.

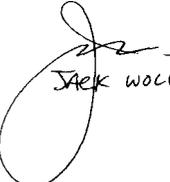
I think the thing that strikes me the hardest about your Preferred Alternative insofar as Aravaipa is concerned, is on the matter of off road vehicle access. In your summary section, you talk of "the imprint of mans work is substantially unnoticeable throughout the [Aravaipa] wilderness area." It should be kept that way, which it will not if more and more peripheral areas are open to hunters and vehicular traffic. For example you propose closing sheep lambing areas from Feb 1 to April 30, and then reopening on a limited basis. Why reopen at all. Why not close lambing areas year around so that the shy sheep know that they have some permanent territory. I also think your designation of the remaining 1.38mm acres to limited OHV use opens up the possibility of abuse on a grand scale. People in 4x4's in general LOVE getting off the roads and back to more remote areas. You cannot be expected to successfully patrol such a large area. I think more and more illegal roads will pop up, closing in on Aravaipa and its still pristine wildness.

On the other hand, I applaud your intent to include 6684 acres in the Rational Wilderness Preservation System...to continue to file for instream flow rights...to consider Aravaipa Creek for Unique Waters designation (if A Creek is not extra specially unique, I don't know what is!)...and your plans to purchase additional critical properties in the area. Those are all good and positive steps which could be easily overshadowed by the eventual

arrival of clouds of dust and new trails and destroyed habitat, all compliments of OHVs. The area surrounding Aravaipa is as sacred and needing of protections as the canyon itself. There are SO few Aravaipas in this world, please let's resist the political pressure to be all things to all people. Let's reshape our priorities a bit, giving the big nod to habitat and wildlife. Han can still walk. We have not lost that ability quite yet, although denizens of the earth in the middle of next century could well be born with 4X4 wheels where once there were legs.

I do not want to sound like a rabid environmentalist or elitist barring all People forever from wild habitat. Han has been part of the scene for thousands of years. But NOT his vehicles. I remember walking the canyon one early morning, and encountering a young family of four from Holland, who had camped overnight. They loved the spot, and the reason was because they heard no other people, and they had to make an effort to gain the pleasure. That's what the super unique wildlife areas are all about. The BLM and the Nature Conservancy have a sacred joint responsibility here. Please act as responsible conservators for the people of the next century, who hopefully will not have wheels permanently attached.

Thanks for your consideration,


JACK WOLF

64-1

65

Marion Kole

March 28, 1990

To: Steve Knox, RMP Team Leader

Re: Safford District Resource Management Plan

Dear Mr. Knox:

I urge you to support alternate B of the four alternative plans that were outlined to best protect the wilderness habitat, wildlife, and flora. My reasons are as follows:

1. Restricts off highway vehicle use, closing 1,400,000 acres to O.H.V. use.
2. Benefits 4000 acres of riparian vegetation.
3. Improves wildlife habitat by management of 101,739 acres.
4. Closes big horn sheep lambing areas reducing human harassment during critical periods.
5. Protects archaeological & paleontological sites.
6. Restricts cattle razing in critical areas.

Alternate B, which I support, best preserves the Aravipa & Muleshoe areas so our children & grandchildren can hike and camp as we have done. You must act wisely now.

I further urge the BLM to work closely with the Nature Conservancy & accept their help and advice.

Sincerely,

Marion Kole
Marion Kole

Green Valley, Az.

66

March 29, 1990

Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Hello Steve,

I neglected to include one very important input. I am strongly opposed to the opening the 1708 acre Hot Well Dune area to off highway vehicles. No studies have been done to determine the unique wildlife values of the area and unique values can be anticipated in dune areas. It is the only significant dune area in Southeast Arizona. The BLM has no obligation to permit destructive recreation activities on public land that will destroy other important values.

66-1

Thanks for the opportunity to comment,

Jim Notestine

Jim Notestine

PO Box 461
Sonota, AZ 85637

67

march 29, 1990

Mr. Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th St.
Safford, AZ 85546

Dear Mr. Knox

We are writing with regard to the Safford District Resource Management Plan.

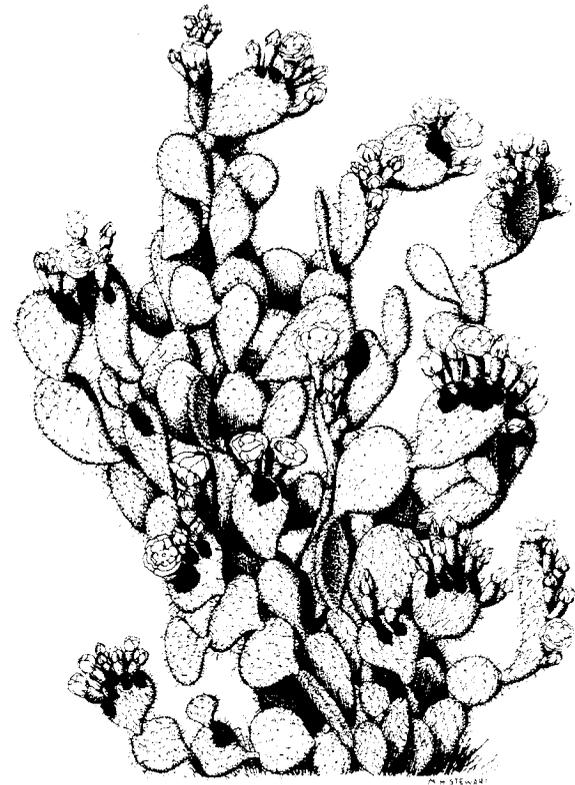
Of the four alternative plans outlined, we feel that alternate 8 best describes our interest in preserving the habitat, wildlife and flora of the Aravaipa and Muleshoe areas.

We are members of Friends of Madera Canyon and The Nature Conservancy and ask you to please work closely with the Conservancy and accept their help. As you know, Riparian areas need our protection NOW, for the sake of our future generations.

Sincerely,

Dorothy Miller
Jack Miller

Dorothy & Jack Miller
963 S. Las Lomas Circle
Green Valley, AZ 85614



March 28, 1990

Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Dear Mr. Knox,

I am writing this letter to comment on the Safford District Resource Management Plan and Environmental Impact Statement, which is the proposed plan for management of 1.4 million acres of public land in southeastern Arizona.

After reviewing the draft, I would like to say that I strongly support ALTERNATIVE B for the following reasons.

1. In general ALTERNATIVE B designates larger areas to Areas of Critical Environmental Concern and more protective management prescriptions, as well as recommending larger areas to Congress as wilderness and wild and scenic rivers.

2. Specifically I support the 179,220 acres of public land being designated for ACECs by Alternative B, as opposed to the 61,737 acres recommended by Alternative A.

3. I am opposed to "open" use of OHVs (off highway vehicles) on all public lands, and feel the limited use proposed by both alternatives of 1,300,000 plus acres should be sufficient for use by OHVs. However, I recognize the need of your organization to satisfy the needs of a variety of divergent interests, and could understand designating an area open to OHVs where the protection of wildlife and plant habitat was not a consideration.

4. I am opposed to the increased acreage of 6,071 acres recommended by Alternative B as opposed to 29,104 recommended by Alternative A. I am especially interested here in the added acreage recommended for withdraw from mineral entry in Eagle Creek Canyon wherein lies Eagle Creek Bat Cave. I believe this Mexican free-tailed bat maternity cave needs maximum protection from outside disturbance, and I would support gating the cave with the appropriate gate to protect these bats from vandalism.



5. I further support the Alternative B recommendation to not provide firewood or other vegetative products for public use. While I favor cutting the tamarisk tree which is not native to AZ, I am not in favor of cutting mesquites for firewood. I believe the mesquites are important habitat for AZ wildlife species and should not be sacrificed for firewood.

6. I am concerned that both Alternative A and B designate over 800,000 acres to Visual Resource Management Class 1. Although I do not understand the complete meaning of "I would interpret 'major modification of the existing character of the landscape' to include total destruction by mining. I believe over 800,000 acres designated for that classification is far too great.

7. Lastly, I would like to take this opportunity to comment on my feelings about livestock grazing on our public lands. Although I know this is a sensitive issue, I personally believe the 2% of beef provided nationwide by grazing on the BLM lands in eleven western states is a terrible tragedy to public lands. Destruction to BLM land by overgrazing, water competition between wildlife and cattle, soil erosion, wildlife destruction by the ADC and ranchers themselves, and loss of plant and animal habitat are all unjustifiable to my mind. I would support any means of lessening and finally eliminating cattle grazing on public lands. This may include everything from buying out ranchers directly, subsidizing them to have fewer cattle, or job retraining programs. I do not mean to oversimplify the problem, but I do believe there are ways of working the problem without continuing the status quo of destroying our public lands.

Thank you for the opportunity to voice my opinion about the use and management of our public lands.

Sincerely,
Mary C. Schanz
Ben M. Watkins

Mary C. Schanz
Benjamin M. Watkins
301 W. Spring Valley Pl
Tucson, AZ 85737



68-1

69

Safford District Grazing Advisory Board

Resolution
1990-01

WHEREAS, the economic survival of each rural community and county in each state depends on private property as a tax base; and,

WHEREAS, further taxes for rural counties and communities are derived from personal property tax on livestock; and,

WHEREAS, the current Bureau of Land Management Resource Management Plan Draft (preferred alternative) proposes to withdraw 22,883 acres from any possibility of future use by livestock grazing impairing and reducing the tax base of Graham and Cochise Counties;

THEREFORE, BE IT RESOLVED the Safford District Grazing Advisory Board is opposed to any withdrawal of lands in our two counties that would affect the tax base.

Adopted this 30th day of March, 1990

SAFFORD DISTRICT GRAZING ADVISORY BOARD

Allen Day, Chairman



70



ROSE MOFFORD, GOVERNOR
RANDOLPH WOOD, DIRECTOR

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

March 30, 1990

Mr. Steve Knox, RMP Team Leader
Safford District office
Bureau of Land Management
425 East 4th Street
Safford, Arizona 85546

Dear Mr. Knox:

This letter is in response to your January 1990 request for a" air quality impact review, of the following project:

Safford District RMP/EIS

The planned project is partially located in a" air quality attainment area, that is, an area which currently meets federal health standards for air pollution levels. The Paul Spur Area in in nonattainment for PM₁₀ (particulate matter less than 10 microns).

We have reviewed the submitted proposal and no adverse air quality impact is anticipated as a result of the project. However, during construction, we would request that steps are taken to minimize the amount of particulate matter (dust) generated, including incidental emissions caused by strong winds, as well as tracking of dirt off the construction site by machinery and trucks. Applicable state rules are contained in A.A.C. R18-2-404.

In addition, please be aware that portable sources of air pollution such as rock, sand, gravel, and asphaltic concrete plants are required to receive Installation and Operating permits from the Office of Air Quality in order to operate in the State.

Thank you for the opportunity to comment. Should you have any further questions, please contact this office at 257-6965.

Sincerely,

Joe Gibbs

Joe Gibbs
Office of Air Quality

JG/sds

Enclosure

The Department of Environmental Quality is An Equal Opportunity Affirmative Action Employer.

Central Palm Plaza Building

2005 North Central Avenue

Phoenix, Arizona 85004

R18-2-403

ENVIRONMENTAL QUALITY

Title 18

Ch. 2

AIR POLLUTION CONTROL

R18-2-407

and development concerning the effects of forest burn programs on air quality. Such report shall include, where applicable, innovations in the management of prescribed burning using meteorological data, as well as special burning methods, or innovative equipment. Alternatives to burning shall also be considered. Research as to cost effectiveness of the various methods should also be included.

Historical Note
Former Section R03-3-403 repeated, new Section R03-2-403 adopted eff. May 14, 1979 (Supp. 87-3). Former Section R03-3-403 renumbered without change as Section R18-2-403 (Supp. 87-3).

R18-2-404. Open areas, dry washes or riverbeds

A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of dust shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.

B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.

C. 1. No person shall operate a motor vehicle for recreational purposes in a dry open area in such a way as to cause or contribute to visible dust emissions which are deposited into a residential, recreational, institutional educational retail sales, or business area. For purposes of this Subsection "motor vehicles" shall include, but not be limited to, cars, cycles, bikes, buggies and three-wheelers. Any person who violates the provisions of this Subsection shall be subject to prosecution under A.R.S. § 36-1720.

Historical Note
Former Section R03-2-404 repeated, new Section R03-2-404 adopted eff. May 14, 1979 (Supp. 79-1). Amended by adding Subsection C. eff. Sept. 22, 1981 (Supp. 83-5). Former Section R03-3-404 renumbered without change as Section R18-2-404 (Supp. 87-3).

R18-2-405. Roadways and streets

A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down detouring or by other reasonable means.

B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent dust from becoming airborne. Any other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

Historical Note
Former R03-2-405. Other additions, renumbered R03-2-406, new Section adopted eff. Sept. 17, 1979 (Supp. 79-5). Amended by adding Subsection B. eff. May 14, 1979 (Supp. 79-1). Amended by Ord. 2, 1979 (Supp. 79-5). Former Section R03-403 renumbered without change as Section R18-2-405 (Supp. 87-3).

R18-2-406. Material handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transport or emptying of materials, or other operations likely to result in significant amounts of dust, or the use of spray bars, wetting agents, dust suppressants, covering the load, or hoods to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note
Former Section R03-2-406, renumbered R03-2-407, adopted eff. Sept. 17, 1979 (Supp. 79-1). Former Section R03-3-406 renumbered without change as Section R18-2-406 (Supp. 87-3).

R18-2-407. Storage piles

A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne. Storage piles shall be operated at all times with a minimum of material and shall be covered with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note
Adopted eff. May 14, 1979 (Supp. 79-1). Former Section R03-3-407 renumbered without change as Section R18-2-407 (Supp. 87-3).

71

3-29-90

Dear Folks,

It just came to my attention that the Safford range management plan calls for the rebuilding of the Vargas canyon road.

In the vernacular of the day "get real, get a job". Certainly there is no need except for wilderness destruction. This area obviously needs the protection of closed ways, "Don't you have a wilderness area to manage", not create unregulated use to the canyon edge. ^{over!!}

Better put your ~~to~~ somewhere else. Why not hire some bear protectors, mountain lion guardians, and SRVH road builders traffic cops. The wilderness needs more protection, not more roads.

I remain one willing to enjoy the wilderness resource without needing improved recreational access everywhere.

Sincerely, 86441
Rudi Lambrecht 4352 N. Baker #A Kingman, AZ

72

Phone # 602/625-9063

HARRY JANIS, JUNE JANIS
1424 CAMINO DE LA OCA
GREEN VALLEY, AZ 85614

March 30, 1990

Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th street
Safford, AZ 85546

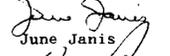
Dear Mr. Knox:

You have received a copy of the Draft RMP for the Safford District. We must admit to only a very brief review of the alternatives listed and their varying impacts.

Despite this brief review, we must come out strongly for Alternative B, the alternative which would supply greater protection to riparian, paleontological and other resources. We have worked for environmental protection for many years - mainly in the State of Michigan. We know the irreversible damage which can be done to fragile environments by improper use (misuse) by man.

Since any use, permitted or otherwise, will effect the area under consideration, we encourage the establishment of the strictest controls possible of the areas under your jurisdiction. There is so little damage which we can control, where control is possible it should be applied and monitored with great stringency.

Sincerely,


June Janis

Harry Janis

73

March 30, 1990

Dear Mr. Knox,

We support Alternative Plan B for the following reasons:

1. Restriction of cattle grazing in critical areas. Cattle grazing often destroys food for the wildlife.
2. No need to protect archaeological sites. These sites are important to the history of the region.
3. Restrict off road vehicles in the area. These vehicles are dangerous to wildlife & persons riding the vehicles.
4. Bighorn sheep lambing areas. Wild animals do not appreciate other animals or humans during these critical times.
5. Improves the habitat for wildlife by providing management of over 100,000 acres.
6. Provides protection for 4,000 acres of riparian vegetation.

Therefore, Mr. Knox we hope Plan B is the plan which is best for the animals & people using the areas for recreation. We urge you to consider the help & advice from the Nature Conservancy.

Minnie Stafer

2260 La Canada
Green Valley, Az, 85614

74

JOHN R. SEANON

State Edmund Dir.,

Mississippi, MN 5546

March 30, 1990

Bureau of Land Management

425 E 4th Street

Bufford, Arizona 85546

Dear Sir:

Please accept my following comments concerning the

~~Proposed Management Plan, Conservation Management Statement, and Land District~~

So agree with the Bufford District Bureau of Land Management, and continue to agree that the public lands in this District contain outstanding wilderness, wild life - biological, cultural and scenic resources. Further National significance. So these lands feature unique, varied and fragile natural attributes that fully justify management. It is not my wish to advise that I oppose the proposed alternative, as it will destroy variety of natural features, including wilderness and wild life - biological resources, as well as historic and scientific resources.

Further, the Bureau of Land Management areas in this District must be properly managed so that they may protect the man, and all life, of this ecological plant.

Will do so by dedicating the Bufford District Bureau of Land Management, Public Lands as a National Natural Preserve, with the surface, subsurface, scientific, development

So select the following areas and agree as to split in the Bureau of Land Management areas, Bufford District, as follows: Bighorn and include in the National Wilderness Management System, as each area with some certain important wilderness attributes:

Area (sq. miles) Wilderness Act (1964) only 22,000
 Bighorn 23,000
 Middle Eye 12,000
 Bighorn 10,000
 Fish Lake 18,000
 Dog Mine 22,000
 D. L. Coy 23,000
 South Mountain 21,000
 Double Peak 22,000
 P. L. C. Mountains 14,000
 P. L. C. Mountains 23,000
 Double Mountain 7,000
 Bighorn Canyon 5,000
 Apache Bay 8,000
 Mountain 3,000

4-1

and to secure additional wilderness areas - areas so as to function as wilderness complex representing Bureau of Land Management areas, Bufford District, to include (at least) 910,000 acres, National Wilderness Management System

So classify the District as a National Critical Wildlife - Biological Habitat Area, so with regard that all wild life - biological resources may survive and flourish, and to preserve the Mountain as a fully protected mountain, with the District to have a total complete protection, creature and habitat.

So include rivers - creeks in the National Wilderness Management System.

So select a complete - maximum - complex of areas of Critical riparian, riparian, and riparian areas.

So not appropriate ability to be used. And to remove protection to riparian areas.

So not allow off-road vehicles or other man-made disturbances and activities.

So eliminate the dumping as to some of the important resources, as to be very destructive, with the removal of riparian, so as to have land and water - the areas.

and to reestablish the buildings, along with the lands District.

Also to develop a riparian management plan - Program with the Bureau and the Republic of Mexico.

Sincerely,
John R. Seanon.

75

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

March 28, 1990

Re: Eagle Creek Bat Cave as proposed ACEC in BLM's
Safford District Resource Management Plan

Dear Mr. Knox,

This letter is to comment on the Eagle Creek Bat Cave portion of the Safford District's proposed land management plan. I would like to see Alternative A accepted as the management strategy for this area due to the significance of the Mexican free-tailed bat population as a maternity colony. As monies become available the lands in Alternative B should be acquired. The necessity for a management plan for protection of the bats is essential.

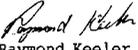
- o There are very few major Mexican free-tailed maternity colonies in the United States. This maternity roost represents a significant percentage of the overall population.
- o Regular human disturbance, especially in Alternative C would have an adverse impact on the colony. Thousands would die before a census could determine the decline.
- o With such a large number of helpless young being raised in a single location during a specific time frame each year, the possibility of a catastrophic incident from careless or malicious humans is possible.
- o As already stated in the management proposal, the Mexican free-tailed population has been in steady decline for several years across its entire range.

I have been to Eagle Creek Bat Cave three times, all on research oriented trips when the bats were not present to work on low impact population estimate*. During the most recent visit, January 27th, 1990 we observed the 'classic' scenario of three men riding up on ATV's, walking up the hill with their M-16, walking through the gate past the old "Do Not Disturb The Guano" sign and up onto the guano mountain. I went up and requested them to come back down. We had a polite conversation and they followed me down the slope. Later, farther up the canyon, we heard them target practicing with some 30 rounds in rapid succession. If this scenario occurred during the summer months it is quite possible the target practice would have been at the cave.

Please begin with the protection this sight with your Alternative B, the ACEC designation including the 3160 acres. If Alternative B is not achievable due to monetary restraints for the land acquisition then Alternative A should be taken. I would not like to see Alternative C taken. The chances of changing the micro-climatology through mining the guano inside the cave and thus

effecting the bats is too great. I have shown an example of Alternative D above. Similar instances contribute to the current population decline.

Sincerely,


Raymond Keeler
President, Arizona Region of the
National Speleological Society

76



United States Department of the Interior

FISH AND WILDLIFE SERVICE

National Museum of Natural History
Washington, D.C. 20560
(202) 357-1930

March 28, 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Dear Mr. Knox:

I was heartened to learn that BLM is contemplating protecting Eagle Creek Cave and the dwindling population of Tadarida brasiliensis that roost there. In response to the agency request for public input on the 1989 Resource Management Plan Draft Environmental Impact Statement, I would like to support efforts to protect Eagle Creek Cave as an Area of Critical Environmental Concern.

During the 1970s, I studied declining populations of T. brasiliensis throughout the Southwestern U.S., including the population at Eagle Creek Cave (see enclosed reprints). At that time it was obvious that the Eagle Creek colony had already undergone a perilous decline. Our studies showed little support for the theory that the decline there was due to pesticides as we had demonstrated for the population at Carlsbad Caverns. Although there is some evidence of heavy metal contamination, there was also considerable evidence of continuing vandalism being a major contributor to the decline.

We routinely found empty shotgun shells and other evidence of human disturbance during our visits to the cave. I would really prefer your Alternative B, to protect the entire expanse of Eagle Creek. I think that would make it much easier to control access to the cave, and would provide significant protection for other important natural resources as outlined in the ACEC evaluation.

Regardless of the alternative ultimately selected, I hope you will consider posting a conservation message explaining why the public should be excluded from the cave, so that legitimate visitors to the Canyon will not be offended. The public could easily be accommodated to view the exit flight from below, providing an educational opportunity as well. In conjunction with this, I would urge a ban on the discharge of firearms within a quarter mile or so of the cave entrance.

If access to the area cannot be controlled effectively, it might be necessary to build a better gate across the entrance. The entrance is high enough that an effective bar to human entry could be designed that occupied only the bottom 10 feet or so, leaving the bats ample room to exit normally through the higher part of the entrance. Should you eventually contemplate changes to the gate, I would recommend consulting the U.S. Fish and Wildlife Service Bat Recovery Team or Bat Conservation International for current guidelines on cave gating.

76-1

76-2



-2-

Thank you for your efforts on behalf of our natural resources. If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Don E. Wilson
Research Zoologist

77

Denali (Mt. McKinley) National Park, Alaska.
Photo © Carr Canyon

FROM: BONNIE POULOS
1208 E. SMOOT DR.
TUCSON, AZ 85718

31 MAR 1994 APR
950



Re: RND FOR SE ARIZONA
ALTERNATIVE B

I WISH TO COMMENT ON THE
PROPOSED FUTURE USE OF
BLM PUBLIC LANDS IN S.E. ARIZONA.
MUCH OF MY FREE TIME IS SPENT
OUT IN ARIZONA WILDERNESS AND
PUBLIC LANDS. I HIKE MORE THAN
300 MILES A YEAR AND MOST OF
THOSE MILES ARE IN S. ARIZONA.

SOME BLM LAND SUCH AS
ARAVAIPA CANYON ARE INCREDIBLE
RESOURCES OF NATIVE VEGETATION,
WILDLIFE AND GEOLOGY. SOME BLM
LAND SUCH AS EMPIRE RANCH
USES WELL-BALANCED GRADING
TECHNIQUES AND SUCCESSFULLY
COMBINES COMMERCIAL USE WITH
PRESERVATION OF THE NATURAL
ENVIRONMENT. DUE TO LACK OF
STAFFING, HOWEVER, EMPIRE
RANCH ALSO SUFFERS FROM

ILLEGAL OFF-ROAD VEHICLE
USE WHICH I HAVE PERSONALLY
OBSERVED. THON THERE IS SOME
BLM LAND IN S. ARIZONA SUCH AS
THE DABBY WOULD RUN AROUND
AND THAT IS FULL OF TRASH,
SPENT RIFLE SHELLS, VEHICLE
TRACKS AND DEVASTATED WASH
AREAS.

I THINK THE BLM SHOULD
PUSH FOR BETTER STAFFING AND
A HIGHER BUDGET IN ORDER TO
PRESERVE MORE OF OUR
PUBLIC LANDS. OUR PARKS AND
NATURAL AREAS ARE JAM-PAKED
FALL, WINTER AND SPRING WITH
TOURISTS WANTING TO BE OUT
OF DOORS. WE NEED MORE AREAS
WHERE PEOPLE CAN FIND PEACE
AND QUIET AND A NATIVE DESERT
ENVIRONMENT AND WHERE PEOPLE
CAN WALK OR RIDE THEIR HORSES.

I HOPE THE BLM WILL

To: STEVE KNOX
RMP TEAM LEADER
BUREAU OF LAND
MANAGEMENT
425 E. 4TH ST.
SAFFORD, AZ 85546

WORK FOR BETTER LAND STEWARDSHIP
AND EMPLOY MORE PEOPLE TO CARE FOR
AND MAINTAIN OUR NATURAL AREAS,
DE-EMPHASIZING COMMERCIAL USE AND
THE USE OF MOTORIZED VEHICLES WHICH
LEAVE INDELEIBLE SCARS ON THE DESERT.
THANK YOU. BONNIE J. POULOS

78

Please use
of off highway vehicles
areas. I am in favor
Aravaipa and Milester

Thank you
C

1149 Mountain View
Green Valley, Az.

Dear Mr. Ruse,

Having studied Safford's Resource Management Plan etc. draft, We urge very strongly the Alternative B plan. This alternative we believe recognizes the terrible damage that results from unrestricted off-highway vehicles in desert areas. Our experience has been that partial restriction does not work unless you have a tremendous policing force which we neither have nor want. Closing lands to this use is the same answer. Give them specific places to play and save our irreplaceable lands.

We know from past history and see many examples today of the damage done the land by overgrazing. Alternative B speaks to this problem too, as well as the best protection for wonderful places like Grandpa Canyon & Melrose.



It was heartening to

... that there was the prospect

of even closer coordination between the B.L.N. and the Nature Conservancy. It seems that nothing but good can result from this combining of aims and know-how of two groups really working for the same purpose.

Sincerely,

Louise S. Uhl

and

John H. Uhl

1149 Mountain View
Green Valley
AZ.



80

RE: Safford RMP

3/30/90

Gentlemen;

please do not re-open the Virgus Canyon road, and please do not open or build any more roads in the Arivaipa Canyon or Galiuro Mountains areas. Thank you for your time.

Daniel R. Mayercek
 Daniel R. Mayercek
 2316 N. Chrysler
 Tucson, AZ 85716

81

PETITION

TO: Bureau of Land Management
 U.S. Department of the Interior
 425 E. 4th Street
 Safford, AZ 85546

RE: Safford District Resource
 Management Plan and
 Environmental Impact Statement
 (RMP/EIS)

THIS PETITION is in regard to the use of the high country above Aravaipa Canyon. We request that you do not open the road across Virgus Canyon. The area west of Virgus should be open to equestrian and foot travel only. At present, there are many 0-wheel drive roads in the Turkey Creek-Table Mountain area. There is a need for equestrian trails outside of the Aravaipa Creek itself and horses and ORVs are a dangerous combination.

NAME	ADDRESS	DATE
<i>Allen P. ...</i>	6571 N. Columbus	TUCSON, AZ 85728 3/21/90
<i>[Signature]</i>	2019 E. SILVER	TUCSON AZ 85719 3/21/90
<i>[Signature]</i>	3572 E. RIVER	TUCSON, AZ 85718 3/21/90
<i>[Signature]</i>	7812 N. Kalamazoo	TUCSON AZ 85719 3/21/90
<i>Chris Chances</i>	11431 E. Hummerhill	Tucson, AZ 85749 3/22/90
<i>[Signature]</i>	5701 E. Glens #88	Tucson, AZ 85712 3/22/90
<i>[Signature]</i>	1852 W. Record St	Tucson, AZ 85705 3-22-90
<i>[Signature]</i>	6481 Avenida de Roma	Tucson, AZ 85718 3-23-90
<i>Marian Nattler</i>	5661 E. Kelso	Tucson, AZ 85712
<i>Sara Smith</i>	1620 N. Wilcox #155	Tucson, AZ 85712 3-23-90
<i>Phillip Collins</i>	PO Box 1105	Oracle, AZ 85623 3-23-90
<i>[Signature]</i>	3572 E. RIVER	TUCSON, AZ 85718 3-23-90
<i>[Signature]</i>	3572 E. RIVER	TUCSON, AZ 85718 3-23-90
<i>Pat M. Celentano</i>	3952 N. Sutton Ln	TUCSON, AZ 85718 2-23-90
<i>Margaret E. Weston</i>	" "	" " 3-27-90
<i>[Signature]</i>	3631 E. Popper	Tucson, AZ 85718 3-27-90
<i>Richard ...</i>	3631 E. Popper	Tucson, AZ 85718 3/27/90
<i>M. Alradi</i>	5042 E. Camino Verde	T.A. 85718 3-27-90
<i>Michelle ...</i>	319 N. Palovina	TUCSON, AZ 85716 3-27-90
<i>[Signature]</i>	422 E. GREENE	TUCSON, AZ 85718 3/27/90
<i>[Signature]</i>	5712 E. Camino Verde	Tucson, AZ 85718 2/28/90

82

Das Cabezas Route, Box 6309
Willcox, Az. 85643

March 29, 1990

Mr. Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, Az. 85546

Re: Draft Safford District Resource Management Plan &
Environmental Impact Statement

Dear Steve:

The document under review, with appropriate maps, provides a wealth of information in which to make a reasonably good judgement of the four alternative land use plans. The BLM has properly identified four major issues and ten concerns to which most of the public recognizes.

Although the BLM preferred Alternative A provides for a basis to land use and management problems, I would strongly like to emphasize that Alternate B enables much more protection to the natural resources and the environment. I, therefore, recommend and support Alternate B.

The mild interests on the part of the public towards the Public Lands and the environment during the past have dramatically shifted in recent years to major concerns. Many realize that this is all that is left of the Public Lands and that they should be used and/or protected wisely. It is also becoming more apparent that the values of the natural and cultural resources as they are found or occur are of great interest and importance.

The BUM should be especially commended on the identification of several sensitive areas such as the ACEC, NCR, NRHP, OMA and RNA units. The enlargement of most of these critical areas as proposed in Alternate B would afford a greater buffer thus providing much more protection to these units.

I would also encourage the Peloncillo Mountains as a wilderness addition. The Scenic ACEC around Fort Bowie could also be transferred to the National Park System so as to enable this National Historic Site to be a larger and more complete Unit. I would strongly support the Gila Box as a Riparian National Conservation Area. Other wilderness areas mentioned are also encouraged.

I strongly oppose the possible suggestion of vegetation manipulation in the future through the use of artificial methods such as chemical biocides on Public Lands. Similar control methods on insects would also be objectionable.

Sincerely,

Dan Fischer

Dan Fischer

83

March 29, 1990

Mr. Steve Knox
Bureau of Land Management
425 E. 4th St.
Safford, AZ 85546

The Safford RMP/EIS does not adequately address wolf reintroduction needs.

Al Bammann, who wrote portions of the RMP's wildlife discussions, stated on March 24 to me that wolf reintroduction was not discussed because no agency has designated any reintroduction areas.

Addressing wolf reintroduction in the RMP should not be contingent upon designation of a reintroduction site. What are the impacts on wolf reintroduction if the RMP ignores the issue? Doesn't the BLM have a statutory obligation to consider the issue absent a specific proposal?

83-1

Bammann told me that he was unaware that in 1986, AGFD identified Safford District BLM lands for evaluation as wolf reintroduction sites. A copy of this document is attached. The EIS should include an evaluation of the impacts of BLM's habitat management and land tenure adjustments upon the suitability of these areas for wolf reintroduction.

Yours,

Julia Swanson

Julia Swanson
Arizona Earth First!

FILE COPY EMF

BRUCE BABBITT, Governor

DR. ROBERT
W. LEE LYNTON MONTGOMERY, President, Chairman
FRED S. BAUER, Editor
LARRY D. ADAMS, Business City
FRANCIS W. WERNER, Tucson
THOMAS G. WOODS, JR., Phoenix

Director
BUD BRISTOW

Assistant Director, Services
ROGER L. GIBBERNEALD
Assistant Director, Operations
DUANE L. SHROUFE



ARIZONA GAME & FISH DEPARTMENT

2222 West Johnny Road Phoenix, Arizona 85023 942-3000

July 28, 1986

Michael J. Spear, Regional Director
U.S. Fish and Wildlife Service
Post Office Box 1306
Albuquerque, New Mexico 87103

Dear Mr. Spear:

This letter is in response to your request of July 14 for a list of areas in Arizona that could possibly sustain reintroductions of the Mexican wolf (*Canis lupus baileyi*).

The enclosed list is not prioritized and the area boundaries are not defined. The areas listed are based largely on the habitat recommendations and considerations established by the Mexican Wolf Recovery Team and enclosed with your letter of July 14. We view this initial list as a basis to begin the process of delineating potential reintroductions sites, and agree that many non-biological factors will guide the more rigorous site prioritization process and influence the final selection of release areas. The habitat considerations developed by the Recovery Team are adequate for commencing the reintroduction effort, and at this time we offer no considerations in addition to those.

If considering candidate reintroduction areas it is difficult to separate the biological from the non-biological components. For example, the nearly statewide presence of livestock will inevitably result in livestock-wolf conflicts. Even if releases are made in areas where livestock are excluded, the wide-ranging nature of wolves will eventually bring them in contact with livestock far from the release area. However, we focused more on biological factors of relating to habitat expanse and condition and native prey populations. We think that some mechanism to handle livestock depredation must be outlined very soon, and refined later with local ranchers as specific release areas are selected.

We suggest that there be a series of meetings to specifically define and prioritize potential release areas. The initial meeting could be with the Recovery Team and responsible state and federal agencies, but soon afterward we should provide ample opportunity for public involvement.

OK initial meeting 8/13

Michael J. Spear

-2-

July 28, 1986

Ye are looking forward to developing with the U.S. Fish and Wildlife Service a wolf reintroduction program that successfully fills a predator niche vacated by decades of persecution. At the same time we hope this project succeeds in revealing to the people of Arizona the true nature and tragic history of the wolf in our state. Indeed, both of these expectations must be met if we are to maintain this important element of southwestern fauna.

Please contact Rich Glinski, Nongame Biologist, or Terry Johnson, Endangered Species Coordinator, if you need additional assistance.

Sincerely..

Bud Bristow
Bud Bristow
Director

BB:RLG:rp
Enc.

cc: Lee Perry, AGFD
Mike Yeager, AGFD
Tom Britt, AGFD
Wes Martin, AGFD
Tom Spalding, AGFD
Don Turner, AGFD

84

3-31-90

DEAR BLM,

AS A MEMBER OF THE WHITE MOUNTAIN
CONSERVATION LEAGUE, I AM AGAINST
YOUR PLANS TO REBUILD THE VIRGUS
CANYON ROAD.

PLEASE CONSIDER THIS LETTER WHEN
MAKING YOUR DECISION.

THANK YOU-

TOM HOLLENDER
PO 72
NUTRIOSO, AZ 85932

85

March 17, 1990

Steven Knox, RMP Term Leader
Bureau 01 Land Management
42s E. 4th street
Safford, AZ 85546

Dear Mr Knox,

I am writing to support Alternative B for the Resource Management Plan. I think it will be the best alternative to protect the Aravalpa and Muleshoe areas because it protects archaeological sites and wildlife habitat.

I selected Arizona for my retirement years because of its natural beauty and I urge the BLM to help preserve the wilderness for my grandchildren to enjoy.

Sincerely,

Erwin Siwek
Erwin Siwek



Box 122 Bio Science West
University of Arizona
Tucson, Arizona 85721

31 March 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E 4th Street
Safford, Arizona 85546

Dear Mr. Knox:

In another letter I have written my general comments about the BLM Safford District Resource Management Plan and draft Environmental Impact Statement (Dec 1989) and about a few of the specific ACEC's. I have visited several of the areas that are being reviewed, but the area with which I am most familiar is Eagle Creek Bat Cave. I wanted to address it separately in this letter.

The significance of this cave cannot be overstated. Prior to 1966, estimates of peak numbers of Mexican Free-tailed Bats (*Tadarida brasiliensis mexicana*) occupying the cave during spring and summer ranged between 1 million (Constantine, 1958) and 100 million (Reidinger and Cockrum, 1978). After 1966, the oft-quoted opinion of population size during the 1960's has been given as 25 million bats (Cockrum, 1970; review in Sidner, 1986). More recently, estimating techniques based on guano accumulation and cave dimensions suggest that the population could have been as high as 6 million (McFarlane and Keeler, in review). Estimates of decreased numbers of bats are just as variable with one point in common: they all show a drastic reduction from the peak estimate, to say the least.

This cave once held the highest concentration of mammals (and perhaps any vertebrates) in our state. That is a resource of considerable value, especially when the benefits of bats are considered, and when their roles within the broader ecosystem are defined. This species of bat is a major predator of night flying insects including those that are considered to be economically harmful to agriculture. These bats are food for avifauna (including threatened and endangered species) in Eagle Creek and many other areas. For example, they have been observed to be captured by buteos and falcons in flight (Sidner, 1986), by peregrine falcons in flight and by turkey vultures inside the cave (Sidner, 1987; field notes), and by spotted owls in other areas in the state (review in Duncan and Sidner, in press). Their role as food items for many terrestrial vertebrates has been given in numerous references. Their guano and carcasses offer a critical refuge to a host of native invertebrates. They cause changes in microclimate within their roosts which undoubtedly aids other species of bats with which they co-occur.

Like most other species of bats, Mexican freetails have an extremely low reproductive potential. They are not capable of recovering population losses rapidly. Natural mortality by catastrophic climatic events or insect cycling then can cause drastic decreases in their numbers. Evolutionarily they deal with these events. But the disturbances caused by human impact, those of habitat loss, pesticide introduction, scientific collecting, and disturbance at the maternity site, offer little hope of recovery. These bats must be protected.

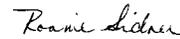
86-1

I strongly favor ~~alternation~~ recommendations to this end are based upon evidence of disturbance by encroachment upon the cave. Much of this pitiful and illegal activity is undoubtedly due to ignorance. For this reason I strongly recommend that educational ~~messages~~ messages be placed in the canyon near the cave for the public, with an limitation to enjoy the bat flight from the canyon bottom. And because such messages will never be understood by everyone who visits the area, I more strongly recommend erecting a bat-protection gate at the entrance. The existing fence will only keep out those who have already acquiesced to the posted conservation message. Withdrawal of the cave from mining activities is a necessity because every human visitation to the interior causes the loss of bats (either by those that abandon or by the loss of baby bats that drop to a guaranteed death). It is also probable that the removal of guano changes the microclimate enough to effect differences in bat behavior. In addition, because I have seen shells of shotguns and various caliber rifles at the entrance to the cave on every visit, I recommend a restriction on the discharge of firearms in the vicinity of the cave.

Alternative B would eventually lead to the joining of this section of Eagle Creek to the proposed Gila Box Riparian National Conservation Area. This would help to gain public awareness and appreciation for the bats, as well as demonstrating the effectiveness of the BLM in protecting public lands.

I am very pleased that the BLM has again noticed and singled out Eagle Creek Bat Cave for this renew, and I hope that you will do all that is possible to protect the site and its bats.

Sincerely,



Ronnie Sidner

References Cited:

- Cockrum, E. L. 1970. Insecticides and guano bats. Ecology, 51:761-762.
Constantine, D. G. 1958. Bleaching of hair pigments in bats by the atmosphere in caves. J. Mammalogy, 39:513-520
Duncan, R. B. and R. Sidner. In press. Bats in spotted owl pellets in southern Arizona. Great Basin Naturalist.
McFarlane, D. A. and R. C. Keeler. In review. A proxy population record for the Mexican Free-tailed bat (*Tadarida brasiliensis*) at Eagle Creek Cave. Arizona.
Reidinger, R. F. and E. L. Cockrum. 1978. Organochlorine residues in free-tailed bats (*Tadarida brasiliensis*) at Eagle Creek Cave, Greenlee County, Arizona. pp. 85-96 in Proc. Fourth International Bat Research Conf. Olanby, R. J., J. B. Caselino, and R. A. Mutere, eds. Kenya Literature Bureau, Nairobi. 328 pp.
Sidner, R. 1990. The significance of Eagle Creek Cave to Arizona's Mexican Free-tailed bats, *Tadarida brasiliensis mexicana*. Report to the Arizona Game and Fish Department, June 1986. 65 pp.

87

Potential Wolf Reintroduction Areas
compiled by
Arizona Game and Fish Department
July, 1986

Map #	Area Name	County	Principal Ownership
1	Blue Primitive Area	Greenlee	"SFS (Apache-Sitgreaves)
2	Gila Mountains	Graham	BLM, state (near San Carlos Indian Reservation)
3	North Kaibab-Saddle Mountain Wilderness	Coconino	USFS (Kaibab)
4	Redrock-Secret Mtn-Sycamore Wilderness Complex	Yavapai & Coconino	USFS (Coconino and Kaibab)
5	Coconino Plateau	Coconino	State and private
6	Aquarius-Mohon Mountains	Mohave & Yavapai	state, private, BLM
7	Sierra Ancha Mtns.	Gila	USFS (Tonto)
8	Mazatzal Mountains	Gila	USFS (Tonto)
9	Hardscrabble/Polles Mesa	Gila	USFS (Tonto)
10	Timber Camp	Gila	"SFS (Tonto)
11	Pine Mountain	Yavapai	"SFS (Prescott)
12	Galiuro Mountains-Sulphur Springs Valley	Graham	"SFS (Coronado), BLM, private
13	Chiricahua Mountains-Peloncillo Mountains-San Bernardino Valley	Cochise	USFS (Coronado), BLM, private
14	Atascosa Mountains	Santa Cruz	"SFS (Coronado)
15	Huachuca Mountains-"Rafael Valley	Santa Cruz-Cochise	"SFS (Coronado), private

Dear Mr. Kna:

After review of the Safford District RMP/EIS Draft, I have concluded that I am in favor of the Alternative "B".

I feel that this Alternative best suits the needs of my concern for the environment of this unique area.

We are very fortunate to have such a varied and unique landscape such as these areas in this plan, I would hope that by choosing Alternative "B" we can help protect these areas for many generations to come.

Thank you for allowing me to voice my sentiments on this issue.
Sincerely,
John Pagan

88



United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

Science and
Technology

Denver Wildlife Research Center
Building 16, P.O. Box 25266
Denver Federal Center
Denver, CO 80225-0266

April 2, 1990

Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Dear Mr. Knox:

I strongly recommend the Eagle Creek Bat Cave be designated an Area of Critical Environmental Concern. Preferably it should be preserved as a 40-acre parcel under the management prescription as a Preferred Alternative.

Eagle Creek Cave is one of three known maternity caves for the Mexican free-tailed bat (*Tadarida brasiliensis*). In the 1960's, I visited Eagle Creek Cave while a student at the University of Arizona. The 7 million bats in this maternity cave not only were a zoologist's dream, but also had a tremendous impact on Arizona agriculture by consuming millions of insects nightly.

To learn this population has dwindled to an estimated 40,000 is alarming. I do not place the blame for this decline entirely on human encroachment. In fact, the mismanagement of pesticides in Mexico probably has had the greatest impact on this migratory species. But, I also feel we should protect this cave to ensure this population will continue to survive.

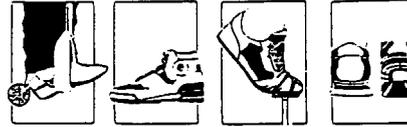
Sincerely,

G. Clay Mitchell, Ph. D.
Wildlife Biologist



APHIS—Protecting American Agriculture

89



PIMA TRAILS ASSOCIATION
5660 Paseo de la Tirada
Tucson, Arizona 85715

(602) 577-2096

March 31, 1990

Mr. Ray A. Brady
District Manager
Bureau of Land Management
Safford District Office
425 E. 4th street
Safford, AZ 85546

Dear Mr. Brady:

89-1

Enclosed is my Safford District RMP public comment form which I completed after consulting with off-road bicyclists in my organization and around southern Arizona. As you can ascertain from the nature of my comments, mountain bicycle enthusiasts are less than thrilled with how the proposed RMP will treat them—particularly the decision to unfairly penalize mountain bikes by lumping them in with ORV's. Inasmuch as we feel that mountain bicycles, with their proven minimal environmental impact, don't belong in the ORV category, we suggest the creation of a separate mountain bicycle classification to allow the fair consideration of mountain biking issues.

Please feel free to call on me if the Safford District is ever in need of assistance in dealing with mountain biking issues. I'm especially interested in working with the BLM to establish specially-designated mountain bike trails.

Thank you very much.

Sincerely,

Steve Anderson
Pima Trails Association Board
Member Representing Off-Road
Cyclists.

Draft Safford District Resource Management Plan
Public Comment Form

Issue/Management Concern: Mountain Bike Access

Comment: As the Pima Trails Association board member charged with representing the interests of off-road bicyclists, I feel compelled to comment on the rather unfair manner in which the issue of mountain bicycle access is treated in the Safford District Draft Resource Management Plan/E.I.S.

The most significant access-related concern enthusiasts have raised relates to the Safford District staff's unfortunate decision to include mountain bicycles in the access-restrictive "Off-highway Vehicle" (OHV) category along with such motorized conveyances as motorcycles, ATV's, and 4-wheel drive trucks. Obviously, the need for an "OHV" classification exists to facilitate the careful consideration of where potentially destructive motorized vehicles should be allowed to be used on public lands; however, mountain bicycles hardly belong in this group. A variety of trail-damage studies conducted in recent years, including the well-known 1987 Kepner-Trego Analysis, have concluded that off-road bicycles pose no more of an environmental "threat" than do hikers or equestrians. Given that such scholarly examination has shown that mountain bikes have a minimal impact at most, it is patently unfair to subject mountain bikers to the restricted access status that is part of being classified as an "OHV." The time has come to dispense with the myths about the "dangers" of mountain biking proffered by ill-informed, intentionally deceptive environmental interests and a selfish minority of other trail users and allow mountain bikers the

fair access they deserve--access which should include the ability to recreate on all lands open to hikers and horsemen except for designated wilderness and wilderness study areas.

Another major access-issue concern for mountain bikers is the Safford District staff's belief, expressed in the Draft RMP and at public meetings, that mountain biking is inherently incompatible with other trail use activities and should be segregated from them. This belief is diametrically opposed to our multi-use trails experience in Pima County, where we have achieved a remarkable degree of respectful mutual accomodation between bicyclists, equestrians and hikers. From all indications, a similar level of peaceful coexistence exists among trail users throughout the west. This is not to say that trail conflicts do not occur; occasionally they do. It appears, however, that as trail users learn their respective responsibilities and begin to apply proper trail etiquette on a consistent basis, conflicts are diminishing in both numbers and severity. With such conflicts now the becoming the rare exception, it would be decidedly unfair to prohibit mountain bicyclists from enjoying many of the same areas in the Safford District that hikers and horsemen have access to. And "unfair" may be putting it mildly. The unreasonable denial of access to mountain bikers would probably be more accurately characterized as an infringement upon their civil liberties.

Mountain bicyclists in southern Arizona are disappointed that the Safford District BLM office has shown a marked indifference towards accomodating their legitimate recreational needs. The enthusiasts I have spoken with enviously point to the cordial, cooperative relationship that has developed between the BLM and mountain bikers in eastern Utah and western Colorado--a relationship that has resulted in the establishment of the magnificent 115-mile Kokopelli mountain bike trail--and wonder why a similar cooperative relationship can't exist in southern Arizona. Regardless of how the Safford District staff may feel about mountain biking, it is an undeniable fact that more and more off-road bicyclists will be recreating in the Safford District in the years to come, and the possibility exists that mountain bikers may become the largest single group of sportspersons to utilize the Safford District for recreational purposes. As taxpayers who support these lands as much as any other recreational group, the responsible, environmentally aware mountain bike enthusiasts of southern Arizona would like to receive all of the access that they rightly deserve.

Name: Steve Anderson
Representing: Pima Trails Association*
Address: 901 S. Santa Ana Drive
Tucson, AZ 85710
Date: March 28, 1990

*Board member representing off-road bicyclists.

Steve Anderson
-Steve Anderson

Trailgrams

GRINDING TO A HALT

Dear MBA,

When reading bike tests, I always notice the comments regarding "good tire clearance." What is considered good tire clearance? Also, is there any advantage to using S-bend (also called double-bend) chainstays over single-bend (nine-degree) chainstays? Do they offer more strength or more tire clearance?

Rich Crowe
Troy, NY

To tell the truth, "good tire clearance" is approximately a half-inch; anything less than 3/8-inch is poor, and over a half-inch is excellent. Tire clearance is important for riders who might want to switch to wider tires, especially some of the new 2.3 tires, or who ride in mud, sand, wet leaves or mulchy terrain. The



advantages of S-bend stays are increased tire clearance and increased chainring clearance. The double bends weave in between the problem areas. They are not stronger than single-bend stays.

MENDING OUR P's & Q's

Dear MBA,

I never expected to write a letter to a magazine, and I cer-

tainly never thought it would be to a magazine that I've neither read nor heard of until today. You see, I don't ride mountain bikes, I ride horses. I'm writing this letter because I want to express my appreciation to all those responsible for creating such a wonderful attitude in mountain bike riders.

A few years back, when mountain bikes started appearing on the trails, we horseback riders were dismayed by their lack of courtesy and, in some cases, their outright rudeness. We all hoped that the park district would ban bikes from the trails. To my surprise and delight, mountain bike riders have somehow miraculously transformed themselves into the most pleasant, courteous and thoughtful group of trail users I have ever seen! Every bike rider I have encountered in the last year on the trails has

been very understanding and thoughtful towards me and my horse, and I try to always thank them for their courtesy. I'm proud to share the trails with the mountain bikers now. I realize horseback riders can be inconsiderate and discourteous, too, so I wanted you to know that this horseback rider, at least, has noticed and thanks you all.

See Stewart

LaFayette, CA

Thank you, Sue. All mountain bike riders can learn a lesson from Sue's letter. When you see a horse and rider on the trail, pull over and let them pass. Bicycles, even ones moving very slowly, can spook a horse. Why risk injury to someone to save a few seconds? Stop and have a swig out of your water bottle. Be friendly, be positive and share the trails.

This letter strongly suggests that mountain bikes and other trail users can recreate together successfully.

-S.A.

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NEW 1989 / MOUNTAIN BIKE ACTION

90

Box 122 Bio Science West
University of Arizona
Tucson, Arizona 85721

31 March 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E 4th street
Safford, Arizona a5546

Dear Mr. Knox:

I have the following comments regarding the BLM Safford District Resource Management Plan and draft Environmental Impact Statement (Dec 1989).

1. I generally support the recommendations for ACECs and hope to see rapid implementation of the prescribed actions to restore and protect these areas.

2. Gila Box Outstanding Natural Area ACEC: I agree with the recommended prescriptions under Alternative A, except that I prefer the additional ones under Alternative B including the inclusion of more public lands and closing the river bottoms to off-highway vehicular use, but I am not in favor of natural wildfire suppression in the riparian areas.

3. Turkey Creek Riparian ACEC: I agree with the prescriptions in the Preferred Alternative except that I think you should include the suggestion from Alternative B about suspension of livestock grazing. In addition, I recommend closing more roads within the area and even blocking access to Turkey Creek at Aravaipa Creek. Turkey Creek is another of our important riparian corridors and with it Oak Grove Canyon. Within the steep-walled narrow sides of Oak Grove is beauty as magnificent as those along Aravaipa. In addition, Oak Grove held (and may still contain) one of Arizona's only Unfortunately, the canyon is littered with cow manure and human trash, evidence that disturbance comes too frequently to wildlife within the canyon.

4. Guadalupe Canyon Outstanding Natural Area ACEC: Because of its proximity to Mexico, this riparian area offers a corridor for individuals to move between populations living in both Mexico and the U.S. Such wildlife corridors are essential to restock dwindling islands of habitat. I prefer Alternative B.

5. Aravaipa Canyon Wilderness Additions. I prefer the addition of as much land to the Aravaipa Wilderness as is possible. I would then like to see it closed to livestock grazing and most vehicular use. In addition, I would like to see a decrease in hunt harvests of deer in the immediate areas to encourage predators into these areas.

6. Eagle Creek Canyon Outstanding Natural Area ACEC: I strongly recommend the suggestion in alternative B of the Eagle Creek Bat Cave ACEC to acquire 3160 acres of public land in Eagle Creek Canyon to join this parcel to the Gila Box ONA/Wilderness Area.

Thank you for preparing this document for review. I encourage you to protect our public lands in the most natural and native ways possible for our present and future enjoyment in terms of conservation and preservation. Sincerely,

Ronnie Sidner

Ronnie Sidner

91



P.O. Box 509
(602) 2974330

Cortaro, Arizona 85652
Telex 5106001432

Fax (602) 297-1361

April 3, 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th street
Safford, AZ 85546

Dear Mr. Knox:

I have reviewed the Safford District Draft Resource Management Plan EIS and have a number of comments. Most apparent is the inadequate coverage of Management concern 4 Energy and Minerals. The Safford District as reported in Table 3-1 on page 131 has a cumulative mineral production in excess of \$80 billion dollars. It is one of the largest mineral producing areas in the world, and it is reasonable to expect that other major mineral deposits will be discovered.

91-1

The Resource Management Plan also completely failed to cover the production of industrial minerals. None of the areas proposed for withdrawal, have had mineral evaluations, metallic or industrial mineral, or at least none were noted in the Plan. The value of industrial mineral production in the Safford district was not noted, or included in Table 3-1.

The 111 Ranch RNA ACEC, for example, covers portions of the Whitlock Diatomite Deposit. I suspect there are valid mining claims in this area. The Compendium on Non-Metallic Minerals in Arizona notes "there are still several hundred acres of relatively undisturbed diatomite...faces of good diatomite 30 to 40 feet thick can be observed". No information on this deposit is included by the BLM, despite proposing this area for mineral withdrawal.

91-2

We are also concerned about Riparian Areas, particularly #37, shown on map 34. This covers all of the Bowie chabazite deposit, the only productive deposit of the zeolite mineral chabazite in the world. The Draft Management Plan has 3 statements concerning the Bowie deposit. Only one is correct, the deposit is north of Bowie in the San Simon Valley. However, the majority of chabazite production is from unpatented Federal mining claims, not from patented claims as stated in the Resource Plan.

Union Carbide Corporation, Letcher and Associates, The Norton Company, East-West Minerals, NRG, Incorporated, Geraldine Connelly, and GSA Resources, Inc. all hold valid unpatented mining claims in this area. In addition, GSA Resources, Union Carbide and East-West Minerals also hold valid State Mineral Leases on split estate lands in which the surface is managed by the BLM. To date chabazite with a product value of about \$40 million has been produced from this deposit. There must be some awareness of

91-3

this activity by the BLM, since this area has filed the largest number of notices and mining plans in the Safford District as noted on page 132 Map 31.

Finally, we have serious concerns about the misuse of ACEC's by the BLM. The ACEC's appear to be used to manage public lands as defacto wilderness areas without meeting the criteria mandated by Congress. The III Ranch RNA ACEC and the Bear Springs Badlands ACEC are good examples. Both contain identified resources of industrial minerals. Neither to my knowledge has had a mineral inventory, but both are proposed to be closed to mineral entry.

The III Ranch RN4 ACEC has diatomite deposits and the Bear Springs Badlands ACEC contains deposits of clay and natural zeolites. There are no compelling reasons to close this area to mineral entry. The mechanisms which formed these valuable mineral resources, are also responsible for the fossil assemblages present in these areas. It is absurd to close an area to mineral entry, because of the common fossil assemblages found in the area. Clearly, this is not a unique resource. Similar fossil assemblages are found in tertiary basins throughout the western United States.

It would appear that the Resource Management Plan as proposed has serious deficiencies. It is unclear how mineral development will be impacted by the designated Riparian Areas. The proposed

81,000 acres of ACEC's constitute nearly 6% of the land managed by the BLM in the Safford district. This defacto wilderness designation is in addition to lands added to wilderness this year, and appears to include areas which were deemed unsuitable for wilderness. There does not appear to be a legislative intent by Congress to allow this type of withdrawal of mineral lands from the public domain.

Attached to this letter is information on the Bowie and Bear Springs deposits. A major problem in managing mineral resources on public lands is the use of mineral needs of the past, to project and allocate resources for the future. But, the minerals of tomorrow are still being discovered. Materials used to fill plastics, make advanced ceramics or build super conducting materials are still being developed. The unique minerals which will be needed supply these resource needs are still being identified.

New minerals like natural zeolites will also play an important role in solving current environmental problems. Zeolites from Bowie are being evaluated for use in the treatment of contaminated mine waters, and are used for the solidification and

disposal of hazardous and nuclear wastes. In fact, the Bowie chabazite was used to decontaminate the Three Mile Island reactor vessel.

Sincerely,

Daniel T. Eyde

DTE/mce

cc: Powell King
New Mexico State Office

Congressman Jon Kyle
Congressman Bob Stump
Congressman Jim Kolbe
Congressman John Rhodes
Senator Dennis DeConcini
Senator John McCain

Bill Epler
Paydirt

ZEOLITE DEPOSITS IN THE GILA AND SAN SIMON VALLEYS OF ARIZONA AND NEW MEXICO

by Ted H. Eyde, GSA Resources, Inc., Cortaro, Arizona 85230

Abstract

Several deposits of zeolite minerals occur in Cenozoic rocks in the Gila and San Simon Valleys both in New Mexico and Arizona. Zeolite deposits occur not only in the lacustrine beds within the valleys but also in vitroclastic tuff beds intercalated with the volcanic rocks that form many of the mountain ranges bounding the valleys. Though the geological processes that formed these two types of deposits are diverse, the actual geochemical reactions involved in zeolitic alteration are nearly identical. Zeolite minerals in both types are alteration products resulting from the reaction between volcanic glass and saline-alkaline waters. The saline-alkaline lake deposits that are the subject of this paper are the most important of the two types. These deposits consist of one or more stratiform beds of high-purity zeolite minerals interbedded in lacustrine beds. The deposits are the alteration product of volcanic ash initially ejected into the atmosphere by distant volcanism during Pliocene-Pleistocene time. The vitric phase of the airborne volcanic ash was carried large distances by the prevailing winds and eventually deposited in shallow lakes in the Gila and San Simon Valleys. Following deposition, the ash reacted with the saline-alkaline lake waters to form zeolite minerals. Sedimentary processes in the shallow, saline-alkaline lakes were active before, during, and following the deposition of the vitric ash. Consequently, the degree of zeolitic alteration as well as the thickness and areal extent of the zeolite beds are directly related to the depositional history of the basins. Two zeolite deposits in the San Simon and Gila Valleys are in production. The zeolite deposit near Bowie, Arizona has produced chabazite used to purify sour natural gases and also to remove cesium 137 and strontium 90 from liquid nuclear reactor wastes. The zeolite deposit near Buckhorn, New Mexico, produces clinoptilolite used to denitrify sewage effluent and to produce organic fertilizer from poultry manure. The chab-

azite deposit in the Dripping Springs Valley has been explored by drilling. Several unexplored chabazite deposits occur in the vicinity of Bear Springs, near Pima, Arizona.

Introduction

Zeolites are a group of 34 separate mineral species which are crystalline, hydrated aluminosilicates that contain exchangeable alkali or alkaline-earth cations. Extensive deposits of high-purity zeolite minerals occur in both Cenozoic age volcanics and sedimentary rocks of volcanic origin. Both natural zeolite minerals and their synthetic counterparts, which are known as molecular sieves, are used in pollution control, radioactive-waste management, petroleum refining, and gas-purification processes. Natural zeolite minerals are also used in construction materials, in carriers, fillers, and coatings, aquaculture, and agriculture. Major future uses will include waste-water treatment, solar energy, and synthetic-fuel production.

Zeolite deposits of the Gila and San Simon Valleys

The zeolite mineral chabazite was tentatively identified by Lowe (1875) in an outcrop of volcanic tuff about 4 mi south of Whitlock Cienega. This is believed to be the first published account describing a bedded zeolite deposit anywhere in the world. Not until 1959 was this same chabazite deposit, now known as the Bowie deposit, rediscovered by geologists of the Linde Division of Union Carbide Corporation. The Dripping Springs, Bear Springs, and Buckhorn deposits were discovered during the same exploration program during 1960 and 1961. All of these deposits occur in the basins filled with late Tertiary lacustrine sediments in the Gila and San Simon River drainages in Arizona and New Mexico (fig. 1). A more de-



FIGURE 1.—LOCATION MAP OF THE ZEOLITE DEPOSITS IN THE SAN SIMON AND GILA RIVER VALLEYS.

[New Mexico Bureau Mines & Mineral Resources, Circular 182, 1982]

tailed exploration program in these basins would certainly result in the discovery of additional bedded zeolite deposits.

Extensive deposits of the zeolite minerals clinoptilolite and mordenite occur in the Cretaceous and early Tertiary volcanics in the Whittlock Mountains, Blue Range, Mogollon Mountains, and Coronado Mountains. The deposits were formed from the alteration of thick vitrophyre, vitric tuff, and vitroclastic tuff members in the volcanics. Though the deposits are large, most of them would require extensive beneficiation to produce a marketable product. Even though the geochemical reactions involved in the zeolitic alteration are nearly identical, the origin of these deposits differs significantly from that of the deposits formed in a saline- or alkaline-lake environment. Discussion of these deposits is beyond the scope of this paper.

Several zeolite deposits occur in Tertiary lacustrine beds exposed in the San Simon and Gila River drainages of southeast Arizona and southwest New Mexico. The most important deposits are the Dripping Springs Valley chabazite deposit near Winkelman, Arizona, the Bear Springs chabazite deposits near Pima, Arizona, the Bowie chabazite deposit near Bowie, Arizona, and the Buckhorn clinoptilolite deposit near Buckhorn, New Mexico. These deposits formed during Pliocene-Pleistocene time when vitric ash ejected by volcanic activity in the far western United States was carried eastward by the prevailing winds and deposited in a series of saline-alkaline lakes that occupied the present San Simon, Gila River, and adjoining valleys.

The vitric ash reacted with the saline-alkaline waters contained in the lake to form zeolite minerals. The size of the vitric ash particles apparently is inversely proportional to the distance from the source. Thus, the more distant the source, the smaller the individual particles. In addition, the smaller the particle size, the larger the surface area of vitric ash available for reaction with the saline-alkaline water. In general, the zeolite deposits in the San Simon and Gila River valleys contain more chabazite and are significantly thinner than similar deposits in California, Oregon, and Nevada. This may be because the deposits in the San Simon and Gila River valleys were farther from the source of the volcanic ash and, consequently, the basins received a thinner fall of finer-grained ash. It may also explain why the zeolite deposits are generally thinner, the size of the individual crystals smaller, and the deposits of higher purity. However, it does not necessarily explain why chabazite is often the most common zeolite mineral in these deposits.

DRIPPING SPRINGS VALLEY, ARIZONA CHABAZITE DEPOSIT

A chabazite-bearing tuff horizon is exposed in a road cut on the east side of Arizona State Route 77 about 23 mi south of Globe, Arizona. The Anaconda Minerals Company acquired the deposit in 1978 and since then has drilled over 100 holes to explore it.

The chabazite horizon is interbedded in a section composed of brown mud, sandstones, and limestones of probable Pliocene-Pleistocene age. The lacustrine beds are nearly flat-lying but dip gently toward the center of the Dripping Springs Valley. In the roadcut the chabazite horizon consists of three lithologies: a lower thin-bedded to platy bed, a middle massive bed, and an upper thin-bedded to platy bed. Total thickness of the chabazite is nearly 2 ft. Sampling done in 1960 indicated that the middle massive bed averages approximately 67% chabazite. Drilling by the Anaconda Minerals Company revealed that the deposit consists of two chabazite-bearing horizons separated by what Anaconda geologists refer to as the red claystone bed which is about 5 ft thick.

The Anaconda drilling program showed that the lower zeolite horizon ranges from 0.50 to 1.74 ft thick and consists of three distinct lithologies that include a lower bed 0.15-0.87 ft

thick consisting of zeolically altered vitric ash and about 10% detrital matter. This bed is overlain by and in sharp contact with a bed 0.14-0.20 ft thick, consisting of a laminated, thin-bedded, zeolically altered vitric ash containing a trace of detrital matter in addition to a trace of clay and calcite. Overlying this bed is a massive bed 0.30-0.67 ft thick of zeolically altered vitric ash. The bed grades upward into the overlying red claystone.

The lower zeolite horizon grades from a clean unaltered vitric ash at the north end of the deposit to 90% chabazite at the south end of the deposit. The only other zeolite mineral present in the deposit is a trace of clinoptilolite. A system of paleo channels that flowed across the deposit has removed large portions of the deposit.

BEAR SPRINGS, ARIZONA CHABAZITE DEPOSITS

Three chabazite-bearing tuff horizons crop out on the east side of the Gila River valley near Pima, Arizona. Two horizons crop out near Bear Springs in sec. 1, T. 7 S., R. 23 E. The other crops out in sec. 27, T. 6 S., R. 24 E. Heindl (1958) locates all three zeolite horizons in the Solomonsville beds (Pliocene-Pleistocene) which are lacustrine beds composed principally of brown mudstones with a few beds of limestone, sandstone, and conglomerate. Many of the brown mudstone beds contain unaltered, vitric-ash shards. The Solomonsville beds dip gently toward the center of the Gila River valley, the apparent center of the depositional basin.

The chabazite-bearing tuff horizons were vitric-tuff beds zeolically altered to the minerals chabazite and erionite. As is the case at the Bowie chabazite deposit, the individual chabazite crystals are usually less than 0.20 microns in size. Because of this extremely small size, it is difficult to determine accurately the percentage of chabazite and erionite in the zeolite horizon. The most abundant zeolite mineral is chabazite followed by erionite, and occasionally small amounts of phillipsite.

Two chabazite-bearing tuff horizons separated by about 30 ft of brown mudstone with a few thin interbedded sandstone beds crop out at Bear Springs. The lower chabazite horizon averages about 1.5 ft in thickness, contains approximately 45% chabazite, and consists of two distinct beds. The lower is a massive, yellowish-white bed 0.50 ft thick that contains about 60% chabazite. Overlying this bed, but separated by a thin clay parting, is a massive yellowish-white bed 1.0 ft thick containing 40% chabazite. The best exposure of the lower chabazite horizon is in banks of the ditch that drains Bear Springs. The lower horizon can be traced by float and intermittent outcrops for nearly a mile along strike.

The upper chabazite horizon is a yellowish to grayish-white, platy to massive, zeolically altered tuff bed that has an average thickness of about 1 ft and contains approximately 50% chabazite. In unweathered exposures along the road to Bear Springs, the chabazite horizon is composed of a lower massive bed 0.50 ft thick containing approximately 50% chabazite. The upper bed, which is separated from the lower by a thin clay parting, is also about 0.50 ft thick and contains approximately 60% chabazite. The upper chabazite horizon can be traced for about 1/4 mi along strike.

Another chabazite-bearing tuff horizon crops out about 4 mi northeast of Bear Springs and an estimated 100 ft down section in the Solomonsville beds. The flat-lying horizon consists of a single yellowish to grayish-white tuff bed 1.0 to 1.5 ft thick that contains approximately 80% chabazite. The bed crops out continuously for about 500 ft along the strike.

BUCKHORN, NEW MEXICO CLINOPTILOLITE DEPOSIT

Two clinoptilolite-bearing tuff horizons crop out along the west side of Duck Creek valley in secs. 3, 4 and 10, T. 15 S.,

R. 18 W. The outcrops are visible approximately 1/4 mi west of U.S. 180 from a point about 1 mi south of Buckhorn, New Mexico. Double Eagle Petroleum and Mining Company acquired part of the deposit in 1974 and installed crushing and screening equipment. A small tonnage of sized clinoptilolite produced from the deposit has been sold for use in advanced waste-water treatment (AWT) plants to denitrify sewage effluent. The clinoptilolite has also been used in the production of an organic fertilizer from chicken manure. Leonard Resources acquired a portion of the deposit in 1977 but has not produced any clinoptilolite. No mining has been done at the deposit since 1977.

The clinoptilolite beds are in a nearly flat-lying sequence of lacustrine beds composed of green and brown mud and claystones. Heindl (1958) placed these sediments in the Cactus Flat beds of Pliocene-Pleistocene age. Olander and Surdam (1979), who investigated the mineralogy and depositional environment of the Buckhorn deposit, correlate the deposit with diatomite deposits about 3 mi north of Buckhorn that have been dated at the boundary between early and middle Pliocene or approximately 3 m.y. ago.

These investigators recognized four distinct depositional environments at the deposit: 1) a soil horizon possibly developed along the edge of an alluvial fan, 2) an intermittent stream-channel and adjacent overbank deposits, 3) inter-channel, flood-plain deposits, and 4) lacustrine or ponded deposits. This confirms what has been recognized at other zeolite deposits—that sedimentary processes were active in the depositional basins before, during, and following the deposition of the parent vitric ash and also following zeolitic alteration.

The clinoptilolite-bearing tuff horizons are separated by approximately 20 ft of green and brown mudstone. The lower horizon is a yellowish-white massive bed of zeolically altered vitric tuff ranging from 3 to 5 ft thick (fig. 2). Sampling done in 1961 indicated that the bed contained 70-90% clinoptilolite. More detailed sampling of the zeolite horizon revealed that a lower 0.50 ft bed appears to have been an exceptionally clean vitric tuff prior to zeolitic alteration and contains approximately 48% chabazite and an equal amount of clinoptilolite. Several samples of the bed contained a trace to more than 23% erionite. Olander and Surdam (in preparation) also identified the zeolite minerals heulandite and analcime in addition to smectite/illite, chert, calcite, quartz, and minor amounts of detrital hornblende and biotite.

The upper zeolite horizon is a single 1 ft thick bed of massive, yellowish to grayish-white, zeolically altered vitric tuff that contains over 60% clinoptilolite and a trace of erionite. Both the lower and upper zeolite-tuff horizons can be traced for over 1 mi along strike.

BOWIE, ARIZONA CHABAZITE DEPOSIT

The Bowie chabazite deposit is approximately 13 mi north of Bowie, Arizona. The marker-tuff horizon that contains the high-grade chabazite bed at its base crops out discontinuously along the 3,440 ft contour line for approximately 7 mi along both sides of the San Simon Valley. Most of the outcrops and areas being mined are on the southwest side of the valley. Only a few scattered outcrops occur on the northeast side of the valley.

Lowe (1975), in possibly the first reference to a bedded zeolite deposit, described an outcrop of what appears to be the chabazite-bearing tuff horizon approximately 4 mi south of Whittlock Cienega. He described the zeolically altered tuff as a yellowish, soft, porous material that cropped out for about 1/2 mi and concluded that the tuff was a mixture of quartz and a hydrous silica related to chabazite or stilbite. The deposit was literally rediscovered 84 yrs later in 1959 by geologists working for Union Carbide Corporation who were attempting



FIGURE 2.—LOWER CLINOPTILOLITE HORIZON AT THE BUCKHORN, NEW MEXICO DEPOSIT. The basal 0.50-ft-thick bed clearly visible to the left of the hand contains approximately 48% chabazite.

to locate the source of a chabazite-bearing ornamental stone being quarried north of Bowie (Eyre, 1959).

Ernest Baugher, a retired railroad engineer from Buffalo, New York, found the outcrops of the chabazite-bearing tuff while rock-hounding in the area. He interested Frank Meadows and Paul Sanger, who both worked for the Southern Pacific Railroad, in the deposit, and the partnership started the BMS claims that covered the outcrops in the central and northwest end of the deposit. Frank Clark, a butcher in Bowie and a part-time prospector, staked claims covering the southeast end of the deposit. Baugher and Clark quarried the lower massive bed of the marker-tuff horizon and fabricated bookends, lamps, paper weights, and pencil holders from it. These souvenirs made of what was known as "Arizona Tuffa-Tex" could be purchased during the 1950's and 1960's at stores and shops along the Tucson-El Paso highway.

The initial X-ray diffraction analyses of samples from the marker-tuff horizon indicated the presence of only small amounts of chabazite. However, oxygen adsorption analyses of several suites of samples collected from all the lithologies within the marker-tuff horizon revealed that the lower massive bed or the so-called high grade or ore bed was composed of high-purity chabazite (figs. 3 and 4). A subsequent field examination revealed that the lower massive bed could be traced intermittently for nearly 7 mi along the southwest side of San Simon Wash (fig. 5). A re-evaluation of the X-ray diffraction analyses revealed that the microcrystallinity of the chabazite in the marker-tuff horizon produced low, broad peaks that had been incorrectly interpreted in the initial



FIGURE 3—CHABAZITE (CHAIN-LIKE CLUSTERS OF SMALL CRYSTALS) AND ERIONITE (LARGE CRYSTALS) FROM THE HIGH-GRADE BED AT BOWIE.

analyses as indicative of a low chabazite content. This microcrystallinity is apparent in scanning electron micrographs of the ore bed.

In April 1961, the Linde Division of Union Carbide Corporation staked claims covering most of the deposit behind the outcrops that were still covered by claims held by Baugher and Clark. In 1965, the Davison Chemical Division of W. R. Grace acquired the southeast end of the deposit. In subsequent years, the Norton Company, Leicher and Associates, NRG Incorporated, Filtril Corporation, and the Anaconda Minerals Company purchased claim groups either not acquired or dropped by Union Carbide following the completion of the exploration drilling program in 1963.



FIGURE 4—CHABAZITE (CHAIN-LIKE CLUSTERS OF SMALL CRYSTALS) AND CLINOPTILOLITE (LARGE CRYSTALS) FROM THE HIGH-GRADE BED AT BOWIE.

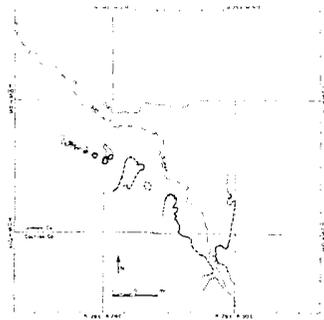


FIGURE 5—DISTRIBUTION OF THE MARKER-TUFF HORIZON AT THE BOWIE CHABAZITE DEPOSIT.

Over 3,000 holes have been drilled to explore the deposit. Production records are unavailable. However, based on an estimate of the area mined since 1962, it appears that the deposit has produced about 12,000 tons of crude chabazite. Activated natural chabazite sells for \$1.50 to \$1.60 per pound. Therefore, after deducting moisture, mining, and processing losses, the estimated market value of the activated chabazite produced would be nearly \$30,000,000. Reserves are adequate to sustain the current production rate of approximately 1,000 tons per yr indefinitely.

The Bowie deposit is mined by strip-mining techniques. In order to produce the highest purity chabazite possible, it is necessary to carefully remove all the overlying low-grade bed and the underlying green clay from the high-grade bed. This operation requires a great deal of hand labor. After mining, the chabazite is stored in warehouses in Bowie for drying and is then shipped out of state by rail for processing. The chabazite is crushed and ground to minus 200 mesh, mixed with a binder, extruded into rods or pellets and activated by calcining at a temperature of 800°F. Chabazite from Bowie, Arizona is superior to synthetic zeolites for certain specialized applications. Chabazite from the Bowie deposit is stable at a pH as low as 2.5 which makes it suitable for removing hydrogen chloride from hydrogen streams, water from chlorine, and sulfur dioxide from stack gases (Mumpton, 1975). Chabazite from Bowie is used in a gas treatment plant at the Salt Lake oil field near Los Angeles, California to remove water, carbon dioxide, and hydrogen sulfide from casing-head gas. It is also used to purify methane at the Palos Verde, California land fill. Natural chabazite from Bowie has been used successfully to recover cesium 137 from nuclear-reactor effluents. Most recently, chabazite from the Bowie deposit has been used in a blend of natural and synthetic zeolites to remove the radioactive elements from the water at the damaged nuclear reactor at Three Mile Island, Pennsylvania.

The aerial view of the deposit taken in 1960 shows that the marker-tuff bed formed prominent outcrops that extended toward the center of the San Simon Valley (fig. 6). Most of these outcrops were removed by mining operations. These outcrops were along the southwest side of the valley. Only a few scattered outcrops occurred on the northwest side of the valley and these were nearly obscured by sand dunes.

An examination of the marker-tuff horizon (fig. 7) reveals two lithologies. A lower massive bed is known as the high-

[New Mexico Bureau Mines & Mineral Resources, Circular 182, 1982]



FIGURE 6—AERIAL VIEW OF THE BOWIE CHABAZITE DEPOSIT LOOKING NORTHWEST. THIS PHOTOGRAPH WAS TAKEN IN 1960 PRIOR TO THE START OF MINING OPERATIONS.

grade or ore bed (Sheppard and others, 1976) and the overlying bed is known as the thin-bedded or low-grade bed. The low-grade bed is a grayish or yellowish-white, zeolitically altered, vitric-tuff bed that contains numerous clay partings near the base and mud and sand partings toward the top. The upper bed grades into the overlying green and brown mudstones. Ripple marks are common particularly near the contact with the underlying high-grade bed. The upper bed, which is usually very thin or absent in the northwest part of the deposit, is from 3 to more than 5 ft thick near the center of the deposit and thins again to less than a foot thick at the southeast end of the deposit.

The mineralogy of the upper bed is not well known. Even though several hundred drill holes have penetrated the upper bed in the central part of the deposit, only a few intersections were collected and still fewer of these were analyzed. The mine operators regard the upper bed as a mining problem rather than a mineral resource because the bed is difficult to strip without disturbing the underlying high-grade bed. It is known that the upper bed contains several facies with distinct zeolite-mineral assemblages that can be correlated between drill holes across the central part of the deposit. The upper bed contains approximately 40% chabazite and significant amounts of erionite and clinoptilolite. Preliminary tests indicate that the upper bed can be beneficiated to a final product containing 85% zeolite minerals in about 50% of the original weight (Monsdale and others, 1976). The upper bed is a potentially valuable mineral resource that is presently being wasted.

The lower massive bed is a yellowish- to brownish-white, zeolitically altered vitric tuff that ranges from less than 0.10



FIGURE 7—MARKER-TUFF HORIZON AT THE BOWIE CHABAZITE DEPOSIT SHOWING THE LOWER MASSIVE HIGH-GRADE BED AND THE OVERLYING, THIN-BEDDED, LOW-GRADE BED.

[New Mexico Bureau Mines & Mineral Resources, Circular 182, 1982]

to 0.70 ft thick. It contains from 60 to 90% chabazite, from a trace to more than 15% erionite, and small amounts of clinoptilolite. The microcrystallinity of the zeolite minerals makes accurate estimates of the exact percentage of each mineral present difficult. Unquestionably, the principal mineral constituent of the high-grade bed is chabazite. The mine operators attempt to produce a consistently high-grade product. Consequently, those portions of the deposit that have a relatively higher erionite content and, therefore, a lower chabazite content exhibit a significantly lower adsorption capacity. Depending on the adsorption capacity, the operators either do not mine the bed or blend it with higher purity material to produce chabazite with a consistently uniform high-adsorption capacity.

The marker-tuff bed was deposited in a closed lacustrine basin that was confined to the present San Simon Valley. The bed is enclosed in green lake beds that consist of a section of green and brown clays having an unknown thickness. Edson (1977) has identified the clay minerals as a non-interlayered mixture of smectite and illite. He also reports that one of the holes drilled by the U.S. Geological Survey in 1972 intersected another zeolite tuff horizon within the green lake beds about 77 ft below the marker-tuff horizon. This is not surprising, because more than one zeolite-tuff horizon occurs at all of the other zeolite deposits in the San Simon and Gila River valleys.

The airborne vitric ash was deposited in a shallow saline-alkaline lake subject to large fluctuations in depth (fig. 8). During dry cycles, the marker-tuff bed was exposed at the surface when parts of the lake dried up. During wet cycles, this bed was again submerged and covered by green and brown clays when sedimentation resumed. Several areas occur within the deposit where the marker-tuff bed was exposed at the surface, eroded, and then covered by more green clay. Some of the changes in mineralogy that have affected the adsorption and cation-exchange capacities of the high-grade bed may be correlated with these weathered areas.

The northwest end of the lake was shallow. This interpretation is supported by the discovery of tracks of an extinct llama and camel in the clay beds beneath the chabazite bed (fig. 9). A network of small streams flowed into the shallow northwest end of the lake. These fresh-water streams distributed and reworked the vitric ash prior to zeolitic alteration. Zeolitic

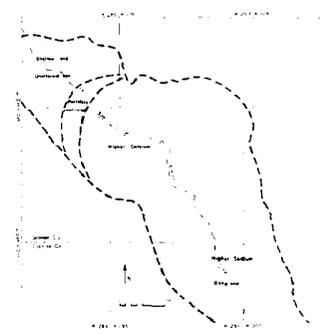


FIGURE 8—OUTLINE OF THE ORIGINAL BASIN OF DEPOSITION AT THE BOWIE CHABAZITE DEPOSIT.



FIGURE 9—CASTS OF LLAMA TRACKS IN THE HIGH-GRADE BED OF THE BOWIE CHABAZITE DEPOSIT.

alteration apparently did not occur either in or adjacent to these stream beds. These so-called contemporaneous channels are filled with fine sand and unaltered vitric ash. In the northwest end of the deposit, closely spaced drilling is required to locate these channels prior to stripping and mining operations.

The initial ash fall after compaction appears to be about 0.1 ft thick and can usually be seen in the drill core as a thin white layer that approaches 100% chabazite at the base of the high-grade bed. Streams transported the ash deposited on the adjacent watershed into the lake where currents and the topography of the lake bottom controlled its distribution (fig. 10). The high-grade bed is thickest along depressions in the lake bottom (fig. 11).

The mineralogy of the high-grade bed in the marker-tuff horizon changes from the shallow northwest end to the deeper southeast end. Near Ryan Dam at the northeast end of the depositional basin, the marker-tuff horizon is a clean, white, unaltered vitric tuff that grades into a partially altered vitric tuff and then into the typical high-grade bed to the southeast. The northwest end of the deposit was a calcium-rich environment characterized by the occurrence of calcite concretions within the high-grade bed. The chabazite is a high-calcium variety that has a light-yellow color. Gypsum does not occur in the northwest end of the deposit. The southeast end of the deposit was a sodium-rich environment characterized by the occurrence of themardite within the high-grade bed. The chabazite is a high-sodium variety approaching the composition of herschelite (Regis and Sand, 1967) which has a dark-orange-brown color. Both gypsum and analcime are common in the southeast end of the deposit.



FIGURE 10—A CONTEMPORARY CHANNEL FILLED WITH GRAY SAND AND UNALTERED ASH CUTTING THROUGH ORE BED AT BOWIE. DIRECTION OF FLOW WAS FROM THE LOWER LEFT TOWARD THE TOP OF THE PHOTOGRAPH.



FIGURE 11—DEPRESSION IN LAKE BOTTOM AT BOWIE CHABAZITE DEPOSIT. THE HIGH-GRADE BED THAT HAS BEEN CLEANED BUT NOT MINED WAS MUCH THICKER IN THE DEPRESSION.

The change from a calcium-rich to a sodium-rich depositional environment is gradational over a distance of 7 mi. Interestingly, the increase in sodium content is also reflected by the color of the high-grade bed. High-calcium chabazite is a light-yellowish-white color and high-sodium chabazite is an orange-brown color. Previous workers believed that the orange-brown chabazite contained more iron than the yellowish-white chabazite. However, chemical analyses (Sheppard and others, 1976) show that the yellowish-white, calcium-rich chabazite has a higher iron content than the orange-brown, sodium-rich chabazite.

A system of younger paleochannels has cut through the green lake beds and removed most of the marker-tuff horizon. The deposit in fact consists of several erosional remnants separated by alluvium-filled channels. Subsurface information indicates that the paleochannels on the southwest side of the San Simon Valley flowed to the northeast. Less complete subsurface information from the northeast side of the valley suggests that the channels flowed toward the southwest. This indicates that the paleochannels drained into a major northwest-flowing drainage system near the center of the present San Simon Valley, which also drains to the northwest (fig. 12).

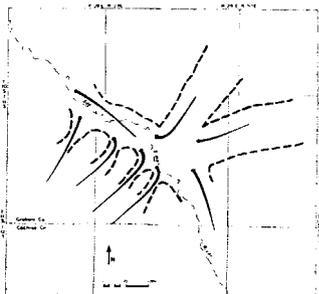


FIGURE 12—MAJOR PALEOCHANNELS AND DIRECTIONS OF FLOW AT THE BOWIE CHABAZITE DEPOSIT.

[New Mexico Bureau Mines & Mineral Resources, Circular 182, 1982]



FIGURE 13—A PALEOCHANNEL (DARK-COLORED AREA NEXT TO BACKHOE) THAT CUTS THROUGH UNMINED, HIGH-GRADE BED AT THE BOWIE CHABAZITE DEPOSIT. DIRECTION OF FLOW IS FROM THE BOTTOM OF THE PHOTOGRAPH TOWARD THE TOP.

The channels are filled with sand, coarse gravel, and brown mudstone (fig. 13). Large angular fragments of chabazite from the high-grade bed are found in the channel gravels in areas where the channels intersect the marker-tuff horizon. Small, well-sorted chabazite fragments from the high-grade bed can be found in the channel gravels several miles downstream from the area where the channel cut the marker-tuff horizon. The paleochannels developed after the deposition of the green lake beds and of course after the zeolitic alteration of the marker-tuff bed was complete.

The brown lake beds overlie both the paleochannels and the green lake beds. Subsurface information from the northeast side of the San Simon Valley confirms that the brown lake beds overlie paleochannels that have cut through and removed the older green lake beds and the zeolitically altered marker-tuff horizon. On the southwest side of the valley, the brown lake beds overlie the green lake beds. The basin of deposition for the brown lake beds (fig. 14) appears to have been much smaller than that of the green lake beds. Possibly, the recent erosion associated with the formation of the present San Simon Valley may have removed the brown lake beds from the southwest side of the valley. The brown lake beds are characterized by clay beds that contain disseminated halite crystals. No zeolitic tuff beds are known to occur in the brown lake beds.

Conclusions

The zeolite deposits in the Gila and San Simon Valleys are the result of the alteration of vitric ash deposited in a series of saline-alkaline lakes. Geological evidence suggests that the vitric ash from distant volcanic eruptions did not simply fall into large quiet lakes with stable levels of water and alkalinity. Instead, the ash appears to have been deposited in shallow lakes in which the water level and alkalinity were variable and sedimentation was active. The successful exploration and development of these zeolite deposits requires an understanding of how these geological processes control their formation.

[New Mexico Bureau Mines & Mineral Resources, Circular 182, 1982]

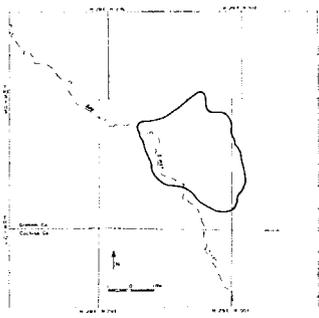


FIGURE 14—DISTRIBUTION OF THE BROWN LAKE BEDS AT THE BOWIE CHABAZITE DEPOSIT.

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Page 199: Eagle Creek Bat

III - 23

In **Item 4** under the special management prescription, the DEIS calls for acquisition of private lands at the auth of the cave as they **become** available. **This land** is not available and **will not become** available for sale or trade to the **BLM**. Under item 5, **alternatives** considered, the plan indicates that an ACEC would **be** established on 3,160 acres of public land in Eagle Creek Canyon with the Eagle Creek Bat Cave included. However, what the plan does not state at this particular point is that this ACEC would include nearly 5,000 acres of private lands. An ACEC **which** includes 5,000 **acres** of private lands and only 3,000 acres of federal lands is unmanageable and is an improper ACEC. In addition, **all** of the **riparian** zones are included within the private lands and not in the federal lands.

Page 203. Red Knolls

'The Red Knolls geologic formation was evaluated for ACEC status based primarily on concern for human safety.' **Ye are** pleased to see BLN reject closing of areas to protect humans **from** their **own** unsafe actions.

Page 202. Trujillo and Turtle Mountain Desert Grassland

We are pleased to see BLN declining to run through a myriad of over-protective designations of an **area** until the **area** finally qualifies for inclusion **into some** protected classification.

Appendix 5: Wild and Scenic River Study Reports - Gila River Box Segment

III - 24

The inclusion of the Wild and Scenic River report and **recommendations** within the resource **management** plan reduces the importance of this action and should not **be** the only **means** of gathering **comments** on this particular issue. These studies and **recommendations** should be noticed separately and should have separate hearings.

In **1981**, the **U. S.** Forest Service and **U. S.** Bureau of Land Management issued a 152 page study report and EIS regarding potential designation of the San Francisco River as a Wild and Scenic River. Quoting from the letter sent to the President, at the conclusion of that study by the responsible agency. 'Based on the river evaluation, the analysis of alternatives, and the public input, it **was** concluded that the San Francisco River should not be **recommended** for addition to the National Wild and Scenic Rivers System.'

The current seven page analysis placed in the Appendix of a 290 page Draft EIS for the Resource **Management** Plan is a far cry **from** the previous effort and essentially conceals the issue from all except those who carefully study the DEIS. Certainly the local **man-on-the-street** who will **be** affected by this decision (Alt. B) is not aware of the action. Accordingly, the preferred **alternative**, Alternative A, must be followed for this issue.

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Again the statement "referring to the last **freeflowing** stretch of the Gila River in Arizona." is used. This should be stated in different terms.

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Under the section 5 Local/Regional Social/Economic Considerations, the **statement** is made that "Designation of the river would not have an impact on this (livestock) activity or any other potential **employment** in the **area**." This is simply not true. **Designation** of wild and scenic rivers for these river segments would definitely have impacts as industry develops in the future and permit issues are raised. Delays in permitting, additional **requirements** for permitting, and **work** stoppages resulting **from** the increased regulation in this particular area **irregardless** of any real impacts will indeed cost jobs and could **significantly** affect the future economy of the area. This **same** section indicates in Graham County **60%** of the income is related to **government**, retail and service sectors. **However**, this statement refers to dollars paid by businesses which operate in Graham County and not dollars to people **who** live in Graham county. For instance, it does not include the 450 **employees** who work at the industrial complex in **Greenlee** County but yet live in Graham County. This annual payroll of **approximately** 12 million dollars is excluded **from** the Graham County figures. If **statements** regarding economic impacts are to be made in this draft resource **management** plan, the numbers should be accurate.

The following **comments** apply to the maps.

Nap 3: **Gila Box ONA** ACEC. The outline of the ACEC should conform to the recently proposed **NCA** boundary.

III - 26

Nap 21: The outline of Eagle Creek canyon **ONA** ACEC should include the outline of private lands within the ACEC. This display would graphically illustrate that nearly 5,000 acres of private patented fee lands lie within the ACEC boundary which includes only 3,000 acres of federal lands. This illustration would clearly point out the labored nature of this ACEC and the inability of BLN to manage such an **area**.

Nap 32: The **Gila Box ONA** ACEC boundary should be modified to conform to the recently developed **Gila Box NCA** boundary.

III - 27

Nap 35: The map clearly indicates that sections 1 and 12 in **T55 R29E** are targeted for retention by BLN. These sections contain mining operations on public lands and should not be included in the retention base. They should be targeted for sale or exchange.

III - 28

The **large Safford** district land status **map** included in the draft **RMP** inaccurately depicts property **ownership** in section 12 **T55 R29E**, by failing to show private **land** along the San Francisco River.

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Thomas J. Taylor
1851 E. University Dr. Apt. C
Tempe, AZ 85281

April 2, 1990

Steve Knox
RMP Team Leader
Bureau of Land Management
42.5 East 4th Street
Safford, AZ 85546

Dear Mr. Knox:

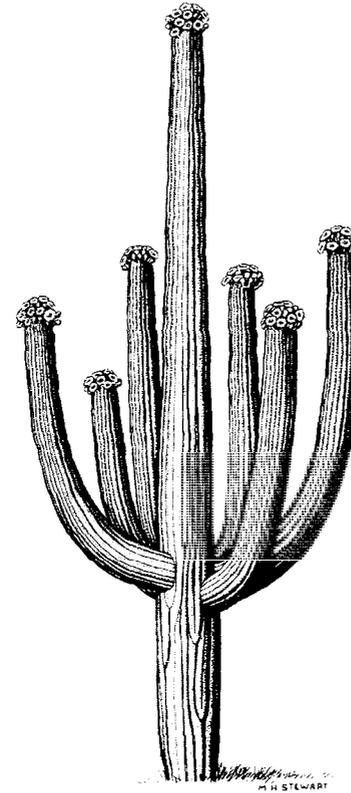
I have recently had a chance to look over a copy of the "Safford District Resource Management Plan". I am writing this letter to convey my comments and opinions on the plan as it affects Aravaipa Canyon and surrounding areas. It is my view that the value of Aravaipa Canyon is because of its wildness and inaccessibility. These qualities are extremely rare in the modern world and becoming even more rare, so they deserve to be protected. For this reason I generally prefer Alternative B, the establishment of the Aravaipa Watershed ACEC of the RMP, rather than no action or emphasizing production. However, I would prefer to see some changes in this alternative.

I see no reason for the suggested opening of Virgus Road, as this would increase off-road vehicle use in this area, which would increase dust, erosion, air and noise pollution as well as increasing sediment into Aravaipa creek (and hence impact wildlife and threatened and endemic fish). Surely, with so many Arizona roads already available to ORV travel, the value obtained by opening Virgus road cannot balance against the negative environmental impact on this pristine area. I can also find no benefit in obtaining legal access to Hell Hole Canyon trail; this area is already perfectly reachable from the usual access points. Another trail into the area is simply not needed. I also favor the establishment of the Table Mountain RNA ACEC and the Desert Grasslands RNA ACEC (Pilares).

Thank you for the opportunity to express my thoughts on these matters

Sincerely yours,

Thomas J. Taylor
Thomas J. Taylor



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STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
2151 Berkeley Way, Room 723A
Berkeley, CA 94704
(415) 540-2391



April 3, 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. Fourth Street
Safford, AZ 85546

Dear Mr. Knox:

Reference is made to your bureau's 1989 Resource Management Plan, Draft Environmental Impact Statement, Areas of Critical Environmental Concern, Eagle Creek Bat Cave.

I have spent nearly the entirety of my professional career investigating the public health and economic impacts of bats, primarily Mexican free-tailed bats, on mankind. Over 20 years were spent in the employ of the U. S. Public Health Service, followed by 14 years of employment by the state of California Department of Health Services, preceded by over 15 years of ecological studies on bats. Therefore, I feel justified in commenting on your proposals.

It is in the best interests of humans to preserve Mexican free-tailed bats and other insect-eating bats. The immense quantities of insects consumed by these mammals reflect their contribution to the control of insect predators of man, his livestock, crops, forests, and the general environment. Bats are practically alone in affording this protection against the insects that are active from dusk to dawn.

Like all mammals, an occasional bat may develop rabies. But unlike other mammals, especially carnivores such as skunks or foxes, infected Mexican free-tailed bats only weaken and die, never becoming aggressive. Moreover, these bats never experience outbreaks of rabies as carnivores do, only from 0.1 to 0.5% being infected when the virus is present in a colony.

From the eastern United States to eastern Arizona, a generally-distributed soil fungus may multiply in fecal deposits of birds or mammals, including those of bats. When large doses of the fungus are inhaled in fecal dust, a disease called histoplasmosis may result. The fungus might be present in the cave guano.

Steve Knox

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April 3, 1990

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It is ~~in~~ that man's best interests ~~be~~ be served by protecting the bats of Eagle Creek Bat Cave, a goal which can be achieved by installing a gate that will keep unauthorized people ~~out~~ the cave but not hinder passage of bats. Such a gate ~~would~~ have the added advantage of preventing potential exposure of unprotected people to the aforementioned infections. The cave is especially important as a site of annual reproduction of the bats. Moreover, proposals to preserve the surrounding area are equally important, since such areas provide the insect food to sustain the bats during the critical reproductive period when long-distance mobility can be restricted due to pregnancy or the necessity to care for the nonflying baby bats that remain in the cave. Of course, measures should be taken to preclude molestation of the animals, such as by shooting, or handling of them except by authorized, protected persons.

You are to be commended for your timely proposals.

Sincerely,

Denny G. Constantine, DVM, M P H
Public Health Veterinarian
Veterinary Public Health Unit

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ROSE MOFFORD, GOVERNOR
RANDOLPH WOOD, DIRECTOR

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

2655 E. Magnolia, Suite 2
Phoenix, Arizona 85034

April 4, 1990

Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th street
Safford, Arizona 85546

Dear Mr. Knox:

The Arizona Department of Environmental Quality (ADEQ) has reviewed the Safford District Resource Management Plan and draft Environmental Impact Statement (RMP/EIS). We appreciate the opportunity to comment on the document.

The San Pedro and Upper Gila drainage basins would be affected by the changes in land management proposed by the RMP. The 1988 Nonpoint Source Assessment Report identifies the primary water quality problems in these systems as follows:

San Pedro River drainage basin:

Out of a total of 694 miles of stream reach in the San Pedro drainage basin the ADEQ has assessed almost a third, finding that 206 miles are in partial support of state water quality standards while 21 miles fail to meet minimum accepted levels. Principal contaminants include elevated sediment/turbidity, with associated low levels of dissolved oxygen; high metal content and accompanying acidity problems; elevated nitrate levels. Grazing and mining are suggested as the probable contributors of these pollutants. A 1976 inventory showed accelerated soil erosion for OVER 15 percent of the grazing land in the San Pedro basin.

Upper Gila River drainage basin:

The upper Gila River drainage basin contains 920 miles of stream reach: the ADEQ assessed 378 miles for water quality problems, identifying 346 miles in partial support and 23 miles in nonsupport of state water quality standards. The Upper Gila basin is characterized by elevated turbidity and sedimentation, with grazing, agricultural irrigation, and silviculture the suspected sources. Mining and waste disposal also degrade water quality in the basin.

Both the San Francisco and Blue Rivers, components of the Upper Gila Basin, show poor watershed conditions on 75,600 and 83,500 acres, respectively. Grazing and poor forest road conditions are responsible for the degradation.

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2005 North Central Avenue

Phoenix, Arizona 85004

Mr. Steve Knox
April 4, 1990
Page 2

The ADEQ supports Alternative A, which acknowledges the need to protect the district's resources while accommodating the demands of multiple use. However, as identified in the RMP, the Safford District riparian areas account for only five percent of the district's land area. As these increasingly threatened riparian resources have a beneficial effect on water quality, serving as buffer zones that slow the influx of sediment and chemical contaminants into the stream system, the ADEQ recommends that the protection of riparian areas receive priority in water quality management schemes. In particular, the ADEQ believes the following riparian areas should receive the increased protection afforded by Alternative B:

Bonita Creek:

The unique qualities of this system, as a domestic water source, a habitat for diverse fish and wildlife populations, and a rich archaeological site are well documented in the RMP. From the standpoint of water quality protection, Bonita Creek would be best served by designating and managing the Bonita Creek Area of Critical Environmental Concern (ACEC) as stipulated under Alternative B. This would increase the ACEC from 1,572 acres to 30,243 acres, thereby including the entire watershed into the ACEC management strategy. This would guarantee an increased level of protection for this valuable stream system.

Aravaipa Creek:

Under Alternative A a total of 2376 acres would be designated an ACEC, primarily to protect two riparian woodlands. Due to the importance of Aravaipa Creek, as a recreational resource, wildlife habitat, and domestic water source, the ADEQ urges the BLM to consider designating the entire 78,000 acre Aravaipa Watershed ACEC outlined in Alternative B. This would provide the greatest level of protection to the resources of Aravaipa, complementing the 6700 acres currently designated as wilderness.

As grazing, mining, and off-highway vehicles (OHVs) are significant contributors of nonpoint source pollution to waterbodies in the Safford District, the ADEQ recommends the BLM incorporate the following measures into the final EIS:

- 1) Close all riparian areas to OHV use and construct fencing to exclude livestock from all riparian areas. Both measures would preserve riparian vegetation and reduce erosion and sedimentation.

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Mr. Steve Knox
April 4, 1990
Page 3

2) Implement mining restrictions on 200,849 acres, as proposed in Alternative B. This action would significantly improve water quality, since water quality in the Safford District is adversely impacted by resource extraction activities at the present time. In addition, we recommend that mining restrictions, including prohibition of sand and gravel operations, be implemented in all riparian areas, due to the degrading effect these activities have on water quality.

The ADEQ commends the Safford District for its efforts to protect its resources, particularly soil and water, and to rehabilitate those areas currently in unsatisfactory condition. We hope our comments are useful.

Sincerely,

Carol Russell
Carol Russell
Manager, Nonpoint Source Unit

CR:CSW

University of Illinois
at Urbana-Champaign

Museum of Natural History College of Liberal Arts and Sciences
438 Natural History Building 217 333-2517
1301 West Green Street
Urbana, IL 61801

April 3, 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
Safford, AZ 85546

Dear Mr. Knox:

The opportunity to protect a colony of bats should certainly be taken advantage of by all concerned. Colonial, cave-dwelling bats are the most susceptible to severe endangerment. These bats are in large numbers in a relative small area where man can harm them in a variety of ways.

The large concentration of free-tailed bats in Eagle Creek Cave is a good example. Many things that humans can and will do in such a cave can harm and destroy these bats.

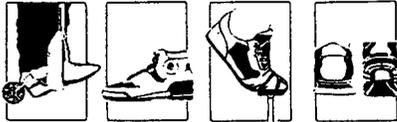
The Indiana bat, *Myotis sodalis*, in winter is a colonial cave-dwelling bat. The entire species occupied a few caves in the winter. Disturbances in these caves caused great destruction of these bats.

All efforts should be made to protect the colony of free-tailed bats in Eagle Creek Cave. The area should be fenced and gated in such a fashion that humans do not have access to the bat area. Such fencing and gates should not hinder the free movement of the bats.

I urge all agencies involved to act quickly to protect Eagle Creek Cave in as natural a condition as possible for all wildlife, and from the foibles of humans.

Yours truly,

Donald F. Hoffmeister
Donald F. Hoffmeister
Professor of Ecology, Ethology and
Evolution and Director, Museum of
Natural History, Emeritus



PIMA TRAILS ASSOCIATION
 5660 Paseo de la Tirada
 Tucson, Arizona 85715
 (602) 577-2095

Ray A. Brady, District Manager
 u. s. Bureau of Land Management
 Safford District Office
 425 East Fourth Street
 Safford, Arizona 85546

April 3, 1990

Dear Mr. Brady,

We in Pima Trails Association appreciate being given the opportunity to comment on the proposed Resource Management Plan for the Safford District. Four PTA members served on a committee to review this plan: Jan Nathanson, Anne Britt, Steve Anderson and Janice Luepke. Because the main focus of PTA is trails, we reviewed the RMP from a recreational/access aspect and did not address other issues.

We have the following recommendations/changes:

1. PTA is in favor of non-motorized multi-use of the trail system in Pima County. We also endorse the 700-mile long Arizona Trail, which is non-motorized. We believe motorized OHV use should be limited in certain areas of the RMP. We have a very good relationship with the mountain biking community in Southern Arizona, and would like to see mountain bike use expanded to other areas. It is patently unfair to group mountain bikes with other motorized off-road vehicles. We request that mountain bikes be deleted from the OHV category and be instead put into their own category. There is no more environmental impact from these recreationists than from that of hikers or equestrians. The only damage that occurs is when any trail user strays from the established trails and goes "cross-country". We in PTA strongly discourage this. There can be compatibility on the trails if trail users follow proper trail etiquette.

2 Designation of certain trails as "suitable for mountain bikes" would offer these enthusiasts a wider opportunity to enjoy Arizona. Areas of steep slopes/switchbacks/obstructed views would not be suitable for multi-w with mountain bikes, as there are too many hazards involved. Adequate trail signage, including trail etiquette guidelines, should be posted at all trailheads. PTA Board Member and mountain biker, Steve Anderson, has agreed to help form a committee to meet with you and your staff to evaluate and designate mountain bike trails.

3. Adequate parking areas for horse trailers need to be established or expanded at trailheads and campgrounds. Corrals need to be erected where needed at campgrounds.

4. There has been much concern expressed in regards to the Virgus Canyon Road proposed reconstruction southwest of the Aravaipa Canyon Wilderness Area. This is a pristine area and no encroachment by OHV use should be permitted this close to the wilderness area.

Thank you again for your support. We would appreciate being kept informed about this study. Please don't hesitate to call if you have questions or need help.

Sincerely,

Jan Nathanson, Resident
 Anne Britt, Vice-President
 Steve Anderson, Board Member
 Janice Luepke, Member

cc. PTA Board
 Janice Luepke

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Don and Bev Geldmacher
Holy Joe Ranch
ACSR Box 4262
Winkelman, AZ 85292
April 3, 1990

Steve Knox
RMP Team Leader
RIM, 425 E. 4th St.
Safford, AZ 85546

RE: Safford District Draft RMP/EIS; ARAVAIPA CANYON

Dear Mr. Knox:

Hopefully, the approach you have taken will permit public comment on wilderness expansion to proceed within, and concurrently with, the RMP. It was certainly confusing and confrontational in the past not to be able to discuss their interrelationship during public comment periods devoted singularly to one or the other.

Alternative A, the preferred alternative, has demonstrated the wisdom of this approach. With some additional considerations, it is a reasonable plan for those lands which are now yours, as opposed to the MPP of ten years ago; which was a plan for those lands which were not yours. It involves only minimal acquisitions of private lands for administrative sites, which were acknowledged as necessary by Safford Dist. PLAC at that time. Additionally, you are certainly entitled to reasonable vehicular access where none exists.

97-1

The expanded wilderness and proposed vehicular recreational use of the table lands represents a critical social impact that was not addressed, and which requires additional consideration. Current use of the west end Pinal County access road is at the maximum permissible within EPA standards for ambient air quality as related to those who reside adjacent to the right of way.

The National Regional Recreational Facility which you are planning must address the responsibility for health and safety on and along the west end access road as visitor use increases. It is reasonable that RIM should accept financial responsibility for that use which exceeds current use by owners of in fee lands. The following questions need to be addressed prior to the FINAL RMP/EIS:

97-2

1. Over the period of the RMP/EIS, what is the anticipated visitor day use? Year 1, year 2,.....year15?

97-3

2. Are you prepared to provide the funding necessary to bring the west access road to the safety standards necessary to accommodate this number of visitors?

97-4

3. Are you prepared to provide the funding necessary to bring the west access road within minimal EPA standards for ambient air quality to protect the health of adjacent residents as visitor use increases?

2.

In December, 1979 District Manager Guy Baier agreed to prepare a budget request for funding in FY 1982, (EXHIBIT A). Land status, your ownership, recreational plans, ALTERNATIVE A; cooperative agreements, The Nature Conservancy, dictate that you proceed with this project.

If you are not able to provide for the health and safety of visitors and residents due to regulatory restraints, the only action for the Safford District RMP/EIS relative to Aravaipa Canyon must be ALTERNATIVE D (NO ACTION). A strong effort should then be made to place all Aravaipa public lands within the National Park System in a manner similar to The San Pedro Riparian National Conservation Area so that funding can be made available.

Wilderness expansion should not go forward until this issue is resolved.

Sincerely yours,


Don and Bev Geldmacher

cc: Bill Mathieson
Jim Kolbe
Dennis DeConcini
John McCain
John Rhodes III
Morris K. Wall
Bob Stump
Jon Kyl



United States Department of the Interior

IN REPLY REFER TO
2017

BUREAU OF LAND MANAGEMENT
District Office
425 E. 4th Street
Safford, Arizona 85546

FEB 8 1980

Dr. Donald E. Geldmacher
P.O. Box 668
Kearny, Arizona 85237

Dear Dr. Geldmacher:

As we agreed at our December meeting, I had our engineers do some preliminary work on potential road locations for alternate solutions to the Aravaipa Canyon road problem. I presented our findings to the Pinal County Board of Supervisors and we have agreed that BLM will try to arrange funding for repair, reconstruction, and (some form of) surfacing of the road.

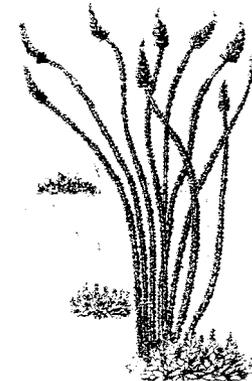
While we find that topography may provide an opportunity for an alternate road on the north side of the ridge, both the Board of Supervisors and I believe we will be most cost efficient if we use the present location.

Based upon this agreement, we are preparing a budget request to start the project. Most likely, our earliest funding will be in FY 1982. I will keep you and the Board advised of our progress.

Sincerely,

Ray C. Bair
District Manager

cc: Arizona State Director (910)
Division of Technical Services (940)
Charles Guinn, Pinal Co. Bd. of Supervisors, Florence, AZ 85232
James Karan, " " " "
William Mathieson, " " " "
James Kerr, " " " "



98

SENT BY:A ; 4- 6-90 2:09PM ; 2763+ ;# 1

ALPHAGRAPHICS PRINTSHOPS OF THE FUTURE

2736 N CAMPBELL AVENUE, TUCSON, ARIZONA MI.9
TEL. (602) 327-1985 / FAX (602) 795-6037

FAX MESSAGE COVER SHEET

TO: Steve Knox RMP Team Leader
COMPANY: Safford District BLM 425 E 4th St 85546
FAX#(602) 428-4040 Ext 224

FROM: Frances W. WERNER
DATE: 4/6/90 TIME: _____

DESCRIPTION OF TRANSMISSION: _____

NO. OF PAGES INCLUDING COVER SHEET: 3

IF PROBLEMS OCCUR CALL: 325-7228 TUCSON

SPECIAL INSTRUCTIONS:

BILLING ACCOUNT CODE: _____

Rev. 9/88 bds

SENT BY:A ; 4- 6-90 2:09PM ; 2763+ ;# 2

3216 N. Jackson Ave.
Tucson, Arizona 85719
April 4, 1990

Steve Knox, RMP Team Leader
Safford District Office
Bureau of Land Management
425 E. 4th Street
Safford, Arizona 85546

RE: Safford District Resource Management Plan - Environmental Impact Statement-Draft

I would like to support Alternative A (the preferred alternative as proposed in this document with the following comments.

Page 21 Management Concern 7 - vegetation
The statement to make, regarding the Fire Management Plan (in progress, 1989), "wildfires will be put out". I am aware that since the Yellowstone Fire (1988) management direction has been given to agencies by those in authority at the Washington level, in part because of outcries from an ill-informed public. I would hope that the entire fire policy could be reassessed as fire historically has been very much a part of the natural processes of ecosystems. Philosophically it seems to me to be illogical to suppress fire in wilderness areas if these wilderness areas have been set aside to allow natural processes to occur. It is indicated (p. 22) that a "natural start" might be allowed if it is in an area that has been approved for a prescribed burn. I look forward to reviewing the proposed Fire Management Plan when it is released.

98 - 1 |

Page 23 Issue 1 - access
I would urge that the District Transportation Plan be developed within the immediate future. Access to the public domain lands is of increasing importance and concern to a number of citizens. Obtaining legal access for public and administrative use across private lands in 37 locations Districtwide and across other State and private lands as determined in the future should, in my opinion, be given the highest priority in District planning and funding. In effect, failure to obtain access creates de facto wilderness in many cases. Providing access is part of the Bureau's primary recreation role in providing dispersed and resource dependent types of outdoor recreation (Management Concern 3, page 19). I strongly support the Bureau's actions under this Issue.

Page 28 Issue 3 - off-highway vehicles
Item 1. I would like to support the proposal to designate the Hot Well Dunes area "Open" to off-highway vehicle use. This is an area that has historically been used for this type of recreation and, in my opinion, it is important to recognize that there is a growing segment of the population that enjoys the use of this area. Designating an area specifically for such use would make it easier to close other areas to indiscriminate use.

Page 29 Issue 4 - riparian areas
Item 3. "Develop a riparian inventory system. Coordinate development and implementation of the system with other land managing agencies". You may be aware that as a result of Governor R. Moffard's Executive Order on Riparian Habitat (1989) there is now a Task Force made up of representatives of state agencies that is working to develop an inventory system. I would

98 - 2 |

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urge that your office keep updated on the actions of this body as the proliferation of various "inventory systems" may not be in the best interests of expediting whatever protection may be warranted in this area.

Item 11. "Build Timber Draw Dam on the San Simon". I strongly support the implementation of this proposed action. I have first-hand knowledge of the value of the other structures that have been built by the Bureau along the San Simon and the rehabilitation of the lands along the River that has occurred. Soil erosion on the watershed has been diminished and wildlife habitat has been increased. I believe that the positive impacts of this action would far outweigh any negative impacts.

Page 29 Management Concern 1 - wildlife habitat

98-3

Item 2. "Inventory the District to determine the presence and abundance of priority species and their habitat". Would you consider adding language saying that this would be done in cooperation with Game and Fish? This language was included in Alternative D, Management Concern 1, #2, page 80. It would appear to be appropriate also for Alternative A. The same "cooperative" language might be considered also for #4, (page 30) which speaks to transplants of wildlife.

Page 31 Item 10. I would encourage the timely development of the Habitat Management Plans for the listed areas in cooperation with the Arizona Game and Fish Department. A close working relationship between the two agencies is vital for the BLM manages the habitat and the Game and Fish manages the wildlife. MUCH has been accomplished in habitat improvements state-wide in the past ten years as a result of the implementation of HMPs previously adopted. The development and implementation of new HMPs will continue the success stories.

Page 40 Management Concern 7 - vegetation

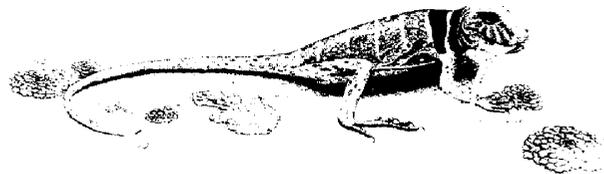
Item 3b. I am particularly interested in this proposal for it is in an area that historically has been neglected. The relationships of such creatures as harvester ants, grasshoppers, rodents and rabbits to the vegetation in their habitats is little understood because of lack of knowledge. I would suggest that consideration be given to working with the appropriate departments at the University of Arizona, the land-grant college, to develop graduate student projects that could provide needed base-line data.

A general comment - I believe that the approach taken in Alternative A in respect to AGFCs and Wilderness expansion is appropriate. The continued expansion of "protected" areas is of increasing concern to a number of citizens who perceive the actions as an "elitist" movement. I firmly believe that the public will take care of their lands if they are provided with information as to HOW to use them. The matter of educating the public in the wise use of the public domain and its resources is, in my opinion, one of the major issues facing us all.

I believe that Alternative A will fulfill the policy declaration of Section 104(6) Public Law 94-579 (1976). The Bureau has fulfilled its mandate to develop a plan, it is now the public's job to provide the political support to make sure that the funding and personnel are provided to the Bureau to implement the mandates of the plan.

Cordially,

Frances W. Werner
Frances W. Werner



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UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

ECOLOGICAL SERVICES 2-21-88-F-114
3616 W. Thomas, Suite 6
Phoenix, Arizona 85019

April 5, 1990

MEMORANDUM

TO: District Manager, Bureau of Land Management, Safford, AZ
FROM: Field Supervisor
SUBJECT: Biological Opinion, Draft Safford District Resource Management Plan and Environmental Impact Statement

This responds to your request of January 5, 1990, for formal consultation pursuant to Section 7 of the Endangered Species Act (Act) of 1973, as amended, on the draft "Safford District Resource Management Plan and Environmental Impact Statement" (RMP/EIS) for Bureau of Land Management (BLM) lands in Cochise, Gila, Graham, Greenlee, Pima, and Pinal Counties, Arizona. The species of concern are the spikedace (Meda fulgida), loach minnow (Tiaroga cobitis), Gila topminnow (Poeciliopsis occidentalis occidentalis), desert pupfish (Cyprinodon macularius), peregrine falcon (Falco peregrinus anatum), bald eagle (Haliaeetus leucocephalus), aplomado falcon (Falco femoralis septentrionalis), Sanborn's long-nosed bat (Leptonycteris sanborni), Cochise pincushion cactus (Coryphantha robbinsorum), and Arizona hedgehog cactus (Echinocereus triglochidiatus var. arizon). 90-day consultation period began on January 8, 1990, the date your request was received in our office.

This biological opinion is based on information provided in the RMP/EIS, other information provided by the Safford District staff, data in our files, and other sources of information.

BIOLOGICAL OPINION

It is my biological opinion that implementation of the draft "Safford District Resource Management Plan and Environmental Impact Statement" is 1) not likely to affect the aplomado falcon; 2) not likely to jeopardize the continued existence of the Gila topminnow, desert pupfish, peregrine falcon, bald eagle, Sanborn's long-nosed bat, Cochise pincushion cactus, or Arizona hedgehog cactus; and, 3) not likely to jeopardize the continued existence of the spikedace or loach minnow and not likely to adversely modify the proposed critical habitat of the spikedace or loach minnow.

BACKGROUND INFORMATION

Project Description

The proposed action is implementation by the BLM of the preferred alternative set forth in the Resource Management Plan for public lands of the Safford District in southeastern Arizona. The RMP/EIS provides overall

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management guidance for administration of the District and makes specific land allocation decisions regarding identification of lands eligible for disposal, lands considered high priority for acquisition, designation of Areas of Critical Environmental Concern (ACEC's), and limitations on use of public lands by off-highway-vehicles (OHV's). The RMP/EIS also identifies which wildlife and plant species are to be considered as priority species in land management decisions. Decisions on allocation of resources for livestock grazing were not made in this document, with the exception of 6.521 acres of the San Pedro Riparian National Conservation Area (RNCA). Grazing decisions were made in two prior documents, the 1978 "Upper Gila San Simon Grazing Environmental Statement" and the 1981 "Eastern Arizona Grazing Environmental Impact Statement". Management of the existing Aravaipa Wilderness (1988) and the San Pedro RNCA (1989) was also addressed in prior documents.

Species Description

The spikedace (Meda fulgida) was listed as a threatened species on July 1, 1986. Critical habitat was proposed on June 18, 1985, for portions of the Verde River and Aravaipa Creek in Arizona and the upper Gila River in New Mexico. The spikedace is a small, silvery minnow reaching a maximum size of about 2.5 inches (Minckley 1973) which inhabits the interface of fast and slow waters in shallow, flowing streams (Propst et al. 1986). Within the Safford District, the spikedace is presently found in Aravaipa and Eagle Creeks.

The loach minnow (Tiaroga cobitis) was listed as a threatened species on October 28, 1986. Critical habitat was proposed on June 18, 1985, for portions of the Gila, San Francisco, and Tularosa Rivers and Dry Blue Creek in New Mexico; and the Blue and San Francisco Rivers, Aravaipa and Campbell Blue Creeks in Arizona. The loach minnow is bottom-dwelling inhabitant of fast water areas (Propst et al. 1988). It is a slender, elongate fish reaching about 2.5 inches in length (Minckley 1973). Within the Safford District, the loach minnow has been documented only in Aravaipa Creek.

The Gila topminnow (Poeciliopsis occidentalis occidentalis) was listed as an endangered species on March 11, 1987. The Gila topminnow is a small, livebearing fish found in the Gila, Sonora, and delta Concepcion River drainages in Arizona, New Mexico, and Sonora, Mexico (Minckley 1973; Vrijenhoek et al. 1985). Within the Safford District, the Gila topminnow has five extant reintroduced populations in Mescal Wagon Springs, Cold Spring Seep, Big Spring, Watson Wash, and Martin Well.

The desert pupfish (Cyprinodon macularius) was listed as an endangered species on March 31, 1986. Critical habitat was designated at Quitobaquito Spring, Organ Pipe Cactus National Monument, Arizona and three locations in Imperial County, California. The desert pupfish is a small fish historically common throughout much of the lower Gila River system, the lower Colorado River system, and the Rio Sonoyta system in Arizona, California, and Mexico (Minckley 1973). The Safford District has one reintroduced population of desert pupfish at Howard Well.

Rock ACEC, would benefit the species. Actions which may adversely affect the peregrine falcon, such as vegetation manipulation, should be analyzed on an individual project basis to determine if effects would be adverse, neutral, or beneficial.

Protection of riparian areas and stream flows will, in general, have beneficial effects on the bald eagle. Continued grazing and allowance of OHV use in stream channels will negatively impact the bald eagle.

Sanborn's long-nosed bat would be impacted by many of the actions proposed in the RMP/EIS due to the overall effects of the composition of the plant community. Actions such as livestock grazing and vegetation manipulation would be of particular concern for this species through depletion of food supply. Designation of ACEC's would have little impact on Sanborn's long-nosed bat due to management prescriptions which call for continued livestock grazing, vegetation manipulation, and some mining in many of the ACEC's. Establishment of an ACEC at Bat Cave on Eagle Creek may benefit some other bat species, but that cave is not known to be used by Sanborn's long-nosed bat.

The proposed BLM acquisition of State lands west of Guadalupe Canyon would have a beneficial effect on the Cochise pincushion cactus. Because this cactus is not currently known from BLM lands, no other actions in the RMP/EIS would impact the species until and if the State lands on which it occurs are acquired. At that time, such actions as grazing, vegetation manipulation, mineral development, OHV access, etc., may be of concern.

Little effect is expected to the Arizona hedgehog cactus from actions and policies proposed in the RMP/EIS.

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 Fish and Wildlife Service (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. The following constitute FWS conservation recommendations:

1. Private lands along Eagle Creek should be identified as high priority areas for BLM acquisition.
2. We recommend adoption of the alternative B, Aravaipa Watershed ACEC boundaries, as a part of the preferred alternative.

3. The exclusion of grazing, closure to OHV use, withdrawal from mineral entry, leasing, and sales, and acquisition of private and State inholdings should be included in the management prescription for the Aravaipa Watershed ACEC.

4. If BLM does not already hold water rights, an attempt should be made to obtain them for Mescal Warm Springs, Watson Wash, Martin Well, and Howard Well.

5. Public lands being considered for disposal should be analyzed for their value as food source for Sanborn's long-nosed bat and those with significant stands of agave or saguaro should be retained in public ownership or exchanged for other lands with similar value for the bat.

6. Any gating of caves should be done with bat-sensitive techniques to allow for full access to the caves for Sanborn's long-nosed bat and candidate bat species.

7. Plans for vegetation manipulation and treatment should be carefully analyzed for their effects, both direct and indirect, on listed species, and plans modified to eliminate any adverse effects.

INCIDENTAL TAKE

Section 9 of the Act prohibits any taking (harass, harm, pursue, hunt, shoot, round, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species without a special exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Under the terms of Sections 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 bounds of the Act provided that such taking is in compliance with the incidental take statement.

No take of spikedace, loach minnow, Gila topminnow, desert pupfish, peregrine falcon, bald eagle, Sanborn's long-nosed bat, Cochise pincushion cactus, or Arizona hedgehog cactus is expected to occur as a result of general implementation of the RMP/EIS. However, incidental take of several of these species may occur as a result of various site-specific actions taken under the umbrella of the RMP/EIS. Any action taken under this RMP/EIS that is expected to have any effect (beneficial or otherwise) on a federally listed species must undergo additional Section 7 consultation. At that time the potential for incidental take from such actions will be addressed.

In order for the FWS to be kept informed of actions that either minimize or avoid adverse effects or benefit listed species or their habitats, the FWS is requesting notification of the implementation of any conservation recommendations.

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The peregrine falcon (Falco peregrinus anatum) was listed as an endangered species on October 13, 1970. It is a medium-sized, blue-gray falcon which inhabits rocky, steep cliffs, preferably near water. Documented nesting sites of peregrine falcon are found within or near the Safford District at Eagle Creek, Dos Cabezas Mountains, Galiuro Mountains, Pinaleno Mountains, Black Rock area, and Aravaipa Creek. Good peregrine falcon habitat also exists in the Mescal and Peloncillo Mountains and the Gila Box, although peregrine nests have not yet been found in those areas. The Willcox Playa area also provides excellent foraging area for migrating peregrine falcons.

The bald eagle (Haliaeetus leucocephalus) was listed as an endangered species on March 11, 1967. This large, primarily fish-eating raptor is found in the southwest as two distinct populations, those which nest in the southwest and those which only winter in the southwest (USFWS 1982). An occupied bald eagle nest is located just below Coolidge Dam and the territory of that pair includes portions of the Safford District. Wintering bald eagles are known from several areas on the Safford District, most notably the Gila River in the Gila Box and below Coolidge Dam and along the San Francisco River.

The aplomado falcon (Falco femoralis septentrionalis) was listed as an endangered species on February 28, 1986. Although there is a potential reintroduction habitat for the aplomado falcon in southeastern Arizona, it is not presently known to occur there.

Sanborn's long-nosed bat (Leptonycteris sanborni) was listed as an endangered species on September 30, 1980. This bat feeds primarily on nectar from agave and saguaro blossoms. It winters south of the U.S. border and migrates into the United States in the spring and summer. No maternity colonies are known in the Safford District, but Sanborn's long-nosed bat has been recorded in several portions of southeastern Arizona, including the Mammoth, Muleshoe, Port Huachuca, San Pedro River, Paradise/Portal, Port Bowie, San Simon, and southern Pinaleno Mountains areas (Cockrum, in press). While roosting sites are most likely at higher elevations, much of the foraging habitat is located on lands of the Safford District.

The Cochise pincushion cactus (Coryphantha robbinsorum) was listed as a threatened species on January 9, 1986. A small, unbranched cactus, the Cochise pincushion cactus grows on gray limestone in the Semidesert Grassland at an elevation of about 4,200 feet (Benson 1982). It is not presently known from lands of the Safford District, but is found on State lands identified for BLM acquisition in the area east of Douglas.

The Arizona hedgehog cactus (Echinocereus triglochidiatus var. arizonicus) was listed as an endangered species on October 25, 1979. A dark green, single or multiple stemmed cactus growing 2.5 to 12 inches tall, the Arizona hedgehog cactus inhabits open slopes in the understory of shrubs of

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the Madrean Evergreen Woodland/Interior Chaparral ecotone at 3,800 to 5,200 feet elevation (Rutman 1990). Populations of this cactus are known to occur within the Safford District in the Mescal Mountains.

IMPACTS OF THE ACTION

Environmental Baseline

The Safford District has many ongoing management activities including livestock grazing, mining, recreation, road construction and maintenance, wildlife management, water developments, vegetation manipulation, etc. These activities have resulted in various adverse and beneficial effects to federally listed species and together with other human activities in southeastern Arizona have contributed to the present threatened or endangered status of the species of concern in this opinion. General guidance concerning management of most categories of BLM management actions are addressed in the RMP/EIS. Management of the San Pedro RNCA, of most grazing in the District, and of the Aravaipa Wilderness will not change from the ongoing management as set forth by the existing documents listed earlier in this opinion.

Direct and Indirect Effects of the Proposed Action

Land use decisions and changes in management as a result of the implementation of the preferred alternative of the RMP/EIS will affect the nine federally listed species known to occur within the Safford District.

The spikedeace and loach minnow will be similarly impacted by the RMP/EIS. While certain provisions of the RMP/EIS will effect potential recovery habitats for these two fish, that is not within the scope of the Section 7 consultation process. Effects addressed in this biological opinion are limited to those which will affect the continued survival of the existing populations. On Aravaipa Creek the designation of an ACEC on Turkey Creek may have some positive effects; however, those effects would be limited by the small geographic scope of that ACEC and the continued grazing of the ACEC. Acquisition of State and private lands in the vicinity of Eagle and Aravaipa Creeks would probably result in overall beneficial effects to the spikedeace and loach minnow as would various protections proposed for all riparian areas.

As with the loach minnow and spikedeace, the Gila topminnow and desert pupfish will be addressed in this biological opinion only in regards to their existing populations. Continued livestock grazing and livestock and wildlife water developments would exert some adverse effects upon these two fish while the various protections proposed for all riparian areas would result in beneficial impacts.

The peregrine falcon would be impacted by various actions proposed in the RMP/EIS including OHV regulations, ACEC designation, and vegetation manipulation. Certain proposed actions, such as designation of the Black

This concludes formal consultation on this action. Reinitiation of formal consultation is required if the amount or extent of incidental take is exceeded, if new information reveals effects of the action that may impact listed species or critical habitat in a manner or to an extent not considered in this opinion, if the 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 if 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 Sally Stefferud or me (Telephone: 602/379-4720 or FTS 261-4720).



Sam F. Spiller

cc: Director, Arizona Game and Fish Department, Phoenix, Arizona
Regional Director, Fish and Wildlife Service, Albuquerque, New Mexico
(FWE/BC and SE)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
3616 W. Thomas, Suite 6
Phoenix, Arizona 85019

April 5, 1990

MEMORANDUM

TO: District Manager, Bureau of Land Management, Safford, Arizona
FROM: Field Supervisor
SUBJECT: Review of Draft Safford District Resource Management Plan and Environmental Impact Statement

In response to your January 5, 1990 request, the Fish and Wildlife Service (FWS) has reviewed the draft "Safford District Resource Management Plan and Environmental Impact Statement" (RMP/EIS). This memorandum contains our general comments and review of overall wildlife concerns. The biological opinion which will conclude formal Section 7 consultation on the RMP/EIS will be sent under separate cover.

GENERAL COMMENTS

Land Exchanges

The FWS is strongly supportive of the Bureau of Land Management's (BLM's) land exchange efforts and believe that BLM acquisition of State lands in the Turkey Creek, Muleshoe, Babocomari River, and Guadalupe Canyon areas will be of great value in the protection and enhancement of wildlife and plant resources, including recovery of threatened and endangered species. In addition to those areas identified in the preferred alternative, we suggest that acquisition of State lands also be considered on the west slope of the Santa Teresa Mountains to provide protection for the Aravaipa watershed and to join Aravaipa Creek BLM lands to the Santa Teresa Mountains and BLM lands beyond to form a large contiguous area of federally owned lands. Large contiguous areas, especially those combining lowland and mountain areas, tend to maintain a higher diversity of species and provide a greater degree of protection for ecosystems.

The RMP/EIS does not identify which private lands are to be acquired. Although we realize that specific parcels cannot be identified due to the need to find willing sellers or exchangers, we believe the RMP/EIS should identify areas in which such acquisition is considered desirable. For example, we recommend that under the stated objective of acquiring privately owned riparian lands within or adjacent to public lands, the following private lands be identified as high priority: inholdings in the San Pedro Riparian National Conservation Area (RNCA), lands between the Palominas portion of the RNCA and the downstream portion, lands along the Babocomari River, lands along the lower San Pedro River, and lands along Eagle Creek.

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One minor question arises concerning the lands identified for disposal. In T.13S., R.19E., Sec. 30 there are two lots (3 and 4) identified for disposal. A spring identified as potential Gila topminnow reintroduction habitat and included in the draft proposed rule for designation of experimental nonessential populations of that species is also located in T.13S., R.19E., Sec. 30. Our maps are not of sufficient scale to determine if the spring is on lands identified for disposal. If it is and is not deemed sufficiently valuable as reintroduction habitat, we would appreciate prompt notification so that it can be removed from the draft proposed rule prior to publication.

1978 and 1987 Grazing Environmental Impact Statements

We believe the decision to exclude analysis of grazing as an issue in the RMP/EIS is a serious flaw in this document. The majority of the grazing lands in the Safford District (District) were addressed in the 1978 "Upper Gila-San Simon Grazing Environmental Impact Statement" (Upper Gila EIS), which we believe is out of date and in need of review. This RMP/EIS may be the most effective place to update the grazing analysis and allow the District's master land use allocation decisions to be made with consideration of all major land use issues instead of excluding consideration of the single most pervasive land use.

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Many things have changed since 1978; in particular, the District has acquired over 250,000 acres of additional lands and disposed of a similar amount. Alterations in grazing management due to the acquisitions and disposals need to be addressed. The 1987 "Eastern Arizona Grazing Environmental Impact Statement" may address some of those lands; however, since that document has no maps showing specific areas being analyzed and refers to the areas by allotment number only, it is impossible to discern which of the new lands are addressed. Since 1978, several species found in or near the District have been added to the Federal list of threatened and endangered species, including Cochise pincushion cactus, Arizona hedgehog cactus, spikedeck, loach minnow, Sanborn's long-nosed bat, and desert pupfish. In addition, the 1978 Upper Gila EIS shows that 91 percent of the range in the area of consideration was in fair to poor condition at the time of that document. The RMP/EIS reports only 63 percent of the range to be in fair to poor condition attributing this large increase in condition to reductions in livestock numbers, better livestock management, and increased rainfall. Thus, the Upper Gila EIS would appear to be out of date and inadequate for use as a baseline for master land use allocation decisions as other resources.

We believe that balancing of all competing land uses, which is the purpose of an RMP, cannot be accomplished if the allocation of resources for one land use were made prior to the RMP. Use of prior decisions on a single land use as the baseline for allocation of remaining resources to other land uses will result in a biased decision.

Priority Species

100-5 Each alternative in the RMP/EIS has a different list of species which will be considered to be priority species, and priority species are delineated only for animals. We recommend that all of the species listed on Tables 3-2 (pages 137 and 138) and 3-3 (page 146), plus any species on the District which in the future become State or Federal threatened, endangered or candidate species, be adopted as priority species for the preferred alternative under both the wildlife and vegetation management concerns. This would be in keeping with BLM policy regarding listed and candidate species (BLM Manual Section 1622).

Riparian Areas

100-6 We support the emphasis which the RMP/EIS places on protection of riparian areas, their retention in public ownership, and their withdrawal from mineral entry. The goal of 75 percent of riparian areas in good or better ecological condition by 1997 is commendable. It would be helpful if information was furnished in the plan on percentages of riparian in each condition class at the present time. We also ask for clarification of what portion of the riparian resource of the District will be included in this protection. The RMP/EIS simply says "riparian" and refers the reader to map 34. Map 34 delineates the major riparian areas on stream courses. However, much of the riparian resource in the District is found in very small pockets around springs, seeps, and small perennial waters in otherwise ephemeral stream courses. These small riparian areas are not shown on map 34 and it should be made clear in the RMP/EIS whether they are included in the "riparian" which is recommended for retention and withdrawal from mineral entry.

100-7 We recommend that discussions of riparian areas be extended to also address the aquatic habitats which are interdependent with riparian habitats. Management of these two habitat types must be integrated in order to optimize protection and enhancement of each. Optimum management for one type will not necessarily result in optimum management for the other, and single-minded pursuit of riparian management without consideration of the aquatic habitat may result in damage to and loss of opportunity for aquatic habitats.

Grazing in the San Pedro Riparian National Conservation Area

100-8 We strongly object to continued grazing on the 6,521 acres of land which are part of the San Pedro Riparian National Conservation Area (RNCA), but which were not addressed in the San Pedro River Riparian Management Plan. We believe that grazing is not compatible with the congressionally mandated purpose of the RNCA. A portion of these lands lie along the Babocomari River and should be considered an integral part of the riparian lands which

100-a

BLM is mandated to protect and restore under the RNCA. That protection and restoration cannot be fully realized in the presence of livestock grazing. Upland areas on the east side of the river are less vital to the overall purpose of the RNCA, but their removal from grazing would facilitate management of the RNCA and contribute valuable information about the impacts to the riparian area from protection of upland areas of the watershed. Such information would contribute greatly to the analysis of the pros and cons of grazing in the RNCA that will occur at the end of the 15 year grazing moratorium. We understand that grazing rights on these former State lands were guaranteed for the life of the existing leases as part of the exchange agreement with the State of Arizona. However, we recommend that the RMP/EIS stipulate that livestock grazing will be terminated at the expiration of the current leases. In addition, we recommend that the interim protective fencing for the Babocomari River riparian zone presently being considered by the District be added to the RMP/EIS as an action item of the preferred alternative.

Areas of Critical Environmental Concern (ACEC)

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We commend BLM on the recommendation of 17 areas for ACEC designation, and recommend the following boundary changes. Because of their outstanding wildlife resources and their importance to preservation and recovery of threatened and endangered species, we recommend that the expanded boundaries set forth in alternative B be adopted for the Bonita Creek, Gila Box, Aravaipa Watershed, and Guadalupe Canyon ACEC's. We also recommend that the Swamp Springs-Hot Springs Watershed ACEC be expanded slightly to include all BLM owned areas within the Bass Canyon watershed. These additions would increase the amount of land to be designated as ACEC's to about 7 percent of the total BLM lands in the District: a relatively small allocation. Existing literature indicates that larger contiguous areas are generally more effective at preservation of wildlife than small isolated areas. In addition, the surrounding watershed is vital in the protection of aquatic and riparian resources and many impacts cannot be alleviated without protection of the watershed as well as the stream bottoms. For example, although the bottomlands of Aravaipa Creek have been protected for many years, the uplands are still subjected to multiple use practices and according to the Aravaipa Wilderness Management Plan have been heavily impacted by livestock grazing with vegetative condition in the side canyons cited as poor. As a result, uplands are still contributing sediment and water quality impacts to the stream and are in need of an appropriate grazing impacts.

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We also recommend some changes in the management prescriptions recommended for the ACEC's. Under all alternatives, the majority of the ACEC's would remain open for grazing, mining, and off-highway vehicle (OHV) use. The definition of an ACEC states that their purpose is to provide special management to protect outstanding natural values. If all the same land uses are allowed as would be the case without ACEC designation, there

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appears to be no purpose in the designation of ACEC's. In particular, we recommend that management prescriptions for the Bonita Creek, Aravaipa Watershed (including Turkey Creek and Table Mountain), and Swamp Springs/Hot Springs ACEC's specify no grazing, closure to OHV use, withdrawal from mineral entry, leasing and sales, and acquisition of private inholdings. We also recommend that the alternative B Gila Box ACEC management prescription recommending closure of the canyon bottom to OHV use, be brought forward into the preferred alternative; and that installation of a gate to exclude humans while still allowing free bat access be included in the management Prescription for the Eagle Creek Bat cave ACEC.

The RMP/EIS states that for ACEC's which are part of wilderness Study areas, their designation as wilderness would result in removal of ACEC status. We recommend retention of ACEC status even if the area is placed into wilderness. Designation as an ACEC allows more flexibility in management, and we believe the dual Status will help provide maximum protection to these areas.

Wild and Scenic Rivers

Of the areas studied for Wild and Scenic River designation, we believe the single area recommended for designation in the preferred alternative is the least wild and scenic. Rationale for exclusion of the Gila River segment below Coolidge Dam is set out in the RMP/EIS, but no rationale is included for the exclusion of any portions of the Gila Box and San Francisco River. Lacking that rationale, it is difficult to understand why this outstanding example of the few free-flowing river segments left in Arizona should be judged not suitable for Wild and scenic designation. We recommend that conclusions reached in the Wild and Scenic River Report (appendix 5) regarding the Gila Box be adopted as part of the preferred alternative: with 17.95 miles of Wild designation on the Gila and San Francisco Rivers, 10.85 miles of scenic designation on the Gila River, and 4.95 miles of Recreation designation on the Gila River. We believe that designation would be beneficial to wildlife and threatened and endangered species in the Gila and San Francisco Rivers.

Unique Waters

We support your plan to evaluate several District streams for designation as Unique Waters. We believe such designation will help to protect those streams and their high value natural resources. The RMP/EIS indicates that Bonita Creek also qualifies for consideration for Unique Water designation. We recommend that Bonita Creek be identified under the preferred alternative for nomination for designation as a Unique later.

100-11

Water Rights

The RMP/EIS identifies eight perennial waters which BLM will evaluate as to their potential for BLM acquisition of State water rights. We support this effort and recommend that many of the isolated Springs and Short perennial stretches in ephemeral stream channels be added to the list of sites to be evaluated.

Vegetation Manipulation

Land treatment and vegetation manipulation are listed as anticipated actions under all alternatives in the RMP/EIS. We recommend that the RMP/EIS specify that such treatment and manipulation will not occur in habitat for endangered, threatened, or candidate species. Such as Arizona hedgehog cactus, Sanborn's long-nosed bat, and desert tortoise. We also suggest that most types of vegetation treatment, such as prescribed burning and herbicides, be excluded from use in riparian zones.

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Transplanting, Augmentation, and Reintroduction of Species

At several places in the RMP/EIS references are made to the potential for transplanting, augmenting, and reintroducing flora and fauna. The only specific reintroductions that are addressed are for roundfin and aplomado falcon. We would also like to see specific statements regarding the potential for reintroduction of other native species into the District. In particular, the San Pedro RNCA should be specifically identified as among the best remaining reintroduction habitat for several federally listed and other native species including the spikedace, loach minnow, roundtail chub, desert pupfish, Sonora sucker, and possibly the razorback Sucker, Gila topminnow, and Colorado squawfish. In addition, we recommend that the RMP/EIS include reintroduction of beaver into the San Pedro River as a major component of the historic native ecosystem of that river, recognizing that such reintroduction would require management control. Bonita Creek should be identified as a potential reintroduction site for spikedace, loach minnow, razorback sucker, Gila topminnow, and beaver; and the Gila River upstream from Safford in the Gila Box area should also be identified as a potential native fish reintroduction area. Many of the isolated Springs and Seeps in the District have been identified elsewhere as potential Gila topminnow and desert pupfish reintroduction sites. These need not be listed individually in the RMP/EIS, but reference to their identification should be included.

100-13

Non-native Species

Transplants and augmentation of non-native species, both animal and plant, should be discouraged. All references in the RMP/EIS to transplants or augmentations should specify that it refers only to native species. The problem of non-native species and their adverse impacts on native species

100-14 | is one of serious concern to the natural resources of the District. Introduction and invasion of non-native species have resulted in many adverse impacts to native species of the district, particularly native plants and fish. We would like to see the RMP/EIS recognize this problem and address at least general policy on how the District intends to deal with it. We recommend that both the wildlife and vegetation portions of the RMP/EIS state that, in general, no non-native species will be transplanted, augmented, or seeded onto District lands. Although there are some circumstances in which that policy would not be applicable, those cases should be subject to careful scrutiny and coordination with the Arizona Game and Fish Department, FWS, and other appropriate parties.

100-15 | In addition, we recommend that the RMP/EIS specifically call for construction of a barrier to upstream movement of non-native fish below the mouth of the canyon at Aravaipa Creek. Interagency efforts have been underway for some time to establish baseline information and to obtain funding for construction of such a barrier. Recognition of the need for this barrier in this plan would make clear the District's support for the project. Aravaipa Creek is one of the "jewels" of the District and the presence of the relatively intact native fish fauna is a major portion of the value of the area. To protect that fauna it will be necessary to prevent invasion of the creek by many of the "an-native" fishes that are presently found in the lower San Pedro River.

Comparison of Alternatives

100-16 | While alternatives A, B, and C are directly comparable, it is not possible to compare those alternatives with the no action alternative D. Alternatives A, B, and C are defined through conceptual approaches and broad-framed policies; specific action items apply only to major land allocation decisions such as lands for exchange and areas recommended for Wilderness, ACEC, or Wild and Scenic River "stat". Alternative D is defined through site specific action items. We recommend that Alternative D be rewritten to define the alternative using the same approach as was used for alternatives A, B, and C.

SPECIFIC COMMENTS

100-17 | page 1, column 2. Issue 2. It is confusing that the RMP/EIS refers to the Galjuero Wilderness without reference to the fact that it is on the Coronado National Forest and not an BLM land.

100-18 | page 4, column 1, para. 4. It would be helpful to define here the difference between an issue and a management concern and whether that difference will give different end results during implementation of the RMP/EIS.

100-19 | page 6, column 1, para. 2. and column 2, para. 4. We believe the references to "resource conservation areas" were actually intended to refer to research natural areas. If not, then the definition of a resource conservation area should be included in the glossary and reference should be made under the various alternatives as to what decisions were made regarding the designation of resource conservation areas.

00-20 | page 7, column 2, para 6, and page 10, column 1, para. 3. Federal candidate species should also be considered for setting of management objectives. Another question to be asked is how BLM management efforts can be tailored to fulfill objectives of existing recovery plans for federally listed species.

100-21 | page 9, column 2. Management Concern 6. "bat objectives should BLM establish for management of soils in other areas of special concern such as the San Pedro RNCA and the Aravaipa Creek watershed?"

00-22 | page 15. Alternative Formulation. The criteria for alternative formulation should also state that each alternative will provide for grazing as delineated in the two existing grazing EIS's and each will provide for mining pursuant to the 1872 Mining Act. These are both baseline conditions of the RMP/EIS.

100-23 | page 16, column 2, para. 1. This paragraph should also recognize the need for additional Section 7 consultation on specific actions.

100-24 | page 30, column 2, item 3. Does the phrase "taking into consideration climatic changes" indicate that BLM has data documenting a climatic change in southeastern Arizona in the past 100 years?

100-25 | page 30, column 2, item 4. This item should specify that transplant and augmentation of priority and other wildlife species should occur only within the historic range of the species being transplanted.

100-26 | page 30, column 2, item 7. Rationale for protection of springs and associated vegetation should also include the protection and enhancement of indigenous flora and fauna. Too often in the past, protection of springs for wildlife and livestock water has resulted in destruction of habitat for indigenous wildlife and plants.

100-27 | page 31, column 1, items 11 and 12. These items should also be accompanied by additional items providing for input into allotment management plans to ensure that opportunities are maximized for protection and recovery of all priority wildlife and threatened, endangered, and candidate plants, and to provide for sufficient quantity and quality of forage for desert tortoise.

- 100-28 | page 31, column 1, item 13. Section 7 consultation will be required on all animal damage control activities that may affect Federal endangered and threatened species.
- 100-29 | page 31, column 2. Management Concern 2. An additional action should be specified calling for evaluation of all lands, prior to disposal, for presence of candidate, threatened, or endangered wildlife and plants.
- 100-30 | page 31, column 2 and page 32, column 1, Management Concern 2. We recommend that map 35 be amended to show the location of all lands identified for disposal and to more specifically show the State lands listed on page 32 as high priority areas for acquisition.
- 100-31 | page 33, column 2. Management Concern 3. Please define the term "Special Recreation Management Areas" and specify what special management such a designation would invoke.
- 100-32 | page 34, column 1, item 5. What are the public safety hazards located on the Gila River from Coolidge Dam to two miles upstream from Dripping Springs Wash that justify a float-boating prohibition?
- 100-33 | page 40, column 2, paragraph 2. Vauqueinia pauciflora is not a federally listed species. It is a federal category 2 candidate. It has also undergone taxonomic revision and should now be referred to as Vauqueinia californica ssp. pauciflora. Aster lemmonii is spelled with two 's' and has now been determined not to be a valid taxon. As a result, it is no longer a category 1 candidate, but has been moved to category 3B. Rumex orthoneurus is unlikely to exist on BLM lands in the District. It is a high elevation species, found above 7,000 feet in wet areas.
- 100-34 | page 44, Table 2-8. The third column is missing a portion of its title. We believe the title should correctly read "values and Hazards".
- 100-35 | page 81, column 2, item 24. Please add the San Pedro River and Bonita Creek to the areas to be studied for reintroduction of beaver, subject to management control capabilities.
- 100-36 | page 83, column 1, items 14 and 15. These two items are found only in alternative D. Does this mean that the withdrawals outlined in item 14 and the withdrawal revocation outlined in item 15 would not occur under any of the other alternatives?
- 100-37 | page 86, column 1, Management Concern 7, item 4. Alternative D calls for review and revision of all existing allotment management plans. We recommend that this change also be incorporated into the preferred alternative.

- 100-38 | page 127, column 2, para. 4. The Timber Draw Detention Dam is not addressed in the Upper Gila-San Simon Grazing EIS. That EIS addresses only the Barrier, Tanque, and Slick Rock detention dams.
- 100-39 | page 131, Table 3-1. The Table Mountain Mining District was cited in the RMP/EIS as having an estimated value of \$22.2 million. In Scott (1988), "Mineral Resources of the Aravaipa Study Area" that Mining District is said to have an estimated value of only about \$0.5 million. Scott concludes that the Table Mountain Mining District is subeconomic for development of mineral resources.
- 100-40 | page 135, column 1, para. 2. The list of riparian dependent species should also include the lowland leopard frog.
- 100-41 | page 135, column 2, para. 4. Bat roosts include more than maternity colonies. The FWS requests that all known bat roosts be protected on BLM lands.
- 100-42 | pages 137 and 138, Table 3-2. Three federal candidate species were omitted and should be added to this table as known District occurrences with breeding populations:
 - Bylas springsnail (Apachecoccus arizonae), category 2
 - Gila tryonia snail (Tryonia gilaie), category 2
 - Arizona grasshopper sparrow (Ammodramus savannarum ammolegus), category 2

- The thick-billed parrot is not listed as endangered in the United States. Only those populations found in Mexico are federally listed. The United States population has no official status under the Endangered species Act.
- 100-43 | page 146, Table 3-3. Night blooming cereus (Cereus greggii) has been moved to category 3C. Cochise pincushion cactus (Coryphantha robbinsorum), is not currently found on BLM land but is on the State lands west of Guadalupe Canyon that are identified for BLM acquisition.
 - Acuna cactus (Echinomastus erectocentrus var. acunensis) should be added to the table as a possible occurrence in the District. Acuna cactus is a category 1 federal candidate.

The Lemmon fleabane (Erigeron lemmonii) found at Turkey Creek has been submerged within a more common species, (Erigeron piscaticus).

The species and subspecies for the needle-spined pineapple cactus are misspelled and incorrectly cited. In addition the scientific name has been changed to Echinomastus erectocentrus var. erectocentrus.

Rosewood, also known as limestone Arizona rosewood, has been subsumed into another species as a subspecies. The correct name is now Vauquelinia californica ssp. pauciflora.

100-43

page 159, column 1, Assumptions. Add the assumption that inventories for threatened, endangered, and candidate species will occur on areas of proposed land uses.

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page 166, column 1, para. 2. Please specify what nine locations proposed for disposal under alternative C would result in low impacts to desert tortoise and Gila topminnow.

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page 187, item 1. Bonita Creek also provides reintroduction habitat for the threatened spikedace and loach minnow and the endangered Gila topminnow.

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page 232, column 2, para. 4. The loach minnow is not known to be present in the study area; however, W.L. Minckley in the 1919 "Resource Inventory for the Gila River Complex in Eastern Arizona" states that he believes that loach minnow may still be present in the area. although they were not found during sampling. Loach minnow is an elusive species and further survey of the Gila BOX should be carried out

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page 247, column 1, item i. This objective should be limited to native wildlife only.

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page 247, column 1. We recommend that two other primary objectives be added: Protect native fish and wildlife by exclusion or removal of non-native species which may adversely affect natives. And, protect and restore springs and seeps and their native flora and fauna.

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page 247, column 2, para. 2. The Mexican garter snake was still found on the San Pedro River in 1986.

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If we can be of further assistance, please contact Sally Stefferud or me (Telephone: 602/379-4720 or FTS 261-4720).



Sam F. Spiller

cc: Regional Director, Fish and Wildlife Service, Albuquerque, New Mexico (FWE/HC)

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Rio Linda Ca
5 April 1990

Bureau Land Mgt.
Mr Steve Knox
Dear Sir.

In receipt of your recent publication on the "Environmental Impact Stmt". I have thoroughly reviewed its contents and maps and find you work very detailed and pertinent and concise. I will watch with interest your further application of these sources and have input from time to time on their progress.

My contact with Safford BLM has been both informative and information with co-operation

Sincerely,
Margaret G. Gasse
6637- Bernam St
Rio Linda Ca
95673

102

ARIZONA WHITEWATER EXPEDITIONS

P.O. Box 26028
Tempe, AZ. 85282
(602) 838-7428

April 5, 1990

TO: Mr. Steve Knox
SUBJECT: Safford District Resource Management Plan

102-1 | The preferred alternative recommended by the BLM short- changes the natural attributes and environment of the district. While recommending the Lower Gila, below Coolidge Dam, as a suitable "Wild & Scenic River?" the BLM recommends against study of the only remaining free-flowing segment of the Gila River in Arizona the Gila Box. We insist that both segments meet all criteria as Wild & Scenic Study Rivers and that other streams neglected in this draft plan(ie. San Pedro, Aravaipa, etc.) be included in the Final Plan.

In light of the imminent designation of the Gila Box as a National Conservation Area, we feel it would be negligent of the BLM to not consider this segment of river for Wild & Scenic protection. The Safford District has some of the best remaining riparian areas in Arizona and we wish to work with the District to fully protect these irreplaceable resources.

Sincerely,

Jerry Van Gasse
Jerry Van Gasse

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April 6, 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th St.
Safford, AZ 85546

Dear Steve:

This letter is Whole Earth Adventures, Inc. (WEA) response to the Bureau of Land Management's (BLM) Resource Management Plan and Environmental Impact Statement (RMP/EIS) of January 1990 #1610.

Our comments are based on the following facts:

1. WEA will not just be a river rafting company but will be a complete outdoor recreation company that in the future will offer river rafting, canoeing, kayaking, and inflatable kayak guided trips along with a river rental service that will rent river equipment to private river users. This rental equipment will consist of rafts, canoes, kayaks, inflatable kayaks, life jackets, throw bags, etc. WEA will also offer mountain and touring bicycling, horse and pack trips, back packing and hiking opportunities along with a complete experienced guide service.
2. All of the above mentioned activities will be supported by a 23 acre base camp in the Dripping Spring* area which will provide showers, sanitation facilities, camping, RV camping, food service, and other recreation facilities.
3. WEA is an environmentally and culturally aware company. Berger and Associates, a Phoenix based company, has recently completed a 32 page technical proposal to perform an intensive archaeological survey on our 23 acre base camp property which will result in the formulation of a plan to protect, explore, and develop 4 archaeological sites located on the property into small interpretive sites and/or parks which visitors and guests can enjoy. All work will conform to the Secretary of the Interior's Standards for Archaeology and Historic Preservation (48CFR4716).
4. WEA is a locally owned and operated company and will employ local people, when possible; support local businesses and

5. government; and pay local property, school, and sales taxes. WEA is an experienced outdoor recreation company having been located in West Virginia where commercial trips were operated on the New, Gauley, and Meadow Rivers for over 8 years.

With the above facts in mind, we wish to submit our evaluations on the proposed RMP/EIS.

1. WEA agrees with Alternative A, Issue 1, #6, part 31. The Gila River Road below Coolidge Dam should be acquired to provide access to the Gila River. As an experienced outfitter, WEA is aware of the necessity for quick, safe, and convenient access to river "put in" points.
2. WEA strongly disagrees with Alternative A, Issue 2, #4 but strongly supports Alternative B, Issue 2, #4, part C. WEA assumes this position as Alternative B would protect the Gila River below Coolidge Dam for the entire length of Segments 2, 3, and 4 from future developments of hydroelectric power facilities and new flood control structures. Alternative A merely protects Segment 4.
3. WEA opposes Alternative A and B, Issue 3, #6 not on the grounds that mountain bikes could be denied access to certain "Closed" or "Limited" area but on the grounds that all mechanized or motorized transportation could be denied access. As this is written, this would seem to include wheel chairs. WEA supports the right of all people to enjoy outdoor-recreation.
4. WEA strongly opposes Alternatives A and B, Management concern 3, #5 for several reasons.
 - a. No river in the world is safe. If is only through the knowledge, training and experience of professional river outfitters that the chance of accidents, injuries, and other problems inherent in river trips can be minimized.
 - b. Private boaters and tubers have run this section of the Gila before and will continue to do so regardless of what any Federal agency says.
 - c. This section of the Gila can be cleared of trees and shrubs just as Segments 4 and 5 have been cleared.
 - d. The remoteness of the Mescal Mountains would not significantly contribute to the hazardous nature of this section of the Gila if two way communication via radio-telephone would be used. This system currently operates in a satisfactory manner on the Gauley in West Virginia and the Salmon in Idaho.
 - e. The economic impact of not allowing commercial river trips on this section of the Gila would probably reduce the number of river related jobs that WEA could offer the local community from about 30 to 35 part time

103-1

103-2

jobs to 17 to 20 and the number of full time jobs from 45 to 50 down to 30 to 35. This, WEA believes, would have a significant economic impact on the local area as opposed to the BLM statements on page 242. #5, paragraph 2, liner 8, 9, and 10.

- 5. WEA supports Alternative A, Management Concern 3, #9 especially ON the access points to the Gila in Segment 4. At the present time these access points from HWY, 77 are designated by various means ranging from red rag flags, survey marking tap, hand made signs, etc. Not only is this a significant visual intrusion but contributes to unsafe auto traffic conditions. Also signs at the river "put in" points would prevent campers and river users from experiencing disagreements as to who has the right to access.
- 6. WEA supports Alternative A, Management concern 5 over Alternatives B, C, or D because of historical, environmental and cultural prejudices.

We at WEA appreciate the opportunity to participate in this planning process and hope that our comments are useful and informative.

Truly,
Richard M. Hanley
Richard Hanley, President



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April 6, 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th St.
Safford, AZ 85546

Dear Steve:

This letter is Gila River Tours, Inc. (GRT) response to the Bureau of Land Management's (BLM) Resource Management Plan and Environmental Impact Statement (RMP/EIS) of January 1990 #1610.

Our comments are based on the following facts:

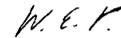
1. GRT will be a professional river company providing guided river rafting, kayaking, and canoeing trips on the Gila river. River Trips and tours will be our only business.
2. GRT is an experienced professional river company having performed commercial river trips in West Virginia on the New (Class 5), Gauley (Class 5+) and Meadow (Class 5++) Rivers for over 8 years.

With the above facts in mind, we wish to submit our evaluations on the proposed RMP/EIS.

1. GRT agrees with Alternative A, Issue 1, #6, part 31. The Gila River Road below Coolidge Dam should be acquired to provide access to the Gila river at this access point. As an experienced outfitter, GRT is aware of the necessity for quick, safe, and convenient access to river "put in" points.
2. GRT supports Alternative B, Issue 2, #4, part C over a much weaker Alternative A, Issue 2, #4.
3. GRT strongly opposes Alternatives A and B, Management concern 3, #5 for historical, educational, economic, and practical reasons.
4. GRT supports Alternative A, Management Concern 3, #9 for safety, informational, and public relations reasons.
5. GRT supports Alternative A, Management Concern 5 over Alternatives B, C, and D for historical, environmental, and cultural reasons.

We at GRT wish to thank you for the opportunity to express our evaluations in this planning process.

Truly,



Winston E. Poston, President
Gila River Tours
Box 6
Winkelman, AZ 85292

105

Steve Knox
Bureau of Land Management
425 E. 4th Street
Safford, Arizona 85546

Dept. Ecol. and Evol.
Biology
University of Arizona
Tucson, Arizona 85721
6 April 1990

Dear Mr. Knox:

I am writing in support of protection for the Eagle Creek Bat Cave. I am an ecologist at the University of Arizona, and I was an assistant to Dr. Cockrum in much of the work that was done in the 1960s at this cave in determining the migrational patterns of the freetail bat (*Tadarida brasiliensis*) that uses this cave as a maternity roost. The exit flight of the millions of bats that were present at that time was an amazing and spectacular sight. It is much less so today, but this colony still remains one of the few large maternity roosts of this species anywhere, and certainly the greatest concentration of terrestrial vertebrates that exists in Arizona. It is a biological wonder that warrants all the protection that can possibly be provided.

In the Eagle Creek Bat Cave ACEC proposal, I strongly recommend Alternative B. I would like also to suggest the following: (1) a restriction against the discharge of firearms at least within 1/4 mile of this cave, (2) a large bronze, permanent, educational plaque positioned in some obvious location at the base of the opening of the cave (with an inscription that would describe the cave and its importance to the bats, indicate the importance of the bats, invite the public to watch the exit flight, but warn against disturbance).

I would prefer, of course, that the preservation of this cave and Lower Eagle Creek Canyon could be taken even further. I'd like someday to see vehicular travel banned, and I'd like to see this canyon somehow tied into some more major preservational plan — one perhaps including the Gila Box. Meanwhile I'll gladly settle for protection at least of the Bat Cave. However, for this to occur steps must be taken that are much more extreme than simply a lock on the existing gate.

Sincerely,



Russell Davis

105-1

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CableGraphix

One East Camelback • Suite 550 • Phoenix, Arizona 85012 • (602) 263-6056
Fax (602) 265-0372

Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, Arizona 85546

April 6, 1990

Dear Steve:

To begin, I wish to congratulate you and your team in the preparation and presentation of your plans(s). The information is easy to understand and well **layed** out.

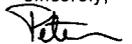
I represent the Arizona Trail Riders, Inc, a non-profit motorcycle club which has existed for over 3 years. Our group is comprised of approximately 50 families who promote responsible use of trails through Arizona.

After careful review and consideration of your plans, our club feels plan "c" is the best offered. This alternate provides for the use of the land while still allowing existing wilderness areas and A.C.E.C. formation. Protection of needed variation areas will continue and development of cultural resources **would be emphisezed/**

We do not support the other two plans because they do not allow for the use of the land for the majority of the people. Instead, large areas would be limited or closed to satisfy the needs of a minority group. Do you really think that all the families that drive their motorized vehicles into the backwoods and camp, are now going to park & hike in? No way! Lets provide a plan that is realistic for the people and style of **Arizonians**.

Thank you for your time and consideration

Sincerely,



Peter Zepeda
President
Arizona Trail Riders

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Dear BLM Representative,

4-5-90

A friend of mine told me last night that you are considering renewing several unused roads in the ARAVAIPA WILDERNESS AREA. This action would result in destruction of the Wilderness qualities for the area. I have special concerns of the use of 4-wheel drive vehicles having improved access to the area afterwards.

Wilderness areas are to be hiked, not driven in. Minimal impact is the reason. You are doing great disservice to the future of the United States of America by regrading roads in Wilderness Designated areas!

Please DO NOT rebuild roads, instead, you need to close MORE roads.

Sincerely,
P.E. Straley
PO Box 3537
Page, Arizona
86040

108

Apr 5, 1990

Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th St.
Safford Az. 85546

Dear Mr. Knox:

In reference to the Safford District RMP/EIS (Jan 1990), I have the following recommendations and concerns:

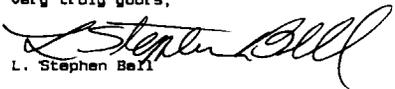
I urge you to adopt "Alternative B" as the most effective plan for environmental protection of the subject lands.

Allowing limited off-highway vehicle use on over a million acres of these lands would, however, not protect the land from unauthorized cross-country driving. Such a 'limited' designation would not be enforceable in such a widespread area. We recommend that you increase the number of closed acres by at least three-fourths of the 1.3 million presently planned to as 'limited' access.

Due to the fragility and rarity of our riparian systems, you should also withdraw any fuelwood cutting areas from within one-half mile of any riparian (or intermittent stream) zone. In particular, the Deer Creek fuelwood cutting area should be deleted from any plans.

The overall plan for Alternative B is excellent, and will serve to protect many of our resources for the future.

Very truly yours,


L. Stephen Bell

1425 N. Ridgeway Dr.
Tucson, Az 85712

109

Apr 5, 1990

Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th St.
Safford Az. 85546

Dear Mr. Knox:

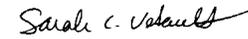
In reference to the Safford District RMP/EIS (Jan 1990), I have the following recommendations and concerns:

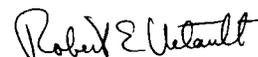
I urge you to adopt "Alternative B" as the most effective plan for environmental protection of the subject lands.

Due to the fragility and rarity of our riparian systems, you should also withdraw any fuelwood cutting areas from within one-half mile of any riparian (or intermittent stream) zone. In particular, the Deer Creek fuelwood cutting area should be deleted from any plans.

The overall plan for Alternative B is excellent, and will serve to protect many of our resources for the future.

Very truly yours,


Sarah C. Vetault


Robert E. Vetault

1425 N. Ridgeway Dr.
Tucson, Az 85712

110

Draft Safford District Resource Management Plan
Public Comment Form

Issue/Management Concern: Economic Conversion Chart - Dr. Seymour Melman

Comment: Your Safford District RMP Draft exhibits extensive knowledge and is a mine of information. Also your research and energy as well as an admirable regard for public desires necessitates commendation.

Your detailed discussion and categorization in each of the viewpoints allows hope that a shift from the preferred alternative which permits a substantial amount of deterioration of natural resources to viewpoint B which allows for considerably less by, by and large, not expanding further development of recreational, mineral, ranching and other businesses that contribute to a deterioration of natural resources including air. By endlessly permitting even minimal deterioration, the cumulative effect of whatever it is always winds up hitting us exponentially; it never stays nicely packaged and within bounds.

Only one important factor was overlooked. On pages 152-156, you give Employment statistics and Economic Indicators for Greenlee, Graham, Gila, Pinal and Cochise Counties. By giving only these figures, the implication, because of peripheral limitation, is that we work with what is in front of us, or it's the "soup line." It certainly frightens anyone to think his/her way of life or job is on the line.

If on the same or opposite page as the above economic information for each county you had another set of figures describing opportunities presented by economic conversion charts done by experts in the field of economic

Name: Alva d'Orgeix
Representing: Box 451
Address: Bisbee, AZ 85603
Date: April 6, 1990

2.

Draft Safford District Resource Management Plan
Public Comment Form

Issue/Management Concern: Economic Conversion Chart - Dr. Seymour Melman

Comment: conversion, then you would be showing ^{some} opportunities in alternatives. The cessation of one type of work, just because we are used to it, doesn't mean that another type might not prove to be limitless.

By the sin of omission, even though unintentional, it would appear that the economies of these counties (some more than others) would simply collapse if mining and grazing ceased. In 1990, this is simply not true. If there is no expert on economic conversion (not government employed, so he/she can be impartial) in this area, ask Seymour Melman, an economist and well-known conversion expert, at Columbia University, whom he would recommend as the most knowledgeable and helpful person for this kind of analysis for our area.

Again, I think your draft is outstanding. Thank you.

Name: Alva d'Orgeix
Representing: Box 451
Address: Bisbee, AZ 85603
Date: April 6, 1990

110-1

111



P. O. Box 187, Morenci, AZ 85540 • (602) 865-4521

April 6, 1990

Mr. Steve Knox
RMP Team Leader
U. S. Department of Interior
Bureau of Land Management
Safford District Office
425 East 4th St.
Safford, AZ 85546

Dear Mr. Knox:

RE: Safford District Resource Management Plan - Draft Environmental Impact Statement

I have reviewed the Safford District Resource Management Plan Draft Environmental Impact Statement ("DEIS") and offer the following comments for consideration in preparing the Final Environmental Impact Statement.

Before commenting on specific portions, I have the following general comments.

111 - 1

1. The RMP is almost entirely subjective: using estimates of impacts such as low, moderate, and high. These impact estimates do not appear to have any quantitative backing and are the personal opinion of the person preparing any particular section of the RMP.

111 - 21

2. You make the assumption that cost and personnel requirements of implementing a selected RMP alternative is not a consideration. To the contrary, costs of alternatives should be estimated up-front. It is, in our opinion, unwise to select a management scheme without this information. People do not do this in their personal lives, businesses cannot do this, and governing agencies should not make decisions without cost analysis.

3. You see a strong trend toward evaluating and reevaluating the same area for protection under various classifications until it finally meets the criteria. An example is Gila Box/Turtle Mountain WSA, Gila Box ONA ACEC, San Francisco/Gila River Wild and Scenic River Designation, Trujillo Canyon ACEC, Turtle Mountain Desert Grassland, Gila Box Riparian NCA. This continual duplication of effort is very counterproductive and breeds distrust of the BLM in the eyes of the public.

Specific comments are presented on the following pages. My comments will be referenced by page and general area for easy reference.

UNIT OF PHELPS DODGE MINING COMPANY

Mr. Steve Knox

-2-

April 6, 1990

Page i, Paragraph 6; Page 6, Paragraph 2; Page 231

111 - 3

"Two segments of the Gila and San Francisco Rivers as possible Wild and Scenic Rivers." The San Francisco and Gila Rivers south of Clifton have previously undergone analysis for inclusion into the wild and scenic river system. Following analysis of this segment, the Forest Service in 1981 chose a no action alternative. Growth of the Phelps Dodge tailings facility adjacent to the river, sights and sounds of mine operations, vehicular access for recreation purposes by residents of the local communities, and other reasons were cited in the decision. Furthermore, a portion of this area is proposed for inclusion in the Gila Box Riparian NCA. Further discussion of Wild and Scenic River designation of this segment of the San Francisco and Gila Rivers should be halted.

Page iv, Paragraph 2; Page 90.
Socioeconomic Item 1; Page 162. Conclusions

111 - 4

"Mining and mineral leasing restrictions would cause low impacts to the economy." This statement is very subjective and not quantifiable. The only thing quantifiable about mineral entry restrictions is that mining companies and individual prospectors will not locate new mineral resources if they do not have access to public lands to look for them. We agree with your statements like "Designation of wild and scenic rivers and ACEC's would provide low benefits to the economy of local tourism industries." This statement represents something proven and quantifiable. Your mining statement would only be true if mineral discoveries in virgin territory were never made, which is not supported by history.

Page 8: Management Concern 4 - Energy and Minerals

111 - 5

The DEIS states that "It is Bureau policy to foster and encourage the development of energy and mineral resources." The section goes on to say that "BLM has the authority and responsibility to ensure environmental degradation does not occur on public lands." The entire section would leave the reader to believe that it is the BLM directive that if mining causes any impact then it should not be allowed to take place on public lands. This is contrary to BLM's charge for multiple use in the development of energy and minerals on the public lands. The language should be modified to reflect language which occurs in applicable regulations. Specifically, the document should state that "BLM has the authority and responsibility to ensure that undue environmental degradation does not occur on public lands." [Underlined words should be added.]

Page 9: Management Concern 4 - Energy and Minerals

111 - 6

The fourth and fifth bullets from the top of the page in the left hand column appear to be contrary to the existing mining laws and the way that they function on public lands. Indeed, the questions are posed in such a fashion that indicate that the BLM is specifically trying to change the operation of the mining laws on public lands by the language which states "what terms, conditions or special stipulations should be applied to open areas that may constrain operations of the mining laws?" [Underline added for emphasis]. The resource management plan should properly plan for multiple use on public lands, not find ways to get around the existing laws so that there will be less use.

Page 11. "Wilderness"

'A district-ride re-evaluation is not warranted at this time.' Ye co-
cur with your **statement**. Ye **would** hope that there are **more** productive things to
do than to continue to study and restudy Safford District public lands for the
same purposes. It is time consuming for both BLM and interested and concerned
public.

me 11. Issue 2

"Designate 17 **ACEC's** totaling 61,737 acres of public land to protect
important natural and cultural resources." These 17 areas total 4.4 percent of
the Safford District. Together with pending wilderness legislation, including
National Conservation areas, a **alarmingly** high percentage of the Safford
District will be off limits to mineral prospecting activities, much less mineral
development. How can this policy of continuing to restrict access be compatible
with **BLM's** policy to foster and encourage the development of energy and mineral
resources (page B)? The 43 CFR 3809 regulations governing mining activities on
public lands are quite restrictive already. These should be adequate to protect
public lands.

||| - 7

Page 25

"Bonita Creek ACEC monitor water quality." It does not appear that
monitoring water quality should be in **BLM's** realm of responsibility. The City
of Safford probably already closely watches water quality at this location.
Does BLN intend to contract for this service, develop in-house expertise, or add
staff? **What** will be done if water quality declines or if it improves?

||| - 8

Page 25. Bonita Creek ACEC and Gila Box ONA ACEC.

These study areas should be placed on hold pending designation of the
Gila Box Riparian NCA and eliminated if so designated.

Page 26. Coronado Mountain RNA ACEC. Also Page 197

Designation of an ACEC adjacent to the United States' largest open pit
mine is an invitation to possible future land use conflicts. Phelps Dodge
currently has all or portions of seven unpatented **lode** mining claims in this
ACEC, and is actively conducting road building and prospect drilling within
4,000 feet of the area boundary. As in the above **comment**, the 43 CFR 3809
regulations should be adequate to protect public lands from poorly managed or
mismanaged mining exploratory work.

||| - 9

Page 27: Eagle Creek Bat Cave ACEC

The management prescription for the Eagle Creek Bat Cave ACEC indicates
a mineral withdrawal **will** be instituted. However, a valid mining claim current-
ly exists on that particular property, and will necessitate a change in the **man-
agement** prescription.

||| - 10

Page 32

'Retain all lands, not identified for disposal in public **owner-
ship** . Although it is not **extremely** clear in this section, Phelps Dodge
"assumes" the **BLM** will continue exchanges that are mutually beneficial and that
lands "not identified for disposal" in this section are still available for ex-
change as the specific need arises. For example, Phelps Dodge has been pursuing
an exchange for 375 acres adjacent to its tailings facilities "ear **Morenci**" since
mid-1987 with very little response from **BLM**. This selected area with roads,
tailings safety dams, and **monitor** wells is within the area proposed for reten-
tion by BLN. It appears to be in the public interest to relinquish these lands to
Phelps Dodge in exchange for other private lands along the San Francisco
River corridor also identified as "proposed retention".

||| - 11

Page 33

'Withdraw **29,104** acres, including administrative sites and campgrounds,
from mineral entry to preserve important resource values.* This alone is
2.1 percent of the Safford District and coupled with ACEC proposals in
Alternative A results in closures or restrictions to mineral entry of
6.5 percent over and above wilderness and NCA areas.

||| - 12

**Page 33: Management Concern 3 •
Outdoor Recreation and Visual Resource Management.**

The Bonita Creek and Gila Box Special Recreation Management Areas
SRMA's should have boundaries modified to reflect the recently proposed Gila Box
Riparian Area National Conservation Area boundaries.

Page 34: Item 11.

Designation of Eagle Creek canyon, which is entirely privately owned,
as a VRN class two area will not serve any real constructive purpose. Since the
private owner can construct facilities along the canyon on private lands, the
designation of any BLN land in the area has little to no effect on the total im-
pact of the visual resource management in the area.

Page' :

Under alternative B, the **recommendation** of certain river segments as
suitable for inclusion in the National **Wild** and Scenic River system shields the
importance of this activity. These **recommendations** should be done in a separate
action and not as part of a resource management plan in order to allow the local
public a more full view and review of the process.

Page 53:

The reference to the AEPKO powerline corridor under item **4a** and the
exclusion of the Gila Box **ONA** ACEC for right-of-way areas are "at compatible
since the AEPKO line traverses the Gila Box **ONA** ACEC under alternatives A and B.
Furthermore, a subsidiary powerline which feeds the entire **Morenci/Clifton** and
Black River area traverses the Gila Box **ONA** ACEC under alternative B.

||| - 13

Page : fected Environment • Air Quality

III-14

This section suggests that the pH of rainfall in the Gila Valley is the result of smelters which operate "in the vicinity of Norenci, Globe, Mammoth, Hayden-Winkleman, and near the border area of southern . . . Cochise county". However, the section doesn't recognize that the smelter at Norenci has been idle since 1984 (during nearly the entire period of measurement) and the smelter in Cochise County has been shutdown for nearly that same period of time. However, the statement is made that the "precipitation samples are collected weekly and have consistently been measured at pH 4.7 over a 6-year period." If the pH of the rain were due to the copper smelters in these areas as suggested in the DEIS, it would appear that there would be some change as smelting ceases. The affect of automobiles in the Safford valley and the major metropolitan areas of Tucson and Phoenix should be considered as they have much greater impact on the air quality of the region than these single sources.

Page 131

III-15

The section dealing with Geology of the Safford district is deficient and should be expanded to indicate at least two activities. The statement is made that "Phelps Dodge has developed one underground orebody there but ceased mining in 1983." This sentence should be modified to state that Phelps Dodge "temporarily suspended" mining in 1983 rather than "ceased". Although the section describes some development at the Sanchez Mine for the future, nothing is said of the large Lonestar deposit lying between the Pobres and Sanchez which will someday be mined. This particular deposit contains over 1 billion tons of ore and dwarfs both of the other mining developments which are mentioned in the section.

Page 148

III-161

Under Visual Resources, the impact of agricultural modification and modifications due to mining is described in some detail. However, there is no mention of the significant modification to visual resources which has occurred by the development of towns and infrastructure for towns in the area.

Page 149

III-17

Table 3-5, which lists ACEC nominations and summarizes the decision regarding whether they are or are not qualified for ACEC studies, designates the Eagle Creek ACEC as qualified for study. However, the Eagle Creek ACEC contains predominantly private lands and the reasons for having special management are directly tied to all of the riparian lands which occur on the private lands. This area should not be studied for ACEC status.

Page 164: Socioeconomic Impacts: Alternative B • Environmental Consequences

III-18

The inference that increases in primitive recreation use would result in higher local sales from people using these areas is simply not documented in the literature. In fact, quite the opposite is true and has been documented by several authorities on the subject. The very uses that would be closed as a result of ACEC designation to vehicular traffic are the very ones which are currently used by people engaged in fishing and hunting activities and other recreation activities on the public lands. These vehicular accessed activities would no longer occur in the area and the people who use these areas for this type of activity would not be willing to hike in to do the same thing.

Page 183: Acquisition of Legal Access: Item 14

III-19

This item targets BLM gaining access on some parcels that have been offered to BLM in exchange for selected lands adjacent to the Morenci tailings storage facilities. It is assumed that this form of access, acquisition, is the desired form.

Page 187: Bonita Creek ACEC

The ACEC designation should be placed "on hold" pending action on the Arizona wilderness bill. If the Gila Box Riparian NCA is designated, this ACEC should be dropped.

Page 188: Gila Box ONA ACEC

III-20

This ACEC designation should be placed "on hold" pending action on the Arizona wilderness bill. If the Gila Box Riparian NCA is designated, this ACEC should be dropped. The statement is made "also included is the 'last free flowing stretch of the Gila River in Arizona'." This particular quotation is used in other places in this report, is not referenced, and is not true. It should be removed and described otherwise.

Page: 9

III-21

Under section 4 • Special Management Provisions, the DEIS indicates that authorization of rights-of-way would be prohibited in the Gila Box ONA ACEC. Under certain alternatives, this could mean that the request for renewal for right-of-way for existing powerlines would be refused in the future and the towns of Clifton and Morenci and Point of Pines would be no longer able to have power supplied to them.

Page 190

III-22

Under item 5, Alternatives Considered section, it is stated that access by vehicle along the San Francisco River would be closed to off-highway vehicle use. This would essentially cut off recreation opportunities to all the residents in the area and would take away one of the few drawing cards for tourism and recreation which the town of Clifton has.

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Mr. Steve Knox

-9-

April 6, 1990

I appreciate the opportunity to comment on the Draft EIS of the Safford District Resource Management Plan. The document reflects a sincere effort to develop a plan to wisely use the resources of the Safford District. I trust that the multiple use management directive will be adequately reflected in the Final Draft.

Very truly yours,



ENS/FJM:sp

cc: J. G. Clevenger
J. L. Madson



American Rivers

April 6, 1990

Steve Knox, RMP Team Leader
Bureau of Land Management Plan
425 E. 4th Street
Safford, Arizona 85546

Re: Draft Safford District Resource Management Plan and
Environmental Impact Statement

Dear Mr. Knox:

Introductory Comments

American Rivers is a national, public interest not-for-profit corporation with MORE than 13,000 members nationwide. American Rivers is the only national conservation organization dedicated exclusively to the preservation of free-flowing rivers. In OUR sixteen-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 federal agencies in planning for the river resources on the lands they administer. We have assisted the planning staff of the Bureau of Land Management ("BLM") in Washington to clarify administrative direction for consideration of potential wild and scenic rivers in BLM'S resource management planning, and have reviewed, commented on, and protested numerous BLM plans. We have worked similarly with the U. S. Forest Service in developing administrative direction for the evaluation and management of potential wild and scenic rivers on the National Forests, and reviewed, commented on, and appealed numerous land and resource management plans issued by that agency.

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.

801 PENNSYLVANIA AVE., SE
SUITE 303
WASHINGTON, DC 20003
(202) 547-6900

Mr. Steve Knox
April 6, 1990
Page 2

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.

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 eliability 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 "ses 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 more detailed recreation area management plans or project plans. Guidelines, Section IV.C., at p. 7, Section IX, at p. 20. As a substantive decision regarding the appropriate management of a sensitive area, the planners' decision regarding suitability must be accompanied by environmental analysis pursuant to the National Environmental Policy Act ("NEPA"). Guidelines, Section VIII.B. at p. 15-16.

In order to protect the resource values and character of its potential wild and scenic rivers until a decision is reached

Mr. Steve Knox
April 6, 1990
Page 3

regarding their designation, BLM's Guidelines require agency planners to establish detailed management prescriptions. The Guidelines state: "[T]he 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.

Specific Comments

1. Eligibility

The eligibility analysis contained in Appendix 5 demonstrates the attention and sensitivity of the planners to the eligibility of the Gila River and San Francisco River for inclusion in the national rivers system. The planners have substantiated well their conclusion that these rivers possess outstandingly remarkable values. In particular, the planners have recognized that perennial rivers are very uncommon in the Southwest, and that this feature alone may indicate that a stream possesses outstandingly remarkable hydrologic values. RMP at 232. The importance of preserving the remnants of the Southwest's remaining riparian vegetation, particularly important for fish and wildlife, ecological and recreational values, is also recognized by the planners. Id.

American Rivers commends the Safford planners for evaluating the eight mile segment of the San Francisco River, a river not listed on the Nationwide Rivers Inventory (SRI). See Appendix 5. A failing common to other plans is an examination of rivers only on the NRI.

However, the RMP fails to examine the eligibility of other streams that are obvious candidates for inclusion in the national rivers system. There is no indication that other streams which flow across the Safford Resource Area were evaluated for their potential inclusion in the national rivers system. map 34 identifies numerous streams within the Resource Area which possess riparian habitat, including Aravaira Creek. San Simon River, Bonita Creek, Eagle Creek and the San Pedro River. While the presence or absence of riparian habitat does not determine the eligibility of a river, it is an indicator that a stream in the desert Southwest may possess outstandingly remarkable ecological or fish and wildlife values. Also, Map 34 is one of the only sources of data within the Plan which identifies free-flowing streams.

112-1

Mr. Steve Knox
April 6, 1990
Page 4

Additional candidate rivers may be found among those areas nominated by the planning team for ACEC consideration, including Bonita Creek, Turkey Creek, and Guadalupe Creek. See Appendix 2. Bonita Creek, for example, include habitat for several threatened and endangered wildlife species and National Register quality cultural resource sites. RMP at 187. Either of these values suggest the Creek is an eligible river. The fact the stream and its corridor supports one of the highest numbers of breeding bird species found in the United States and supports the greatest standing crop biomass of fishes recorded in a Southwestern stream can leave no doubt that this stream should not merely be found eligible, but should be recommended to Congress for designation. See id.

Turkey Creek possesses regionally significant cultural and scenic values, riparian community and wildlife resources. RMP at 189. In fact, the Turkey Creek cliff dwelling is described as one of the most intact prehistoric structures of its kind in southwestern Arizona. RMP at 52. These values suggest strongly that Turkey Creek is an eligible stream.

The Dry Spring Research Natural Area ACEC should be included within the Gila River corridor. See RMP at 192 et seq. These springs comprise an exceptionally rare undisturbed desert resource. Id. American Rivers believes that the Gila corridor should be expanded to include this outstandingly remarkable area.

Guadalupe Canyon undoubtedly possesses outstandingly remarkable ecological and fish and wildlife values, see RMP at 195 et seq. This area is one of the premier birdwatching areas in the United States and also possesses unique botanical and wildlife values. Id. American Rivers believes strongly that Guadalupe Creek qualifies for inclusion in the national rivers system.

American Rivers wish to emphasize the fact, sometimes overlooked by individual planners, that ecological values may qualify a river for inclusion in the national rivers system, see U.S. Departments of Interior and Agriculture, National Wild and Scenic Rivers System, Final Revised Guidelines for Eligibility, Classification and Management of River Areas ("Interagency Guidelines"), 47 Fed. Reg. 39454, 39457 ("In addition to the specific values listed in Section 1(b) of the Act, other similar values, such as ecological, if outstandingly remarkable, can justify inclusion of a river in the national rivers system.").

The planning documents include a table of threatened, endangered and special status plants and wildlife species, Table 3-2 at RMP 137 and Table 3-3 at RMP 146, however, there is minimal information as to where such species are to be found in the planning

Mr. Steve Knox
April 6, 1990
Page 5

area. When the planners assess the eligibility of individual rivers, serious attention should be given to the presence of such species, both as indicators of ecologic values and fish and wildlife values.

112-1

The planners must undertake a serious evaluation of the free-flowing streams in the resource area to determine whether they possess one or more outstandingly remarkable values that might qualify them for inclusion in the national rivers system. The failure of the Safford planners to consider all of the area's streams exposes those with high values that may be eligible for inclusion in the wild and scenic rivers system to development that can significantly degrade their values and to damming or diversion that could disqualify them for future consideration.

American Rivers suggests that assessment of other rivers, streams and creeks, including tributaries and headwaters, within the Safford Resource Area will result in the identification of other rivers, streams and creeks eligible for inclusion in the national wild and scenic rivers system.

112-1

The Final RMP should expand Appendix 5 and include a separate identifiable assessment of the various streams and their values examined by the planners.

2. River corridor*

112-2

The RMP states that the study corridor for Gila River did not extend to the one-quarter mile required by the Guidelines, but included only the canyon itself. see RMP at 231. The planners are mistaken in restricting the study corridor to less than the distance required by administrative direction. Further, American Rivers believes that such a restricted corridor fails to appreciate that many people enjoy the values of a river canyon from the canyon rim. Extension of the boundaries to include a full-quarter mile will meet the policy objective of the wild and scenic rivers system, which is to preserve free-flowing rivers and their adjacent landscapes. Eligibility determinations are required to reflect the resource values of the stream itself and the lands within the study boundary, arbitrarily narrowing, or even ignoring, the required corridor of streamside lands may exclude resource values that should be evaluated together with the values of the stream itself.

American Rivers appreciates the recognition that the corridor may be larger if necessary to preserve resource values, and we commend the planners recognition of this by expanding the corridor to include the canyon walls where they are greater than one-quarter mile from the river. Id.

Mr. Steve Knox
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3. Classification

American Rivers believes the classifications set forth in the "Classification Determination" of Appendix 5 are sensitive to the standards set forth in administrative directive.

112-3

However, we are deeply concerned with the proposal to arbitrarily "under-classify" various segments as is set forth in the "Formulation of Alternative." E.g., RMP at 236.

The Wild and Scenic Rivers Act provides that each component of the system shall be "administered in such a manner as to protect and enhance the values which caused it to be included in said system." Section 10(a); 16 U.S.C. section 1281(a). This section of the Act has been interpreted as stating a "nondegradation and enhancement policy for all designated river areas." See Interagency Guidelines, 47 Fed. Reg. 39454, 39458.

112-3

American Rivers is concerned that a number of river segments will be exposed to inappropriate levels of development due to improper classifications. The Plan includes several examples of "under-classification" that threaten to degrade and impair the values of eligible and suitable rivers pending Congressional consideration. Such "under-classification" is in plain violation of BLM policy which provides unequivocally that "[t]he potential classification of a river is based on the condition of the river and the adjacent lands as they exist at the time of the study." Guidelines, VIII.A.2.

For example, the plan documents that segment 2 of the Gila Box qualifies as "wild" based upon the current level of stream-side development. RMP at 235-36. There are no roads along this portion of the river. *Id.* Despite the current wild character of this segment, two alternatives would inexplicably establish a scenic classification for this segment. RMP at 236. There are several similar examples of such inappropriate classification throughout Appendix 5.

For the reasons stated above, the decision to "under-classify" a river segment is in contravention of BLM administrative policy and the directive of the Wild and Scenic Rivers Act for federal agencies to enhance and maintain outstandingly remarkable river values.

112-4

Further, the RMP contains no analysis of the adverse impacts of development which would be permitted in a wild but not a scenic classification. Such development could foreclose congressional designation of the river as a wild river.

Mr. Steve Knox
April 6, 1990
Page 7

Finally, the decision to "under-classify" merely to provide a range of alternatives fails to comply with the guidance for alternative classifications set forth in the Interagency Guidelines. See Interagency Guidelines, 47 Fed. Reg. at 38458. The Guidelines make plain that an analysis of alternative classifications is an unusual occurrence, and arises only on those occasions that there may be an "authorized but not yet constructed project[], which if constructed would alter the classification of the river area." *Id.* This very limited justification for analysis of alternative classifications is not the basis for the recommended range of alternative*.

4. Management Standards

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: "[T]he 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.

The Guidelines address in detail the scope of management prescriptions that should be adopted:

Specific management prescriptions for river corridor* 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 right*) 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).

Mr. Steve Knox
April 6, 1990
Page 8

Guidelines, IX, B., at 1-20.

112-5

The Safford RMP fails to include any specific prescriptions and thereby fails to comply with agency directive. The Draft Three Rivers RMP recently issued in Oregon contains management prescriptions that are consistent with the BLM Guidelines and will provide appropriate guidance to BLM and the public of those actions that are appropriate within the relevant river corridor. American Rivers suggests that the Safford planners consult with the Three Rivers planners on this issue.

5. Preferred Alternative and Suitability Determination

American Rivers is deeply concerned with the proposal to recommend only a 10.2 mile segment of Gila River as a recreational river for Congressional designation. RMP at 28, we believe that the Plan has failed to demonstrate that the other eligible river segments are not suitable. We strongly urge that the Safford Final RMP reexamine closely the suitability issue and recommend appropriate eligible river segments for Congressional designation.

The RMP documents that the Gila River and San Francisco River remain free-flowing and possesses outstandingly remarkable values and is therefore eligible for inclusion in the nation wild and scenic rivers system. The Final RMP should reexamine whether these rivers (and other eligible streams) are suitable for inclusion by Congress in the national wild and scenic river system. That decision necessarily requires a weighing of the relative public value of the streams as protected components of the national rivers system against the public values associated with other possible uses of the river. The Wild and Scenic Rivers Act mandates that inquiry and establishes a national policy that "certain selected rivers . . . be preserved in free-flowing condition, and . . . protected for the benefit and enjoyment of present and future generations." 16 U.S.C. section 1271 (emphasis added). The Act's policy of preservation of selected rivers balances the established national policy favoring dam and other development at appropriate sections of our nation's rivers. Id. The fundamental task that the BLM faces with respect to any potential wild and scenic river! therefore, is to balance properly the competing values of the RIVER if preserved OR developed.

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

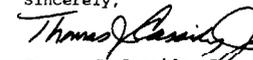
Mr. Steve Knox
April 6, 1990
Page 9

environmental analysis. Even where the BLM establishes relatively protective management prescriptions for a river area in its forest plan, 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.

Further, the Plan documents well the outstandingly remarkable values of the remaining free-flowing streams in the resource area. Several are unquestionably suitable for inclusion in the national rivers system. We urge the planners to reexamine this issue during the preparation of the Final RMP.

We trust these comments are helpful during the Resource Management Plan process. We look forward to participating further in the RMP process. If you have any questions concerning any of the matters set forth above, please do not hesitate to communicate with me.

Sincerely,



Thomas J. Cassidy,
Public Lands Counsel

cc: Gary Marsh

113

THE ILLINOIS DESERT TORTOISE COUNCIL



March 30, 1990

Mr. Ray A. Brady, District Manager
Safford District Office
Bureau of Land Management
425 E. 4th Street
Safford, Arizona 85546

Mr. Brady:

RECEIVED
BUREAU OF LAND MANAGEMENT

APR 9 1990

SAFFORD DISTRICT

OFF. NO.	ACTION	INITIALS	DATE
P.L.G.			
P.A.E.C.			
RESC. MGT.			
ADM.			
OPERS.			
FILE			
RECORDS			

cc'd to [unclear]
de made for file

Mr. Ray A. Brady

-2-

March 30, 1990

- 113-1 The Desert Tortoise Council has reviewed the draft Safford RMP. We have limited most review directly to the desert tortoise. The Desert Tortoise Council stands very disappointed at what is contained in this document, or rather what is not in this document. With this introduction, we trust you will understand the adversarial and severely disappointed tone this comment letter takes. As regards the BLM's commitment toward management of desert tortoise habitat, Safford BLM seems content to stock this document with wordage having nothing to do with your own agency's Management of Desert Tortoise Habitat on Public Lands: A Rangewide Plan. This plan has been in existence for two years and the Safford Office has had sufficient time to prepare for dealing with the desert tortoise issue. Essentially, it appears the Safford Office does not regard the "Rangewide Plan" plan as real nor does it feel obligated to carry out the objectives and management actions detailed in the plan as a serious necessity.
- 113-2 We read the Rangewide Plan and the Supplemental Wildlife Program Guidance for Planning as requiring goals, objectives, prescriptions, descriptions of resources and their extent, conflicts, habitat opportunities for expansion, maintenance, or improvement for priority species. About the only thing positive this document does is identify the desert tortoise as a priority species (page 30). Then the tortoise and many other "priority species" are dropped from subsequent consideration. Other items required in BLM Supplemental Program Guidance for Planning and the Rangewide Plan are disregarded.
- 113-3 We have been informed time and again for years that the Safford District has been performing desert tortoise "inventories". Quite a bit of effort, we've been led to believe. Yet the draft RMP proposes to do more INVENTORY (page 31)! On 29,000 acres? This is absolutely ridiculous! How much habitat does Safford District have compared to other BLM offices? Surely not that much.
- 113-4

- 113-4 We submit that if Safford District must spend two more years after that already spent with inventory to categorize a small amount of habitat, it has wasted a great deal of the taxpayers' money in the meantime. Additionally, the draft proposes to categorize the habitat two years from now! The "Rangewide Plan" says that RMP documents (land use plans) are where categorization will be made and largely how the Rangewide Plan will be implemented. How would Safford District propose to formally categorize habitat outside this land use plan? We hereby demand that BLM incorporate the "Rangewide Plan" in this draft RMP and stop beating around the bush. How otherwise does Safford BLM propose to implement the "Rangewide Plan", please specify?
- 113-5 The areas identified in #14 on page 31 are too small to harbor viable populations of desert tortoises. Are they contiguous with other lands? Whose lands? What is BLM's analysis of these populations?
- Where are the maps of the proposed interim Category 3 and Category 2 areas?
- 113-6 The alternatives seem poorly described and we can see little clear difference between them.
- Management Concern 1 (wildlife) does not appear different between the so-called Alternatives. In fact, Alternative D (No action), page 80, has more actions for wildlife than the other alternatives. Since the other alternatives really do nothing with respect to the desert tortoise, we recommend Alternative D for implementation, as no action would seem more appropriate than doing more of the same, which has been either a lot of nothing or not a lot of anything. If the tortoise and its habitat are significant, manageable resources in the Safford District, BLM should take decisive actions in the RMP. Otherwise, other BLM offices may make better use of the taxpayers' money, and Safford should get on with other resource management activities.
- Page 159. Environmental Consequences. This is the worst section we have seen in any BLM EIS. The consequences for wildlife are extremely vague, without described cause-effect relationships nor with supporting documentation, that they are meaningless and do not significantly vary between alternatives. In fact, this supports the feeling expressed earlier that the alternatives are not significantly different from each other. There is no wide range of alternatives listed described in this document. The Consequences section is so bad that the following atrocious quote from page 163, last paragraph, represents the entire chapter: "Disposal of public lands would result in low impacts to wildlife habitat since the land would no longer be under BLM management". Now that is a circular impact description if we ever heard one!
- 113-7 There is no way to tell in this document whether under any alternative BLM would plan on disposing or acquiring desert tortoise habitat. In addition, the desert tortoise is not mentioned in the Environmental Consequences section.

115

April 7, 1990

Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Dear Steve Knox:

Grazing of cattle can no longer be ignored as a harmless industry. It is responsible for the desertification of Arizona. Please hear our plea. Our precious scarce resources are deminishing day by day. Encourage the keeping of cattle from the riparian zones in the Safford district. Alternative "B" is the most sensitive to environmental issues. We want cattle off our public lands not only for the sake of the wild animals which are destroyed each year by the ranchers but for the water shed which suffers, depleting the aqua fur. Now is the time to act. The greenhouse effect is upon us. We must work toward reforestation of the land. This can never be accomplished if private industry is allowed to cause the desert to become a wasteland.

Thank you for listening to the concerns of those who love this state and those who wish to preserve its beauty and usefulness for our children and theirs.

Sincerely,


Pratima McDonald, M.A.
1342 N. Camino Miraflores
Tucson, AZ 85745

1

116

FLYING U W RANCH
P.O. BOX 689
FLORENCE, ARIZONA 85232

April 1, 1990

Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 05546

Dear Mr. Knox:

Ye hare studied the draft Safford District Resource Management Plan and Environmental Impact Statement and also attended your open house comment session. We have several comments to offer for your consideration. Although our feelings are pretty much the same for the whole Safford district. we would like to address our comments primarily to the areas within and surrounding the Aravaipa Wilderness.

After considering all the proposed alternatives, we probably favor Alternative D, but with several important exceptions.

First, and perhaps foremost, we strongly oppose the opening of any new areas to OHV use, whether restricted or unlimited. Such use would be extremely detrimental to the primary resource, the soil and water, causing increased erosion, a degradation of water quality in the creek and adjacent springs, and the destruction of vegetation. AS we all know, increased access will draw more users rho are less conscientious about littering and abiding by rules and laws. with no or inadequate provisions being made for enforcement



and supervision, these fragile areas will be ruined. Increased OHV use will seriously affect the adjacent private land owners who already are forced to cope with the ever-increasing burden that recreational use incurs.

Ye also object to any attempts to reintroduce beaver into Aravaipa Wilderness. This could cause an increased potential for damage and problems to downstream property owners and water users. As far as we know, there is no study to indicate what effect beaver may have on the endangered fish species in the creek. Beaver just might help to provide a more favorable habitat for the exotic species that have already invaded some areas.

Ye oppose BLM's acquisition of the 680 acres of private lands on the east and rest ends of Aravaipa Wilderness. Such an acquisition will only give BLM more freedom to increase recreational use in the area. attracting more visitors. Such use will force Pinal and Graham counties to spend more on road improvements putting a greater tax burden on these counties' citizens.

Since we oppose increased recreation in the area, we naturally oppose BLM's development of an "activity plan" for the use and acquisition of lands adjacent to Aravaipa Wilderness. A human daily "carrying capacity" for AWhas already been set. How do you propose to solve the problems that will be created by the greater numbers of visitors to the area?

One thing that was suggested at your open house at the Central Arizona College Aravaipa Campus was the possibility that BLM may be considering acquiring lands along the San Pedro

116-1

river between Winkelman and Benson to be turned into a special recreational use and wildlife area. Ye vehemently oppose this. The San Pedro is vital to the agricultural interests of Pinal county. Removal of these lands from county tax roles would place a further burden on an already economically depressed county. There already exists enormous problems with the public on the adjacent lands. We don't need any more. Also, it just doesn't make sense for BLM to reacquire lands it has traded away in the past.

Finally, perhaps our gravest concerns are with BLM itself. We are very concerned by BLM's lack of concern for the private land owners adjacent to BLM controlled lands. Also, like so many other land managing agencies, BLM makes no provisiona for enforcement and supervision of the increased numbers of users it attracts. The policies BLM is embracing are like a cancerous growth. There seems to be no end to the lands you attempt to acquire and control. BLM's main emphasis is on recreation and public use and access. BLM is speeding away from production and management of our public lands and at the same time building its own gigantic bureaucracy. Such policies are very dangerous, not only for the local people involved, but for the well-being of our nation.

We hope you will give consideration to our concerns. Thank you for your attention.

Sincerely,
Walter Meyer
Francie Meyer
Walter and Francie Meyer

117

College of Medicine
Department of Anatomy

THE UNIVERSITY OF
ARIZONA
HEALTH SCIENCES CENTER

Tucson, Arizona 85724
(602) 626-6084 or 626-6655

April 5, 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E 5th Street
Safford, AZ 85546

Dear Mr. Knox,

In recent years I have often heard of problems that relate to the Eagle Creek Bat Cave and I am writing to express my sincere concerns about its preservation. Some of its value as a wildlife resource has already been lost irreparably and we need to do all that is possible to preserve this unique place.

Late in the 1950's and on into the 60's, I was part of a group which made annual trips to the Eagle Creek Cave to study the population dynamics of the Mexican free-tailed bat colony that uses the cave as a "maternity ward." To observe the daily flights of the millions of pregnant or lactating females to their feeding sites in the Gila drainage was a sight to behold! I realize that for many reasons the bat populations at Eagle Creek have fallen considerably and this is all the more reason to pay more attention to the factors that might be harmful to the colony. These bats need to be protected.

117-1 | It would seem to me that a locked gate to the area would be almost a necessity. The idea of frequently posted conservation notices could also be helpful. I would strongly support the idea of prohibiting fire arms discharge within a 1/4 mile circumference of the cave.

I hope that these comments will be helpful in the determination of measures to protect the Eagle Creek bat cave.

Sincerely,



Joseph T. Bagnara, Ph.D.
Professor

JTB/dd

118

INDIANA BAT/GRAY BAT RECOVERY TEAM



C/O Richard L. Clawson
Missouri Department of Conservation
1110 S. College Ave.
Columbia, MO 65201
6 April 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th St.
Safford, AZ 85546

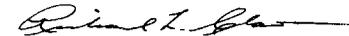
Dear Mr. Knox:

I recently have learned that BLM is considering protection for the Eagle Creek Cave population of *Ladarida brasiliensis*. In response to the request for public input, I would like to support efforts to protect Eagle Creek Cave as an Area of Critical Environmental Concern.

118-1 | Data collected by Dr. Don Wilson of the U.S. Fish and Wildlife Service indicate that vandalism is a major cause of decline of the bat population. In light of this, Alternative B, to protect the entire Eagle Creek canyon, would make control of access to the cave much easier. Construction of an effective gate in the entrance to the cave also should be considered. The Recovery Team would be pleased to offer advice regarding gate design. In addition, the Team recommends signing of all bat caves with an appropriate conservation message, so that the public will be informed of the reasons for protective measures instituted on behalf of bats.

Thank you for the opportunity to comment on this important matter. If I may be of further assistance, please do not hesitate to contact me.

Sincerely,



Richard L. Clawson
Team Leader

119

12 April 1990

4500 W. Speedway
Tucson, AZ 85745

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th St.
Safford, AZ 85546

Dear Mr. Knox,

This letter is in reference to the Safford District RMP and associated EIS. I wish to make two points in this letter. One is that everything possible should be done to further statutory protection of the Gila Box canyon. At present there seems to be movement toward a National Conservation Area designation for the priceless riparian zone, and I ask that the BLM do everything in its power to support this protection.

The second point I wish to make is that the Eagle Creek Bat Cave ACEC is a vital resource that is deserving of all the protection that can practically be applied. Towards that end I believe that it is desirable to acquire more of the land around the cave entrance and to enforce all possible protections against unnecessary harassment of the bats. By now there is a well developed methodology for gating cave entrances so as to exclude unqualified humans without impairing the cave environment for the bats. This should be done at the earliest possible opportunity. Part of management of this cave should also be an education campaign aimed at minimizing harassment of the bats. Additionally, a monitoring effort should be initiated to quantify the current rate at which the bats are disturbed. If it can be shown that the degree of solitude afforded the bats is sufficient for their needs, the BLM will be in a lot better position to justify only a small ACEC around the cave entrance. In the Safford RMP is an alternative (B) that maximizes protection of the cave resource through additional acquisition and protection of the canyon. While it may not be within the financial resources of the BLM to acquire the entire 3160 acres in timely fashion, it should be a land management objective to acquire whatever lands are needed for maximal protection of this unique and irreplaceable cave environment. The Preferred Alternative does not apparently do this.

Please note my support for full protection of the riparian and cave resources of the District, especially the Gila Box and the Eagle Creek Bat Cave ACEC.

Sincerely,

Gordon Rodda

119-1

120



United States Department of the Interior

BUREAU OF RECLAMATION
LOWER COLORADO REGIONAL OFFICE
P.O. BOX 427
BOULDER CITY, NEVADA 89005



IN REPLY
REFER TO:
LC-159
ENV-6.00

APR 12 1990

Memorandum

To: Mr. Ray A. Brady, District Manager, Safford District Office, Bureau of Land Management, Attention: RMP Team Leader, Mr. Steve Knox, 425 E. 4th Street, Safford AZ 85546

From: Regional Environmental Officer

Subject: Review of Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for the Safford District in Arizona (Your Letter of January 1990) (Environmental Impact Statement)

We have reviewed the draft RMP/EIS and have the following comments to offer.

Specific Comments

In the "Environmental Consequences" summary (page iii), it is stated that management of "Areas of Critical Environmental Concern" (ACEC) under "Alternative A" would provide high benefits to riparian vegetation, while ACEC management under "Alternative B" would provide moderate benefits to riparian vegetation. This appears to be conflicting since "Alternative B" proposes more intense management of significantly larger riparian areas than are recommended under "Alternative A" (the agency preferred alternative), which emphasizes multiple use and is subsequently less protective of ACEC's, riparian areas, etc.

General Comments

We find no mention in this document of the Bureau of Reclamation's (Reclamation) withdrawn lands within the Safford District. Public Land Order (PLO) 5269, dated October 11, 1972 (copy enclosed), withdrew 1,988.63 acres in Cochise County, Arizona, for the Central Arizona Project's proposed Charleston Dam and Reservoir. Enclosed is a map showing the location of the land withdrawn by this PLO.

Since the withdrawal, subsequent memoranda have been exchanged between the Bureau of Land Management (BLM) and Reclamation regarding withdrawal reviews, rejustification, requests from BLM, and Reclamation's request for the continuance of the withdrawal. A meeting was held on June 25, 1985, between BLM and Reclamation and it was agreed that Reclamation would reevaluate its need to retain all the land. BLM indicated a willingness to accept Reclamation's request for modification and continuation of the PLO, provided Reclamation would consider the release of any land not essential to the project, particularly those parcels which would not be subject to inundation by the reservoir.

120-1

On January 16, 1986, a memorandum (copy enclosed) was sent to the State Director, Arizona State Office, BLM, indicating that Reclamation had reevaluated and determined that certain lands could be relinquished and that the withdrawal review report be amended to delete 592.75 acres.

However, due to the National Wildlife Federation lawsuit, BLM has been unable to revoke any part of the lands and, therefore, all the lands are still carried on Reclamation records.

If you have any questions, please call Ms. Mary Laswell at FTS 598-7710.

William E. Rine

Enclosures 3

72 17897

UNITED STATES
DEPARTMENT OF THE INTERIOR
CODE OF FEDERAL REGULATIONS
TITLE 43--PUBLIC LANDS: INTERIOR
CHAPTER II--BUREAU OF LAND MANAGEMENT
APPENDIX--PUBLIC LAND ORDERS

PUBLIC LAND ORDER 5269

(Arizona 822. 3753)

ARIZONA

WITHDRAWAL FOR PROPOSED RECLAMATION PROJECT

By virtue of the authority contained in section 3 of the Act of June 17, 1902. 32 Stat. -388, as amended and supplemented, 43 U.S.C. 8416 (1970), it is ordered as follows:

Subject to valid existing rights, and to the provisions of existing withdrawals, the following described public lands which are under the jurisdiction of the Secretary of the Interior are hereby withdrawn from all forms of appropriation under the public land laws, including the mining laws (30 U.S.C., Ch. 2), but not from leasing under the mineral leasing laws, and reserved for the proposed Charleston Dam and Reservoir, Central Arizona Project:

Gila and Salt River Meridian

- T. 21 S., R. 21 E.,
sec. 1, lots 1 to 4, incl.;
sec. 12, lots 1, 2, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, S $\frac{1}{4}$ NE $\frac{1}{4}$.
- T. 21 S., R. 22 E.,
sec. 5. lots 1, 2, S $\frac{1}{2}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$;
sec. 6. lots 3 to 9, incl., SE $\frac{1}{4}$ SW $\frac{1}{4}$, excluding
Mineral Patents 6967, 8968, 6969, 14930;
sec. 7. lots 1, 2, N $\frac{1}{2}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$;
sec. 9. S $\frac{1}{2}$ NW $\frac{1}{4}$;
sec. 33. lot 1, NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$.

T. 22 S., R. 22 E.,
sec. 4, lot 11, lots 23 to 33, incl.,
lots 36, 39, 40, 45, 46, so. 57, 59, 62, 63,
lots 67 to 70, incl.,
lots 72, 73, 76, 77,
lots 82 to 85, incl.,
lots 87 to 90, incl.,
lots 93 to 103, incl.;
sec. 9, lots 1 to 4, incl., E_{1/2}NE_{1/4}.

The areas described aggregate 1,988.63 acres in Cochise County.

Portions of the lands are affected by Powersite Classification
No. 438, as established by the Departmental Order of November 16, 1956.

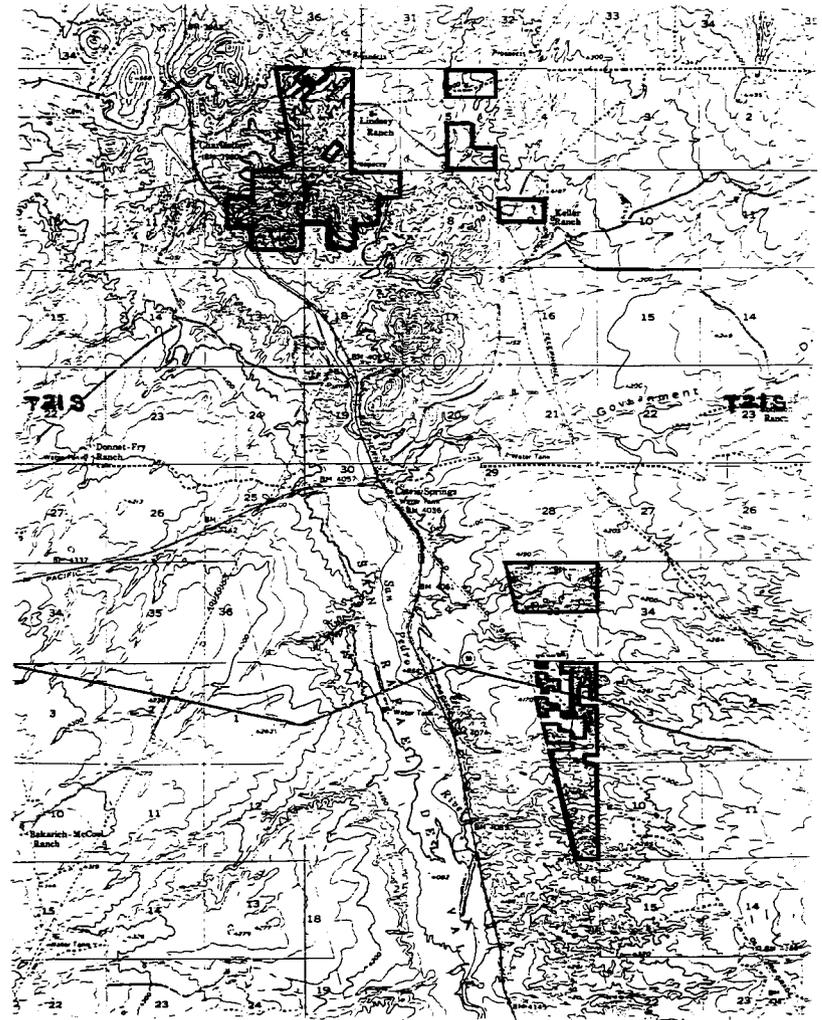
Harrison Loesch

Assistant Secretary of the Interior

OCT 11 1972

Certified to be a true copy of the original:

Edward J. Lawrence
CARBON COPY OFFICER



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GRAHAM COUNTY BOARD OF SUPERVISORS
GRAHAM COUNTY COURTHOUSE 800 MAIN STREET PHONE 428-3250
SAFFORD, ARIZONA 85546

SUPERVISORS
DELBERT HOUSEHOLDER, CHAIRMAN
REX BARNEY, MEMBER
MILTON REAY, MEMBER

JOE CARTER, COUNTY MANAGER
BARBARA FELIX, CLERK

April 16, 1990

Ray Brady
District Manager
Bureau of Land Management
425 E. 4th St.
Safford, Arizona 85546

RE: Draft BLM Management Plan

Dear Mr. Brady: *RAY*

Enclosed for your consideration is a copy of Resolution 1990-10 outlining the Board's position with respect to the removal of grazing acreage. Please consider this position as the Board's comment in this matter.

Sincerely,

Joe
Joe Carter, Manager
Graham County

/sh

AN EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION EMPLOYER

RESOLUTION

1990-10

A RESOLUTION OF THE GRAHAM COUNTY BOARD OF SUPERVISORS IN OPPOSITION TO THE BUREAU OF LAND MANAGEMENT PROPOSAL TO WITHDRAW ADDITIONAL GRAZING LAND ACREAGE.

WHEREAS, the economic survival of rural counties and communities is dependent upon private lands as its primary tax base, and

WHEREAS, private lands within Graham County consist of less than seven percent of total land ownership, and

WHEREAS, a substantial portion of tax revenues are derived from personal property taxation on livestock, etc. on public lands, and

WHEREAS, the proposed Bureau of Land Management draft plan, preferred alternative, calls for the additional withdrawal of twenty-three thousand acres (Swamp Spring/Hot Spring area) from possible future use for livestock grazing, and

WHEREAS, such withdrawals create financial hardships on retail trades and sales, businesses which support ranching, along with additional hardships on local governments in meeting their responsibilities to provide minimum basic services.

NOW THEREFORE BE IT RESOLVED, that the Graham County Board of Supervisors is opposed to any additional withdrawal of land which has a direct negative impact on taxation.

PASSED AND ADOPTED by the Board of Supervisors of Graham County this 16th day of April, 1990.

GRAHAM COUNTY BOARD OF SUPERVISORS

Delbert Householder
Delbert Householder, Chairman

ATTEST:

Barbara Felix
Barbara Felix, Board Clerk

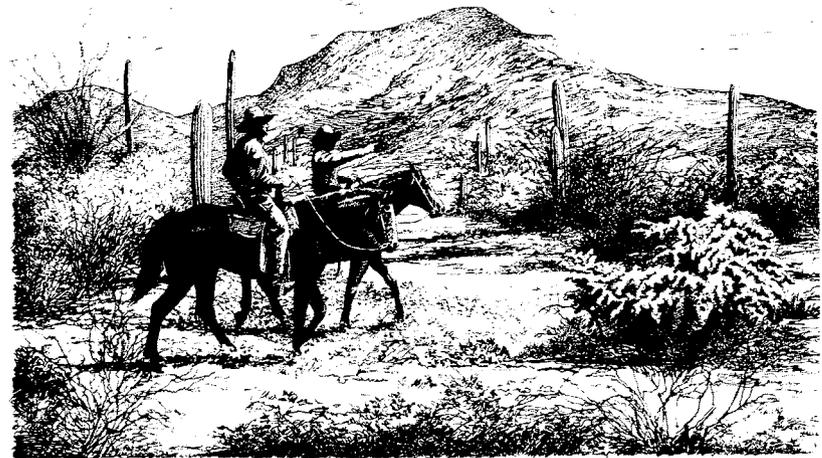
PETITION

TO: Bureau of Land Management
U.S. Department of the Interior
425 E. 4th Street
Safford, AZ 85546

RE: Safford District Resource
Management Plan and
Environmental Impact Statement
(RMP/EIS)

THIS PETITION is in regard to the use of the high country above Aravaipa Canyon. We request that you do not open the road across Virgus Canyon. The area west of Virgus should be open to equestrian and foot travel only. At present, there are many 4-wheel drive roads in the Turkey Creek-Table Mountain area. There is a need for equestrian trails outside of the Aravaipa Creek itself and horses and ORVs are a dangerous combination.

NAME	ADDRESS		DATE
Patricia A. Reiss	2120 N. Fair Oaks	Tucson AZ 85712	4/4/90
Dick G. Kovich	5325 E. Hawthorne	Tucson AZ 85711	4-4-90
Nancy Costanza	6924 N. Northpoint Dr.	Tucson AZ 85741	4-4-90
Emily Oyler	129 E. 1st St	Tucson, AZ 85705	4-4-90
Dr. Weston	416 E. Lester St	Tucson, AZ 85705	4-4-90
Tom T. Smith	221 E. Wacker St	Tucson AZ 85719	4-4-90
Lisa L. Howard	2350 E. Wacker #C-206	Tucson AZ 85719	040490
Karen Josephson	3244 C Coda St	Tucson AZ 85716	4-5-90
Patricia Quatman	3810 W. Mossman Rd	Tucson AZ 85746	4-5-90
Jonna Casella	8220 E. Kanyon Dr.	Tucson AZ 85710	4/5/90
Trina Stroud	1 E River Rd #1910	Tucson AZ 85704	4/5/90
Morteza Nabfereesh	1901 N. Wilmet #1097	Tucson, AZ 85712	4-5-90
Marysac T. Yaku	8221 E. 6th Street	Tucson, AZ 85719	4-5-90
Sonia Smith	2724 E. LINDEN	TUCSON, AZ 85716	4-5-90
GERONIMO RODRIGUEZ	1231 E. ILLINOIS ST	TUCSON, AZ. 85714	4-5-90
David Smith	5321 E. LINDEN	Tucson, AZ 85716	4/5/90
Virginia Spillney	1301 N. Euclid Ave	Tucson, AZ 85719	4/5/90
PRABASH NIK AGRA	6161 E Grant # 937	TUCSON AZ 85712	4/5/90
Joe Yip	7424 E. Speedway Gr	Tucson AZ 85710	4/5/90
Falki Parker	7361 E. 24th St	Tucson, AZ 85710	4/5/90
C. J. Jupp	525 N Euclid #126	Tucson, AZ 85719	5Apr90



123

THE SAN CARLOS APACHE TRIBE

P.O. BOX 0
SAN CARLOS, ARIZONA 85550



(602) 475-2361

Buck Kitcheyan
Tribal Chairman
Ronald Edwards
Tribal Vice Chairman

April 18, 1990

Mr. Ray A. Brady, Safford District Manager
Bureau of Land Management
Safford District
425 R. 4th Street
Safford, AZ 85546

Dear Mr. Brady;

I have a growing concern that your office does not have an adequate understanding of the Federal/Indian trust relationship, th. BLM's responsibility stemming from this relationship, and how this responsibility relates to the Safford District Resource Management Plan (RMP). This concern is based upon the presentation by your staff and subsequent discussion of the draft RMP before the Natural Resources Committee of the San Carlo. Apache Tribe. As discussed in my previous letter, the trust relationship is government-to-government and is not the sole domain of the Bureau of India" Affair.. It 1. the Department of th. Interior which is charged with th. responsibility of upholding this trust, including th. Bureau of Land Management where its management affects the fiduciary responsibility of the Federal government toward trust land. and resources of Native Americans. As this relationship is complex and oft." poorly understood by agencies inexperienced 1" this field, I ha". enclosed a packet of documentation on this topic for your review.

The first two documents are from a Federal District court case in which the Northern Cheyenne Trib. sought a judicial review of the the Bureau of Land Management's trust responsibilities. The finding. 1" this case clearly

indicate that the trust responsibility of th. Federal government is also born. by th. Bureau of Land Management.

The third and fourth documents state th. position of the Secretary of the Interior. In Secretary Lujan's speech before the Senate Select Committee ON Indian Affairs he stated that th. Federal trust responsibility to Indians was the Department's "most serious responsibility." He restated this commitment in hi. memorandum to all th. Department bureaus by requesting the consideration of the trust responsibility when conducting all program operations.

Th. final document was distributed (during a recent intertribal symposium) by Mr. Michael J. Penfold, Assistant Director, Land & Renewable Resources, Bureau of Land Management, during . presentation on "Cooperative Opportunities for Natural Resources." It is an advance copy OF BLM manual 8160, "Native American Coordination and Consultation." This document gives clear direction to District and Area Managers, as well as to staff, concerning their responsibility for identifying and fully considering Native American issues during th. planning processes.

I believe that you will find the.. documents informative and a good starting point for further research into a quickly evolving policy within your agency.

Sincerely,

Buck Kitcheyan, Chairman
San Carlos Apache Tribe

cc: Mr. Wilson Barber, Phoenix Area Director, RIA
Mr. All." Anepach, Superintendent, se" Carlos Agency. BIA
Mr. Lynn Engdahl, Acting Arizona Stat. Director, BLM

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HUACHUCA AUDUBON SOCIETY

POST OFFICE BOX 63 SIERRA VISTA, ARIZONA 85636

1 May 1990

U.S. Department of the Interior
Bureau of Land Management
Safford District Office
425 E. 4th Street
Safford, AZ. 85546

Dear Steve Knox:

On behalf of the 300-member Huachuca Audubon Society, I would like to thank the Bureau of Land Management for this opportunity to make comment on the Draft Resource Management Plan **EIS** for the Safford District. Our previous efforts on the San Pedro River management plan proved to be quite rewarding, and we are looking forward to having similar satisfaction with this District Plan.

To begin with, we basically support Alternative A, but would like to see modifications on the following concerns:

Issue 1. Access: Any road access in riparian areas should run parallel to stream flow and not in it. All crossings through riparian areas should be at right angles to stream flow, thereby keeping people from driving up and down the stream. Close off or avoid developing any switchback road access in all riparian areas. The following roads should be moved out of riparian areas: Virgus Canyon Road, left fork of Markham Creek Road, and Guadalupe Canyon Road.

Issue 2. ACEC's: We support Alternative B's Issue 2. All ACEC's should have class I **VPM designation**, and all new land acquisitions should be considered for ACEC designation. We also support NCA status for the Gila Box.

Issue 3. Off-Highway Vehicles: We support Alternative A, but suggest the following additions: **Seasonal** closures during nesting or breeding seasons in all sensitive areas for wildlife, for example near riparian areas.

Issue 4. Riparian Areas: The Bureau should consider

Issue 4. Riparian Areas con't:

establishing a buffer zone around all ACEC's, NCA's, and riparian areas where Animal Damage Control (ADC) efforts would be prohibited. To allow ADC to trap next to these protected areas would have a negative impact on the resources these areas were established to protect. We would also like more emphasis put on management of T & E species in riparian areas and less on livestock grazing. We congratulate the removal of cows from the San Pedro Riparian National Conservation Area and encourage the same policy in the following riparian habitat: Muleshoe, Aravaipa, Bonita Creek, San Francisco River Area, Gila Box, Gila River Area, Apache Box, Turkey Creek, Guadalupe Canyon, and other significant riparian areas in the Safford District. We also encourage no Administration site development on the San Pedro Riparian National Conservation Area, but, rather, would support a site development in Sierra Vista.

Management concern 2. Lands and Reality: We support Alternative B. The Swisshelm Mt. area, Portal area, and other sky islands serving as wildlife corridors should not be traded off for any less valuable lands for wildlife. Any land exchanges should be carefully assessed as to their impacts on wildlife, including migration routes.

Management concern 4. Energy and Minerals: We support Alternative B because it provides greater protection to sensitive areas from mining disturbance.

Management concern 6. Soil Erosion: We encourage building The Timber Draw Dam on the San Simon River because it would greatly reduce soil erosion and improve riparian habitat. We also encourage livestock removal from this area to facilitate vegetation regrowth.

We strongly urge you to incorporate our comments into the final Safford District RMP Plan, and we thank you for your consideration.

Sincerely,

Marty Cordano
Marty Cordano
President

124-1

125

Ken Cox, Sr.

CUSTOM MADE JEWELRY BY APPOINTMENT ONLY

1383 S. 1st Avenue
PHONE (602) 428 6980
THATCHER, ARIZONA 85552

May 6, 1990

Mr. Brady
Safford District - B.L.M.

425 East 4th Street
Safford, Az. 05546

Subject: District Management Plan

Dear Mr. Brady:

125-1

As an active member of our local gem and mineral club and the Graham County Chamber of Commerce, I would like to propose that you include in your new management plan a plan for ripping up (by bulldozer and ripper) a trial plot of one or two acres at the Black Hills fire agate bed and at the Mound Mountain fire agate bed. This would facilitate the finding of more and better material by the public; as these areas have been picked over for many years. I have in mind a process that is similar to the one used by the state of Arkansas at their diamond mine at Murphreesboro Ark. This could be accomplished at very little (or perhaps no) cost to the Bureau of Land Management by donations of machinery and labor by the Graham County Chamber of Commerce.

125-2

I would also like to propose that another public rocknound area be established near the Graham - Greenlee County line along highway 70 east of Safford.

I have walked over a portion of that ground with two men from your office and they were impressed to say the least. Small geodes, agate nodules, and quartz crystals are quite plentiful over a wide area there. As rocknounding is growing quite rapidly it would be a boon to the area, and it would be very good public relations for the B.L.M.

You could also count on cooperation from the Gila Valley Gem and Mineral Society in the form of helping police the area, as well as building bases for trash barrels and, perhaps collecting and emptying the trash containers.

I will greatly appreciate any help you could give to this matter.

Respectfully,

Kenneth D. Cox Sr.
Kenneth D. Cox Sr.

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COCHISE-GRAHAM CATTLE GROWERS' ASSOCIATION

RESOLUTION

1990-

WHEREAS, the economic survival of each rural community and county in the state depends on private Property as a tax base: and

WHEREAS, further taxes for rural counties and communities are derived from personal property tax on livestock: and.

WHEREAS, the current Bureau of Land Management Resource Management Plan Draft <preferred alternative> proposes to withdraw 22,883 acres from any possibility of future use by livestock grazing, thus impairing and reducing the tax base of Graham and Cochise Counties: and.

WHEREAS, the current plan specifically states that private lands are to be acquired from time to time for various reasons which further would reduce the tax base.

THEREFORE, BE IT RESOLVED, the Cochise-Graham Cattle Growers' Association is opposed to the current proposed Resource Management Plan to withdraw grazing rights on Swamp-Springs-Hot Springs watershed Area of Critical Environmental Concern, better known as the Muleshoe Allotment.

BE IT FURTHER RESOLVED, the Cochise-Graham Cattle Growers' Association is opposed to any accumulation of private or state lands by the federal government that would affect the tax base in Graham and Cochise Counties.

ADOPTED THIS 21st day of April, 1990 by unanimous vote of the members of the Cochise-Graham Cattle Growers' Association.

127

127-1

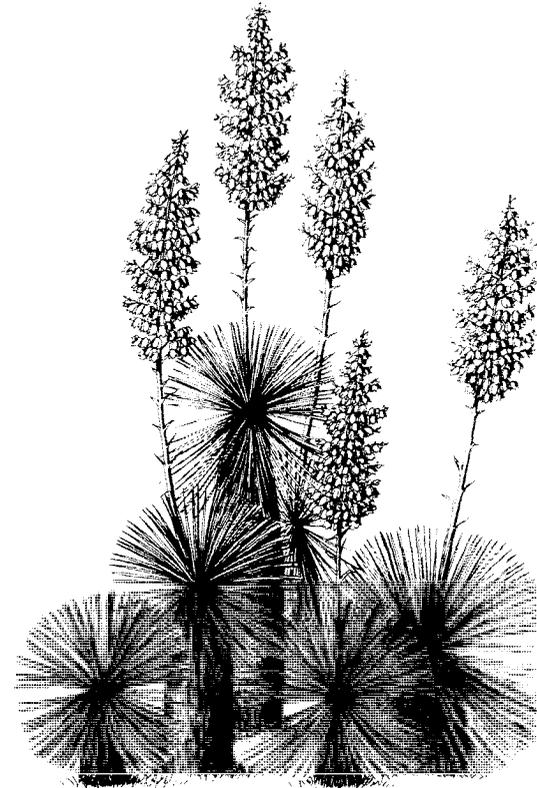
Dear Director Brady:

I would just like to take a minute of your time to express my concern on the issue of the Mexican Gray Wolf.

I would like to ask that the BLM please begin de-stocking wolf habitat in the Safford District so that wolf-cow conflicts can be avoided.

In a similar message to Coronado Supervisor Abbott, I asked him to please begin preparing the forest for the re-introduction of the wolf. I would urge you to please do the same so that these lands would be ready for the wolf at the appropriate time and thus avoid conflict with livestock.

I hope you can concur with me on the importance of this issue. Thank you,
Sincerely,
John Pampiani



128

District Manager
Stafford BLM
Stafford, AZ.

April 16, 1990

Dear District Manager:

I am writing out of frustration and I don't really think it will make any difference in the end. However, I once again visited the Stafford District and was appalled by the ecological damage done by livestock. I spent time in the Gila Box area including Eagle Creek, Bonita Creek, San Francisco River and the main river valley as well as on ridges. Everywhere there were beat out riparian areas. Little or no cottonwood reproduction. Dust. Sand. Trampled banks. Trampled vegetation. Cow shit everywhere. It's a disgrace. And for what?

And please spare me that crap about producing food for the Nation and all that BS. We both know that amount of meat produced on public lands is minisule. I know and I hope you know that in the Southwest the land would be much better without cows on it. And we really add up the ecological costs of grazing there would be no way to justify it.

How can you look yourself in the mirror knowing that you're supposed to be protecting the public trust and the public's land. Is this how you protect it? IS destroying riparian zone5 how you protect it? And please don't tell me that if the public would only chip in a little more you could build more fences and spread the range maggots out. How about getting the range maggots ranchers to pay for it all if they want to ruin the public's lands? Pay f o r all that fencing, stock ponds, and even the cost of administration of the grazing allotments in the first place?

I also went up to the Needle's Eye Wilderness in the Gila Mts. and some fat slob of a rancher blocked the road with his big gas guzzling cow shit smeared truck on the public road-- and he tried to tell me that it was his land. "You're on my range" he said. And I said; "funny I thought I was on public lands" and I got out my BLM map. But he knew his bluff was up and he said he didn't believe in maps.

The only wonderful thing about this trip is that I got to visit Aravaipa Canyon where there are no range maggots and it was absolutely wonderful. It lets a person see what that landscape is supposed to look out-- if you did the job you are paid to do. Instead of being a lanky to the livestock industry, the Gila Box, Bonita Creek, the San Francisco River-- they would all resemble Aravaipa Canyon in time.

Yes this letter is insulting. It's meant to be. For I am sick and tire of seeing the public trust compromised. I am tire of seeing the American landscape destroyed and the agency charged

1

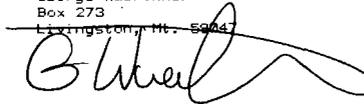
with protecting the American interest refusing to live up to their mandate.

Your recent Draft Management Plan refused to consider grazing even though one part of the district had not been reviewed in 12 years!! The law only says you have to consider grazing by domestic livestock (an alien species) as one potential use-- it's not imply that you have to graze livestock. And there are far too many places that should have no cows what so ever.

I doubt you'll bother to answer and that's fine. I just hope you feel guilty about taking your pay check home each week knowing that you allow this to happen.

Get the cows off and bring back the cottonwood.

George Wuerthner
Box 273
Livingston, Mt. 59047



129



May 10, 1990

Steve Knox
 US Dept. of the Interior
 BLM- Safford District Office
 425 E. 4th St.
 Safford AZ 85546

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 Megan Edwards
 Education
 Anthony B. Anthony
 Publicity
 Ken Smith
 Editor

Dear Sir:

The Maricopa Audubon Society and its 3000 members enthusiastically support Alternative A, but with the following suggestions:

Issue 1- Access: Any road access in riparian areas should run parallel to stream flow and not in it. All crossings through riparian areas should be at right angles to stream flow, thereby keeping people from driving up and down the stream. Close off or avoid developing switchbacks accessing riparian areas. Remove roads from riparian areas at Virgus Canyon Rd., left fork of Markham Creek Rd., and Guadalupe Canyon Rd.

Issue 2- Access: ACEC's: We support Alt. B's Issue 2. All ACEC's should have class I VRM designation, and all new land acquisitions should be considered for ACEC designation. Also we support National Conservation Area status for the Gila Box.

Issue 3- Off Hwy Vehicles: We support Alt. A, but suggest the following additions: Seasonal closures during nesting or breeding seasons in all sensitive areas for wildlife, for example near riparian areas.

129-1

Issue 4- Riparian Areas: Establish buffers around all ACEC's, NCA's, and riparian areas where Animal Damage Control efforts would be disallowed. Let us protect the wildlife in its more natural state in these environmentally important areas.

129-2

Threatened and Endangered species should have more emphasis and less emphasis on livestock grazing. Our membership finds the grazing removal in San Pedro riparian area a great leap forward in the protection of such ecologically sensitive desert riparian areas and hope this will occur at Muleshoe, Aravaipa, Bonita Creek, San Francisco River Area, Gila Box, Gila River Area, Apache Box, Turkey Creek, Guadalupe Canyon and other key riparian treasure troves in the Safford District. We also encourage no Administration site development on the San Pedro Riparian National Conservation Area, but rather, would support a site development in Sierra Vista.

DEDICATED TO THE PROTECTION OF NATURAL WETLANDS IN AN ARID ENVIRONMENT

2

Management Concern 2- Lands and Realty: We support alt. B. The Swisshelm Mt. area, and other sky islands serving as wildlife corridors should not be traded off for any less valuable lands for wildlife. Any land exchanges should be carefully assessed as to their impacts on wildlife, including migration routes.

Management Concern 4- Energy and Minerals: Alt. B is desirable because it provides greater protection to sensitive areas from mining disturbance.

Lastly, we encourage Timber Draw Dam to reduce soil erosion and improve riparian habitat. we encourage removal of livestock from this area to facilitate vegetation renewal.

Thank you for considering our recommendations for the final Safford District RMP Plan.

Sincerely,

Robert A. Witzeman
 Robert A. Witzeman, M.D., Conservation Chairperson
 MARICOPA AUDUBON SOCIETY

130

12 Marshall Street
Boston, Massachusetts
02108 (617) 523-2313
Fax (617) 523-2365
1-800-648-7695

Philip Y. DeNormandie

Nay 9, 1990

Mr. Ray A. Brady
District Manager
United States Department of the Interior
Bureau of Land Management
Safford District Office
425 E. 4th Street
Safford, Arizona 85546

Dear Mr. Brady:

As the owner of Trails End Ranch, The Painted Cave allotment and other properties in the RMP area I have the following concerns and suggestions.

The area north of the Aravaipa Canyon but South of the San Carlos India" Reservation is a long narrow property that drains into Aravaipa Creek. The area controlled by the BLM in this area is primarily The Painted Cave allotment owned by me and the Dry Camp allotment.

I have two means of access to The Painted Cave allotment, the primary one is through my Whittaker Property known as the Whittaker Ranch Road T6S R17E Sec. 17, 19, 20. Presently I allow vehicles over this road under a sign in sign out program totally at my descretion. Under no circumstances do I want unlimited and uncontrolled access by right. To date vandalism is minimal but trash continues to be a major problem also vehicles during wet periods do considerable damage to the roads. I also think vehicular access beyond The Painted Cave should be limited to ranch and BLM vehicles.

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Page Two

My second access is the Wagner Ranch Road T6S, R17E Sec. 23 and 24. This road is private, goes directly through my front yard, holding pens and ranch buildings and under no circumstances do I allow anyone other than BLM vehicles to travel over this road. Given my approach to the Wittaker Road NO one has see" any need to utilize this access and I see NO reason to open it to the public.

In general the area to the North of Aravaipa Canyon is extremely small and fragile and no roads should be opened up into this area beyond the limited access that presently exists. Hunting should be encouraged by foot or horseback and the same for hiking. This would greatly improve the enjoyment of this area for most of the people utilizing this small area while also protecting the environment for the small population of Desert Big Horn Sheep that traverses this area between Hell Hole and Bradenburg Mountain.

All opportunities for mining on the Dry Camp and Painted Cave allotment should be withkawn. This would assure protection of the Aravaipa drainage, protect the Big Horn Sheep terrain and assure the public of a continued unique environment that is extremely close to major mining operations at San Manuel, Winkelman and Dudleyville.

OHV's should not be allowed in this environmentally sensitive area, except with Landowner permission on the North Rim and all vehicles should be eliminated on South Rim property controlled by Nature Conservancy.

Grazing should be allowed under present permits on Painted Cave and Dry Camp. The cattle and sheep have gotten along successfully for many years. It is my understanding The Nature Conservancy wants to withdraw grazing on their leases which means grazing in the total Aravaipa Canyon area will be highly limited and its impact minimal.

Expansion of Wilderness: I have no objections to the expansion of the Wilderness area as proposed.

The Painted Cave homestead is a unique and historic property. The BLM should make sure that the lessee properly secures and maintains this property. The road down to Painted Cave should be kept lacked with only Ranch and BLM vehicular access.

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132

ARIZONA DESERT BIGHORN SHEEP SOCIETY, INC.
P.O. Box 5241 - Phoenix, Arizona 85010

May 20, 1990

Mr. Steve Knox
RMP Leader
Safford District
Bureau of Land Management
425 East 4th Street
Safford, Arizona 85546

Re: Draft Safford District Resource Management Plan
and Environmental Impact Statement

Dear Mr. Knox:

The Arizona Desert Bighorn Sheep Society, Inc (ADBSS) has reviewed the above referenced document. Please include the following comments as part of the official public record.

The primary concern of the ADBSS is the management and viability of desert bighorn sheep. Although we will address comments to the wildlife portion of the plan, we are interested in other portions because of their bearing on bighorn sheep management.

ISSUE 1 - ACCESS

ADBSS supports the preferred alternative action of obtaining public and administrative access to the public lands. We feel this is important for wildlife management functions as well as hunting.

We support obtaining legal access for those locations listed in Appendix 1 which provide access to bighorn sheep habitat.

We support the reconstruction of the Virgus Canyon Road and the East Turkey Creek Road to provide vehicle access for desert bighorn sheep management and hunting.

We support obtaining legal access for the Aravaipa Canyon Wilderness Trail from the west trailhead to the west boundary of the wilderness.

ARIZONA DESERT BIGHORN SHEEP SOCIETY, INC.
P.O. Box 5241 • Phoenix, Arizona 85010

ISSUE 2 - ACECs AND OTHER TYPES OF SPECIAL MANAGEMENT

The Gila Box ONA-ACEC, Turkey Creek Riparian ACEC, Swamp Springs Hot Springs Watershed ACEC and Peloncillo Mountains ONA-ACECs all list bighorn sheep as one of their values. One of the management prescriptions common to all of these is the limitation of off highway vehicle use. If limitations means closing existing roads and trails to vehicle use, we cannot support it.

Aravaipa Canyon and Galiuro Wilderness additions are recommended as suitable for inclusion in the National Wilderness Preservation System. ADBSS does not favor recommendation of or inclusion of these lands into wilderness classification unless certain specific language is contained in the legislation designating these areas as wilderness. The specific language we would request relates to use of minimum tools in the forms of aircraft, motor vehicles, and hand held power tools. This equipment is absolutely essential to conduct the activities necessary in modern wildlife management. These activities are surveys, captures, transplants, waterhole construction and maintenance, and scientific study. The language for both the Interim Wilderness Guidelines and Wilderness Policy leave too much discretion to the manager to interpret use of minimum tool.

ISSUE 3 - OFF HIGHWAY VEHICLES

ADBSS is concerned about proposed closure of Oak Grove Canyon, above the Oak Grove Canyon Corral, for closure to off highway vehicle use. We would prefer to see the closure changed to limited use.

We support designation of bighorn sheep lambing areas as "limited" to off highway vehicle use from May 1 to January 31, and closed to vehicle use from February 1 to April 30.

132-1

132-2

We are surprised at the recommendation to include mountain bikes and other forms of mechanized transportation with off highway vehicle designations. What is the basis for such an inclusion? Unless resource damage, such as soil erosion, can be attributed to mountain bikes, why should they be restricted?

ARIZONA DESERT BIGHORN SHEEP SOCIETY, INC.

P.O. Box 5241 • Phoenix, Arizona 85010

MANAGEMENT CONCERN 1 • WILDLIFE HABITAT

ADBSS supports the establishment of both Desert and Rocky Mountain bighorn sheep as priority species and their habitats as priority habitats.

Managing habitat for optimum wildlife populations based on ecological conditions is a laudable goal. We are not sure what "optimum wildlife populations" are. It is not defined in the glossary. We *do support* the concept of managing any wildlife species within the capabilities of the habitat.

ADBSS supports transplanting and augmenting populations of priority wildlife species, *if necessary*, to reach management objectives. Given the recent die off of bighorn sheep in Aravaipa Canyon, transplants could serve as important tools in sustaining a population which has fallen below its potential.

In designating ACECs for priority wildlife species attention should be paid to limiting off highway vehicle use. As we commented earlier, we would limit vehicle use to existing roads end trails rather than close these areas to vehicle use.

MANAGEMENT CONCERN 4 - ENERGY AND MINERALS

ADBSS supports conditions for energy and other leaseable minerals which would not allow surface occupancy in established bighorn sheep lambing areas from February 1 to April 30 each year.

Thank-you for the opportunity to comment on this plan.

Sincerely,


Peter Cimellaro, Chairman
ADBSS Legislation Committee

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Bat Conservation International, Inc.

Post Office Box 162603 • Austin, Texas 78716 • 512/327-9721

May 20, 1990

Founder and Executive Director
Dr. Merlin D. Tuttle

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U.S.S.R.
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West Germany
Dr. Uwe Schaudt

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Dear Mr. Knox:

Bat Conservation International was delighted to learn that BLM is interested in protecting Eagle Creek Cave and the remnant population of *Tadarida brasiliensis* that resides there. We are particularly concerned about this cave because in the early 1960's, it housed the world's largest known bat colony - approximately 30 million Mexican free-tailed bats. The 99.9% decline in this population in just six years is one of the most severe conservation losses in modern history. The loss exemplifies the high vulnerability of cave bat populations.

We would like to support the BLM efforts to protect and manage this important cave as an Area of Critical Environmental Concern. We strongly recommend *Alternative B* as described in the ACEC evaluations. This would facilitate controlling access to the cave as well as protecting other important natural and cultural resources of Eagle Creek Canyon.

We would also like to offer our assistance with BLM's efforts to protect this cave. BCI has worked with the U.S. Fish and Wildlife Service and The Nature Conservancy on their cave protection efforts. In particular, we would like to assist with the education and management endeavors. We have found that well-designed and informative conservation messages help gain public support, which is essential to the success of cave and bat protection projects.

Again, we applaud your efforts on behalf of Eagle Creek Cave. I've enclosed our recent prospectus, which may help with your negotiations to protect the cave. Please keep us posted about your progress and when we can be of further assistance, please do not hesitate to contact us.

Sincerely,


Gary L. Graham
Associate Science Director

132-3

134

WILLIAM S. ATLEE
Attorney at Law
3444 N. Country Club Rd.
Tucson, Arizona 85716
(602) 327-4787

May 24, 1990

Meg Jensen
Gila Resource Manager
Bureau of Land Management
425 E. Fourth Street
Safford, Arizona 85546

RE: RESOURCE MANAGEMENT PLAN--SOZA MESA

Dear Meg:

As I indicated in my telephone conversation, I was appointed as the successor conservator of the estate of Hope I. Jones and Letters of Conservatorship were issued to me on May 15, 1990. I am enclosing a copy of those Letters for reference purposes.

One of the assets of the conservatorship is the C-Spear Ranch. As you will recall, Johnny Lavin and I met with you and Bill Brandall at the ranch last summer to discuss the rock house located on C-Spear Ranch property in Redfield Canyon.

On Behalf of the C-Spear Ranch, we are definitely in support of a resource management plan which would result in the return of the Soza Mesa land to grazing land. Further, we would be interested in being the lessee of that land when it became available to lease, or we would also be interested in being the operator of such leased acreage.

We would appreciate it if you could take note of our interest in this land and keep us informed as or when any progress in this matter occurs.

Sincerely,

William S. Atlee

WILLIAM S. ATLEE

WSA/pa

cc: Johnny Lavin

ARIZONA SUPERIOR COURT, PIMA COUNTY

In the Matter of the Conservatorship of HOPE I. JONES,	NO. 35625 LETTERS AND ACCEPTANCE GUARDIANSHIP OF AN INCAPACITATED PERSON X CONSERVATORSHIP FOR A PROTECTED PERSON (SUCCESSOR) COURT APPOINTMENT	FILED JAMES N. CORBETT CLERK MAY 15 1990 P.M. 3:25
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ISSUANCE OF LETTERS

WILLIAM S. ATLEE is hereby appointed

guardian of the person of _____
an incapacitated person
(SUCCESSOR) X conservator of the estate of HOPE I. JONES,
a protected person

pursuant to Court Appointment, but shall not exercise the following powers without prior order of the Court: NO RESTRICTIONS

JAMES N. CORBETT

WITNESS: MAY 15, 1990

CLERK OF THE SUPERIOR COURT

By Donald E. Herking
Deputy Clerk

SEAL

ACCEPTANCE

STATE OF ARIZONA)
) SS:
COUNTY OF PIMA)

I hereby accept the duties of SUCCESSOR ~~conservator~~ conservator of the estate of the above-named protected person, and do solemnly swear that I will perform, according to law, such duties.

William S. Atlee
Conservator
WILLIAM S. ATLEE

SUBSCRIBED AND SWORN to before me on May 14, 1990

ATTORNEY'S NAME, ADDRESS, PHONE
Philip Hawley Smith
Jones, Edwards, Smith & Kofron
P. O. Box 13326
Tucson, Arizona 85732-3326
(602) 747-4500

STATE OF ARIZONA
COUNTY OF PIMA } ss
The foregoing instrument is a full,
true, and correct copy of the original
on file in this office. Letters
were issued on MAY 15
1990 and said letters have not been
revoked.

Holly S. McKeibin
Deputy Clerk/Notary Public
My Commission Expires: May 31, 1991

COMPUTER No. 53988

MAY 15 1990
JAMES N. CORBETT
CLERK

135

Steve Knox, RMP Team Leader
Bureau of Land Management
Safford, AZ 85546

my 23, 1990

Dear Mr. Knox:

The Bisbee Women's Action Group, which includes a network of approximately 200 people, wishes to express our interest in the Bureau of Land Management's Resource Management Plan.

We prefer Alternative "B" as it shows the most protection towards and the wisest use of the public lands.

The following is a list of suggestions to apply to the issues covering Alternative "B" or whichever alternative is selected.

135-1 | Issue 1, Access: Road access in Riparian Areas should run parallel to stream flow and not in it. Crossings through Riparian Areas should be at right angles to stream flow to prevent people from driving in the streams. Remove these roads from Riparian Areas: Virgus Canyon, Guadalupe Canyon and left fork of Markham Creek Road.

135-2 | Issue 2, ACEC's: All ACEC's should have Class I VRM designation. This affords more protection for these critical areas.

135-3 | Issue 3, OHV's: All sensitive and Riparian Areas should be closed completely to OHV use, or at least during nesting seasons.

135-4 | Issue 4, Riparian Areas: Establish a "buffer zone" around Riparian Areas, MCA's and ACEC's which prohibits Animal Damage Control. The use of ADC near such areas completely negates the protection of the resources that these areas were established to protect. Our group, and we believe the public in general, is outraged at the destruction of our wildlife caused by ADC.

(2)

Issue 4, continued: We congratulate you on the removal of livestock from the San Pedro and encourage the same policy for these areas: Muleshoe, Aravaipa, Bonita Creek, San Francisco River Area, Gila Box, Gila River Area, Apache Box, Turkey Creek, Guadalupe Canyon and other significant Riparian Areas.

According to the U.S. Government's General Accounting Office Report on Rangeland Management of June, 1988, the key factor in restoration of Riparian Areas is the removal of livestock.

We also suggest no development of the San Pedro. An administration building can be put in Sierra Vista, thereby drawing more tourism to Sierra Vista. Interpretive displays can be put inside the already existing building at the San Pedro, leaving the landscape untampered with and in its natural beauty for future generations to enjoy.

135-5

135-6 | Management Concern 2, Lands and Realty: Any land exchanges such as trading the Swissheims, Portal Areas, or other sky islands should have the consideration of the impacts on wildlife and their migratory routes as a priority. Only exchange these areas with agencies who practice natural resource conservation management as their primary ethic and concern.

Management Concern 6, Soil Erosion: We support building the Timber Draw dam on the San Simon because it would help reduce soil erosion. We strongly encourage removal of livestock from this area so that the land has a chance to recover. Livestock causes soil erosion by compacting the earth so that it cannot absorb water, thereby causing water run off and soil erosion.

Management Concern 7, Vegetation: We urge you not to use chemicals if it is necessary to remove vegetation. It would not only be harmful to the soil, but could contaminate the water, be harmful to wildlife and people camping or using such areas.

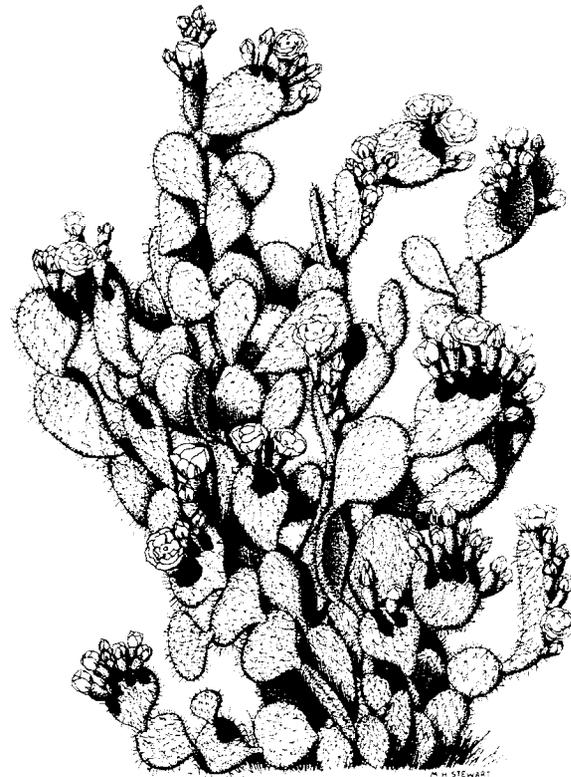
(3)

Management Concern 8, Water: We approve of the Timber Draw Dam, but hope you are also looking into ways in which to stabilize the watershed. We suggest looking into methods of Permaculture, a holistic and ecological approach to land management. Also, for the area of the San Pedro River where you are considering removal of the berms, we suggest this not be done until the land around that area sustains thicker vegetation. Removal of the berms now would result in furthering soil erosion.

In conclusion, we would like to emphasize the need to restore Riparian Areas at all cost. Riparian Areas are the life's blood of the western public lands. Without their restoration, severe desertification will result.

Sincerely,

Judith L. Macosca
Judith L. Macosca
Bisbee Women's Action Group
Box 953
Bisbee, AZ 85603



136

PO BOX 5
BISBEE, AZ 85603
MAY 27, 1990

STEVE KNOX, RIP TEA LEADER, BLM
RE: SAFFORD DISTRICT RESOURCE MANAGEMENT PLAN

Thank you for the great management your agency is already doing. In particular, Aravaipa Canyon and the San Pedro Riparian areas are gems, and BLM deserves national recognition for management practices in these areas.

Thank you for removing cattle from the San Pedro River Riparian Area. I ask you to insure their permanent removal.

I am aware that a compromise was worked out on the hunting issue. I support keeping hunters out of the entire San Pedro Conservation area.

I also feel strongly that no other buildings be placed on the San Pedro River. Let any interpretive displays be placed in present buildings or in shopping malls in Sierra Vista and Tucson. Administrative buildings should be in present buildings of in Sierra Vista. No new construction please. Future generation will thank you for encouraging the 'natural-ness' of the River.

I feel very strongly about preserving what is left of riparian areas in the arid South West. I also feel it is time to revegetate and bring back those riparian areas that have seen serious abuse in the past 100 years.

I also support removing all livestock from all riparian areas in the Safford district. In particular, I support removing cattle from the following riparian areas: the five drainages that comprise Muleshoe, Turkey Creek, Bonita Creek, Guadalupe Canyon, the Gila and San Francisco Rivers, Eagle Creek, Gila Box, Apache Box and all riparian areas in the District.

I believe that BLM needs to reassess the impact that 'multiple use' has made on our public lands. Much land has been abused by over-use, and is in critical condition compared to pre-white man days. The practice of comparing the current conditions to the severely abused conditions of the 1920s and 1930s must be stopped as it is a distortion.

Not all District land is fit at this time to be used for 'multiple use'. Certain sensitive District lands need protection from continued human centered over-abuse. I recommend that the above mentioned riparian areas be limited to 'non-consumptive use' for at least thirty years.

In particular please keep cows off the District land adjacent to Muleshoe Nature Conservancy Preserve.

I support on-game and non-consumptive values, using a

resource without abusing or removing it. I support very long range planning, projecting protection of our public land into the next 500 years.

One 'use' that is just as important as 'consumptive use' is 'environmental use' whereby systems have a chance to regenerate without the interference of the consumptive uses of man. These areas can also become areas of 'educational use'.

I support alternative B of the RMP.

Access: Make people walk. Keeps roads away from riparian areas, parallel to stream beds, not in it. Prevent vehicles from driving in stream beds. Avoid switchbacks. As roads encourage erosion, avoid roads whenever possible. Remove the Virgas Canyon Road, Guadalupe Canyon Road and the left fork of Markham Creek Road,

ACECs: All ACECs must have Class I VRM designation. Please consider designating all new land acquisitions for ACEC designation.

OHVs: Please close all riparian areas to OHVs during critical or sensitive times, such as during nesting season.

Riparian Areas: Please prohibit any activity of ADC on District land, in particular around all ACECs, NCAs and Riparian Areas. Riparian area management must have as the primary goal protection and regeneration of habitat of T&E species.

Lands and Realty: District land near the Sisbee area being targeted for disposal must not be sold or traded to anyone intending to use the land for consumptive use due to the sensitive nature of that land and the threat of increased erosion to our watershed.

The Swisshelms, Portal area and any other 'sky islands' serving as wildlife corridors must not be traded off for any less valuable lands for wildlife. Any land exchanges must be carefully assessed as to their impacts on wildlife, especially migration routes and habitat.

Vegetation: No chemicals used to suppress vegetation, ever, for any reason.

Last, I would like to encourage the BLM to stop any practices that are 'cow-centric' and to keep the bigger ecological picture in mind. Your job is to protect the resources of all species' children, not just human children.

Please remove livestock from riparian areas.

Sincerely,

Douglas Pressel
Douglas Pressel

137

BLM
425 E. 4th St
Safford, Ariz.

Dear BLM,

I had the opportunity of hearing your presentation regarding the Safford District Resource Management Plan when Staff came to Bisbee.

It is my general perspective that the time has come for the American people - and their adjuncts, such as cattle - to walk much more lightly on the earth. The prevailing land ethic of this culture - of taming nature for humankind's purposes - has outlived whatever usefulness it had when this was a frontier. The time has come to let nature be as much as possible - especially in ecosystems as fragile as the Sonoran Desert.

Your decision to prohibit cattle grazing in the San Pedro Riparian Area is a step in the right direction. This policy should be extended to all other riparian areas in your jurisdiction. Whereas

cattle are sacred seems that cattle politically sacrosanct country. Their wasteful of precious destructive of the environment of value to our time that public to these + other groups be subject cost-benefit analysis

Another American the automobile. I feel the need to to off established road I cannot begin to realize that it was to impossible to people to get out + enjoy nature. Certainly, however should be confer areas as possible of OHVs in a year I subject to staff p

By the same token in riparian area out in such a manner discourage vehicle stream banks +

OHVs should be denied access to riparian + other sensitive areas during critical seasons such as wildlife nesting times. As much as possible, all human activities should be restricted in wildlife protection areas - this includes grazing, trapping by ADC, OHV use, ~~and~~ locating administrative buildings, etc.

Finally, poisonous chemicals have no business being used anywhere near wildlife or water. Physical removal of plants is far preferable to the application of herbicides. The money usually spent on the latter would be far better spent on wages for any additional help needed to remove plants.

Thanks for listening, not just to me but, more importantly, to the earth.

Very truly yours,
Dan Frey
PO Box 1551
Brobes, Az 85603



138

PO BOX 612
BISBEE, AZ 85603
MAY 22, 1990

STEVE KNOX, RMP TEAM LEADER, BLW
RB: SAFFORD DISTRICT RESOURCE MANAGEMENT PLAN

Thank you for the great management your agency is already doing. In particular, Aravaipa Canyon and the San Pedro Riparian areas are gems, and BLM deserves national recognition for management practices in these areas.

Thank you for removing cattle from the San Pedro River Riparian Area. I ask you to insure their permanent removal.

I am aware that a compromise was worked out on the hunting issue. I support keeping hunters out of the entire San Pedro Conservation area.

I also feel strongly that no other buildings be placed on the San Pedro River. Let any interpretive displays be placed in present buildings or in shopping malls in Sierra Vista and Tucson. Administrative buildings should be in present buildings or in Sierra Vista. No new construction please. Future generation will thank you for encouraging the 'naturalness' of the River.

I feel very strongly about preserving what is left of riparian areas in the arid South West. I also feel it is time to revegetate and bring back those riparian areas that have seen serious abuse in the past 100 years.

I also support removing all livestock from all riparian areas in the Safford district. In particular, I support removing cattle from the following riparian areas: the five drainages that comprise Muleshoe; Turkey Creek, Bonita Creek, Guadalupe Canyon, the Gila and San Francisco Rivers, Eagle Creek, Gila Box, Apache Box and all riparian areas in the District.

I believe that BLM needs to reassess the impact that 'multiple use' has made on our public lands. Much land has been abused by over-use, and is in critical condition compared to pre-white man days. The practice of comparing the current conditions to the severely abused conditions of the 1920s and 1930s must be stopped as it is a distortion.

Not all District land is fit at this time to be used for 'multiple use'. Certain sensitive District lands need protection from continued human centered over-abuse. I recommend that the above mentioned riparian areas be limited to 'non-consumptive use' for at least thirty years.

In particular please keep COWS off the District land adjacent to Muleshoe Nature Conservancy Preserve.

I support non-game and non-consumptive values, using a

resource without abusing or removing it. I support very long range planning, projecting protection of our public land into the next 500 years.

One 'use' that is just as important as 'consumptive use' is 'environmental use' whereby systems have a chance to regenerate without the interference of the consumptive uses of man. These areas can also become areas of 'educational use'.

I support alternative B of the RIP.

Access: Make people walk. Keeps roads away from riparian areas, parallel to stream beds, not in it. Prevent vehicles from driving in stream beds. Avoid switchbacks. As roads encourage erosion, avoid roads whenever possible. Remove the Virgas Canyon Road, Guadalupe Canyon Road and the left fork of Markham Creek Road.

ACECS: All ACECS must have Class I VRM designation. Please consider designating all new land acquisitions for ACEC designation.

OHVs: Please close all riparian areas to OHVs during critical or sensitive times, such as during nesting season.

Riparian Areas: Please prohibit any activity of ADC on District land, in particular around all ACECS, NCAs and Riparian Areas. Riparian area management must have as the primary goal protection and regeneration of habitat of T&E species.

Lands and Realty: District land near the Bisbee area being targeted for disposal must not be sold or traded to anyone intending to use the land for consumptive use due to the sensitive nature of that land and the threat of increased erosion to our watershed.

The Swisshelms, Portal area and any other 'sky islands' serving as wildlife corridors must not be traded off for any less valuable lands for wildlife. Any land exchanges must be carefully assessed as to their impacts on wildlife, especially migration routes and habitat.

Vegetation: No chemicals used to suppress vegetation, ever, for any reason.

Last, I would like to encourage the BLM to stop any practices that are 'cow-centric' and to keep the bigger ecological picture in mind. Your job is to protect the resources of all species' children, not just human children.

Please remove livestock from riparian areas.

Sincerely,

Cathe Fish
Cathe' Fish

139

6605 N Foothills Dr.
Tucson, AZ 85718
May 30, 1990

Steve Knox
Safford District
Bureau of Land Management
425 E. 4th St., Safford AZ 85546

Dear Mr. Knox

I am writing to express my concern over the management of BLM land in the Safford District. I support the designation of Areas of Critical Environmental Concern as suggested by the Sierra Club. Within these areas cattle grazing should be eliminated, surface mining should be prohibited, ORV off-road use should be banned, and in general the riparian areas should be preserved in a natural state.

As you well know, riparian areas have all but been lost in the State of Arizona, and what few areas remain are critical to the native ecosystem. They provide a critical resource for the surrounding wildlife, as well as for endangered native fish. The activities that threaten this valuable resource, as described above, should be curtailed. Thank you for your attention to this matter.

Sincerely,
Jeff Burgess
Jeff Burgess, M.D.

140

5/29/90

Mr. Knox

We are writing to comment on your EIS draft for your Resource Management Plan for your district. Having looked extensively throughout this area we feel you cannot overlook the impact of cattle grazing.

Grazing is one of the most devastating threats to the many enlarged ecosystems but it is just one of many threats including surface mining and off road vehicles.

We hope you will seriously consider banning these activities from the most sensitive areas of your district as you prepare your final EIS.

Thank you
Mt. Mrs. Joseph Ciaramitani

Mt. Mrs. Joseph Ciaramitani
615 N CANYON DR
TUCSON 85704

141

Dear Ray Brady, 5/29/90

141-1

I am writing to urge you to support the BLM in destocking the wolf habitat in the Safford District so that wolf-cow conflicts can be avoided. I have written to Senator DeLozini and James Abbott, Forest Supervisor - Coronado National Forest - concerning the same issue. The Wolf is a vital part of our eco system - and a beautiful creature that we have taken for granted and ~~we~~ I feel we have a responsibility to help preserve and encourage the growth of these intelligent wonderful creatures. I watch as the deserts and forests

slowly begin to disappear - and I think of our future generations. So please support this issue. Our children need the wilderness. Thank you. Sincerely, Neil Heiser



142

5/29/90
Martin Pokorny
390 E. Calle Arizona
Tucson, AZ 85705

Mr. Ray Brady
Director, Safford District
Bureau of Land Management
425 E. 4th St.
Safford, AZ 85546

Dear Mr. Brady,

I am writing you this letter to express my concern for the preparations being made in the Safford District for the reintroduction of the Mexican Grey Wolf, and to inquire into some aspects of this process. I wholeheartedly support the reintroduction of the wolf onto our public lands in general, and the Safford District in particular. The wolf is an integral part of the ecosystem in southeastern Arizona which has been unfortunately missing from our lands for too long. I believe that except for a few interests (e.g. ranchers), the general public would accept bringing the wolf back onto the public lands if the facts were made well known. Any opinions which assert seeming drawbacks to such a plan can be shown to be shortsighted and misplaced if people learn and understand the true worth of predators to the health of the BLM lands' ecosystems. Any economic costs can likewise be absorbed if people are willing to accept a healthy and not necessarily anthropocentric management of the public lands. I myself am willing to incur some costs to have wolves on the public lands which, although I spend such time on these lands for recreational purposes, I am probably never going to see.

142-1 | So I ask you, what preparations is the Safford District making for the reintroduction of the wolves? I hope that you would consider managing the lands in a manner consistent with the reintroduction and recovery of the Mexican Grey Wolf as soon as possible. Perhaps begin by removing cattle from suitable wolf habitat, an action which would minimize problems encountered between the wolf and ranchers when the time comes. Although wolf-cattle encounters would occur, I am sure that they can be minimized with good planning. Please consider making efforts for the purpose of bringing wolves back to the Safford District an integral part of the Safford District Resource Management Plan.

I appreciate your efforts in this process, and would like you to keep me informed of progress in this area. Please consider my opinions, and I hope that they do a bit in spurring you to greater action in this effort. If you could inform me of specifics regarding your plans in this effort, and regarding past actions or opinions, I would be grateful.

Sincerely,

Martin Pokorny

143

1825 W Mottle Crest
Orovalle, AZ 85306
May 30, 1990

143-1 | Dear Mr Brady,
Regarding the Safford RMP, I hope you will cooperate with the Fish & Game Dept. to reintroduce the Mexican Wolf to Arizona. Areas suitable as wolf habitat should be managed as such and restocked w/ cattle.

*Sincerely,
Betty Beckel*

144

5/31/90

Dear Mr. Knox,

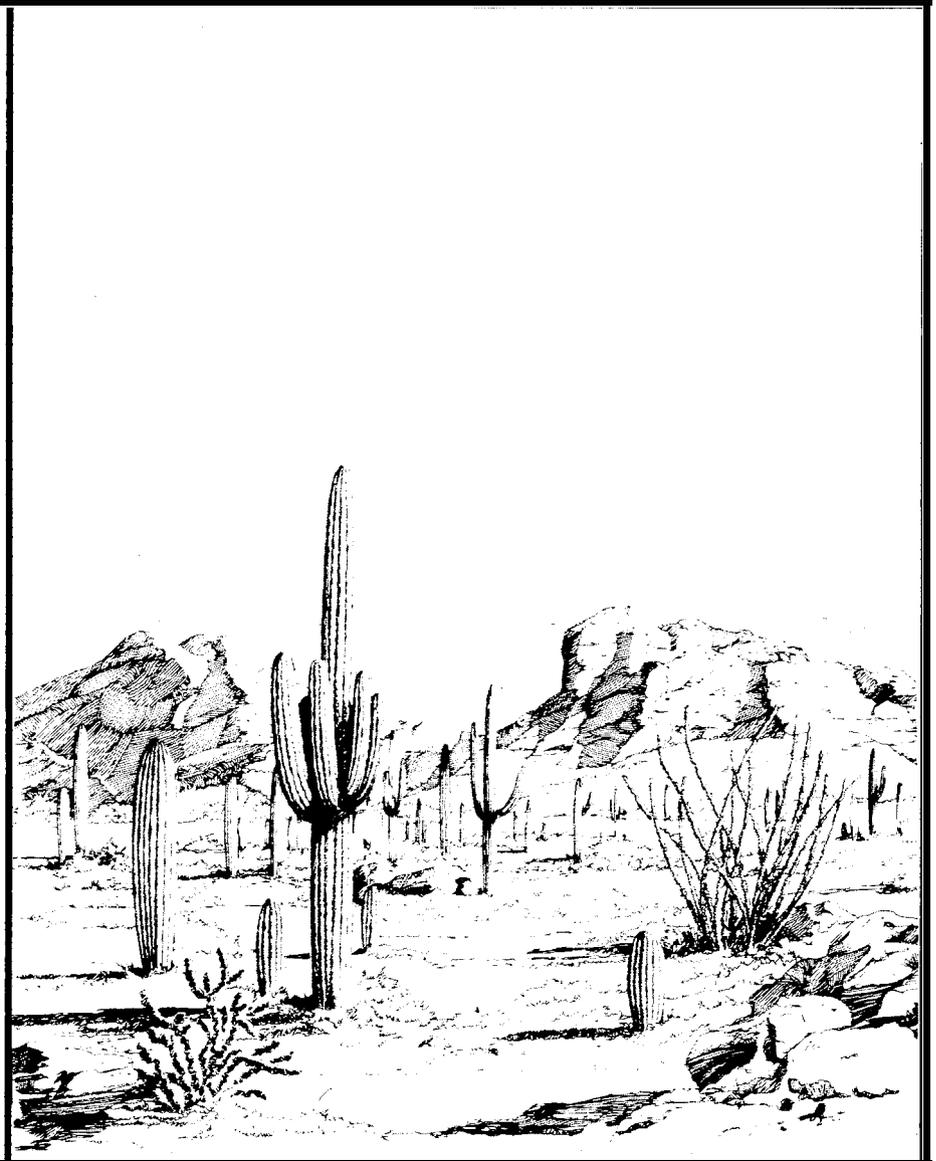
144-1 I am writing in concern about the management of the Safford District. First I believe the impacts of grazing (presently overlooked) should be given a great deal of attention. Furthermore, the failure to consider grazing as a significant issue in the EIS is a violation of the NEPA.

144-2 I would urge your organization to preserve all habitats where there are threatened or endangered species. Those habitats that have been affected should be restored as well. Also, the riparian areas are globally endangered ecosystems, and should be recognized as such within the Safford district.

Finally, I believe in the prohibition of surface occupancy, mining as well as the use of off-road vehicles off pre-established roads and in all Areas of Critical Environmental Concern that Edward McCain and Ken Rait have recognized. I would like to see Resource Management Plan reflect these important suggestions. Thank you for your attention.

Again, thanks,
Amy E. Schell

Amy E. Schell



145

May 31, 1990

Dear Mr. Knox,

Thank you for sending me a copy of the Safford District Resource Management Plan. After having read the plan, I'd like to put my two cents in...

Even tho the BLM prefers Plan A, I still prefer Plan B but with these few changes:

Issue 4: A. I feel the strongest about this issue, I'd like to comment on it first. I'd like to begin by congratulating you on your excellent decision to keep livestock out of the San Pedro Riparian Area. I strongly encourage the BLM to enact the same measures with the San Pedro Riparian District for the Muleshoe, Aravaipa, Bonita Creek, San Francisco River Area, Gila Box, Gila River Area, Apache Box, Turkey Creek, Guadalupe Canyon, and other significant Riparian Areas in the Safford District.

145-1

145-2 Please consider establishing a buffer zone around all ACEC's, NCA's and Riparian Areas where ADC would be prohibited.

145-3

Issue 1: Any road access in the Riparian Areas should run parallel to stream flow and not in it. All crossings through Riparian Areas should be at right angles to stream flow helping to discourage people from driving up and down the stream bed. Close off or avoid developing any switchback road access in all Riparian Areas. Please move Virgus Canyon Rd, left fork of Markham Creek Rd and Guadalupe Canyon roads out of Riparian Areas.

145-4

Issue 2: All ACEC's should have class I VRM designation. All new land acquisitions should be considered for ACEC designation.

145-5

Issue 3: All sensitive and Riparian Areas should have seasonal closure to OHV's during nesting times for wildlife.

Management Concern 2. Lands and Realty: Do not trade off the Swisshelm Mt area, Portal area and other sky islands serving as wildlife corridors for any less valuable land for wildlife. Please carefully assess any land exchanges for the impacts they would have on wildlife, especially migration routes.

145-6

Management Concern 6. Soil Erosion: I encourage the building of the Timber Draw Dam on the San Simon River as it would greatly reduce the soil erosion and improve Riparian habitat. REMOVE THE LIVESTOCK FROM THIS AREA so the land has a chance to recover... the silt accumulates. As the US Government's General Accounting Office states in their Report in Public Rangelands of June 1988 - the key factor in restoring Riparian Areas has been through the removal of livestock.

Management Concern 7. Vegetation: I support the use of chemicals to control vegetation IF ONLY they don't harm the soil, contaminate the water/ground water, wildlife or humans, in other words organically decompose shortly after contact.

Management concern 8. Water: In addition to building Timber Draw Dam, I strongly suggest the BLM look into methods of highly successful Permaculture land management. Please do not remove the berms in the area of the San Pedro River until the area sustains thicker growth. Removing the berms could result in furthering soil erosion at this time.

Thank You,

Kathy Daily
DB 622
Berber, AZ
8/2003

146



FRIENDS OF ARIZONA RIVERS

May 30, 1990

Steve Knox, RMP Team Leader
Bureau of Land Management Plan
425 East 4th Street
Safford, Arizona 85546

RE: Draft Safford District RMP/EIS

Dear Steve,

My thanks to you, Meg, and all the others who made my visit to you with Tom Cassidy of American Rivers so informative and enjoyable. Even though we spent much time discussing the concerns that FAR has on some issues in the RMP, I wanted to emphasize some of the points to your team in writing.

Appendix 5 of the plan details very well the many outstandingly remarkable features of the Gila and San Francisco Rivers in the Gila Box, and identifies the best classification of the segments on pages 232-233. The plan finds that designation would not have a negative impact on existing income/employment in the area, but does not consider the possibility of increased tourism and recreation that a national Wild & Scenic River may encourage. Potential impacts on resources by designation are looked at, and, again, any negative impacts from designation are not found to be significant. However, the effects of non-designation, while not looked at in detail in the plan, seem to be significant. The loss of an outstandingly unique riparian area in the desert southwest is not something to be dismissed without further consideration. Your own findings in the plan would lead me to believe the entire Gila Box should be found suitable and recommended to Congress as such.

The first three alternatives given in Appendix 5 do not seem to reflect the prior findings of the plan. The plan should recommend the suitability of the Box on these findings. It is the job of Congress to decide the final determination of whether a river should be designated a Wild & Scenic River. Congress has not yet been presented with this option on the Gila Box. The legislation before them now on the Box deals with wilderness issues on BLM lands, and no proposal was made regarding Wild & Scenic designation. I do not feel that the Safford District BLM should recommend non-suitability based on your concerns of possible dual designation, but find the area suitable, as it obviously is, and let Congress decide if further protection is warranted.

146-1

FAR feels that the plan should also consider the suitability of Bonita Creek, the San Pedro River, Turkey Creek, and Aravaipa Creek which would all meet the eligibility determination. While we understand your questions regarding the benefit of dual designation in some areas, we feel that the added protection a W&S designation would give may be needed and should be considered in these cases.

Please feel free to contact me for clarification or additional comments regarding the suitability of any of these streams.

Sincerely,

Gail A. Peters (602) 242-8478

1915 West Hazelwood Pkwy

Phoenix, Arizona 85015

147

Dos Cabezas Route, Box 6309
Willcox, Az 85643

June 1, 1990

Mr. Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th street
Safford, Az 85546

Re: Draft Safford District Resource Management Plan &
Environmental Impact Statement

Dear Steve:

The BLM has an opportunity within this District to provide protection to areas which are unique with natural and cultural features. The identification of these areas by the BLM are designated as ACEC, NCR, NRHP, ONA, RNA and USA Units. I have visited many of these areas and have indeed found them to be exceptional; each for respective reasons. I hesitate to single out and name individual areas and therefore recommend all Of these areas as a group to be protected with an extended buffer as indicated in Alternate B.

147-1

Several show signs of severe grazing, especially in the riparian areas. It is absolutely essential that these units are provided protection. Limited access to many areas should also be maintained.

I would also like to see an extended regional approach to include more drainage for units such as Aravaipa Canyon Wilderness, Bonita Creek and Gila Box, Muleshoe Ranch Coordinated Resource Area, Peloncillo Mtns. and Guadalupe Canyon.

147-2

Some additional concerns also include more protection around nesting birds such as Black and Lone-tailed Hawks. Campers should not be allowed to camp within the close proximity of nests during the breeding season. Also, the discharge of weapons in these areas should be eliminated.

147-3

147-4

I might also suggest the the eradication of exotic tamarisk in several areas such as Aravaipa Canyon, Hell Hole, etc. should be done before a foothold is secured.

I also encourage the additions of all the proposed wilderness areas including the Peloncillo Mtns.

Sincerely,

Dan Fischer

Dan Fischer

148

Dear Mr. Knox:

I'd just like to add a couple of comments to my previous remarks on the Safford EIS.

I would like to urge the BLM to recognize grazing as a devastating impact on the lands, and the failure to consider grazing as a significant factor in the EIS as a violation of the NEPA.

Please preserve all habitats where there are threatened or endangered species. Please also restore habitats for threatened and endangered species.

I hope you would also recognize the riparian areas as the globally endangered ecosystems that they are. The preservation, restoration and recognition can only be accomplished through the elimination of cattle grazing in the Safford District's sensitive areas.

Finally I would like to urge you to prohibit surface occupancy mining, and ban the use of ORUs off pre-established roads and in all ACECs.

I hope we can save what's left of these unique areas to be enjoyed by our children as well theirs. Thank you.

Sincerely,
John Panzer

148-1

148-2

149

1208 N. Swan Rd.
Tucson, AZ. 85712
June 2, 1990

Steve Hooper M P Team Leader
Bureau of Land Management
425 E. 4th Street
Safford, AZ 85546

Dear Mr. Knox:

We are amateur ornithologists and photographers who travel into remote areas with our 4-wheel drive vehicle.

We recently camped at Tule Spring near Landsman Camp in the Aravaipa area and were delighted with the abundant birdlife there.

We were disappointed however to find that this beautiful primitive area is used to graze cattle. The signs of their presence detracted from the natural beauty of the area.

149-1

We are writing to ask that your Resource Management Plan eliminate cattle grazing in Tule Spring and other riparian areas which should really be inhabited only by indigenous animals and birds.

Thanks for your consideration of our ideas.

Yours truly,
Mary Jean Hage
Mary Jean Hage
Clive A. Green

150

503 E. Medlock Drive
Phoenix, Arizona 85012

June 3, 1990

Steven Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th street
Safford, Arizona 85546

Dear Mr. Knox:

I offer the following comments on the Safford District Resource Management Plan.

RIPARIAN AREA MANAGEMENT

I was pleased by the attention that the riparian issue received in the RMP. A long term plan for control of grazing in riparian areas is needed. Also, the District should develop long term plans for reintroduction of riparian species (flora and fauna) to achieve a diversity and restoration of what used to be. The tamarisk problem is very serious in certain areas. I hope that the District will be an active participant in whatever national effort there is to control and eliminate tamarisk. The 12-point management objectives described in the draft RMP are an excellent start for riparian management. Riparian designations should be maximized in the final RMP.

WILD AND SCENIC RIVER

BELOW COOLIDGE DAM

The Gila River below Coolidge Dam certainly is an outstandingly remarkable segment. The features include a dense riparian zone with mesquite bosques, stands of cottonwood and willow that choke the river, and a dazzling array of desert-dwelling birds. Other wildlife are found in the corridor as well. Tamarisk is relatively scarce in most segments. Recreational use of the water (rafting, kayaking and tubing) is limited because of the density of the vegetation, and the swift and numbingly cold water, even in the summer. I recommend that boating be allowed below Christmas, but discouraged because of the natural hazards. Navigation requires excellent equipment, good water reading skills, and a lot of luck to avoid the disasters associated with the numerous "strainers."

I have not visited Segments #2 or #3, which are quite remote and, I hear, unnavigable because of the density of vegetation.

Segment #4 is worthy of a Scenic classification. The shoreline is largely undeveloped; the road and trail system is not developed, and is very limited. Furthermore, no road crosses the river; in this segment.

The vegetation should not be altered (e.g., cut back) to accommodate recreational users, as this would destroy some of the very reasons the river is unique. (I advocate this even though I am an avid kayaker.)

I have a more fundamental concern about considering this "Below Dam" portion for W&SR designation. The W&SR Act requires free-flowing as a prerequisite. The flow here is "quasi-free-flow" from the ephemeral contributions of the numerous side canyons, the intermittent flows of the San Pedro River, and the releases from the Dam. The only truly free-flowing portion remaining on any of the Gila River is above the Dam through the Gila Box. (see below). Fortunately, the releases from the Dam have generally enhanced the riparian values of the "Below Dam" segments, at least as far as Winkelman.

I recommend Segments #2 and #5 for Recreational classification, Segment #3 for Wild classification, and Segment #4 for Scenic classification. I am not sure about any classification for Segment #1, given its proximity to the Dam.

THE GILA BOX

Having rafted and hiked the Gila Box and environs many times, I can verify the accurate and fairness of the descriptions of the river values (pages 232-233). As the draft RMP indicates, there are a number of outstandingly remarkable values along the Gila Box

The classification determinations (pages 233-234) are accurate and fair. River study Segment X4 also contains a small, fascinating set of reddish, ancient pictographs, the only set I have seen in the Gila Box, or in all of western Arizona.

The economic considerations (page 234) should mention that national Wild and Scenic River designation may increase tourism. Segment #5 (San Francisco River) is located relatively close to town and will be easily accessible by vehicle. This will be beneficial to the Clifton economy to a small degree and it will allow larger numbers of people to appreciate this component of the national Wild and Scenic River system.

The description of resources appears accurate, that is, most of the

current uses would continue unaffected. However, I would not consider uncontrolled, motorized, vehicular traffic within the riparian ZONE an appropriate use of a W&SR.

The effect of non designation (page 235) accurately describes the degradation to riparian values that will occur without Wild and Scenic River designation.

The five segments and their classifications, as described on pages 235-236, are well thought out and appropriate. That is:

Segment #	W&SR classification
segment 1 --	scenic
segment 2 --	Wild
segment 3 --	scenic
segment 4 --	Wild
segment 5 --	Recreational.

The classification of Segment 5 as Recreational is weak, but acceptable, as long as BLM exercises reasonable control of vehicles to minimize riparian impact. The thrust here should be not to totally exclude vehicles, but rather to maintain and enhance the very qualities that the local population and others come to see, experience, share, and enjoy. I would hope the BLM and Clifton would work together to maintain the natural attraction of Segment 5.

The Gila Box deserves more protection than just an administrative, "ACEC" designation. The Box contains the last, free-flowing, dam-free segments of the Gila/San Francisco Rivers in Arizona. It is clearly worthy and deserving of a Wild and Scenic River suitability recommendation by the BLM. Such rivers are what the Wild and Scenic River Act is all about!

The Safford District RMP should recommend all five segments of the Gila Box for Wild and Scenic River designation. The classification of the five segments, as proposed in the draft RMP, should be recommended to Congress.

OTHER AREAS

150-2 The RMP should study some of the smaller creeks and "ashes" for their eligibility and suitability in the Wild and Scenic River system. At a minimum the RMP should acknowledge (on page 231) that other areas may be suitable/eligible but were not considered in the RMP. This will allow the public to propose additions, without BLM saying that other creeks will be considered only during a RMP

evaluation. This is the concept I am proposing: "Public nominations for W&SR will be considered on their own merits by the District if they are proposed in the period between planning cycles."

The reason for this is that the public and legislative effort for W&SR designation of Arizona rivers and creeks will extend past the deadline for this RMP document. Also, changes in the environment (due to many factors, natural and man-made) may favor eligibility of various segments, and we would not want to lose an opportunity for W&SR protection if it presents itself and the BLM deems such an interim management as appropriate.

OTHER COMMENTS

150-3 I tried to find a list of District's lands that are ungrazed. I consider it reasonable to have a certain portion of the District's lands available for the public to see what the land might look like without the impact of cattle. Could such a list be added to the final document? Could such lands be integrated into the riparian areas, so that entire ecosystems of relatively "natural looking" land can be experienced?

I was not familiar with the areas considered for ACEC but not designated (page 202).

I liked the management objectives for priority species and habitats as described in Appendix 6. To accomplish these objectives would demonstrate the District's strong commitment to conservation and stewardship. I recommend Alternative B for this issue because it offers the most benefits on this issue.

The "road" into Gillard Hot Springs in Sections 26 and 27 of the Gila Box W&SR should be removed from the map and instead shown as a foot trail.

150-4 The index of the RMP should show the page number (v) for "Abbreviations."

Thank you for reviewing these comments concerning the draft RMP.

Sincerely,

Timothy J. Flood
Timothy J. Flood

151

Mr. Steve Knox
13 LM Safford
425 E. 4th St.
Safford, Az. 85546

Box 2568
Carefree
Az. 85377

Re. Resource Management Plan (RMP)
Safford District :

Dear Mr. Knox :

With regard to the above RMP, I should like to make the following recommendations:

- 1) that cattle grazing be acknowledged as devastating to healthy habitat and be eliminated from all the district's sensitive areas
- 2) that maximum protection be given to areas where threatened or endangered species exist
- 3) that riparian habitats be strongly safeguarded from deleterious impact (eg. cattle, ORVs...)
- 4) that ORVs/ATCs/ATVs be restricted to pre-established roads and tracks.
- 5) that surface occupancy mining be prohibited.

Yours, Geoffrey Platts



THE SAN CARLOS APACHE TRIBE

P.O. Box 0
San Carlos, Arizona 85550
(602) 475-2361



BUCK KITCHEYAN
Chairman

RONALD EDWARDS
Vice Chairman

June 1, 1990

Mr. Ray Brady, District Manager
United States Department of the Interior
Bureau of Land Management
Safford District Office
425 E. 4th Street
Safford, Arizona 85546

Dear Mr. Brady:

Let me take this opportunity on behalf of the San Carlos Apache Tribe to extend my appreciation to your staff for the presentations they provided on the Safford District Resource Management Plan (draft) at the Tribal Council meeting of May 8, 1990, and at the March 22, 1990, Natural Resource Committee Meeting. These presentations were of interest to the Tribe and assisted us in preparing our response to the RMP. I would also like to commend the planning team for preparing a very presentable and readable document.

I have enclosed for inclusion into the formal comment record a summary of issues in the plan that are of concern to the San Carlos Apache Tribe.

Again, my sincere thanks for the interest that your office has shown in discussing the planning issues that affect the San Carlos Apache Tribe. If you wish to discuss these issues please feel free to contact me or Vice-Chairman Ronald Edwards (at our office) at 475.2361 or contact our Natural Resource Planning staff at 475.2329.

Sincerely,

Buck Kitcheyan
TRIBAL CHAIRMAN
SAN CARLOS APACHE TRIBE

THE SAN CARLOS APACHE TRIBE

P.O. Box 0
San Carlos, Arizona 85550
(602) 475-2361



BUCK KITCHEYAN
Chairman

RONALD EDWARDS
Vice Chairman

ISSUES, CONCERNS, AND PROPOSED ACTIONS IDENTIFIED IN THE SAFFORD DISTRICT RESOURCE MANAGEMENT PLAN THAT AFFECT THE MEMBERS AND RESOURCES OF THE SAN CARLOS APACHE TRIBE

After thorough review of the Safford District Resource Management Plan (draft) by the Tribal Staff, several issues concern me as they have a negative impact on the Tribe and its members. Other proposed actions within the plan may offer opportunity to the Tribe and the Bureau of Land Management for improved resource management through increased coordination and cooperation.

I. ISSUES OF LAND STATUS

152-1

The issue of greatest concern to the San Carlos Apache Tribe is the failure to discuss within the RMP the incorrect land status of the trust lands that are currently identified as public domain lands under the management of the Gila Resource Area. This issue is very clearly a federal trust issue as it concerns lands that are within the corpus of the trust. The San Carlos Apache Tribe must take the position that this concern should be identified as a "Planning Issue" within the RMP because of its controversial nature and significance to the Tribe. Furthermore, I believe a format should be developed within the preferred alternative which would prioritize and specify the steps to be taken to resolve this matter. All lands identified in the Executive Orders of 1871 and 1872 as Tribal lands should be recognized as trust lands and returned to the Tribe for the benefit of its members, unless it can be proven that these lands have been legally withdrawn from the reservation. The burden of determining the correct land status falls upon the federal government and particularly upon the Bureau of Land Management. Based upon the precedent established in the 1831 Marshall decision (Cherokee Nation vs. Georgia) and supported in subsequent federal court cases, if a treaty (or executive order) issue is in doubt or is unclear then the decision will be made in favor of the Tribe.

An associated land status issue is the inaccurate Safford District maps contained in the plan. The maps depict lands that are currently managed by the Tribe as being a part of the Coronado National Forest. These maps are in direct conflict with Department of Interior Secretarial Order which returned the land to the Tribe. This action was later supported by a U.S. Solicitor's memorandum (1981)¹. As you should be aware, Tribal legal codes and ordinances are currently enforced on these lands. By releasing inaccurate maps to the public you will add to our enforcement problems and create unnecessary

1. Memorandum from acting U.S. Associate Solicitor to U.S. Solicitor dated May 22, 1981.

152-2 bitter feelings with our neighbors. The San Carlos/Coronado Forest land status issue appears to be close to resolution, your next release of district maps should accurately reflect the reservation land status.

II. CONCERNS OVER ACCESS AND ADJACENT LAND ACTIONS
Areas of lesser concern within the proposed alternatives, but still important, are those issues which: 1) encompass public access onto the reservation, or 2) involve adjacent land actions. Two proposed rights-of-way, Goodwin Wash and Black Rock Wash Roads, will be inconsistent with established Tribal policy as they cross portions of the reservation which have been closed to non-Tribal members. It should be pointed out that the second and third criteria in the Alternative Selection Criteria, page 16 of the RMP, state that "consistency with federal, state and local plans and compatibility with adjacent land uses" will be used to evaluate alternatives. Additionally, the RMP fails to point out that non-members crossing the reservation on the Safford-Morenci trail and on Ranch Road are required to obtain a permit under our current policy.

152-3 I have several concerns about the adjacency issues which need to be resolved before they could be supported by the Tribe. One problem which must be anticipated is that of trespass by unauthorized persons who stray off the proposed rights-of-way or adjacent trails onto closed lands. Similarly, pot-hunting, poaching, prospecting and rockhounding activities will also be a problem on Tribal land by people using the roads or trail. Increased prevention and enforcement efforts resulting from these actions will add to the cost of resource management on the reservation. The National Wild and Scenic River proposals and the proposed Gila Crest Trail would have a similar impact on the Tribe as both actions would be adjacent to reservation lands which are closed to non-members.

I believe that these issues could be resolved through coordination and cooperation. Additionally, these actions may offer opportunities for the Tribe to develop similar proposals on the reservation complimentary to the adjacent BLM actions. One possible action by the Tribe is the designation of the lower Gila River as a "Tribal Wild and Scenic River," mirroring a federal designation. Other possibilities are trail systems developed within the reservation adjoining the proposed BLM Gila Crest Trail and/or the Safford-Morenci Trail.

III. CONCERNS ON THE MANAGEMENT OF THE LOWER GILA RIVER AND WILD AND SCENIC RIVER PROPOSAL
Contrary to a statement in the RMP, the San Carlos Apache Tribe is very interested in the management of the lower Gila River. At this time the Tribe is pursuing a new access route below Coolidge Dam to provide recreational opportunities for its members. We are also interested in evaluating the potential for a developed fee recreation area, entirely within Segment 1, as identified in the RMP. Below this segment, it would be difficult for either the BLM or the Tribe to manage the lower Gila as a "Wild and Scenic River" without the full participation of the other party, as the practical management of a river cannot be divided down the middle of the stream course. A Memorandum of Understanding should be pursued on this issue. The National Wild and Scenic River proposal as identified under Alternative B could be preferred by the Tribe, if, after further evaluation, no detrimental impacts arise. This proposal could precede or could follow

152-4

Tribal action designating this area as a "Tribal Wild and Scenic River" or similar designation. One issue involved in this evaluation would be that of water rights and the establishment of a minimum instream flow for the lower Gila River (if this were to be a part of the Wild and Scenic River proposal). Although the Tribe recognizes the benefits of a minimum instream flow level on the Lower Gila, the impact that this would have on a minimum pool in the San Carlos Reservoir would have to be examined.

IV. CONCERNS FOR ETHNOGRAPHIC AND ETHNOHISTORY PROGRAM OBJECTIVES

152-5 An important issue that has been raised at Natural Resource Committee meetings is the need for the Safford District office to conduct ethnographical research and to document the ethnohistory pertaining to the cultural uses of the Safford District by members of the San Carlos Apache Tribe. Under Management Concern 5 - Cultural Resources, several laws are referred to which provide for the protection of traditional life-way values. A program objective, however, was not listed which would guide the program in meeting these obligations. Program objectives should be developed in this area. The members of the San Carlos Apache Tribe represent a unique public that should be recognized, and their traditional uses provided for, when developing and making management decision on the Safford District. Ethnographical studies will assist your office in making these decisions.

V. ISSUE OF ABORIGINAL HUNTING AND GATHERING RIGHTS

152-6 A final issue that must be raised in this letter is that of the aboriginal hunting and gathering rights of the San Carlos Apache Tribe on all public lands within the pre-reservation Apache territory, as these rights were never explicitly taken away under the Treaty of 1852. Or under any subsequent federal action. As a lead player in wildlife habitat management on public lands, the BLM should be aware that the San Carlos Apache Tribe has not abrogated these rights.

I feel confident that if we work together these issues can be resolved to the satisfaction of all parties involved and to the fulfillment of the federal trust responsibility.

Sincerely,


Buck Kitcheyan
TRIBAL CHAIRMAN
SAN CARLOS APACHE TRIBE
JUNE 1, 1990

xc: Mr. Wilson Barber, Phoenix Area Director, BIA
Mr. Allen Anspach, Superintendent, San Carlos Agency, BIA
Mr. Lynn Engdahl, Acting Arizona State Director, BLM

153



United States Department of Agriculture

Forest Service

Coronado NF 300 West Congress Tucson, AZ 85701 602-670-6483

Caring for the Land and Serving People

Reply To: 1950

Date: June 2, 1990

Steve Knox RMP Team Leader Bureau of Land Management 425 E. 4th Street Safford, Arizona 85546

RE: Your draft Safford District Resource Management Plan and Environmental Impact Statement.

Dear Mr. Knox:

The Coronado National Forest has reviewed the BLM Safford District Resource Management Plan and Draft Environmental Impact Statement, as requested in a letter from your office, dated January 1990.

We appreciate the opportunity to comment on your Resource Management Plan/EIS. Overall, the Plan/EIS reflects a thoughtful and thorough assessment of the "multiple use" and "sustained yield" philosophies inherent in your management policies. This Plan/EIS will help insure the fair management of public land.

We have the following comments regarding this Plan/EIS.

Issue 1 - Access

153-1

In Chapter 2, pages 23-24, the Plan identifies reconstruction of the Jackson Cabin road. What standard will the BLM portion of the reconstructed road meet? The Forest segment is on a very steep grade and a safety hazard for vehicle travel. The standard, of the reconstructed BLM segment could affect what direction the Forest will need to take on the forest segment in order to be compatible with the BLM portion. Another option would be to close the Forest segment and build trailhead facilities on BLM land (this would be our preferred option). With the upgrading of the road, close coordination between the two agencies will be required to protect resource values.



Caring for the Land and Serving People

FS-6200-28(7-82)



Issue 2 - ACECs and Other Types of Special Management

The designation of ACECs is a step in the right direction in the recognition of important historic, cultural, scenic and natural values.

153-2

The Turkey Creek ACEC is the home to one of the highest densities of common black-hawks in Arizona. This is another "value" to this ACEC. Perhaps this could be added to Table 2-1. Note that black-hawk is hyphenated and that this correction should be made in Table 2-2 and on pages 30 and 50, and wherever the common black-hawk appears in the document.

153-3

Eagle Creek Bat Cave ACEC is a maternity colony cave for the Mexican free-tailed bat. The existing gate, even if seasonally locked, can easily be climbed, and therefore is not adequate to manage the cave. Perhaps a seasonal gate closure, with a design similar to the one at the Cave of the Bells, Santa Rita Mountains, could be examined.

Issue 3 - Off-highway Vehicles

153-4

Eagle Creek is a nesting area for Peregrine falcons. OHV use, and the subsequent noise, in this creek could be a major disturbance to the nesting of Peregrine falcons. Suggest BLM examine the option of seasonal closure of Eagle Creek to OHV use.

Issue 4 - Riparian Areas

153-5

Page 29, #3, "Develop a riparian inventory system." Doesn't the BLM have a nationally developed inventory system called "Coordinated Riparian Area Management - course 1737 - 1E"?

153-6

Page 135 - "Riparian/Aquatic Habitat - In Arizona, 60 percent of wildlife and fish species are dependent upon riparian and aquatic habitats." Aren't 100 percent of the fish species dependent upon an aquatic habitat? This sentence should be rewritten.

Management Concern 1 - Wildlife Habitat

153-7

Alternative B is a more favorable alternative for wildlife, however, Alternative A (the preferred alternative) is an acceptable balanced approach to management of all resources.

The objectives and actions, of this section, seem like reasonable ways to manage the resource. However, they do not spell out how these actions will be accomplished. Will more specific direction and further environmental analyses take place before decisions are implemented? Will mitigating measures be developed prior to implementing the Preferred Alternative?



Caring for the Land and Serving People

FS-6200-28(7-82)

153-8



On page 31 numbers 11, and 12, are good actions, but seem to imply that this is the only wildlife input into livestock allotment management plans (AMPs). There should be an action that calls for wildlife input in AMPs for ALL priority species and their habitat.

153-9

On page 135 priority species with non-specific habitats are described. These species include Peregrine falcon and several bat species. These species do have specific breeding sites and feeding areas. The document eventually discusses those specific requirements within the non-specific section. The next Section discusses priority species with specific habitats. This section includes mule deer, white-tailed deer, and black bear. These species may have specific habitats but they aren't any more specific than Peregrine falcon or bat habitats. Perhaps the BLM should just discuss priority species and their habitats and not try to separate them into these groups.

153-10

Throughout this document individual species are discussed. However, quail and doves are lumped (except for Montezuma Quail). Why this distinction? Why should Scaled Quail and Gambel's Quail be lumped? Stick to individual species and their own habitat requirements.

153-11

In Appendix 6, page 248 - Pronghorn Antelope, "strategic" is misspelled.

153-12

Could's turkey, is this species a candidate for reintroduction? If so where?

153-13

Would prescribed fire policy on Forest conflict with BLM management goals? Close coordination is needed.

Management concern 2 - Lands and Realty

153-14

Throughout the document BLM lands are referred to as public lands. National Forest Service lands are also public lands. Perhaps this distinction should be made clearer, by explaining the legal origin in federal legislation of the term "public lands". BLM managed public lands should be identified as such.

Forest managed public lands and BLM managed public lands often are adjacent to each other with intermingled private and state administered lands within the BLM portion. Acquiring private and/or state administered lands within the BLM boundary has many benefits. Watersheds and environmental corridors could be managed with the same resource objectives and management goals. If management goals for adjacent public lands are in conflict, then many benefits would be lost. If the BLM acquires land in the Bass Canyon area east of Muleshoe Ranch Sod extends the management goal of preservation to that area, conflicts in management between the agencies could develop. The Forest managed public lands in that area are managed for erasing cattle. Water, in that area, is managed for use by cattle and wildlife, which may be in conflict with BLM's instream flow goals off

153-15



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the Forest. Closer coordination between agencies would be required in order to manage adjacent lands in a harmonious fashion.

Management Concern 3 - Outdoor Recreation and Visual Resource Management.

153-16

Page 34 - This is the first that the Coronado National Forest has heard of the Galiuro/Aravaipa/Santa Teresa Trail. We cannot find any additional information on this project within the BLM-Plan/EIS. Is this the Arizona Trail? The concept of having an extended trail is good, however, close coordination will be needed because the majority of this trail system would be on Forest and within wilderness areas. Impacts on wilderness resources, user capacities, utilization of the existing Forest trail system, trail standards, staffing, and funding, will all need to be addressed before implementation. There would be a heavier impact on the Forest to implement than on the ELM.

Management concern 5 - Cultural Resources

The preferred alternative (A) has the advantage of presenting a balance between area and resource use and protection. Effort is broadly distributed; attention is given to a wider range of priorities or planned actions than in the other alternatives. These qualities make this alternative attractive to a wider range of interest groups.

153-17

However, it seems that many of the actions and priorities of the various alternatives could be implemented by conducting an intensive archaeological site inventory as considered in Alternative D. Alternatives A and B advocate a study of vandalism but this might best be accomplished as part of an intensive archaeological survey (Stratified or Judgmental) where the impacts of damage could be evaluated in the context of the array of sites in the area, the uniqueness of the resource, and the quality or value of that portion of the resource that has not been disturbed. Areas with substantial evidence of vandalism could be surveyed first in order to be able to assess the degree of damage.

153-18

Money to be allocated for promoting and developing predictive models (Alternatives A and C) could be spent on inventories and on reporting the results of broad scale inventories that could be used more effectively to "predict" site locations in the future. So little is known about so much of the district that it may be premature to attempt to develop predictive models.

153-19

In Alternatives A and C, rock art seems to receive a higher priority status than other types of cultural resources by virtue of having a research design specifically targeted at it. Again, rock art studies could be carried out in conjunction with an intensive archaeological survey and therefore would not require a separate research design. Also, volunteers and researchers conducting rock art studies and recording in the district could be required to submit a research design. Collectively these research designs could be used to lessen the cost to BLM of preparing or revising a general research design.



Caring for the Land and Serving People

FS-8200-28(7-82)



153-20

There also seems to be a heavy emphasis on historic cultural resources and information. Obviously, historical resources are important, yet there is also a substantial gap in data for the prehistoric and protohistoric periods in the Safford District area that can only be filled with intensive inventory. Huge areas are virtually unknown while the resources are continually being vandalized. I do encourage the BLM to conduct ethnographic studies while still possible, putting considerable effort into interviews and so on before informants die. Perhaps the BLM could enlist the help of local colleges and volunteers in this effort. Students at Cochise College have numerous contacts with local residents and can gain access to people, information, and land that BLM (federal) employees cannot.

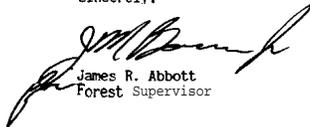
Alternative A promotes but does not fund scientific research as Alternative C does. Given the increasing interest in southeastern Arizona by individuals conducting their own research gradually larger tracts of land would be surveyed and sites recorded if even small amounts of funding were made available. Funding to individuals conducting research would go along my toward filling out the site inventory. For example, small amounts of funding would encourage researchers to record sites other than those of immediate concern to their research and to report the results of their work.

The difference in emphasis on priorities between Alternatives A and C lead the Forest to support Alternative A simply because of the immediate need to curb adverse impacts to sites. Yet, again I emphasize that knowing where sites are and the relative scientific value of these sites (Alternative D) may ultimately prove more fruitful in the longrun. Cultural resources can only be protected if their locations are known.

General Comment

There are copies of the RMP/EIS that have blank pages - pages 160, 161, 164, and 165. These blank pages should have addressed the environmental consequences of implementing specific actions proposed in each alternative.

Sincerely,


James R. Abbott
Forest Supervisor



Caring for the Land and Serving People

FS-6200-28(7-82)

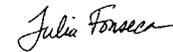
154

315 E. ELM
TUCSON, AZ 85705

Dear Mr Knox -

I URGE YOU TO INCLUDE IN THE RMP/EIS THE FOLLOWING FEATURES :

- 154-1 1) PERMANENT ABANDONMENT OF THE VIRGUS CANYON ROAD. I DO NOT SUPPORT RE-OPENING IT. IF IT IS RE-OPENED, HOW WILL IT AFFECT WILDLIFE + SOLITUDE? HOW ~~IS IT~~ WOULD SUCH AN ACTION BE CONSISTENT WITH MANAGEMENT OF THE ARAVAIPA WILDERNESSES?
- 154-2 2) PHASE OUT ALL LIVESTOCK LEASES AS THEY COME UP FOR RENEWAL. THIS WOULD IMPROVE HABITAT + FREE UP STAFF TIME TO WORK ON MORE IMPORTANT ISSUES. HOW CAN YOU PERMIT CONTINUED GRAZING WITHOUT ASSESSING THE EFFECTS?
- 154-3 3) CLOSURE OF ROADS LEADING TO THE JAVELINA PEAK DUNES. THE BLM APPEARS TO BE MAINTAINING A CAMPGROUND AT THE EDGE OF THE DUNES FOR THE BENEFIT OF ORVs. THE NOISE + EROSION OF HILLSLOPES RUINS THE AREA FOR WILDLIFE + RECREATION. I UNDERSTAND ~~THAT~~ THAT THIS IS A FOSSIL-RICH AREA. WHAT ARE THE IMPACTS OF PROMOTING THIS ~~USE~~ ORV ~~USE~~?
- 154-4 4) RECOVERY OBJECTIVES FOR ALL ENDANGERED, THREATENED + CANDIDATE SPECIES OCCURRING ON BLM LANDS.
- 154-5 5) RECOVERY OBJECTIVES FOR THE MEXICAN WOLF.
- 154-6 6) CESSATION OF GRAZING IN ALL ACECS.



155

Stephen M. Williams
4575 North 17th Avenue
Phoenix, Arizona 85015
June 5, 1990

Mr. Steve Knox
RMP Team Leader
Safford District Office
Bureau of Land Management
425 Fourth Street
Safford, Arizona 05546

Ret Safford District Draft Resource Management Plan
and Environmental Impact Statement

Dear Mr. Knox:

The Safford District is to be commended for its work on the above referenced document. It is more easily understood than the Arizona Strip Draft RMP and EIS due to the simpler format.

I would like to offer my comments for each Issue and management concern. Please include my comments as part of the official public record.

ISSUE 1 - ACCESS

I support the preferred alternative. This is a critical issue and needs the District's utmost attention.

ISSUE 2 - ACECS

The Gila Box, Swamp Springs-Hot Springs and Peloncillo Mountains ACECs all include bighorn sheep as a value. Although not listed as having a bighorn sheep value the Turkey Creek Riparian ACEC provides the access to bighorn sheep range in the north end of hunt unit 32. The management prescription for all these ACECs is limiting OHV use. The draft RMP does not define what limited OHV use is. If it means limiting vehicular traffic to existing roads and trails I can support it. If it means something more restrictive spell it out.

Two alternatives recommend varying acres to Congress as suitable for inclusion in the National Wilderness Reservation System for Aravaipa Canyon and Galiuro Mountains. Two alternatives make no suitability recommendation. I do not feel any acreage should be recommended to Congress for wilderness additions in either the Aravaipa Canyon or Galiuro Mountain areas.

ISSUE 3 - OFF HIGHWAY VEHICLES

I support the closure of bighorn sheep lambing areas

Page 2

from February 1 to April 30 and limiting OHV use to existing roads and trails in those areas the remainder of the year.

ISSUE 4 - RIPARIAN AREAS

All but one of the alternatives addresses building Timber Draw Dam on the San Simon River. I strongly support this effort and urge it be done as quickly as possible to keep costs down. I further archaeological values should not interfere with this project, but should certainly be considered and mitigated as much as possible.

MANAGEMENT CONCERN 1 - WILDLIFE HABITAT

I support the establishment of both Rocky Mountain and desert bighorn sheep as priority species and their habitats as priority habitats.

I support the transplanting and augmentation of priority wildlife species.

"Optimum wildlife populations" are not defined. If actions are implemented to manage habitat for optimum wildlife populations how will you know when you have arrived at the optimum population? Who or what agency will make the determination?

I do support actions which will manage wildlife populations within the carrying capacity of the habitat based upon ecological conditions.

MANAGEMENT CONCERN 2 - LANDS AND REALTY

I support the preferred alternative.

MANAGEMENT CONCERN 3 - OUTDOOR RECREATION AND VISUAL RESOURCE MANAGEMENT

I support the preferred alternative.

MANAGEMENT CONCERN 4 - ENERGY AND MINERALS

I support the leasing of energy and other leaseable minerals subject to conditions which do not allow surface occupancy in established bighorn sheep lambing areas from February 1 to April 30 each year.

MANAGEMENT CONCERN 5 - CULTURAL RESOURCES

I support the preferred alternative.

MANAGEMENT CONCERN 6 - SOIL EROSION

I support the preferred alternative, especially the construction of Timber Draw Dam (see comments under Issue 4).

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155-1

Page 3

MANAGEMENT CONCERN 7 - VEGETATION

I support the **preferred** alternative.

MANAGEMENT CONCERN 8 - WATER RESOURCES

I support the preferred alternative.

MANAGEMENT CONCERN 9 - AIR QUALITY

I **support** the preferred alternative.

MANAGEMENT CONCERN 10 - PALEONTOLOGICAL RESOURCES

I support the preferred alternative.

Thank you for the opportunity to comment on this document and help **guide** the **management** of public **land** in the **Safford** District.

Sincerely,

Stephen M. Williams

Stephen M. William



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SIERRA CLUB
Grand Canyon Chapter Arizona
RINCÓN GROUP

Steve Knox, RMP Team Leader
Safford District Office
Bureau of Land Management
425 E. Fourth Street
Safford, Arizona 85546

June 4, 1990

Regarding Safford District RMP/EIS Analysis and Comments

Dear Mr. Knox:

Enclosed are the official Grand Canyon Chapter Sierra Club comments on the RMP/EIS for the BLM Safford District. Please enter these comments into the public record.

Several authors participated in this analysis: Ken Rait (grazing, riparian areas, wolf re-introduction), Jennifer Hall and David Mount (riparian areas, OHVs, mining, endangered plants and animals), Edward McCain (ACECs, management priorities), Sheila Dean (riparian areas), Diane Breier (riparian areas), Lanny Nichols (grazing), Sarah Fox (bats), Gail Hartman (archaeological resources).

We sincerely appreciate the opportunity to participate in public lands management and planning. We look forward to your considered responses to our concerns and hope to be able to work with you in the future toward sound management of our public land resources.

Sincerely,

Diane Breier

Diane Breier,
Public Lands Subcommittee Chair, Grand Canyon Chapter, Sierra Club
2221 East Hawthorne Street
Tucson Arizona 85719

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Comments on Safford District Resource Management Plan/
Environmental Impact Statement
by the Grand Canyon Chapter of the Sierra Club

The Grand Canyon Chapter of the Sierra Club appreciates this opportunity to comment on the Bureau of Land Management's Resource Management Plan for the Safford Area. Below we have indicated those features of the plan which we strongly support. We have also made recommendations which we believe would improve the plan and provide for more balanced and ecologically sustainable management of the 1.4 million acres involved. These comments include our support for the preservations of riparian areas and our recommendation that livestock grazing impacts be given a greater emphasis in the RMP. We appreciate your consideration of these comments and hope that they will be helpful.

As a means of introduction, we represent the Sierra Club Chapter for the State of Arizona. We are strictly a volunteer organization, a group of concerned individuals who care deeply about our public lands. Our co- stems from a realization that these lands provide vital resources and recreational opportunities for our State and our Nation and from a fear that, without careful management, these lands way cease to yield these benefits. Our ultimate hope is that all public lands can be managed in a sustainable fashion so that future generations will also be able to reap their benefits.

Commendable Features of the Plan

The BLM is to be complemented in in selection of riparian areas for Areas of Critical Environmental Concern (ACEC) and for recognizing that riparian -must be given priority consideration for management. The plan should be commended for the following important features: (1) the management plans for riparian areas take into account the ecological values of these areas, (2) the large number of ACECs (34 ACEC nominations) indicates the sincere interest of the BLM in protecting ecologically critical areas, (3) management of lands as natural ecosystems is considered as an option (e.g., use of fire to assist in re-vegetation), (4) protection of certain threatened and endangered plant species is considered (e.g. the Arizona hedgehog cactus, Table 3-3, p. 146.), and (5) sensitivity to archaeological sites is demonstrated in Alternative A..

Recommendations and Concerns

We would like to make the following recommendations:

1. That grazing be included as an issue in this RMP,
2. That management goals and ecological standards as they apply to these goals be clarified,
3. That the priorities of management goals, including budgetary commitments, be specified,
4. That reintroduction of wolves be included as an issue, and
5. That the BLM take a more active role in educating the public, ranchers and miners on appropriate uses of BLM lands.

We will also make recommendations on the following issues and management concerns:

1. Access
2. ACECs and other types of special management
3. Off-highway vehicles
4. Riparian areas

5. Mining activities
6. Cultural resources/archaeological sites
7. Wildlife protection
8. Pesticides and herbicides

Livestock Grazing Impacts

The purposeful exclusion of Grazing as an issue in creating this comprehensive management plan deals a crippling blow to its chances for success. The number one human-related negative impact on this area is grazing, especially in riparian areas.

Although the detrimental effects of livestock grazing have been well documented, these impacts are not widely recognized by the general public. This lack of awareness may be due to the following facts:

1. Much of the damage occurred before most non-ranchers arrived in the West.
2. There are few ungrazed areas remaining to allow comparisons to the vast areas that have been grazed.
3. Because of the omnipresence of annoying livestock containment devices, such as barbed-wire fences, cattle guards, and gates, most recreational users accept these inconveniences as part of the landscape.
4. Unbiased, accurate information regarding grazing has not been widely disseminated to the public.
5. Because people perceive grazing as taking place far "out there," they believe its effects to not impact their lives.

Indeed, most people don't realize that much of the West was formerly rich grasslands (with abundant and diverse wildlife) that have been reduced to a biological desert by more than 100 years of livestock grazing.

We are therefore asking the BLM to include livestock grazing as an Issue and to add a historical discussion of the full range of environmental impacts caused by livestock grazing in addition to the impacts of the management plans proposed in this RMP. By including this important background information, the public will have a much better foundation upon which to make informed choices. Please include in this discussion the following impacts summarized below.

1. The removal of vegetative cover in turn causes severe erosion, reduces the soil's ability to retain water, reduces forage for native grazers such as deer, elk, antelope, and has eliminated many species of indigenous flora from our public lands.
2. The trampling of soils, streambanks and riparian vegetation allows fertile soils and lush riparian land to be washed away during flooding.
3. The destruction of streambeds and the resulting increase in water temperature has killed off local fish and other aquatic animals.
4. The water quality in the riparian areas has been degraded by manure, urine and dead livestock.
5. The systematic removal of native herbivores which compete with livestock for forage has impacted the local ecology.
6. The decimation, extirpation or extinction of almost all indigenous species of large mammals, especially predators, including black bear, fox, grey wolf, bobcat, elk, pronghorn and bighorn sheep has had profound implications on other animal populations.

156-1

In addition, there are many side effects caused by grazing and livestock management which are a nuisance to recreational visitors. These annoyances include the necessity of constantly opening and closing gates, the presence of odorous cow manure in recreation areas, the enormous number of flies which breed in manure, the mosquitoes which breed in mud holes created by cattle, the lack of clean water to use while camping, and the general degradation of scenic areas.

Grazing and NEPA

Under section 1502.1 of the National Environmental Policy Act (NEPA), it is stated that "(an EIS) shall provide full and fair discussion of significant environmental impacts". Under the same section, it is also stated that "agencies shall focus on significant environmental issues" and under section 1502.2(b), "impacts shall be discussed in proportion to their significance". We believe that the impacts of grazing upon the environment are indeed profound and must be fully considered in response to these sections of NEPA. The agency's failure to consider grazing as a significant impact in the Draft RMP/EIS may be in violation of NEPA. Therefore, we recommend that the RMP/EIS fully consider the impacts of grazing upon the District's water, indigenous wildlife (including species to be reintroduced pursuant to the Endangered Species Act), and indigenous flora.

In addition, we note that section 1502.9(c)(ii) in the NEPA reads, "(agencies shall prepare supplements to either draft or final EISs if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts)". The designation of new wilderness and ACECs within the Safford district necessitates reconsideration of the impacts of grazing upon these areas. The 1978 EIS completed by the District on the impacts of grazing is now antiquated in light of these new designations. We applaud the Bureau for its spirit and intent in designating these ACECs and want to assure that the impacts of significant uses upon these sensitive areas are fully considered so that the resource is best protected. Consequently, we ask that the BLM respond to section 1502.9(c) of the NEPA, which says that "if a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate action".

Recommendations on Grazing

First, we recommend that grazing be reduced in biologically sensitive areas. As in past RMP's from the BLM, grazing remains the highest priority use under the concept of "multiple use". This priority is often at the expense of other uses (e.g., recreation) and of long-term preservation of the ecological health of these areas. Consequently, we feel that livestock grazing must be drastically reduced on public lands and suggest as a first step the removal of livestock from all proposed riparian ACECs. We further recommend that all allotments be in AMP's which must be strictly enforced (the RMP indicates that only 41% of all allotments are under AMP's [page 139]). Livestock should be excluded from ACEC watersheds as soon as possible, and any policy on grazing should give a high priority to protection of watersheds in critical areas (such as Aravaipa Canyon). Maintenance of perennial stream flow depends upon the condition of the watershed grasslands and can be drastically affected by overgrazing. Additional allotments in these areas should be retired to provide forage and adequate habitat for the reintroduction of native herbivores and predators. Wildlife habitat and low impact recreation are, in our opinion, the preferred and most beneficial use of these lands.

Second, we recommend that grazing in all designated areas be closely monitored to prevent abuse. A reasonable objective should be to leave 40% of the grasses in a given

156-2

156-3

area after grazing. Only if this standard is met should the cattle allotment be allowed at the maximum. WC strongly urge that monitoring be a high priority and not dependent simply on available funding. There is a delicate balance between grazing, hunting, and maintaining a prey base for native predators. Overgrazing has a chain of negative impacts both on future grazing and on native plants and animals.

156-4

Third, we request that the standards by which grazing impacts are judged be specified. The BLM plan mentions three categories for grazing management (page 139): Improve, Maintain, and Custodial. The regions assigned to each category not specifically identified. In addition, the definition of each of these three categories is not given. We recommend that the standards on which these terms are based be defined and that the management plans of specific areas be more clearly presented.

We will make more specific comments on grazing in riparian areas such as Aravaipa and the San Pedro later in this response.

Management Goals and Ecological Standards

A difficulty in interpreting the goals of this RMP is understanding the standards on which achievement of these goals will be based. This problem is especially significant in assessing the RMP's goals for managing grazing and riparian areas. We have mentioned above the need to clarify the terms "Improve, Maintain, custodial" with respect to grazing management (page 139). In addition, on page 29, the BLM is directed to maintain riparian areas so that they are in good or better ecological condition by 1997. What is meant by "good or better"? What yardstick will be used to judge the relative health of a given area? Does the BLM have an ecological benchmark by which to compare the status of riparian, grassland, montane, upland, desert, or any other ecosystem? How would these standards affect BLM management? What are the specific objectives involved? We would very much appreciate a response to this issue, since our interpretation of these standards may differ from those of the BLM and other persons commenting on the RMP.

156-5

We strongly recommend that the "yardstick" chosen should include natural and aesthetic values and should reflect conditions which allow long-term sustainable maintenance of each specific habitat. In order for the term "improve" to be meaningful, it is first necessary to state the BLM's ultimate goal for the area's ecological status in terms of plant and animal species, soil conditions, water purity and air quality.

Prioritization and Budget as an Issue

The assumption that BLM will have adequate resources to fully carry out alternatives A, B or C, or any other alternative plan, avoids the critical issue of budget constraints. In order to meet the stated criterion (page 15, "Each alternative will be reasonable and attainable"), fiscal considerations must be addressed.

156-6

We request that the BLM prioritize issues and management concerns to be addressed. This prioritization should include disclosure of specific budget figures for the various Alternatives, as well as other BLM management areas, including EIS's for The San Pedro Riparian National Conservation Area (NCA), Upper Gila-San Simon Grazing Environmental Impact Statement (BLM 1978), Eastern Arizona Grazing Environmental Impact Statement (BLM 1986), and San Pedro River Riparian Management Plan and Environmental Impact Statement (BLM 1989).

In order to get a realistic picture of management priorities, an analysis of the past expenditures in these areas compared with present and projected budgets should be done. It is realistic to expect a RMP to clearly define which budget areas will get top consideration if a given alternative is not fully funded. We request such information as part of a full RMP/EIS for the Safford District.

Below, we state our recommendations for defining the Safford District resource management priorities:

1. Reservation of riparian ecosystems should be the highest priority. Due to the rarity and fragility of these life-sustaining areas, they are the most valuable but are the most under pressure for usage. Preservation should entail phasing out of grazing and protecting entire watersheds, not just stream courses.
2. Grassland ecosystems should be given next priority. Every effort should be made to move all BLM grasslands in the direction of natural species diversity and long-term ecological health, so that these areas can be sustained for the next 100-200 years. This goal should include preservation of the remaining natural grasslands, especially Turtle Mountain, Table Mountain RNA ACEC, Desert Grasslands RNA ACEC-Sombrero Butte. The natural quality of these areas should be protected (e.g., by fencing to exclude grazing). In addition, disturbed and overgrazed grasslands should be brought back to a sustainable, healthy state. The remaining relatively undisturbed grasslands should provide a benchmark by which to judge the health of areas now under pressure from grazing. Grasslands that provide habitat for species that are threatened by human activities, including grazing, should be protected (e.g., by fencing the area to exclude grazing).
3. A third priority should be the identification and preservation of other areas which presently have suffered very little human impact. Wherever possible, these areas should receive special status (Wilderness, Wild and Scenic River, WSA, ACEC) to assist in their preservation.

Reintroduction of Wolves

156-7

There are at least six potential Mexican Grey wolf reintroduction and recovery sites in the Safford District which we believe should receive special management consideration. The areas identified by the Arizona Game and Fish Department in its July 1986 Potential Wolf Reintroduction Area analysis include the Gila Mountains, Galiuro Mountains / Sulphur Springs Valley, Chiricahua Mountains / Peloncillo Mountains / San Bernardino Valley, Atascosa Mountains, and Huachuca Mountains / San Rafael Valley. Although many of these areas are managed by the Forest Service, the BLM should play a vital role in managing its lands contiguous to these areas and along potential migration corridors between wolf habitat areas. Wolf reintroduction and recovery is a vital facet of restoring southeastern Arizona's ecological balance.

156-7

We would like to see the BLM participate in minimizing livestock conflicts with wolf reintroduction. We believe this goal can only be achieved by removing cattle from areas of potential conflict. We recommend that cattle be removed from areas contiguous to wolf reintroduction sites and from areas that were historic wolf runways between upland wolf habitats. We strongly urge the BLM to manage its pine, juniper, and oak-grassland expanses above 4000 feet in a manner consistent with the needs of successful wolf reintroduction and to cooperate with other federal agencies in carrying out this vital mission.

Public Eduatio

Much of the past problems on BLM lands have resulted from private individuals and ranchers who are unaware of the impact of their mis-behavior on the lands they use or enjoy. Therefore, we strongly recommend that the BLM give a high priority to educating the public about the value and importance of maintaining these lands in a natural and sustainable state. Only when the public actively participates in the preservation of these lands will any management plan be successful. We are aware that the BLM has already begun some education projects (e.g. the visitor information center on the San Pedro). These types of centers should be encouraged and their programs expanded. In addition, the BLM should take an active role in educating ranchers on ecologically-sustainable ranching practices. The Empire Ranch in the Phoenix district of the BLM provides one example of an area that has successfully combined ranching with long-term protection of grasslands and riparian habitats. This area could be used as a model for management in the Safford district and the management techniques learned could be passed on to local ranchers. Finally, BLM should also help educate miners in safe mining techniques, such as containment procedures to prevent heavy metal leaching from mine tailings.

Access

We strongly recommend that any new roads should not closely parallel riparian areas. Roads already constructed may require stabilization or closing, if they fit this criterion. Roads and traffic create the potential for erosion which may contaminate streams and accentuate flood damage. In addition, the impact of roads and the resultant human use in other sensitive areas should be carefully considered. For example, access into watershed areas should be controlled and monitored to prevent abuse. Where the BLM is not able to adequately monitor road use, those roads should be closed.

In other back-country areas, we recommend that few, if any new primitive roads be opened to minimize impact on the natural environment and that only a limited number of existing roads in an area be made available. Roads that are left open should not pass through any biologically sensitive area and should not be within a steep terrain. In steep areas, there is a serious problem with erosion, when drivers continually try new routes. There is also the problem of personal injury and possible liability to the BLM. Roads with these problems should be permanently closed and so marked.

With regard to specific roads, we oppose opening Virgus Canyon Road and East Turkey Creek Road (page 24) in the Aravaipa area, since there are already adequate roads in this region and since increased vehicle and human use would not be consistent with a goal of watershed conservation. In particular, East Turkey Creek Road, if opened, would allow driving right up to the Turkey Creek Riparian ACEC. It would then be difficult to control inappropriate human use of this area and to protect the habitats within the ACEC.

In addition, we oppose opening the Wood Ranch Road (see Appendix 1: Locations of Acquisition of Legal Access, #29, p. 183.) Opening this road would allow people to drive through the existing Nature Conservancy property, immediately underneath a nesting black hawk site and near an extremely important riparian habitat. This road would allow access to the upper tablelands region, and potential abuses in this region, such as poaching of the big horn sheep and other animals, would be very difficult to control.

The Muleshoe Pipeline Road (p. 183, #37) should not be open to the public because it cuts across Bass Canyon, an important riparian habitat and because adequate access to the same area is already provided by the Jackson Cabin Road.

ACEC's and Other Types of Special Management

156-8 With the imminent passage of the Arizona Wilderness Bill, there are three areas (Javelina Peak, Turtle Mountain, and Day Mine) that were considered for wilderness designation by the Bureau which are not due to receive any special protection under ACEC designation. Wilderness Study Areas (WSAs) are designated by federal land management agencies for lands which have outstanding ecological and/or archaeological values and provide unique opportunities for primitive and unconfined types of recreation. We believe that these three areas should be considered for management under ACEC designation to protect those values which allowed them to be considered for wilderness status.

156-9 We nominate the 18,853 acre Javelina Peak WSA for ACEC designation to protect its Chihuahuan desert scrub and semi-desert grassland. By not designating an ACEC for this unique area, the BLM would miss the opportunity to protect these communities. In addition, significant archaeological resources are found in the area's two known fossil sites including fossilized remains of horses, camels, and tapirs. Among the threatened and endangered species present are the peregrine falcon and the night-blooming cereus. We believe this designation should include a ban on all off-highway vehicle use in the aforementioned acreage in order to protect the area's unique sand dune formations and badlands. Since fossils have been found in the badlands, any OHV use could have an adverse impact on undiscovered sites.

156-10 We also nominate the 17,422 acre Turtle Mountain WSA for ACEC designation due to the failure of Congress to include this unique area in the nation's wilderness system. Rocky cliffs and spires near the eastern boundary provide good habitat for raptors, including the endangered peregrine falcon and bald eagle. Rocky Mountain bighorn sheep are also present in this area. The ACEC designation for this area must protect the Madrean evergreen woodland, interior chaparral, semidesert grassland, and riparian deciduous forest from the deleterious impacts of increased grazing use. No new water sources or livestock trails should be built as these constructions would encourage cattle use of the upland thereby resulting in wildlife conflicts. According to the BLM, the cumulative impact of existing livestock facilities comes close to degrading the naturalness of the area. In addition to reducing cattle numbers in the area, the ACEC designation should prohibit the use of OHV's to maintain the recreational value for hikers and preserve the historic Safford-Morenci Trail. Finally, all mining activities should be banned within the 17,422 acre area.

156-11 We also nominate the 21,641 acre Day Mine area for ACEC designation. The biotic communities represented include Great Basin conifer woodland, Madrean evergreen woodland, interior chaparral, semidesert grassland, Sonoran desert scrub, and riparian deciduous forest. Common black hawks and zone-tailed hawks have been nesting in the area. Populations of black bear, white-tailed deer, javelina, mountain lion, montezuma quail, and scaled quail also exist here. Non-designation would severely impact the scenic and natural area and could result in losses of valuable archaeological sites. Such uses as wood-cutting, mining and OHV use should be banned in the area to preserve its important qualities.

156-12 Two RNA/ACEC's (Dry Spring and Black Rock) (page 27) should retain their RNA status, even though they are designated to become wilderness areas. Otherwise, these areas may not receive the special management they need.

156-13 The Desert Grasslands RNA should be broken down as separate entities because each has unique properties and requires a unique management plan.

Wild and Scenic River Recommendation

156-14

We recommend that the Gila Box and San Francisco River be deemed suitable for Wild and Scenic River designation. We make this recommendation because the proposed NCA designation does not provide adequate protection from OHV use or from the possibility of dam construction upstream from this beautiful recreation area.

Off-highway Vehicles

OHVs, by the fact that they were designed to travel outside of existing roadways, are incompatible with environmental preservation. While we do not totally oppose OHV use on BLM lands as a sport, this activity should be actively restricted to certain areas. These areas should be marked and monitored. Other areas should not allow OHV use and should be posted accordingly.

156-15

As stated, OHV use of the BLM lands should be allowed on a restricted basis only and must be adequately controlled. We strongly recommend that specific-use areas be set aside for this purpose, near population centers, and that these areas be well marked for identification purposes. In particular, the boundaries of such areas and of areas not open to OHV use should be clearly indicated. These areas should be monitored to prevent abuse, and, if monitoring becomes impossible due to budgetary constraints, these areas should be closed. OHV use should not be allowed in back-country areas where monitoring is not feasible.

In designating an area for OHV use, consideration should be given to the following issues. First, OHV use should be prohibited in riparian areas and in the watersheds of these areas to avoid erosion and damage to riparian plant communities. Second, OHV use should be prohibited from steep hillsides where erosion might become a serious problem. Third, OHVs should be banned from areas which are major breeding grounds for birds or animals or well-established plant communities. A potential choice for an OHV area might be an area which has already had its biological value decreased due to mining, development, or previous OHV use.

Riparian Areas

General Comments and Recommendations

We are gratified that the RMP emphasizes the importance of riparian areas. On page 128 of the RMP, the rare and unique habitats of these areas are noted, and the reduction in both their size and number is mentioned. However, the plan fails to emphasize that the few remaining riparian areas are actually relicts, tiny representations of watercourses and wild life habitats that existed more than a hundred years ago. With extensive overgrazing, ground water pumping, and stream channelization, the remaining riparian areas are now a small fragment of southeastern Arizona's faunal and floral history. The rarity of these habitats becomes even more striking when it is noted that that several different types of riparian areas are represented: montane streams, desert streams, intermittent streams and dry washes. This diversity is important because it renders each site that much more of a relict environment.

Arizona's riparian areas along with the endangered and threatened species that they support are essentially the equivalent of museum pieces representing a considerably more vast acreage that existed before human encroachment. As such, they must be treated with care and respect. We strongly urge that the BLM shift its emphasis from satisfying human

consumptive uses (livestock and mineral production) to one of preserving more lasting values of healthy ecosystems, including vegetation, soil, water and air.

We would like to recommend that BLM use long-term stability of the riparian ecosystem as a basis for management. Included in this goal should be native species diversity (both plant and animal), water quality (sufficient to sustain these species), and watershed preservation. The recent loss of both diversity and total numbers among populations such as desert fish accentuates the need to preserve riparian areas and their associated flora and fauna. The goal of ecological health should take precedence over other priorities, such as grazing, mining, or recreational uses. Protection of waterways will also ensure the chance to reintroduce native populations that have largely been decimated.

156-16

Because past misuse has caused the destruction of most riparian areas, it is of the utmost importance that the few remaining areas be preserved and protected. We strongly urge that the BLM strive to preserve 100% of its riparian areas (rather than the 75% stated on page 29). Even with the 100% goal, fewer acres will actually be preserved due to resource uses beyond the BLM's control, such as ground water pumping on private land and invasion of non-native fish species.

In addition to preservation of the riparian areas themselves, we also strongly urge preservation of the surrounding watershed areas. Watershed preservation is crucial for avoiding excess flooding, erosion, and contamination of water quality. For instance, on page 129 it is mentioned that state and federal surface water quality standards are occasionally violated during intense, long-duration storms. If the upper watershed has a healthy ground cover, with few roads, the effect of high intensity storms on the sediment load of riparian areas would be minimized.

Riparian Areas and Cattle Grazing

We urge the long range management goal of removing all cattle from riparian areas. We applaud the recent efforts of the BLM to reduce grazing in some riparian areas through methods such as rotation, fencing, and providing alternative sources of water. However, we find that the RMP does not clearly state which riparian areas currently receive protection from cattle grazing and which are planned for restoration. We request that these objectives be made available for public comment.

156-17

The BLM's stated interest in restoring riparian areas cannot be achieved as long as grazing is allowed to continue in these ecologically sensitive regions. Consequently, we urge that cattle be fenced out of all riparian areas within the District to allow for restoration of wildlife habitat in conformance with the multiple use precepts of the Federal Lands Policy Management Act. (FLPMA).

Cattle enclosures would produce the following benefits: reduce peak water temperatures, provide more food and cover for fish species, increase water retention and summer flows on intermittent streams, reduce streambank erosion and loss of productive bottomlands, reduce stream sedimentation and improve fish habitat, reduce fecal coliform bacteria and nutrient loading due to fecal matter in the streambed, and provide critical habitat for indigenous wildlife. The assertion that fencing would restrict movement of indigenous wildlife is erroneous, as fences can be designed that allow for passage of all but domestic ungulates. (Camp Creek, Oregon provides good example of accessibility by indigenous species).

156-18

156-19

The RMP proposes to restore riparian areas by directing funding only to "reasonably recoverable" areas. The Sierra Club believes that budgetary constraints are not an impediment to simply requiring cattlemen to build enclosures to lessen their impacts upon riparian areas. Therefore, it is our recommendation that the BLM implement its prerogative to direct funds to those "reasonably restorable" riparian areas as planned and amend the draft RMP/EIS to require enclosures so that all riparian areas within the District are given the opportunity to recover from grazing pressures. This action would best demonstrate the District's commitment to restoration of these regionally significant public resources.

Because we view the preservation of riparian areas as urgent, we favor Alternative B over Alternative A, although even Alternative B provides inadequate protection. A clear advantage of Alternative B is its larger designation of ACEC acres that include riparian areas. Specific reasons for our support of Alternative B are indicated below:

We support the larger ACEC designation for the Bonita Creek area in Alternative B.

156-20

In the Gila Box, we support the additional upstream acres recommended for ACEC status in Alternative B and the restriction of OHV's from the canyon bottom. We also recommend that, if the proposed NCA for the Gila Box is passed, the upper end of the river not be dropped from protection. That portion of the Gila River above the old Safford Clifton Road should be retained as an ACEC for recreational riparian, scenic, and fishery values. This action would protect an additional three to four miles of river. The lower San Francisco river should also be retained as an ACEC, if the NCA passes. This area deserves special protection as it complements the values of the NCA, including archaeological field sites

156-21

In the Turkey Creek area, we support the additional ACEC protection that would be provided in the Aravaipa watershed by Alternative B. Aravaipa Creek is one of the most outstanding remaining examples of desert fish diversity. It is the only area in southern Arizona where seven native fish coexist, some of which are already endangered or threatened. The prescription of "no livestock after expiration of current lease" is also essential for preserving the Aravaipa watershed

Similarly, the Muleshoe Ranch contains endangered species; the ACEC of Alternative A provides poor protection.

156-22

While we recognize that the Dry Spring area is proposed for RNA designation, we feel that inadequate protection of this area is provided, even by Alternative B. All the alternatives ignore the stretches of riparian areas noted by numbers 4, 16, 17, 18 and 19 on map 34.

Finally, the 1,767 acres granted by Alternative A to Guadalupe Canyon is undersized. We recommend the 6,984 acres of protected area provided for in Alternative B.

Riparian Area Issue Objectives.

The RMP is vague concerning management of riparian areas that are not included in the ACECs. It provides broad objectives for the issue of riparian areas, but these objectives are precisely the same for the first three alternatives (see Issue 4 - Riparian Areas, page 29). Therefore, it is difficult for the public to provide what we hope are helpful and useful comments. Nevertheless, we would like to make the following responses concerning these objectives.

As stated above, we strongly recommend that the major objective (to maintain or improve 75% of the riparian areas) be expanded to include 100% of these areas.

The objective to inventory riparian areas is commendable (#3). We encourage BLM to pay special attention to populations which may have become stressed by overgrazing, the presence of roads and traffic, or mining activity.

The monitoring plan and tiling for instream flow rights of objectives #5 and #6 are also essential, but should not be implemented in lieu of discontinuing grazing.

We wish to express strong opposition to objective #7 (to "continue to develop grazing systems"). Grazing systems in riparian areas should only be modified in the direction of phasing out permits as they expire. The only way to "manage livestock use" for the improvement of riparian areas "is to eliminate cattle and sheep at least from the immediate area of a streamcourse and preferable from the surrounding acres of the watershed. During the transition period, streamcourses should be fenced to avoid direct fecal contamination as well as the caving in of banks and bottom disturbance caused by trampling. Overhanging banks provide stability to stream courses as well as cover for several desert fish, including the endangered Gila topminnow. Fish that are bottom feeders require a stable stream bottom. As the number of cows are reduced, those remaining could be watered at stock tanks.

We support the ban on firewood cutting (#8).

The removal of non-native vegetation (#9) should only proceed with the utmost caution, if at all, to preserve stream stability.

Objective #10 states that "representative relict riparian areas" must be maintained and monitored "to provide a baseline for future management decisions." Although these areas are not specified, we suggest that all riparian areas are now representative relicts as existing biological and historical literature clearly describes. We encourage the BLM to monitor their condition and provide protection from grazing, OHV use, mining and mud erosion.

San Pedro River Riparian Area.

We strongly support the recent creation of the San Pedro River Riparian NCA. Due to the area's very sensitive nature and history of from over-grazing, we urge that ample opportunity be given for this area to recover its ecological health. Any plan for this area should emphasize: preservation of the ecosystem, research and preservation of archaeological sites, and low-impact visitation. Plans to develop this area as major tourist center should be reconsidered. Any human-oriented development should be limited to the northernmost areas of the NCA, allowing the southern areas to be available for use as wildlife corridors, especially for species migrating in from Mexico, such as jaguars, ocelots and Mexican wolves.

156-23

On page 18, the RMP notes that the San Pedro River Riparian Management Plan prohibits grazing for the life of the NCA plan, and yet management of the 6,521-acre area included in this RMP is not given the same protection. We believe that allowing grazing as part of the management of this area counteracts the management of the surrounding riparian habitat and thus undercuts efforts to preserve and protect the San Pedro River Riparian area. The 6,521-acre area involved should be granted the same protection as the rest of the San Pedro River Riparian NCA. It is not possible to protect riparian values in this NCA if

grazing continues, due to the effects of non-point source pollution from this area into the San Pedro River. These effects must be included in an assessment of riparian values.

Turkey Creek and Aravaipa Areas

We strongly urge that management plans for the Turkey Creek and Aravaipa Creek areas emphasize conservation of these riparian habitats as the highest priority. Included in this priority should be adequate protection of the watersheds which support these areas. In particular, we make the following recommendations.

First, (on p. 190, 5 Alternatives Considered) we urge that the maximum areas possible be designated as ACECs.

Second, that grazing, hunting, mining, and recreation in the upper watershed areas be managed with watershed protection as the major objective. Grazing, in particular, should be minimized and preferably phased out.

Third, we are opposed to opening certain roads in these areas (see discussion above under Access). Specifically, we oppose opening Virgus Canyon Road, East Turkey Creek Road, and Wood Ranch Road.

Mining Activities

While the RMP clearly states the BLM's policy "to foster and encourage" mining activities (page 20, Management Concern 4), it fails to mention the extreme hazards which result from inadequately controlled mining. Recent studies have shown that mine tailings are a potential source of toxic heavy metals (e.g., lead, zinc, cadmium) which can contaminate waterways and ground water, adversely affecting plant and animal communities as well as human populations. Lead, for example, can cause irreversible mental retardation in humans. This new information indicates that management of mining activity can no longer be based solely on consideration of its potential benefits.

The seriousness of water contamination by mining has only been documented for a short time. Consequently, we feel that it is now essential to re-evaluate any policy on mining. As indicated under the section on grazing, the National Environmental Policy Act requires that significant environmental impacts be discussed in any EIS, especially if new information becomes available. In light of these new findings on the hazardous side effects of mining, these impacts should be addressed in this RMP/EIS.

It is also important to note that the mineral potential in the Safford District is low. Copper ore, for example, is of poor quality compared to other parts of the world. Recycling copper is now becoming cheaper than mining. Consequently, we feel that mining activities on BLM lands should have to be extensively justified before permits are issued. It should be clear that the benefits outweigh the risks and that the risk of heavy metal leaching will be minimized by the use of appropriate containment techniques.

Because of recent disclosures about the dangers of unregulated mining, we strongly urge the BLM to take a much more active role in regulating this industry. In particular, we make the following recommendations:

- 1. To best prevent leaching of heavy metals into waterways, no mines should be allowed near steamcourses or in areas which serve as watersheds for riparian areas. Even mines in quite remote areas must be re-assessed, since leaching during flooding is still a potential hazard.

156-26

2. No mining should be allowed in ACEC's to best protect the biological communities in these areas. This restriction should be absolute, and it should not be possible to allow exceptions by administrative discretion.

3. All active mines on BLM lands should be required to demonstrate that their tailings are not a source of heavy metal contamination of either nearby watercourses or groundwater.

4. Applications for new mines or for opening old ones should be required to include plans for preventing heavy metal leaching.

5. The BLM should take an active role in regulating existing mines and in monitoring potential leaching of metals from these mines.

6. The BLM should take an active role in cleaning up sites of closed or abandoned mines to avoid metal leaching.

7. The BLM should also determine whether heavy metal contamination from mines on private or other public lands might be contaminating BLM lands and, if so, should apply pressure to prevent future abuse.

While not trying to prevent mining on BLM lands, we feel that recent evidence as to the threats posed to human health by this activity requires a reassessment of the BLM's policy to "encourage" mining. Instead, the BLM should have a more regulatory role and should guarantee that mining is adequately controlled.

Cultural Resources/Archaeological Sites

We believe that cultural resource management should also be an important goal of the BLM. Cultural resources should be managed not only for information potential and conservation but for public values as well. Improved public understanding should lead to more public appreciation of history and prehistory and should help the public realize the severe environmental consequences of human activities. Although alternatives A, B, and C are all quite similar, since Alternative A places more emphasis on public understanding, it is the Preferred Alternative on this issue from our point of view.

We particularly applaud plans to develop an educational program depicting the geological, cultural and wildlife values of Aravaipa Creek (Action 15, page 38) and the proposal for interpretive use of the Turkey Creek cliff dwelling, the CCC Base Camp near the Safford Airport and selected properties along Bonita Creek. (Action 16, page 38). We support plans to conduct archival research in the Dos Cabezas historical mining area (Action 10, page 38) and to identify historic trails (Action 11, page 38). Although these plans (Action 10 in particular) may be more time-consuming than is apparent and thus may not be implementable within the scope of this RMP.

We are especially pleased to see, in both Alternatives A and B, the plan to eliminate livestock grazing on the Tres Alamos site (Action 4, page 37). As is well known, livestock grazing on archaeological sites seriously disturbs the surface integrity of both artifacts and features and should be discontinued wherever possible. We recommend that livestock grazing be eliminated from other important sites with heavy concentrations of surface artifacts or features.

156-24

156-25

156-27

Finally, we have questions about 3 additional action items. First, we are uncertain as to the goal of revising the Safford District Rock Art Cultural Resource Management Plan (Action 6, page 37). To what extent has the original Rock Art Plan been implemented? Rather than revising the Plan, staff time might be more fruitfully spent on continued inventory, research, and preservation of known rock art sites. Second, we question the appropriateness of plans to "develop a regional research design" (Action 12, page 38). Should not the real goal be the development of criteria or guidelines or the measurement of scientific and public values rather than the creation of a research design? Third, we oppose plans to develop a "rigorous predictive model for the occurrence of cultural resources" (Action 14, page 38). Development of a predictive model will not only require considerable staff time but almost certainly will not yield the desired results. It is our understanding that the U.S. Forest Service met with little success when they attempted a similar approach and, in fact, were urged to concentrate more time on inventory. In our opinion, predictive models should not replace on-the-ground inventory programs.

Wildlife Protection

Eagle Creek Bat Cave

We want to urge the BLM to provide much greater protection for the bats who live in the cave at Eagle Creek. This bat population in 1964 was determined by a local zoologist, Dr. Cochran, to be 25 million. By the end of the 1960's there were only 30,000. This precipitous decline is due, in part, to exposure to DDT in Mexico during winter migrations and, in part, to humans who have deliberately killed or disturbed the bats in this cave. The Eagle Creek Cave is unique in this part of Arizona, because it has the right temperature, humidity and other features which make it suitable as a maternity cave. Bats and their offspring, of which there is only one per female per year, return to this cave year after year to reproduce. Therefore, this site is critical for maintaining bat populations.

We have three major suggestions for allowing these bats the longer life span they need to reproduce:

156-28

1. Build a much higher barrier in front of the cave which can effectively keep out people who would disturb a shoot the bats. The gate which now stands is insufficient, whether locked or not, to keep people out. The opening to the cave is 65 feet high and could easily allow bats to fly in and out over a barrier which is high enough to keep people out.
2. Close the canyon within 1/2 mile of the cave to four wheel drive vehicles and to firearms. People can now drive right to the cave, carrying guns to shoot at the bats.
3. Educate visitors to the area with good signs which explain the importance of protecting the bats and advise them to leave the bats alone.

Inventory of Endangered and Threatened Species

156-29

In most cases, the BLM plan adequately considers the need to protect endangered and threatened wildlife species. However, we recommend the following changes to optimize protection. First, an endangered plant species, *Erigeron piscaticus*, is not listed in Table 3-3 (page 146) of the RMP. This plant occurs in only two locations, one of which is Turkey Creek. We encourage the BLM to add this plant to the list and to develop a plan to appropriately protect this species. Second, increased protection of the watershed areas

south and east of Aravaipa Creek is needed to protect two threatened fish species in this creek (the spikedace and the loach minnow).

We recommend two changes in the proposed policies with respect to the Aravaipa/Turkey Creek area. First, herbicides and pesticides should not be used in the watershed area (as suggested on pages 189-190) to avoid polluting streams which feed into Aravaipa Creek. These chemicals might damage both the fish and their habitat. Second, we are opposed to opening Virgus Canyon Road and East Turkey Creek Road (page 24), because of the adverse impact that these actions would ultimately have on Aravaipa Creek.

Pesticides and Herbicides

We are opposed to the use of pesticides and herbicides because of their potential harm to wildlife other than target species. The BLM plan considers the use of chemicals to rehabilitate upland vegetation. Although the plan indicates caution with regard to these treatments, we are strongly opposed to this option. The long-term effects of these chemicals and the natural imbalances they create are not known with enough certainty to be worth the risk.

We strongly urge that such treatments not be used and that they be avoided at all costs in any watershed area (e.g., that of Aravaipa Creek). These chemicals could have serious adverse effects on the riparian wildlife communities dependent on these watersheds. We recommend that alternatives to such treatments be found.

Finally, in the interest of protecting human population, we recommend that input from nearby residents be sought before deciding to spray in an area.

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NATURAL HISTORY MUSEUM
of Los Angeles County

Section of Mammalogy
5th June 1990

900 Exposition Boulevard
Los Angeles, California 90007

Mr. Steve Knox
RMP Team Leader
Safford District Office
Bureau of Land Management
425 East 4th Street
Safford
AZ 85546

Dear Mr. Knox,

As a result of a telephone conversation with Dianne Drobka, I have learned that my original comments on the Safford District RMP and EIS draft were not received in your office.

As a researcher involved in ongoing studies of the bat guano accumulations in Eagle Creek Cave, I fully support the nomination of Eagle Creek Bat Cave for possible listing as an ACEC. I believe that this is justified on two separate grounds;

1) Eagle Creek Bat Cave supports the largest colony of the bat Tadarida ~~brasilianus~~ in the State of Arizona. The protection of this maternity colony is important to the status of the species in Arizona.

2) Eagle Creek Bat Cave contains a deposit of stratified bat guano that is seemingly unique in the Southwest in its value for retrospective analyses of bat population size and area ecology.

In view of these considerations, I believe the Preferred Alternative is clearly the most appropriate, since it protects the bats, the guano deposits, and the immediate surroundings of the cave which the bats must use. Alternative B would be equally acceptable, and would serve to protect other bat colonies in the canyon, but would probably not significantly improve the protection of Eagle Creek Bat Cave itself. Alternative C is, in my opinion, unacceptable since it does not protect the unique scientific value of the guano deposits.

I hope these comments may be of some value to you,

Yours sincerely,

Donald A. McFarlane PhD
Research Associate and
Adjunct Professor.



George C. Page Museum, Hancock Park, 5801 Wilshire Boulevard, Los Angeles, California 90036, (213) 857-6311
William S. Hart Museum, Hart Park, 24151 San Fernando Road, Newhall, California 91321, (805) 254-4584

158

Safford District BLM
425 E. 4th Street
Safford, AZ 85546

June 5, 1990

Dear BLM:

I have read the draft Resource Management Plan for the Safford District and would like to make the following comments:

First, this plan does not adequately address the extremely destructive practice of grazing on public lands. It is a well documented fact that grazing causes severe degradation of the land in terms of soil erosion, vegetation & habitat destruction and general unsightliness. Your plan claims to be in favor of preserving and protecting the land, therefore all lands near and adjacent to sensitive riparian areas (such as Aravaipa Canyon) should be protected by the elimination of grazing in those areas.

Second, I oppose the rebuilding or construction of any roads, especially the Virgus Canyon Road. This one in particular is a ridiculous idea. The road is currently covered with boulders in one area and generally overgrown with vegetation making the job of re-opening it a major task. More importantly, however, this road would open up access to the nearby Aravaipa Canyon Wilderness Area recently approved by Congress, making it impossible to manage as a wilderness area. Re-opening the road would encourage OHV's to go into the area and "do their thing": driving off road and generally destroying the area. I am strongly opposed to this road. It should be left as is and allowed to continue its return to a natural wild condition.

Thank you for the opportunity to comment on this plan.

Sincerely concerned,

Lainie Levick
12120 E. Snyder Road
Tucson, AZ 85749

159

Steve Knox
BLM - Safford
425 E. 4th St.
Safford, AZ 85546

Dear Mr. Knox

In regard to the BLM's Safford District RMP,
I have the following comments.

First, the proposed re-opening of the Virgin Canyon Road must be rejected. The road was closed in the 1970's for sound environmental preservation reasons which are even more urgent today. As our remaining, intact wild areas are relentlessly whittled away it makes sense to try and preserve the most unique and sensitive places. As a tributary to Paradise Creek, Virgin Canyon must remain inaccessible to the destruction and pollution which inevitably accompany ORV access. Opening the plateau to ORV use is in every way a mayhem on the fragile ecosystem of the Southern Aravaipa watershed.

Secondly, I must protest the extent to which cattle grazing is allowed by the RMP. There is no longer any debate about the incredibly destructive impact of grazing cattle in the wild west. Native ecosystems have been decimated across the region, notably in the Safford District and as you certainly are aware, there is growing public sentiment to protect public lands from the devastation that accompanies livestock grazing. The "preferred" alternative reflects the narrow-mindedness of the District's heavily subsidized ranching industry at the expense of the vitality of our declining native ecosystems, particularly the remaining riparian areas. Far more area deserves protection from livestock than are included

Jim Walsh
143 W. Franklin St.
Tucson AZ 85701

6-5-90

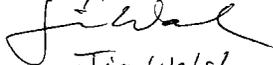
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RMP Comments
J. Walsh
143 W. Franklin St.
Tucson AZ 85701

in the plan. I urge you to revise the plan to reflect a more responsible management of the district's riparian areas and exclude livestock from such sensitive, environmentally significant places. Such an exclusion can and should represent, moreover, the beginning of a phaseout of grazing on BLM land altogether by the year 2000. The herds are simply far too destructive to be allowed to continue their assault on our public lands in this enlightened age.

I appreciate the opportunity to comment and would like to receive the next draft of the plan as well as any subsequent documents.

Sincerely,


Jim Walsh

159-1

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Steve,

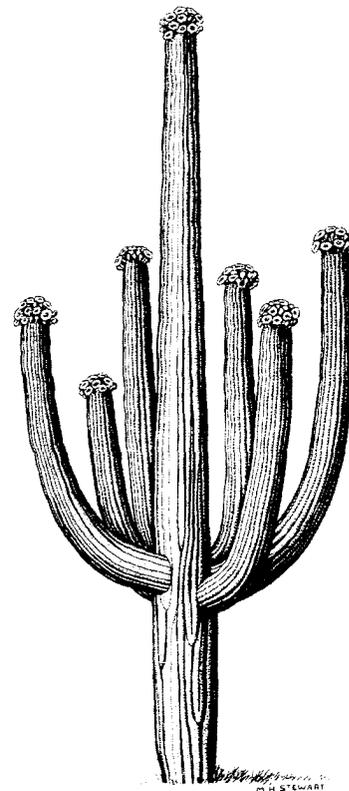
Please recognize the obvious devastation that grazing has on our public lands, Preserve all habitats where there are threatened or endangered species, restore habitats for threatened & endangered species, recognize the riparian areas as the globally endangered ecosystems they are.

Please Stop surface occupancy mining & ban the use of ORVs off roads in all ACECs. It's our birth right & should be enjoyed not destroyed.

Thank you



Randy S. Kagan



161

Ray Brady, District Manager
Safford District Office
Bureau of Land Management
425 E. 4th Street
Safford, Arizona 85546

RE: Safford District Resource Management Plan - Environmental Impact Statement

Dear Mr. Brady;

We have served on the Arizona Game and Fish Commission and were involved in reviewing land management plans for the federal agencies. We continue to have an interest in wildlife and its management as well as the management of the public lands.

For a number of years one of the Commission's major concerns was access to the public lands. You may be aware that during his tenure Commissioner Adams chaired an Access Committee made up of representatives from sportsmen's groups, the livestock industries and the agencies involved in managing lands. The Committee presented a report to the Commissioners and after a great deal of discussion at several publically noticed meetings an Access Policy was adopted by the Commission on December 4, 1987 (copy attached).

Because of our work in this area we are pleased that the Bureau addressed Access as the number one issue (page 23) in the preferred alternative (Alternative A). We urge that the District Transportation Plan be developed and implemented within the shortest possible time frame. Item #4 of the Commission Policy speaks to keeping existing roads and trails that provide lawful access to, and upon, public roads open and/or available for use. This appears to be the intent of the Bureau as outlined under this issue; we support this intent.

We are aware that many of the rural roads that have been used for up to 100 years never had a legal right-of-way - they started as wagon roads and now "legal" rights-of-way need to be determined. We believe that the Bureau has a number of mechanisms that can be used in obtaining these rights-of-way. We are concerned about those roads that have been allowed to deteriorate thus precluding access into a vast area of public domain land. We believe that this, in essence, has created "wilderness" even though the land has not been officially designated as such by Congress. We endorse the proposed Action #7 that would provide for the reconstruction of roads including Virgus Canyon, Jackson Cabin Road and East Turkey Creek. This is not a new position for us. Mr. Adams, as Chairman of the Commission's Access Committee, sent a letter to Keith Cook, then Gila Area Manager, in September, 1987 supporting Mr. Cook's efforts to keep access to the Muleshoe Ranch.

161-1

We hope that a discussion of the Back Country Byways program will be part of the scoping of the Transportation Plan. Mr. Cy Jamieson, BLM director, has spoken to the increasing demand for recreational opportunities on public lands and indicated this was one program that could provide both educational and recreational benefits.

161-2

We would like to express concern in another area. The availability of water for wildlife is vital to its survival. With the projected increase in wilderness, the addition of a number of ACECs and several large grazing permits in non-use status, we feel it is imperative to delineate who is to be responsible for the maintenance and development of waters. Allowing waters to deteriorate so that water is no longer available for wildlife is unacceptable. We feel that when waters have been allowed to become non-functional they must be repaired, the responsibility for future maintenance assigned, and then the use monitored.

We are concerned about the Game and Fish Department's ability to manage wildlife in wilderness areas. We would hope that they would, in cooperation with the Big-horn Sheep Society and the Bureau, have the ability to construct, reconstruct and maintain the waters so vital to the survival of not only the sheep but also all other wildlife. The Department's ability to carry out other vital management programs, such as surveys, must not be compromised by wilderness designation. We support the prompt review and updating of the various Habitat Management Plans for the District (Management Concern 1 - Wildlife Habitat #10, page 31.)

We believe that Alternative A will fulfill the policy declaration of Section 102(8) Public Law 94-579 (1976). We appreciate the opportunity to comment.

Cordially,

Larry D. Adams
Larry D. Adams
1511 Highway #95
Bullhead City, AZ.
86442

Frances W. Werner
Frances W. Werner
3216 A. Jackson Ave.
Tucson, AZ.
85719

cc: Steve Knox
ENCL: 1

6/7/90

EY H MECHAM, Governor
Commissioners:
FRED S BAKER, Elgin, Chairman
LARRY D ADAMS, Bullhead City
FRANCIS W WERNER, Tucson
THOMAS G WOODS, JR, Phoenix
PHILLIP W ASHCROFT, Eager
Director
TEMPLE A REYNOLDS
Assistant Director
DUANE L SHROUFE



ARIZONA GAME & FISH DEPARTMENT

2222 West Johnny Road Phoenix, Arizona 85023 942-3000

September 29, 1987

Keith L. Cook
Gila Area Manager
U.S. Dept. of Interior
425 E. 4th street
Safford, AS. 85546

Dear Sir,

I am in receipt of your letter to The Nature Conservancy concerning access to the Muleshoe Ranch. As you are aware, access to public lands is very high on the priority list for the Arizona Game and Fish Department as well as the Game and Fish Commission. I applaud and appreciate your efforts for the citizens of Arizona concerning the Muleshoe. If there is anything I can do to assist you on the Muleshoe closure, or with any other access problem on public lands, please let me know.

Please keep me advised as to your progress on the Muleshoe.

Sincerely yours,

Larry D. Adams, Commissioner
AZ. Game and Fish Department

cc: Fred S. Baker
Frances w. Werner
Thomas G. Woods
Phillip W. Ashcroft
Temple A. Reynolds
James C. DeVos



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
SAFFORD DISTRICT OFFICE

425 E. 4th Street
Safford, Arizona 85546

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(044)

August 31, 1987

Mr. Ken Wiley
The Nature Conservancy
300 E. University Blvd. - Suite 230
Tucson, Arizona 85705

Dear Mr. Wiley *Ken*

We received your memorandum concerning access on the Muleshoe Ranch and appreciate the opportunity to comment on it. We continue to have a concern about the limited public access on the ranch. We have had some complaints about the limited access and it is our understanding that the Game and Fish Department has also had complaints. Regardless of the number of complaints or their nature, we feel very strongly that free unrestricted access should be available for the public to their lands. When we first started working on the Muleshoe exchange with the State, access was an issue that we were concerned with. We did not want to acquire a lot of land that the public could not get to and enjoy. Before the exchange was consummated, we were assured by the Conservancy that public access along the Jackson Cabin Road would be provided. This subject was also brought up to the Safford District Advisory Council and they were assured that these newly acquired lands would be available for the public to enjoy and use. We feel the current restraints (locked gate requiring keys and times set for entry and exit) are unnecessary restrictions on people wishing to enjoy these public lands.

When there were no restrictions to access or use of the Muleshoe Ranch before TNC became involved, our personnel observed little serious impacts caused by recreation use through Bass Canyon. We believe the few problems that occurred without any control can be solved with less inconvenience to your staff and to the public. There is not a problem of people passing through the creek corridor, only of them stopping to camp or driving off the road onto private land. If you believe that occasional vehicle traffic causes serious impact to riparian or aquatic habitats we would like to invite you to inspect the insignificant impact caused by dozens of vehicles using the five crossings through Aravaipa Creek daily.

The Nature Conservancy is right to be concerned about the current condition of riparian habitat in Bass and Hot Springs Canyons. The Bureau has placed riparian habitat protection near the top of its priorities at national, state and district levels. However, I believe that your proposed restrictions place an unnecessary work load upon your staff, inconvenience the public who wish to enjoy their land, and create an unfavorable image for what otherwise appears to have been an excellent land exchange. The Forest Service's Safford Ranger District has indicated they desire to maintain unrestricted public access on the Jackson Cabin Road as well.

We suggest the existing gate off the county road be left unlocked with an Arizona Game and Fish Department sign-in station at this point. The Bass Canyon crossing should be identified as private property and closed to camping and off-road driving or hunting, the road corridor itself could be temporarily fenced to prevent straying. This would free your staff of ecologists from a "public greeting and ticket taking" responsibility, and encourage hunters to pass through your reserve to the public lands beyond.

Access along and near the El Paso and All American Pipeline route will very shortly be an issue we will get more involved with. BLM expects any day to receive title to the remaining State land here. We believe that there is a need for vehicle access between Soza Mesa and the Hooker Hot Springs area. We have not discussed with All American Pipeline their concern about sabotage of their block valves, but at this point we feel that fencing these valves or other security measures is a better alternative than to closing off 10 miles of access roads through the area. Old maps show a road running down Hot Springs Canyon and onto the north side about 1 mile below Wildcat Canyon. We would prefer a road out of Hot Springs Canyon for obvious reasons and would like to evaluate alternate routes with affected parties in the future.

The Bureau is joined with the Nature Conservancy in protecting this very important and critical riparian habitat area. Your goals of preserving these critical elements you identified when you acquired the Muleshoe are such the same as the Bureau's goals when we retained and acquired approximately 26,000 acres. However, the Bureau of Land Management is required to provide access to the "Public Lands" for the public who are the majority owners of what we refer to as the Muleshoe Ranch.

Again, thank you for this opportunity to comment on this very important concern. We at the BLM Safford District Office look forward to working with The Nature Conservancy through a cooperative management agreement for the protection of the Muleshoe.

Sincerely,



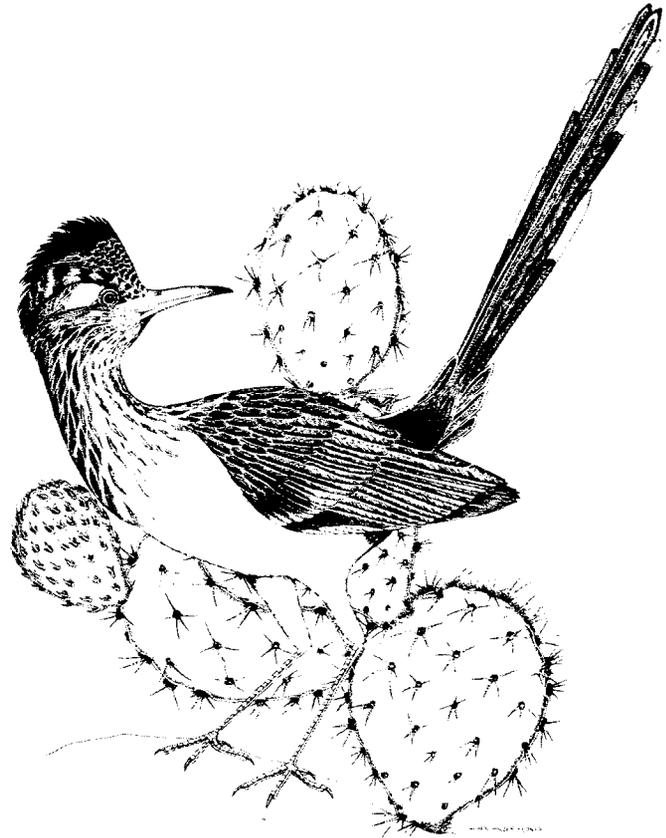
Keith L. Cook
Gila Area Manager

cc: Cecil Sims
District Ranger
Safford Ranger District
P.O. Box 709
Safford, AZ 85546

John Holcomb
Wildlife Manager
AZ Game and Fish Dept.
Star Rt. 1, Box 50
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Habitat Specialist
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All American Pipeline Co.
756 N. Monterey St.
Gilbert, AZ 85234



ARIZONA GAME AND FISH DEPARTMENT

NO.: J12
Effective: 12/04/87
Revised:
Page: 1 of 2
Approved:

COMMISSION POLICY

Access To And Upon Public And State Trust Lands

POLICY:

It is the policy of the Arizona Game and Fish Commission to place high priority on preserving existing access to public and state trust lands for hunting and fishing, and to place high priority on improving access to such lands in areas of the state where access to such lands is currently difficult or nonexistent. For purposes of this policy, the Commission define* the term "public and state trust lands" as those federal public and reserved lands, state trust lands, and other lands within the State of Arizona, owned, controlled or managed by the United States, the State of Arizona, agencies or political subdivisions thereof upon which hunting and fishing are lawful.

By this policy, the Commission directs the Department to:

1. Identify specific access problems and their causes throughout the State;
2. Prioritize specific access problems in the order of importance of their solution;
3. Plan a method of approach for solving the problem to be addressed;
4. Confer with, and seek the cooperation of private landowners and land management agencies in the process of addressing the access problem selected for solution;
5. Exert every effort to keep existing roads and trails that provide lawful access to, and upon, public and state trust lands open and/or available for use. The Commission recognizes that, in some areas of the state, too many such roads exist and directs the Department to support the lawful closure of such roads in those cases where the Department finds itself in substantial agreement with the appropriate land management agency or authority involved;

6. Exert every effort to obtain the availability of new roads established for the purpose of aiding commercial endeavor where such roads resolve, or aid in resolving, access problems identified by the Department, provided the Department supports the lawful closure of roads deemed excessive and unnecessary;

7. In accordance with sound principle* of natural resource management, develop, maintain, or improve - where the geophysical characteristics of the land and the costs of such development, maintenance or improvement are not prohibitive, and are lawful - new road*, trails or other rights-of-way that will either connect existing roads or trails or provide new roads or trails that solve access problems identified by the Department;

a. Use 24-hour-per-day access as a guideline and goal in the process of preserving or improving existing access or developing new access, where such access is lawful;

9. Where Standards for road density are needed as guidelines in the process of addressing access problems, use standards that are in keeping with the land-use plan of the land management agency or authority involved. If that plan is in the process of formulation or revision, use standards that the Department intend* to recommend for inclusion in the plan. If no such plan is utilized by the agency or authority involved, determine appropriate density in cooperation with the appropriate land management agency or authority; and,

10. Establish, at the Commission's direction, a Landowner/Lessee/Sportsman Relations Committee whose purpose shall be to provide suggestions for reducing and resolving conflict* between private landowners, lessees of public and state trust lands, and sportsmen.

The mission* of various natural resource management agencies, the rights of private landowners, existing law and principles of natural resource management are but a few of the factors that come to bear on the process of solving access problems. The Commission recognize* that any definition of "reasonable access" must be made on a case-by-case basis, taking into account all of the pertinent factors bearing on each case. I" reference to roads, trails, and other rights-of-way, reasonable access amount* to the ability to use, or develop for use, roads, trails, and other rights-of-way as directed in this policy.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, CA 94105

8 JUN 1990

Mr. Ray Brady
District Manager
Safford District
Bureau of Land Management
425 E. Fourth Street
Safford, AZ 85546

Dear Mr. Brady:

The Environmental Protection Agency (EPA) has reviewed the proposed SAFFORD DISTRICT DRAFT RESOURCE MANAGEMENT PLAN, 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 SAFFORD DISTRICT DEIS identifies and analyzes four alternatives for managing the resources on 1.4 million acres of public lands in southeastern Arizona, which are administered by the Bureau of Land Management. The four alternatives are: (A) Preferred Alternative -- provides for consumptive use and development of resources while also providing protection to sensitive resources; (B) More Protective Alternative -- emphasizes management and protection of natural and cultural resources while providing for use of public lands; (C) Less Protective Alternative -- emphasizes use and development of lands and provides less protection of natural and cultural resources; (D) NO Action Alternative -- continues current land use management.

We have classified this DEIS as Category EC-2 -- Environmental concerns, Insufficient Information (see enclosed 'Summary Of Rating Definitions and Follow-Up action'). our rating reflects concerns we have regarding the existing watershed conditions and surface water quality in the Safford District. We support the designations of Areas of Critical Environmental Concern (ACECs), wildernesses, and wild, scenic, or recreational rivers, as we believe that these will protect and enhance the natural resources of the district. We have serious concerns, however, about the direct, indirect, and cumulative impacts that certain activities within the district and its area of influence will have on these

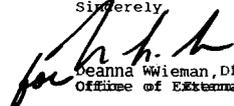
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resources. These activities include livestock grazing, mineral and energy development, agricultural irrigation, and off-highway vehicle use.

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) 556-6387, or have your staff contact Jeanne Dunn, Office of Federal Activities, at (415) 556-5104.

Sincerely,


Deanna Wieman, DDirector
Office of External Affairs

Enclosures

dcn: 90-090

CC: Carol Russell, ADEQ

SUMMARY OF RATING DEFINITIONS AND FOLLOW-UP ACTION*

Environmental Impact of the Action

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IO--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."

SAFFORD DISTRICT DRAFT RMP/EIS
EPA COMMENTS -- 1990

8 JUN 1990

Air Quality

1. The FEIS should discuss the National Ambient Air Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) increments applicable to air quality in the Safford District.

2. For each alternative, the FEIS should identify the activities that might impact air quality (e.g., sand and gravel extraction, other mining activities, fire management, Off-Highway Vehicle (OHV) use). It should also consider any cumulative impacts to NAAQS and PSD increments resulting from activities on BLM land in the district and other pollutant sources such as smelters in the district's vicinity.

Water Quality

1. The Affected Environment Water Quality information on page 129 cites the 1984 water Quality Assessment prepared by Arizona Department of Health Services (ADHS) pursuant to section 305(b) of the Clean Water Act. section 305(b) reports are prepared on a biennial basis. ADHS subsequently prepared a Water Quality Assessment in 1986, and Arizona Department of Environmental Quality (ADEQ) prepared a Water Quality Assessment in 1988. More importantly, ADEQ prepared a Nonpoint Source Assessment Report (SAR) in 1988, pursuant to Section 319(a) of the Clean Water Act. Arizona's SAX, approved by EPA on August 28, 1989, provides the following information which should be cited in the Affected Environment Water Quality section of the FEIS.

• 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 affected in the Safford BLM District by nonpoint sources include the Gila River (grazing and resource extraction), the San Simon River (irrigated agriculture), and the San Pedro River (grazing, resource extraction and irrigated agriculture).

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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 Bureau of Land Management (BLM) programs identified in Arizona's SMP include: watershed projects; mineral exploration and development; coal, oil and gas leasing; 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 Practice* (BMPs) to enable full protection of beneficial uses of surface waters, attainment of surface water quality standards, and compliance with the anti-degradation provision* of 40 CFR 131.12.

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 will serve to facilitate this process and encourage BLM to establish this as a priority. The MOU should contain the procedure* 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 will be fully protected, that surface water quality standards will be attained, and that there will be no further degradation of surface water quality.

We would like to take this opportunity to recognize BLM's active involvement in ADEQ's Grazing BMP development committee and BLM's work on protecting riparian areas as positive efforts to control nonpoint source pollution from BLM lands.

3. We understand that the existing detention dams in the San Simon and Bear Spring Flats basins have been effective in preventing additional head-cuts upstream by facilitating the

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recovery of riparian vegetation through replenishment of shallow groundwater aquifers. Accordingly, we support the construction of the Timber Draw Dam and the repair of the Oso Largo Detention Dam. However, additional effort*, including reductions in animal units on grazing allotments in these watersheds, will be necessary to control nonpoint source impacts on water quality in these basins. We encourage BLM to work closely with ADEQ on the restoration efforts.

4. We support the BLM's proposed suitability evaluation of Aravaipa Creek, Mescal Creek, Redfield Canyon, Swamp Springs Canyon, Hot Springs Canyon, Bass Canyon, Turkey Creek, Deer Creek, and the left fork of Markham Creek for Unique Waters designation*. This measure would constitute an effective step toward protecting the quality of these waters. However, we also recommend that BLM evaluate Wildcat Canyon, Double R Canyon, and Grapevine Creek for suitability for Unique Waters designation, as recommended in Alternative B. In addition, we encourage BLM's monitoring of these waters to include appropriate bioassessment method*, such as the macroinvertebrate assessment method developed by the U.S. Forest Service, and any appropriate biological monitoring and assessment method* which have been developed by EPA pursuant to Section 304(a)(8) of the Water Quality Act of 1987. These waters may prove to be appropriate reference water bodies for Arizona's development of biological water quality standards over the next three years.

5. Appendix 11 should include the frequency of monitoring and the specific parameters that will be monitored at the water quality testing sites. We recommend that, at a minimum, monitoring be conducted annually and that parameter* to be monitored in surface waters include nutrients and all of the parameter* for which Arizona has water quality standards. BLM should consult with ADEQ in the design of the monitoring program. BLM should also carry out bioassessments in surface waters that are potentially affected by nonpoint sources. 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.

6. Appendix 7 lists the public lands that meet Federal Land Policy and Management Act (FLPMA) requirement* for sale or exchange. EPA is concerned that some of the parcel* (e.g., those near Glenbar, San Jose, and San Simon) may include waters of the United State*. Because the public lands identified generally

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have potential for economic development, any waters of the United States within these parcels could eventually be affected by residential, commercial, or recreational development. The FEIS needs to identify which parcels, if any, include waters of the United States, particularly major drainages such as the Gila and San Simon rivers.

Livestock Management Issues

EPA believes that this RMP should expand on the existing baseline information and the issues relating to livestock management in the district. Most of the resources managed under the Safford District Resource Management Plan (RMP) -- water quality, soil erosion, vegetation and wildlife habitat, ACECs and riparian areas, cultural and socioeconomic resources -- have the potential to be significantly affected by livestock management. Livestock grazing in the Safford District is managed through allotment management plans (AMPs), most of which were developed out of decisions based on the Upper Gila-San Simon Grazing EIS (BLM, 1978) and the Eastern Arizona Grazing EIS (BLM, 1986). EPA's concerns regarding the 1986 Eastern Arizona Grazing EIS (as expressed in our December 6, 1985, and October 29, 1986, letters to BLM's Arizona State Director) were never adequately addressed. Our comments on the EIS focused on: the lack of existing information regarding water quality and riparian habitats; the consequences of grazing on water quality, soil erosion, and riparian habitats; and appropriate management practices to avoid impacts from livestock. It may be beneficial for BLM to maintain flexibility in updating the AMPs in order to accommodate management changes necessary for the protection of the district's resources.

162-4

162-5

1. The FEIS should describe the connection between the livestock management activities and resources addressed in the grazing EISs and the activities and resources managed under this RMP. We recommend that the FEIS briefly summarize the district's AMPs and the special livestock management practices currently implemented in sensitive watersheds or in watersheds in unsatisfactory condition. The FEIS should also discuss the criteria used to revise allotments and animal unit months (AUMs). The FEIS should also discuss how much flexibility BLM has in implementing the AMPs and how this would affect implementation of this RMP.

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162-6

2. A map of current and future grazing allotments and their respective categories ("Improve," "Maintain," and "Custodial") would also prove useful. This map, coupled with one indicating watershed conditions and soil erosion potentials, would greatly enhance the FEIS as a public disclosure document.

162-7

3. The 1986 Eastern Arizona Grazing EIS called for monitoring the grazing management program to determine the effectiveness of grazing treatments and new rangeland developments and to determine whether AMP objectives are being met. The FEIS should discuss the parameters that have been monitored and thoroughly explore any trends that are apparent from the monitoring data collected in the grazing districts over the last several years.

162-8

4. In light of the potential significant impacts from grazing on water quality, 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.

- Use fencing or other methods to exclude livestock from all riparian areas. Livestock access to riparian areas has a significant negative impact on water quality due to trampling of stream banks and consumption of riparian vegetation.

162-9

5. The FEIS should identify the measures that will be taken to implement "appropriate" livestock management in order to protect the San Simon River floodplain (DEIS, page 39).

162-10

6. Under the preferred alternative, most of the proposed ACEC designations -- Black Rock Research Natural Area (RNA), Bonita Creek, Gila Box, Turkey Creek Riparian, Table Mountain RNA, Desert Grasslands, Bear Springs Badlands, Guadalupe Canyon Outstanding Natural Area (ONA), Bowie Mountain Scenic, Coronado Mountain RNA, Wilcox Playa National Natural Landmark (NNL), 111 Ranch RNA, and Peloncillo Mountains ONA -- do not include livestock exclusions. Most of these would not even be subject to individual livestock management plans. Several of these ACECs include riparian areas or unique plant associations. The FEIS should identify the proposed ACECs in which grazing currently occurs or potentially will occur in the foreseeable future and evaluate for each ACEC the impacts that livestock grazing would have on riparian habitat, water quality, soil erosion, vegetation, and wildlife.

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soil Resources.

162-11 1. At least 49,680 acres of severely eroded soils have been identified in the Safford District (DEIS, page 127). What factors have contributed to the severe soil conditions observed (e.g., overgrazing, roads, mining)? The FEIS should summarize not only existing soil/watershed conditions, but potential causes as well, so that appropriate measures may be determined to stabilize or improve soil erosion conditions.

162-12 2. The FEIS should indicate how continuation of seasonal livestock use in the Bear springs Flat area will serve to accomplish stated soil erosion and salinity management objectives (DEIS, page 39). Potential impacts to soil erosion and water quality should be discussed.

162-13 3. The DEIS states that soil erosion studies would be conducted at Hot Well Dunes to determine the effects of OHV use, and OHV use will be limited if erosion becomes unacceptable. The FEIS should identify the baseline information and evaluation criteria to be used in the studies and define the term, "unacceptable," in the context of soil erosion at Hat Well Dunes (DEIS, page 40).

162-14 4. Although the proposed watershed and soil treatment areas are delineated on Map 34 of the DEIS, the DEIS does not include any maps depicting watershed conditions or soil erosion potentials throughout the district. It is difficult, therefore, for the reviewer to judge whether or not the proposed watershed and soil treatment areas adequately protect the watersheds that are in poor condition or soils that are susceptible to wind and water erosion. The FEIS should include maps showing watershed conditions and soil erosion susceptibility throughout the district.

Vegetation

162-15 1. The DEIS states that vegetation manipulation will be used to decrease invading woody plants and increase grasses and forbs for wildlife, watershed condition, and livestock (DEIS, page 40). It is not clear what these "invading" species are or whether they are native or non-native. The FEIS should specify the direct and indirect adverse and beneficial effects that vegetation manipulation would have on wildlife, native vegetation, soil stability, and water quality. It should also indicate how livestock will be managed in areas where listed threatened and endangered (T&E) plant species are reintroduced.

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162-16 2. The FEIS should more thoroughly discuss the direct and indirect impacts of firewood cutting in each of the areas specified for the four alternatives. The FEIS should also identify what other vegetative products would be available to the public pursuant to issuance of a permit.

Wildlife

162-17 1. The DEIS states that under the NO Action Alternative predator control would only be permitted in areas where evidence of extreme depredation of livestock is documented. Is this the only condition that currently triggers such activities? The FEIS should discuss the activities involved in animal damage control and the criteria used to determine the need for animal damage control.

Riparian Areas

162-18 1. Water quality monitoring will be conducted in selected riparian areas listed in Appendix 11 (DEIS, page 29). It is not clear why certain ACEC riparian areas are not included in this list. Furthermore, livestock apparently are permitted to graze in Gila Box and Guadalupe Canyon, but these stream segments are not included in the monitoring program. The FEIS should discuss the criteria used to determine which stream segments in the district should be monitored for water quality.

162-19 2. Table 2-23 indicates that construction and/or repair of dams will benefit soil resources, but the DEIS provides no other information on adverse or beneficial effects of dam construction and/or repair on water quality, riparian or upland vegetation, or wildlife habitat. The FEIS should provide this information.

Wilderness

162-20 1. According to the DEIS, impacts to range, wildlife, timber, recreation, lands, soils, vegetation, cultural, fire, water, mineral, energy, air, and visual resources are not expected to result from either the Aravaipa Canyon or Galiuro wilderness additions for any of the alternatives. social and economic impacts and impacts to livestock grazing are also expected to be minor. It is not clear, therefore, why the complete study areas for both wildernesses are not recommended in the preferred alternative. EPA believes that wilderness designations for the complete study areas would benefit affected water quality, riparian habitat, vegetation, wildlife, and soil resources. The FEIS should dis-

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Discuss the reasons why, give" the results of the wilderness studies, the entire study areas are not being recommended in the preferred alternative.

Wild and Scenic Rivers

162-21

The DEIS does not explain the basis for selection of the "No Action" alternative for wild, scenic, or recreational designation of the Gila Box segments of the Gila River. According to the DEIS, air, water, soils, vegetation, wildlife, fire management, visual, cultural, and paleontological resources would not be adversely affected by wild, scenic, or recreational designation, and many would in fact benefit through the protection that a designation would offer. The DEIS also anticipates very minor impacts to livestock grazing and energy and mineral resources. EPA believes that the resources in the vicinity of the study areas would be better protected and enhanced by designation of the Gila Box as wild, scenic, or recreational. The FEIS should discuss why, given the results of the designation evaluation, the Gila Box study area* are not being recommended in the RMP's preferred alternative.

Lands and Realty

162-22

1. The DEIS states that the terms and conditions to be applied to right-of-way grants for corridors and communication sites and for use outside of planning corridors and communication sites were analyzed in the planning process for the Safford District RMP (DEIS, page 8). The FEIS should identify the terms and conditions to be applied to utility corridors and communication sites.

162-23

2. The FEIS should provide more information on the proposed designations of communication sites and the existing utility lines as corridors for future utility needs. The purpose of the 1-mile wide utility corridors should be explained. Aside from the segment of the San Pedro corridor where it crosses the San Pedro Riparian Natural Conservation Area, are there other segments of any of the proposed corridors that should be narrower than one mile across? If utility corridors and communication sites are to be designated in the FEIS, their environmental, cultural, and socio-economic impacts must be fully evaluated. Any mitigation measures necessary to protect the district's resources from adverse impacts of these designations should also be discussed.

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3. The acquisition of up to 108,562 acres of private and state lands may occur under the preferred alternative. We understand that site-specific environmental assessments are prepared for each acquisition. EPA recommends that the FEIS discuss how BLM will determine whether any of the lands proposed for acquisition contain sites where hazardous wastes were disposed of in past years. The presence of hazardous wastes could diminish the habitat and public recreation values of the proposed acquisition. Furthermore, once the lands contaminated with hazardous wastes become BLM property, BLM may become a responsible party under the terms of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. NO. 99-499 (SARA). BLM could be legally responsible for remedial investigations, cleanup activities, and full or partial cleanup costs.

162-24

Access

162-25

1. The FEIS should evaluate the adverse and beneficial impacts of the proposed road reconstruction projects. Soil erosion and water quality are of particular relevance.

162-26

2. The FEIS should indicate what measures will be taken to rehabilitate eroded areas where roads will be closed. What steps will be taken to stabilize and revegetate denuded areas?

Off-Highway Vehicle Use

162-27

1. EPA strongly supports the proposed closing of sensitive areas to OHVs. The use of OHVs, especially in riparian areas, can be a significant nonpoint source of pollution. While limiting the use of OHVs to designated roads on most of the remaining portions of BLM land would have a beneficial impact on water quality, we have serious concerns as to whether such a restriction could be enforced, given the extensive area that BLM manages. A better alternative, in terms of nonpoint source control, would be to close all riparian area watersheds and areas of high erosion potential to OHVs.

162-28

2. The FEIS should describe the current condition of the Hot Well Dunes and include a" inventory of vegetation and wildlife species and populations. The FEIS should also evaluate the impact of OHV use at the Hot Well Dune area on air quality, water quality, soil stability, vegetation, wildlife, and paleontological resources to determine whether this area should be open to

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OHV use. The FEIS should discuss how baseline information would be collected in this area and how further monitoring would be conducted in order to assess the impacts of OHV use in this area.

162-29

3. The FEIS should discuss any indirect impacts to tree and CACTUS populations resulting from OHV access and illegal collection of plants in potentially critical areas.

Energy and Minerals

162-30

1. We strongly recommend that the mining restrictions and acreages in Alternative B be adopted as part of the FEIS preferred alternative. Water bodies in the Safford District are currently affected by nonpoint source pollution from extraction activities. These restrictions should significantly improve water quality relative to the mining restrictions under Alternative A. In addition, we recommend that mining restrictions, including prohibition of sand and gravel operations, be implemented in all riparian areas to protect water quality.

162-31

2. It is not clear in the DEIS why Alternative A does not include the Turkey Creek Riparian ACEC or the Swamp Springs-Hot Springs Watershed ACEC among the list of areas that would be subject to withdrawal from mineral entry, "no surface occupancy," or prohibited sale of mineral materials. According to Table 2-1, mining plans would be required for these areas. Under alternatives A and B, all riparian areas are proposed as subject to prohibition of mineral material sales and a "no surface occupancy" stipulation.

162-32

3. The FEIS should include information on the impacts of mining in the district in the past and foreseeable future (i.e., the period during which this RMP applies). It should specify for the entire district: 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 in the district. The FEIS should also evaluate the impacts of mining in these areas and discuss any mitigation measures that are necessary to protect water quality, soil resources, vegetation, and wildlife (including desert big horn sheep). The FEIS should discuss the value of mining restriction in riparian areas such as Turkey Creek Riparian ACEC and swamp Springs-Hot springs Watershed ACEC.

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162-33

4. The FEIS should include a discussion of BLM's stipulations for exploration, development, operation, and reclamation of mining areas.

Cumulative Impacts.

162-34

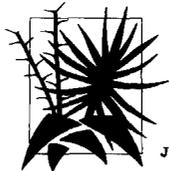
1. We have serious concerns about the cumulative impacts to surface water quality, soil resources, riparian habitats, vegetation, and wildlife attributable to proposed and ongoing activities in the district. The FEIS should discuss the cumulative impacts to these resources from activities such as agricultural irrigation, livestock grazing, mineral extraction, and soil and vegetation treatment projects throughout the district and its area of influence, not just in ACECS and other special management areas.

Future NEPA Documents.

162-35

1. We understand that several NEPA documents currently are being independently prepared or will be prepared pursuant to guidance provided by this RMP. These documents include the Fire Management Activity Plan; habitat management plans; livestock allotment management plans; site plans for communication sites; recreation management plans for Special Recreation Management Areas; activity plans to rehabilitated soil erosion areas; management plans for use and conservation of water; District Water Quality Management Plan; Paleontological Resources Management Plan; and project-specific pesticide/herbicide management plans based on the EIS, "Vegetation Treatment on BLM Lands in 13 Western States," currently being prepared. We request that BLM notify EPA when any of these environmental assessments (EAs) or EISS are released for public review.

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The Arizona Native Plant Society

June 4, 1990

Mr. Steve Knox
Bureau of Land Management - Safford District
426 E. 4th Street
Safford, AZ 86446

Box 41206 Sun Station
Tucson, Arizona 85717

Dear Mr. Knox:

The Tucson Chapter of the Arizona Native Plant Society welcomes the opportunity to comment of your proposed Resource Management Plan for the Safford District. We have indexed our comments to specific pages in your draft plan.

163-1

Page 18. We draw attention to your proposed plan. to continue livestock grazing on the 6,651 acre area within the San Pedro Riparian National Conservation Area. Your proposed action contradicts the intent of Congress to prohibit livestock grazing within the NCA for a period of 16 years, as specifically mentioned in the Committee report. When the NCA bill was passed by Congress. ANPS request. that the area be withdrawn from livestock grazing in accord with Congressional intent.

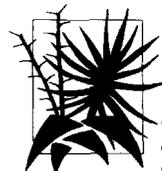
163-2

Page 24. We oppose the reconstruction of Virgus Canyon Road. Left Fork of Markham Crock Road, Jackson Cabin Road and East Turkey Creek Road. These roads are located in sensitive riparian watersheds and reconstruction and increased use will facilitate increased erosion and siltation problem. within key riparian areas. Reconstruction of East Turkey Creek Road is especially inappropriate due to the presence of *Eriogon discaticus*. A category 2 plant currently known from only 2 locations in the world: Fish Canyon in Superstition Mountains and Turkey Creek at the east end of Aravaipa Canyon. In light of the paucity of information available on this species, a prudent course of action would be to avoid any action. which are likely to increase vehicular travel and uncontrolled visitor use in the area.

163-3

Page 24. ANPS strongly supports the Safford District's proposed ACEC designations especially Bonita Creek ACEC, Oils Box ACEC, Turkey Creek ACEC, Table Mountain ACEC, Desert Grassland ACEC, Dry Spring ACEC, Swamp Springs-Hot Springs Watershed ACEC, Eagle Creek Bat Cave ACEC, Willcox Playa ACEC and Guadalupe Canyon ACEC. Specific recommendations regarding ACEC management prescriptions are:

Bonita Creek ACEC: Language related to livestock grazing is conspicuously absent. We suggest that livestock grazing be managed to exclude livestock from the riparian corridor between May and September



The Arizona Native Plant Society

63-4

of each year as part of the management prescription.

Turkey Creek Riparian ACEC: If this ACEC is retained, (see our comments below regarding an expanded Aravaipa Canyon ACEC), "manage livestock" as a management prescription strikes us as ludicrous. It is our hope that the BLM "manages livestock" on all their lands. We recommend that livestock be excluded from this ACEC due to the fact that the ACEC boundary area include the riparian corridor of Oak Grove Canyon and Turkey Creek and efforts to protect this area that do not drastically reduce livestock usage are cosmetic.

63-5

Box 41206 Sun Station
Tucson, Arizona 85717

Desert Grassland ACEC: Language should be added that specifies that the no action. will be permitted that increases livestock use above historical usage.

Swamp Springs-Rot Spring. Watershed ACEC: ANPS strongly supports no livestock as part of the management prescription.

We also recommend the designation of the Aravaipa Canyon Watershed ACEC as proposed in Alternative B. The relevance and importance criteria used to justify the designation of the Swamp Springs-Rot Spring. ACEC are present within the Aravaipa Canyon Watershed ACEC. We also recommend that livestock grazing be excluded or reduced from those portions of the expanded ACEC in which permittees are receptive to such action.

The Safford District's planning effort. with respect to the ACEC program set. the standard for the BLM throughout Arizona. ANPS strongly supports the development of site-specific plans for each designated ACEC. In areas designated as riparian... we support the dropping of ACEC designation but draw attention to the need to carry the management prescriptions identified in the RMP forward in the Wilderness Management Plan.

163-6

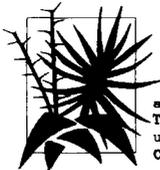
Page 29. The existing road. and trail. map should be included within the final RMP document.

163-7

Page 29. Program objectives and certain action. for Riparian Areas could benefit from an implementation timetable that is shorter than the length of the planning period. Riparian Areas management should receive priority management attention which should be reflected in the final plan through an implementation schedule. We recommend that the action. 2, 3, 4, 6 and 7 be completed within a 3-5 year time period.

163-8

Page 31. ANPS strongly supports proposed State/Private land acquisition, especially those lands which support high quality riparian habitat, watershed. of important riparian areas and T&E species habitat. ANPS urge. the BLM to give special consideration to acquiring additional lands within the riparian corridor of the San Pedro River from Be... to the Oils River confluence including significant sites.



along major perennial tributaries to the San Pedro River. The San Pedro River NCA should be seen as the building block upon which protection of the entire San Pedro River system can be affected.

63-9 | The Arizona Native Plant Society

Page 40. ANPS requests that BLM include language that emphasizes the use of native species on vegetation treatment actions.

Page 40. Refer to USFWS - ESO for a complete list of sensitive plant species to ensure that all species are properly categorized (e.g. Category 2) and referred to in the RMP using currently taxonomic nomenclature. A listing of documented and suspected sensitive species within the Safford District should be included as an Appendix. This is now standard information provided by all LMP and RMP documents.

163-10 | Box 41206 Sun Station
Tucson, Arizona 85717

I We find reference to a monitoring plan and its attendant guidelines to be conspicuously absent from the draft RMP. ANPS draws your attention to the fact that this was grounds for an appeal of the Lower Gila RMP. Please include appropriate reference to monitoring in an Appendix.

63-11 |

Overall, the Tucson Chapter of the Arizona Native Plant Society supports the preferred alternative of the Safford District subject to the aforementioned recommended changes. We appreciate the opportunity to provide input into the land management planning process on the public lands.

Sincerely,

Barbara Tellman

Barbara Tellman
President, Tucson Chapter

cc: ANPS Conservation Committee

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Draft Safford District Resource Management Plan
Public Comment Form

Issue/Management Concern: Access

164-1 | Comment: *The Justice Mountain Allotment had tremendous potential for grazing which is yet undeveloped. The area needs to have a road constructed which would connect the Guavule Canyon road to the Bull Gap road in order to develop and maintain the range improvements necessary to properly distribute cattle on the allotment. The area will soon be released from USA status and at that time we would hope to work cooperatively with the BLM in order to modify the allotment's AMP. In addition to construction of the new road (approx. 2 mi), existing roads in Toyilla Canyon and Smith Canyon need maintenance. These road projects are critical to the maintenance & development of improvement which could make this allotment much more manageable. These proposals would also benefit the areas' wildlife and watershed values. Construction of this very critical road should be included in the RMP. Thank you for this opportunity to comment on this very important issue.*

Name: Jeff Menges
Representing: Slash Hook Cattle Co.
Address: P.O. Box 792
Maricopa, AZ 85540
Date: June 10, 1990

165

Bureau of Land Management
Safford District
425 E. 4th Street
Safford, Ariz. 85546

Date: June 12, 1990

Re: Comment - Resource Management Plan

The South Rim allotment, with its proximity to Aravaipa Canyon Wilderness and its own brand of rugged beauty, has the qualities and potential of being a spectacular national wildlife and recreational area. It is with this thought in mind that I make the following comments.

Historic grazing on the ranches which now make up the South Rim allotment traditionally used and heavily depended upon, (for water and forage), the riparian corridors as an integral part of their grazing systems.

Water improvements are few, but in addition to this, the deeply broken character of the topography makes it difficult for cattle to travel either to waters or to effectively utilize the available feed.

The map I enclosed attempts to illustrate the location of permanent water during dry periods in Turkey Creek. Without extensive steel rim and pipeline distribution systems the pastures adjacent to Turkey Creek cannot be adequately watered during these periods. At the same time, it is difficult to say if Turkey Creek would contain enough water to support such a system. Dirt tanks in the vicinity are mostly small and contain water only periodically.

Under previous grazing systems cattle were permanently located into "pastures" whose boundaries were dictated mainly by the features of the natural terrain, and the calves were gathered annually. This system degraded the range, but good years brought good profits.

It is my feeling that the scope of improvements plus the amount of management necessary for this allotment to be brought up to a level of acceptable impact, will not be a profitable venture.

165-1

I agree with an ACEC designation for Jackson (Oak Grove) Canyon, but I also feel that the portion of Turkey Creek which lays in Section 5 upstream from the corral, (see map), should be included in this prescription. In addition, this section of riparian corridor should be removed from the periodic grazing to which the

adjacent portion of Turkey Creek is subjected to. The area is not used as either a corridor of cattle movement nor does it contain surface water during the driest times of the year. Its narrow gorge does contain well developed oak, sycamore, and ash trees, and I have sighted Mexican Spotted Owls there for several years.

The Turkey Creek-Mammoth road has steadily increased in popularity over the years and it represents a valid recreational use of the public lands. As rough and deteriorated as this road is it seems to have a special attraction and challenge to some, and is just rugged and scenic to others. For this reason I believe that it is important to leave this road in a primitive condition. The BLM should encourage volunteer efforts by ORV organizations to periodically repair the worst sections of road by hand. Cattleguards should be installed to the greatest extent possible.

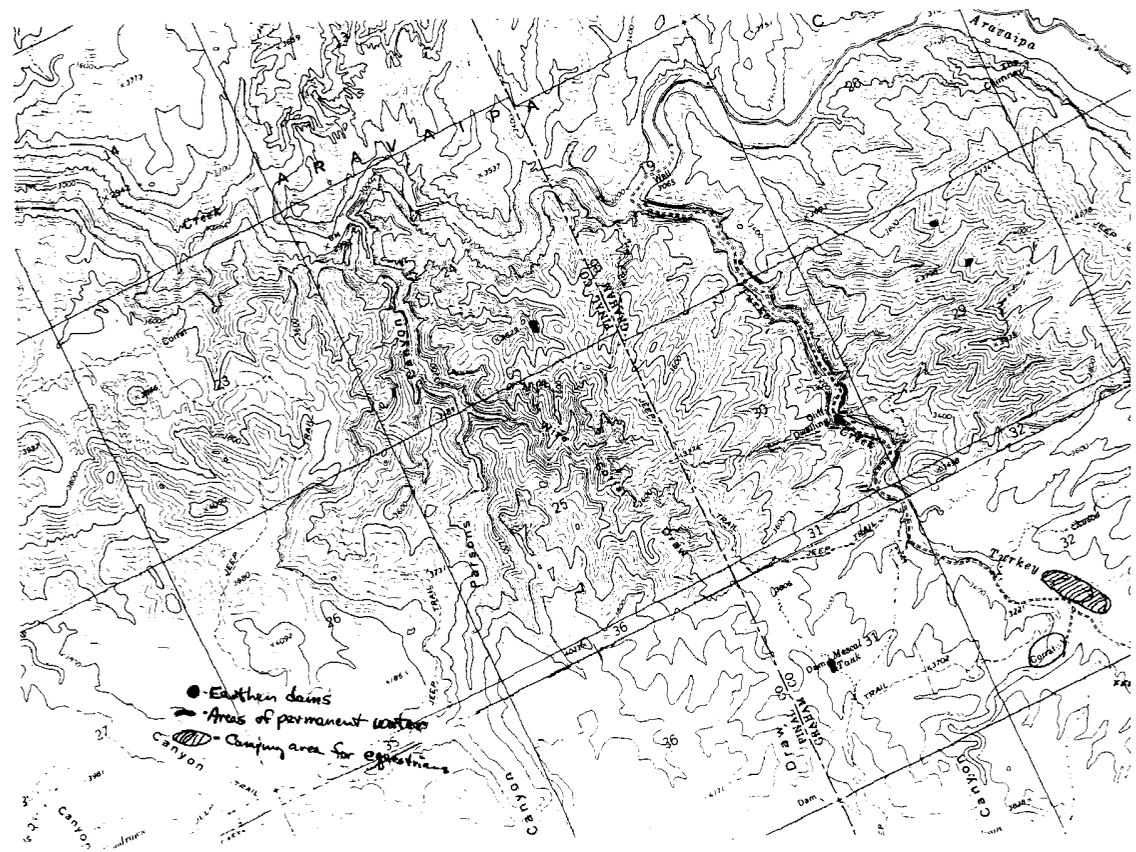
I also feel that no additional roads should be opened to public motor vehicle access on the allotment until the BLM has adequately inventoried the biological and archaeological resources of the area, and has assessed the needs of lower impact (equestrian, mountain bike) recreational uses.

165-2

Equestrian use has also increased over time. With the limitations placed on livestock recreational use in the wilderness, plus the occasional conflicts with other wilderness users, it is important that equestrian use not only be accommodated, but promoted on the south rim of Aravaipa Canyon. Turkey Creek already offers an alternative, but I feel that improving facilities such as the two corrals in upper Turkey Creek, (not used in current AMP operation), and the trails into the adjacent uplands would make it a spectacular alternative. With the formation of use agreements or exchanges with certain landowners, similar opportunities exist for the allotment's west end.

John C. and Norma Tapia Luepke
Box 53 Klondyke R.S.
Willcox, Ariz. 85643





● Earthen dams

→ Areas of permanent water

▨ Camping area for egrets

Canyon

Canyon

Aravaipa

Turkey Creek

Dam

Road

Trail

Canyon

Dam

Road

Trail

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Bill McGibbon
President, Green Valley
Harold LaScurt
1st Vice President, Springville
Jack Metzger
2nd Vice President, Flagstaff
Joe Lane
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Vinco Butler, Springville
Duane Miller, Sonora
Joe Lane, Wilcox
Fred T. Boice, Tucson
Herb Metzger, Flagstaff
Walter Armer, Tucson
Lynn Anderson, Pheoa
Bob Bowman, Sonora
Jim Webb, Phoenix
Deceased



Arizona Cattle Growers' Association

1401 North 24th Street, Suite #4 • Phoenix, Arizona 85008 • Telephone (602) 267-1129

June 12, 1990

Mr. Steve Knox, RMP Team Leader
Bureau of Land Management
425 East 4th Street
Safford, Arizona 85546

Dear Mr. Knox:

The Arizona Cattle Growers' Association (ACGA) appreciates the opportunity to comment on the draft RMP/EIS for the Safford District.

PROFITABLE GRAZING:

We might suggest that in all BLM plans, we feel that one essential objective should be "profitable grazing" When this objective is reached, many positive things can be achieved on the public lands.

ACCESS:

The issue of access is one of great concern. The ACGA recommends that all existing roads and trails be left open. Even the roads which require four-wheel drives are very important. Roads provide permittees feasible means of developing and maintaining range improvements. These improvements enhance grazing distribution, wildlife populations and watershed values. Many areas in the Safford District need additional roads for construction of additional range improvements. These roads give a greater percentage of the public the chance to see and enjoy the public lands. Only a small percentage of the public have the health and wealth required to backpack into areas which are inaccessible by vehicle.

ACEC'S GENERAL:

The ACGA is very concerned with the excessive number of ACEC's and the excessive number of acres within the ACEC's proposed in the plan. These special management units will further reduce the number of acres of multiple use lands that are so critical to the economies in rural Arizona. We are also concerned that the National Park Service may assume management of many of ACEC's and include them in the National Park System. This would impose further restrictions on the land and further economic restraints on rural economies. We are concerned that the additional funds required to manage these special units (ACEC's) may further deplete the amount of funds available for range improvements and range management.

Until these many questions and concerns have been resolved, the ACGA cannot support the creation of these ACEC special management units.

Mr. Steve Knox
June 12, 1990
Page 2

ACEC'S - OBJECT TO GRAZING EXCLUSION

More specifically, one of our main concerns with the plan is the proposed exclusion of grazing on the Muleshoe and Aravaipa ranches which are owned by The Nature Conservancy. The ACGA opposes the exclusion of grazing within these large ACEC's which include:

- Muleshoe Ranch
 - Alternative A- 22,883 acres on the Swamp Spring-Hot Springs Watershed ACEC. p.26
 - Alternative B- 33,287 acres on the Muleshoe ACEC. p.45
 - Alternative C- 9,926 acres on the Muleshoe Riparian ACEC. p.65
- Aravaipa Ranches
 - Alternative B- 78,028 acres on the Aravaipa Watershed ACEC. p.44
 - Alternative C- 46,268 acres on the South Rim ACEC. p.64

The ACGA would support Alternative D (no action) on these allotments and urge that cattle grazing be returned to the allotments. Some ACGA members have expressed a willingness to graze these allotments. We disagree with the concept that livestock grazing should be "excluded to facilitate rehabilitation of the riparian and upland vegetation communities within the ACEC". p.193 Objectives of this type can be met through properly managed livestock grazing. Total economic loss to local economies which would result from exclusion of livestock grazing in these areas would be in excess of \$500,000 per year.

- Dry Spring RNA-ACEC
 - Alternative A- 825 acres. Gila River p. 25
 - Alternative B- 825 acres. Gila River p. 45
 - Alternative C- 90 acres. Gila River p. 64

The ACGA opposes the recommended grazing exclusion for Dry Spring RNA-ACEC

- Eagle Creek Canyon ONA-ACEC
 - Alternative B- 9,451 acres. p. 46

More than half of the land in the proposal is privately owned. A designation of this type would infringe on the private property rights of the land owner. ACGA opposes this proposal because of the private property within the area.

WILD AND SCENIC RIVERS:

The ACGA supports the Wild and Scenic River Alternative, "1. No designation alternative (no action)" which states that no acreage would be recommended for designation under the Wild and Scenic Rivers Act in the areas.

166-3

166-1

166-2

Mr. Steve Knox
June 12, 1990
Page 3

RESOURCE MONITORING:

166-4 | The ACGA is concerned that there is no thorough resource monitoring established in any alternative described in the plan. Definitive resource reference points such as sight specific, clearly described plant community and soil condition baseline data are needed for monitoring wildlife population levels. wildlife impacts on habitat, grazing/wildlife interaction and other values important to a sight specific ecosystem. We are concerned with the omission of specific and measurable resource criteria. The ACGA strongly supports an integrated resource monitoring program.

ARIZONA GAME AND FISH DEPARTMENT STRATEGIC PLANS:

166-5 | Although there are several references to the strategic plans of the Arizona Game and Fish Department, the plan does not address who has the ultimate responsibility for the resource and its protection. Over population of any wildlife species has negative impacts on the resource. The plan should address realistic wildlife population levels and include clarification of the influence of wildlife management under this plan on intermingled lands. We object to the alternative in the plan wherein the Safford District BLM relinquishes their ability to protect the resource by allowing the strategic plan of the Arizona Game and Fish department to drive a single use of the resource at the expense of other multiple uses.

COMMENTS ON APPENDIX 6 PAGES 247 TO 249:

1. RIPARIAN/AQUATIC HABITAT AND SPECIES DEPENDENT ON RIPARIAN/AQUATIC HABITAT:

166-6 | The ACGA supports the enhancement of riparian/aquatic habitat use. Riparian habitat management must be considered as part of the whole resource context, including surrounding uplands. There is ample data developed by the BLM that demonstrates livestock grazing can occur on riparian areas without damaging riparian areas and when properly managed will maintain and enhance the riparian/aquatic habitat. We suggest language be added to the plan acknowledging the importance of riparian areas to livestock grazing and riparian management as one part of the total resource.

2. SPECIES IDENTIFIED FOR REINTRODUCTIONS IN FISH AND WILDLIFE SERVICE PLANS:

The ACGA supports a collaborative process for the consideration of wildlife reintroductions. The collaborative process should be described in the plan. Consideration should be given to impacts on each multiple-use by reintroduction and their impact on the local economy as well as the potential for endangerment of human life.

3. DESERT TORTOISE:

166-7 | There is considerable data developed which show that grazing is not the primary factor in the concern for survival of the desert

Mr. Steve Knox
June 12, 1990
Page 4

4. RIGHORN SHEEP:

166-8 | The ACGA finds the language unclear as to how the increase in the Bighorn Sheep population in the Eagle Creek area fits with other multiple use, including grazing. in that area. We support integrated resource management to address these specific wildlife levels.

5. MULE DEER:

166-9 | The ACGA has reports from our members that mule deer populations are heavily impacted by an excessive predator population in the Safford District. The livestock industry is on record that Arizona's Mule Deer populations are low. Vegetation management can enhance habitat, but, as a study on a specific Mule Deer herd in the Sierra Nevada illustrated, uncontrolled predators reduced the herd from 17,000 animals to 7,500 within a relatively short period of time. This issue has more components than are described in the plan and needs to be restated.

6. OAK WOODLANDS AND SPECIES DEPENDENT ON OAK WOODLAND HABITAT:

166-10 | The plan does not provide resource criteria for the oaks stated. We refer to our comments on reintroduction of species relative to Item c. The statement that bear populations would be benefited by improved habitat conditions raises several concerns. Nuisance bear and lion on the Safford District are already a problem which are not addressed in this plan. The ACGA supports management of bear and lion population level.6 in relation to their native prey population levels.

7. WETLANDS:

The ACGA finds the management goals too general. We further object to the acquisition of private property by the Federal Government. It is not demonstrated that there is a need for additional wetlands in this district. Additional wetlands that would serve migrating waterfowl may be available at a lower cost in other areas.

8. OTHER SPECIES AND HABITAT OF INTEREST:

The ACGA supports the Safford District in managing priority species on public lands. In the Safford District there are many intermingled lands and adjoining lands that would be influenced by management prescriptions developed by this plan. We support an integrated approach in the development of management criteria.

Please advise us of any other comments that affect livestock grazing, and please keep us informed as to the significant dates for additional input as this plan is finalized.

Sincerely,


William A. McGibbon
President

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Tucson Rod and Gun Club

P.O. BOX 12921

TUCSON, ARIZONA 85732

District Manager
Bureau of Land Management
4425 E. 4th Street
Safford, AZ 85546

June 12, 1990

Subject: Safford District Resource Management Plan (RMP)
Attention: Mr. Steve Knox, RMP Team Leader

The review copy of the Safford District Resource Management Plan (RMP), Environmental Impact Statement (EIS), DRAFT, is a impressive workproduct by a public agency management team. The agency and personnel responsible for this valuable resource document are to be commended. Their commitment to the highest professional standards is evident and signals a important dedication to the fullest possible development of subsequent, more specific activity plans.

Tucson Rod and Gun Club (TR&GC) appreciates the opportunity to comment and requests that it be provided with all notices and publications pertaining to the adoption and implementation of the final plan.

On March 23rd of this year our organization submitted a prepared statement to the Rational Public Lands Advisory Council at its meeting in Tucson. A copy of that statement is attached and is submitted as a portion of our comments on the Safford District RMP/EIS.

ISSUE 1 - ACCESS

Tucson Rod and Gun Club (TR&GC) supports the access acquisition alternatives identified in Alternative A (The Preferred Alternative). TRRG also supports the addition of the area in the vicinity of Portal, T. 16 S., R. 31 E., Sec. 17 as identified in Comments from AG&FD Region V (locked gate preventing access to BLM and Forest Service lands).

TRhGC is especially pleased to see the Jackson Cabin Road, about 5.1/2 miles, identified for reconstruction to provide vehicle access up to the Rational Forest boundary. In addition, acquisition of legal administrative access on the Pipeline Road and its maintenance to a I-wheel drive standard is supported by the TRRG.

ISSUE 2 - AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

TR&GC supports Alternative A in 15 of the 17 ACECs as proposed with the following two (2) exceptions:

Bonita Creek ACEC: Consideration should be given to designation per Alternative B for the entire 30,240 acre watershed as an ACEC. This single deviation from the Preferred Alternative allows for the management of the interconnected uplands and streambed for the Bonita Creek watershed.

Gila Box Outstanding Natural Area ACEC: TRhGC supports Alternative R specifically to close the river bottoms to off-highway vehicle use. Only necessary administrative access should be allowed for the management of the ACEC.

Our organization agrees with the recommendation for Congressional designation of a segment of the Gila River from a point about 2 miles above Dripping Spring Wash to Winkelman for inclusion in the Rational Wild and Scenic River System.

ISSUE 3 - OFF-HIGHWAY VEHICLES

TRRG supports Alternative A as proposed in the RMP/EIS.

ISSUE 4 - RIPARIAN AREAS

TR&GC supports Alternative A as proposed in the RMP/EIS. Our organization is especially interested in the development of the riparian inventory system and its' baseline conditions. This system baseline data will be crucial to the protection of water rights on perennial streams or rivers as well as the water rights on springs and ponds.

MANAGEMENT CONCERNS 1 - 10, INCLUSIVE

TRRG supports the Management Concerns objectives and actions as proposed in Alternative A in the RMP/EIS. Wildlife habitat management and the development and protection of available waters, ponds or springs must be a management priority. We view the 10 Management Concerns as parts of the "whole. TRRG expects federal and state agencies to cooperate to the fullest extent practicable in the Wildlife and Habitat Management Plans.

Two potential state-level actions or "events" may affect implementation of any final plan. First, Arizona Governor Mofford created on May 18, 1990, by Executive Order No. 90-10, a Governor's Task Force on Environmental Impact Assessments. Timing and impact of the implementation of an Arizona mini-RRPA for state agency actions or for any public agency allocating state or federal monies can't be determined at this time. California's experiences with its' CEQA have not been without controversy in its application to wildlife management and degradation control programs.

167-1

Secondly, a group has taken out an initiative, No.12-I-90, to place on the November ballot a proposal to ban the use of leghold traps, snares, poison, flammable or pyrotechnic device on any state or other public land. Again the impact or implications of the proposal can not be defined at this time. As of this date it can't be determined if the group will be able to file the required signatures by the July 5, 1990 deadline.

Lin Hall

Lin Hall, President
Tucson Rod and Gun Club
on behalf of the Officers and Executive Board



Tucson Rod and Gun Club

P.O. BOX 12921

TUCSON, ARIZONA 85732

Statement of the Tucson Rod and Gun Club
prepared for the Record of
National Public Lands Advisory Council
Hotel Park Tucson, Tucson, Arizona
Friday March 23, 1990

The Tucson Rod and Gun Club is a sportsmen's organization committed to balanced public policies for the protection of Arizona's wildlife and for the protection of the natural habitat supporting viable game and nongame populations. Our over 3,200 family members represent the demographic diversity that has been a cornerstone of organized participation in Southern Arizona natural resource management policy. Our members enjoy hunting, fishing, camping, hiking and backpacking in developed and primitive settings throughout Southern Arizona. Our members enjoy natural scenic areas and the elusive opportunity to savor the experience of quality solitude.

As sportsmen and responsible citizens we are committed to:

The highest level of legal and physical access compatible with multiple use management. Access to or across public lands as well as access to or across private lands is to be achieved and maintained by cooperative, good faith negotiations.

The development of comprehensive plans for the long-term management of our States' wildlife by working with public and private entities for the best balance of conservation and multiple use resource development.

The fullest possible public participation at all stages of the process from conceptualization to implementation.

The Tucson Rod and Gun Club is a party to a public lands use agreement and we appreciate the dynamics at play in our changing society. Because we are a beneficiary of a broad multiple use policy, and understand the expense related thereto, we expect all conditions or terms of agreements entered into by public agencies with other private parties or organizations will be uniformly and expeditiously enforced without exception. Specifically, we demand that all agreements and conditions pertaining to physical and legal access to public land be enforced to the maximum extent permitted in law, regulation or contract. Further, we expect without exception, evasion or trick that agreements for the maintenance and protection of water rights and maintenance of water delivery systems and hardware to will be enforced as agreed.

The Officers and Executive Board of the Tucson Rod and Gun Club appreciate the opportunity to submit this statement for the record. We ask that a copy of the record for this meeting be made available and, further, that the Club be added to the mailing list for all notices of meetings, programs and publications of the National Public Lands Advisory Council or any of its committees or working groups.

Robert Bayne
Tucson Rod and Gun Club
Executive Board Member

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Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th Street,
Safford, AZ 85546

Dear Mr. Knox,

Thanks for this opportunity to comment on the Draft EIS for the Safford District, and I appreciate your extending the comment period. I have lived within the district for two years and traveled extensively within it ever since I've lived in AZ. I will comment on only a few places in this letter.

The BLM Safford District manages the best riparian areas left in the desert southwest. All riparian areas left in the state should be protected as the national treasures they are. I would encourage you to protect the entire Eagle Creek watershed as wilderness with no possibility of further mining.

I would like to see protection for the Gila River downstream of Coplidge Dam to Winkelman and the Gila Box, especially from ORV use.

Aravaipa does not need any more access roads or trails. I oppose unrestricted travel in the Aravaipa watershed. Of course, limited foot and horse travel is fine (as under the current wilderness designation) as is non-motorized travel. Reconstructing Virgus Canyon Road and gaining legal access to the west end of Aravaipa Wilderness (Plan B, Issue 1, sections 7a and 8a) will only increase the ORV use in the area, and will subsequently increase dust, trash, air and noise pollution, vegetation and wildlife destruction (increasing stress on desert bighorns, Mexican black hawks?) and most importantly soil erosion. In a watershed with resources such as Aravaipa (best example of native flora and fauna in the state, including fish, birds, and large mammalian predators) any threat must be minimized. At the upper end, I feel that East Turkey Creek Road (Plan A Issue 1, section 7f) should not be reconstructed for the same reasons. This road would allow upper Turkey Creek (with its perennial pools, native fish, and Mexican spotted owls) to become trashed like the lower end. The report sections closing Oak Grove Canyon to ORV use (Plans A, B, and C), but since it is pretty much inaccessible anyway, I would rather see upper Turkey Creek closed to ORV's.

It seems to me that your objectives are inconsistent with continued cattle grazing. The report says that restoring native grasslands is one objective of the BLM Safford District, yet I don't see how this can be accomplished with continued grazing. The damage cattle cause on our public lands (alteration of both soil structure and biological communities) cannot be tolerated. Do we know enough about the ecosystem function of cryptogamic soils to have cattle trample them away? I would suggest a rest for the Aravaipa watershed for at least the life of this plan. Another objective I would like to see materialized is the reintroduction of endemic species, especially endangered endemics

168-1

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such as the Mexican wolf. Cattle grazing should be discontinued on public lands, since this conflicts with your stated objectives. In addition, I don't believe that cattle ranching should be subsidized by taxpayers. If ranchers were charged the market price for grazing public lands, they would find it uneconomical. Eliminating public lands grazing in the West, which produces only 1.6% of our beef production would have little effect upon the industry as a whole or the economy of the region. Therefore, on economic grounds, public lands grazing should be discontinued.

Thank you,



Matthew R Brown
1029 S. Wilson #14
Tempe AZ. 85281

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Caryl Mary Williams
1029 S. Wilson Avenue, #14,
Tempe, AZ 85287

Steve Knox, RMP Team Leader
Bureau of Land Management
425 E. 4th Street,
Safford, AZ 85546

Dear Mr. Knox,

Thanks for this opportunity to comment on the Draft EIS for the Safford District, and I appreciate your extending the comment period.

As a student of native fish biology, I have been intimately involved with many areas under consideration in this plan. My Master's work at ASU is on the migration of native fishes in Aravaipa Creek, and as such this area is my main concern.

I oppose unrestricted travel in the Aravaipa watershed. Of course, limited foot and horse travel is fine (as under the current wilderness designation) as is non-motorized travel. Reconstructing Virgus Canyon Road and gaining legal access to the west end of Aravaipa Wilderness (Plan B, Issue 1, sections 7a and 8a) will only increase the ORV use in the area, and will subsequently increase dust, trash, air and noise pollution, vegetation and wildlife destruction (increasing stress on desert bighorns, Mexican black hawks?) and most importantly soil erosion. In a watershed with resources such as Aravaipa (best example of native flora and fauna in the state, including fish, birds, and large mammalian predators) any threat must be minimized. At the upper end, I feel that East Turkey Creek Road (Plan A Issue 1, section 7f) should not be reconstructed for the same reasons. This road would allow upper Turkey Creek (with its perennial pools, native fish, and Mexican spotted owls) to become trashed like the lower end. The report mentions closing Oak Grove Canyon to ORV use (Plans A, B, and C), but since it is pretty much inaccessible anyway, I would rather see upper Turkey Creek closed.

Another important issue is cattle grazing. The report says that restoring native grasslands is one objective of the BLM Safford District, yet I don't see how this can be accomplished with continued grazing. The damage cattle cause on our public lands (alteration of both soil structure and biological communities) cannot be tolerated. Do we know enough about the ecosystem function of cryptogamic soils to have cattle trample them away? I would suggest a rest from grazing for the Aravaipa watershed for at least the life of this plan. Another objective I would like to see materialized is the reintroduction of endemic species, especially endangered endemics such as the Mexican wolf. It seems to me that some of your better objectives (restoring grasslands and reintroducing endemic species) are inconsistent with continued grazing.

169-1

During the course of my work here in Arizona, I have also had the pleasure of working on the Gila River. Hikes I have taken up Bonita and Eagle Creeks have emphasized the importance of riparian habitat to creatures of the desert. The bat caves up Eagle Creek are an important nursery ground for the species, and as pollinators for saguaros (with far ranging, possibly flood-dampening root systems), the bats play an important role in the Sonoran desert ecosystem. To allow mining in the watershed of the nursery would surely destroy the nurturing attributes that it now holds. I feel the bat caves and the entire Eagle Creek watershed should be preserved.

I'm glad to hear that Bonita Creek now holds beaver again. The native Gila intermedia may yet make a comeback. The watershed of Bonita Creek should be preserved as a model system of a desert stream. Many aspects have been studied intensively, and in that regard can be likened to the Hubbard Brook Experimental Stream (New Hampshire).

In the Gila Box, a treasure of eastern Arizona, there should not be ORV use. That region of the Gila River may well serve as a refugia for native fish, and could be a prime reintroduction site sometime in the future.

Again, thank you for this opportunity. I look forward to being informed of any updates of the plan, and the final draft when it is prepared. Good luck!

Very sincerely,


Caryl Mary Williams

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ELIZABETH T. WOODIN
3600 N. LARREA LANE
TUCSON, AZ 85718

RESPONSE MEMORANDUM

TO: Ray A. Brady, District Manager
Bureau of Land Management, Safford District Office
425 E. 4th St.
Safford, Arizona 85546

FROM: Elizabeth T. Woodin, representing = self

RE: Draft Safford District Resource Management Plan

DATE: June 12, 1990

The Safford District of the BLM should be highly commended for a well organized, well thought out and comprehensive draft RMP. Such praise is especially appropriate in light of the many complex and controversial issues involved in formulating a plan of this scope.

Preferred Alternative A demonstrates the Bureau's keen AWARENESS of the necessity of an aggressive management role in the protection of Arizona's few remaining riparian areas from the many human pressures brought to bear on them. It was those pressures which WERE largely responsible for the extirpation of 95% of the riparian habitat which existed in the state before the advent of anglos. Preferred Alternative A quite adequately addresses the BLM's mandate for multiple use, but does so keeping in mind the best and most appropriate use** for those areas of biological and/or cultural richness which are particularly fragile and easily prone to degradation. There ARE, however, several AREAS which I feel are not as well reflected in Preferred Alternative A as they could be.

First, with regard to the Muleshoe CMA and particularly Issue #1 = Access, I applaud the decision to acquire legal ACCESS to the pipeline road for administrative purposes only. That route was carved out for construction purposes, along a mostly straight line with no regard for the geographical contours in its path. As such it has great potential for erosion and for endangerment to personal safety and is therefore inappropriate as a public ACCESS route. The Jackson Cabin Road, however, does provide a safer and more environmentally sound access corridor. Most people wishing to explore the Muleshoe would naturally follow such a south to north path as they would want to move towards the Galiuro Mountains and the Wilderness Area.

The prescription for management of the BLM lands on the Muleshoe as outlined in Preferred Alternative A's Swamp Springs - Hot Springs Watershed ACEC is generally worthy of support and shows a great deal of sensitivity to the many unique features for which the Muleshoe is being carefully managed by the Forest Service, the Bureau of Land Management and The Nature Conservancy. The few exceptions I would take to the ACEC as described would be in the

- 2 -

RESPONSE TO DRAFT SAFFORD DISTRICT OF
FROM: Elizabeth T. Woodin

170-1

boundaries in the north and south ea
Springs area. That latter feature shc
NOT should sections 29 and 32 in the
Those sections contain drainages into
its hydrological and riparian integr:
ACEC. In addition, I would seriously
Canyon from the ACEC.

One final CONCERN I would have regard
for the unique concentration of ripari
is mining. A closure of those fragile
rich but not particularly mineralogic
another important step towards the ki
for that ecological treasure.

With reference to the proposed manage
seem to me that Alternative B best a
values for which it is renowned. Hell
an important tributary to Aravaipa C
beautiful, unusual and fragile ripari
under an ACEC in either Preferred A
inclusion of the North Rim country in
with the Wilderness Plan for Aravaipa
table lands in order to most adequate
vegetational integrity of Aravaipa Ca
spelled out with regard to Alternativ
be incorporated into such a plan. The
One which is rather impractical to co
sufficient water to the table lands &
forage for the cattle up there in ord
zone along Turkey Creek. It is hoped
other livestock allotments will be re

In conclusion, I have learned a great
information provided in the Safford I
forward to the District's response to
offered that opportunity for comment.

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El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-541-2600

June 12, 1990

Mr. Steve Knox
RMP Team Leader
Bureau of Land Management
425 E. 4th street
Safford, AZ 85546

Re: Draft Safford District Resource Management Plan
and Environmental Impact Statement

Dear Mr. Knox:

El Paso Natural Gas Company (El Paso) operates one of the country's largest natural gas transportation systems, located in the southwestern United States. Since a number of El Paso's pipelines and compressor stations are within the Safford District, we have a vital interest in the Bureau of Land Management's (BLM's) land and resource management planning for the district.

We are particularly interested in two proposed special management areas that are crossed by existing El Paso pipelines:

- o Muleshoe Ranch - El Paso's 30" O.D. Waha to Ehrenberg Line crosses this area. Proposed for development of a Coordinated Resource Management Plan, for 7 miles.
- o Bowie Mountain Scenic ACEC - El Paso's 26" O.D. California Mainline and adjacent 30" O.D. California First Loop Line cross this proposed Area of Critical Environmental Concern (ACEC) for approximately 1.5 miles.

~~Muleshoe Ranch~~ establishes the Muleshoe Ranch as a right-of-way avoidance area. El Paso is concerned about the impact this designation could have on possible future expansion along its Waha to Ehrenberg Line. Should a second pipeline prove necessary in the future, El Paso would favor locating it adjacent to its existing line rather using a" entirely new route that avoids the Muleshoe Ranch.

Location of a new line next to a" existing line is desirable for a variety of reasons, not the least of which is reduction of environmental impacts by confining much of the construction-related disturbance to previously disturbed areas. We recommend that the designation of the Muleshoe Ranch as a right-of-my avoidance area be qualified to ensure that possible future location of a new pipeline adjacent to El Paso's existing line is not precluded.

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Mr. Steve Knox
June 12, 1990
Page 2

Bowie Mountain Scenic ACEC The Bowie Mountain Scenic ACEC presents a similar situation: BLM proposes establishing the area as a right-of-way exclusion area. No future pipeline adjacent to El Paso's existing two lines crossing the ACEC would be permitted. We recommend that this management prescription for the ACEC be modified to permit a future pipeline adjacent to the existing lines if it can be demonstrated that the environmental advantages of paralleling the existing lines outweigh the disadvantages of construction within the ACEC.

171-2

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Finally, it appears the proposed All American Pipeline corridor shown on Map 35 is approximately one mile south of the existing All American Pipeline (and El Paso's 30" D.D. Waha to Ehrenberg Line).

Thank you for the opportunity to comment on the Draft Safford District Resource Management Plan/Environmental Impact Statement.

Sincerely,

John Sproul

John A. Sproul, Jr.
senior Environmental Scientist
Environmental and Safety Affairs Department

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The Arizona Nature Conservancy

300 East University Boulevard, Suite 230, Tucson, Arizona 85705
(602) 622-3861

Mr. Ray Brady
Safford District
Bureau of Land Management
47.5 E. 4th Street
Safford, AZ 85546

8 June, 1990

Dear Mr. Brady,

We appreciate the opportunity to review and COMMENT ON your draft Resource Management Plan for the Safford District. 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 broad 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.

Riparian Habitat:

The Safford District contains by many criteria the highest quality riparian habitat found ON BLM lands in Arizona, perhaps in the entire Southwestern United States. FROM a multi-state, and multi-agency, perspective, the Safford District has a disproportionately large amount of riparian habitat. A discussion in the Summary and/or Affected Environment sections emphasizing the extraordinary variety and extent of riparian habitats and species ON the Safford District would help put the management attention given to riparian areas in the RMP into regional perspective.

Because the Safford District possesses a " unmatched wealth of riparian and wetland resources, it consequently has a proportionately large responsibility for protecting those resources. The regional importance of these wetland and riparian resources is apparent from many points of view including:

-- The variety of riparian habitats such as Cottonwood-Willow forest, Mixed Broadleaf Deciduous forests, Mesquite Bosque woodland, and Cienega marsh.

-- The number of endangered and sensitive riparian-dependant species including Loach minnow, Spikedace, Gila Chub, Desert Pupfish, Gila Topminnow, Lowland Leopard Frog, Mexican Garter Snake, Gray Hawk, Slack Hawk, and many others.

2

-- The extent of riparian habitat with many miles of flowing streams along the San Pedro River, Aravaipa Creek, Bonita Creek, Eagle Creek, Gila River, Redfield Canyon, Hot Springs Canyon, Sass Canyon, and others.

— The amount of recreational use these areas receive with thousands of visitors each year enjoying Aravaipa Canyon, Bonita Creek, the Gila River, and the San Pedro River and the concomitant economic value this provides the state.

We reiterate these points to emphasize that these resources possess much MORE than just local importance, and must be recognized as such in the Plan.

We strongly support the Safford District in taking the lead in managing riparian resources and associated wildlife habitat values with the riparian management guidelines that are proposed in the RMP (pgs. 29-31, 36 item 5, 247, 249). These management guidelines are among the best that WE have seen for riparian areas on BLM land in Arizona. The San Pedro Riparian Conservation Area Management Plan sets a standard for other BLM Districts to follow in managing riparian areas.

We support the Safford District's proposal to acquire additional lands that include key riparian areas and their watersheds and habitat for threatened and endangered species. I particular, the Conservancy urges the Safford District to consider acquiring additional lands along portions of the San Pedro River and its major tributaries from the Mexico border to its confluence with the Gila River at Winkelman. The information available to us, including information provided by the Arizona Department of Game and Fish's Nongame Data Management System, clearly indicates that additional areas outside the San Pedro River Riparian National Conservation Area should be given top priority for acquisition by the Bureau of Land Management.

Several riparian habitat islands along portions of the lower San Pedro River provide key stepping stones for migratory birds which have been identified in several studies as critical natural areas which merit protection. Several perennial tributary systems serve as refugia for native fish species and are integral components of the San Pedro River ecosystem that would benefit from greater public ownership and management. The San Pedro River is one of the few undammed, major river systems in the Southwest and the BLM has the opportunity to make a significant contribution to its long term protection.

The Aravaipa Canyon Wilderness Management Plan (ACWMP) Guides management activities for what many believe is the premier natural area ON the entire Safford District. However, the ACWMP is not cited in the Summary or Description of Alternatives as a

172-1

172-1

significant source of management guidance, as are numerous other management planning documents. The ACWMP should be cited in the Description of Alternatives as one of the management guidelines that is common to all alternatives.

Areas Of Critical Environmental concern:

We support the designation of the ACEC's proposed in the RMP to protect rare and sensitive natural resources including riparian and grassland habitat. These proposed ACEC's contain the most outstanding ecological features in the district, and their natural resource values are great despite their relatively small size. They clearly deserve special management consideration, and with the few exceptions specified below, we support the ACEC boundaries and management prescriptions described in the preferred alternative.

The Eagle Creek Bat Cave (pg. 198-199) is known as a "internationally significant bat roost in Arizona. We strongly endorse this proposal because of the site's significance, and because the ACEC management prescription will help reverse the alarming recent declines in bat population in this roost. We recommend investigating the possibility of installing a bat-accessible gate in the cave mouth to keep out vandals or other destructive intrusions.

The Guadalupe Canyon ACEC (pg. 195-196) supports a "umber of species of plants and animals whose distribution is primarily Mexican and which are found in the United States only in southern Arizona. Two rare plants of special interest, Vauquelinia californica var. pauciflora and Coryphantha robbinsorum, are known in the area and may be found in the ACEC. We encourage the Safford District to acquire private inholdings in the ACEC, as they become available. We recommend that management of the ACEC be coordinated with the Coronado National Forest which has designated a Zoological-Botanical Area in the upper reaches of Guadalupe Canyon and the appropriate New Mexico office of the BLM which manages adjacent BLM lands in New Mexico and that the RMP identify this coordination effort.

Coronado Mountain and Willcox Playa ACECs (pg. 197, 199-200) both include plant communities that are unique in Arizona. These two rare plant assemblages, the Arizona cypress-Mexican pinyon community and saline playa community, are indicative of unusual environmental conditions. Protection of small, specialized habitats such as these is critical to managing the entire spectrum of biological diversity on the Safford District.

We are in general agreement with the boundaries and management prescriptions for ACECs as described in the preferred alternative A. with the exception of the Swamp Springs-Hot

Springs and Aravaipa Watershed ACECs which we discuss below.

we feel all ACECs should be withdrawn from mineral entry and from surface occupancy. Mining exploration and development poses one of the most serious threats to aquatic resources of any land use. Impacts from these activities include toxic spills, increased stream siltation, and erosion induced by excavation and can result in extirpation of aquatic species, especially fish. These impacts are particularly tragic because they are often permanent or slow to recover, costs for attempting to rectify the damage are usually not born by those who create it, and the damage is unnecessary because the mineral values are inconsequential. We discuss this in more detail below for Aravaipa and Muleshoe Ranch ACECs.

Muleshoe Ranch ACEC (pgs. 26, 103-104, 193-194): As participants with BLM at the Muleshoe Ranch Cooperative Management Area we are looking forward to working with the Safford District to manage the ecological resources there, and we support the management prescriptions presented in the preferred alternative. The management prescriptions proposed for this area will accomplish the goals that BLM has identified in the Muleshoe CMA agreement.

However, for the Muleshoe Ranch ACEC we propose a modified boundary that is intermediate between those presented in alternatives A and B (see enclosed map). Our revised boundary serves the dual purpose of making the Sqza Mesa area outside of the Sot Springs and Cherry Springs watersheds available for livestock grazing, while assuring better protection for a significant portion of the Bass Creek watershed. Using OUI proposed boundary, two areas within the Sassa Canyon watershed, at the north-east and south-east corners of the ACEC, would be in the ACEC.

For the most part we support management prescriptions for the Muleshoe Ranch ACEC as they are presented in the preferred alternative for swamp Springs-Hot springs ACEC. However, considering the sensitive nature of the riparian values there, we recommend closing the area to mineral entry and to surface occupancy. This is unlikely to conflict with mineral interests because there are no known mineral resources of economic value and there are no active mining claims in the area. The U.S. Bureau of Mines (Mineral Investigation of the Muleshoe Study Area, Cochise and Graham Counties, 1988) concluded that mineral potential in the area is low and the USGS has rated the petroleum potential for the area as low. Mining claims would pose dangerous impacts to the natural resource values of the ACEC, would be permanent or slow to recover, and would present additional management expense to the BLM or the Conservancy.

Aravaipa Creek ACEC (pgs. 96, 189-191): We recommend adopting the Aravaipa Watershed ACEC boundaries as proposed in Alternative

172-2

172-3

B. Aravaipa Creek may well be the most significant, most sensitive, and best known natural resource on the Safford District, and as such it deserves the best possible management. We feel that this can be best accomplished by giving ACEC designation to watershed areas adjacent to the canyon to direct special management attention there.

The importance of the watershed in the tablelands area adjacent to the canyon is emphasized by the increase in stream flow from 18 cfs on the east end to 25 cfs on the west end, suggesting a strong relationship between the hydrology of the tablelands watershed and the stream. Also, Minckley (1981, Ecological Studies of Aravaipa Creek) discusses the importance of clear-water flows originating in the tablelands that counterbalance the silt-laden flows from the upper valley to maintain diverse aquatic microhabitat types. This emphasizes the importance of managing the watershed to minimize soil erosion and stream siltation in the tablelands. These hydrologic benefits are derived from both the north and south slopes, and hence ACEC designation should encompass both slopes.

The Aravaipa Canyon Wilderness Management Plan (BLM, 1988) referenced in the RMP on page 33 provides guidance for the management of the tablelands in the Aravaipa watershed for the benefit of the riparian habitat and the wildlife that depend on it. Management objectives stated in the ACWMP are: "To manage the canyon corridor and side canyons so that natural ecological processes continue to repair the poor vegetation condition caused prior to wilderness designation." and "To increase fine fuels on the tablelands (i.e., grasses) to the point that natural fires can return vegetation to grassland conditions." The plan states further that "The major emphasis of wildlife management in the ACW will be on allowing natural processes to control the evolution of the riparian habitat. . . . Management of the tablelands "ill also be geared to the free operation of natural processes." We believe that accomplishing these goals requires a watershed ACEC, and believe it is only reasonable to insist that BLM tablelands, as referenced in the ACWMP, be managed in a manner that is consistent with that plan.

Special management attention should be given to all land uses and management activities in the Aravaipa watershed. All proposed and existing management prescriptions should be evaluated in the context of managing for riparian and endangered species resource values as the over-riding goal of management in the Aravaipa watershed.

We strongly support the Aravaipa Watershed ACEC management prescription proposed in Alternative B as the best alternative for accomplishing the goals identified by BLM in the ACWMP which guides management of the area. However, the prescription for grazing in the ACEC is somewhat vague. Although we support the

proposed prescription for our South management prescriptions should be basis for each allotment in the Management Plans should be written accomplishing the ACEC resource

Regardless of the specific for the Aravaipa Watershed ACEC, defining Limits of Acceptable Change and Wilderness Area goals. The annually and evaluated relative t should be modified to correct con Limits of Acceptable Change.

Because of the complexity of importance of the resources there a high priority for drafting a

Several management objectives archeological resources that would ecological resources of the Aravaipa include patrolling sensitive site investigations, development of a resource, and developing a comprehensive educational program. All of the context of current land uses activities perhaps the most important guide other management actions, understanding the relationships between water quality and quantity in the also address the relationship between sensitive wildlife populations.

We recommend that the Aravaipa mineral entry and to surface occurrence watershed would place one of the in Arizona at risk from toxic siltation. Closure to mineral entry conflict with mining interests because area is low. The U.S. Bureau of mineral potential and for the minerals. The only site in the located near Table Mountain, is of the low grade and especially of Mines, 1988, Mineral Resources of Graham and Pinal Counties, Arizona File Report 38-88).

Roads/Access:

We feel that the public should

the use and enjoyment of public lands, and we agree with BLM that the means of access should be based on a Transportation Plan with appropriate public input that is designed to assure that sensitive resources are protected from adverse effects (pg. 16). User groups may not realize that we permit public access across our private property to BLM land in several areas including Jackson Cabin road on the Muleshoe Ranch, the east end of Aravaipa Creek, the foot trail at the WEST end of Aravaipa Creek, and the Table Mountain Pass road from Turkey Creek to Mammoth.

172-4

We oppose the opening of the East Turkey Creek (Ditmars) road (pg. 24) because it would pose a major threat to a significant riparian area, and it would not significantly improve ACCESS to any areas that are not already accessible by car. The route is down a steep, unstable hillside of cobbly alluvium that is prone to erosion, and which has been determined to be unsuitable for use as a roadway by BLM staff in a 1981 review of the road. Opening a road at this area would lead to increased erosion and sediment deposition in Turkey Creek, with likely adverse effects ON the riparian community there, including Erigeron piscaticus which is a candidate for listing as threatened or endangered. Turkey Creek should be closed to OH use above the point at which the Table Mountain road leaves the canyon bottom.

When proposing to open a road, we feel that BLM should address the additional management effort that will be needed as a result of increased use of newly accessible areas. For example, opening the Virgus Road (pg. 24) would allow vehicular access to sensitive, remote parts of the Aravaipa Creek watershed and would compromise wilderness management in the Aravaipa Canyon Wilderness Area. This is an important wildlife area and has potentially erodible soils if vehicles are used off of roadways. We feel that it would be inappropriate to open such an isolated, sensitive area unless a commitment is made to devote manpower to patrol and manage it. At a time when BLM is considering reducing the patrol effort of wilderness rangers at Aravaipa Creek, we are concerned that such a commitment might not be possible due to budget constraints.

Page-by-page Comments:

172-5

Pg. 7 Under the Wildlife Habitat management concern the control of exotic fish in natural streams should be added. Exotic fish are one of the major threats to endangered native fish populations.

172-6

Pg. 8 With regard to Recreation, one question that should also be addressed is, as recreational opportunities and facilities are expanded and visitor use grows, what level of staffing and funding will be needed to insure that sensitive resources are not damaged by recreational use?

172-7

Pg. 9 Soil erosion should be addressed as a management concern district-wide, not just in the San Simon valley. Where else in the district should erosion control activities be implemented, and where in the district does erosion pose a threat to sensitive species or habitats?

172-8

Pg. 15 Add Aravaipa Canyon Wilderness Management Plan as one of the guiding management planning documents COMMON to all alternatives.

172-9

Pg. 15 It would be helpful to provide a list of existing interagency agreements that are in effect. For example, do they include coop Habitat Management Plans with Arizona Game and Fish such as the Dripping Springs HMP at Aravaipa?

172-10

Pg. 17 With regard to ACEC management plans, have schedules and Staffing assignments been made to assure that planning for these important areas will proceed in a timely manner?

172-11

Pg. 18, 2nd paragraph It would be helpful if you would define "good or better" ecological condition. The Conservancy has some expertise in evaluating riparian habitat and we would be pleased to provide input into riparian habitat analysis guidelines.

172-

If With regard to soil erosion, accurate baseline data and intensive monitoring are needed to evaluate whether watershed erosion conditions are being "maintained or enhanced." Is such a erosion monitoring program being planned?

172-13

Pg. 23-24 You propose preparing a District Transportation Plan that will identify road access and closure needs, so it appears somewhat inconsistent to identify numerous roads to open and close before the transportation plan is prepared. These actions should be postponed until after the transportation plan is prepared, with appropriate public input.

172-14

Pg. 27 Wilderness designation does not necessarily accomplish the same goals as ACEC designation. For example, in the Dry Spring and Swamp Springs-Hot Springs ACEC grazing is excluded to protect riparian habitat, but grazing is not excluded from wilderness areas. Management prescriptions designed to protect sensitive resources in ACECs must not be lost if management designation is changed to wilderness.

Pg. 28 Issue 3. All riparian areas with perennial stream flow should be closed to Off-highway vehicles.

172-15

Pg. 29 Add as a action for riparian areas the preparation of a interpretive/educational program such as you have proposed for Cultural Resources (pg. 37-38).

172-16 | Pg. 33 Item 7. Add Aravaipa Canyon Watershed ACEC as a right-of-way exclusion area.

172-17 | Pg. 33 "hat are the boundaries of the Aravaipa SRMA, do they correspond to the wilderness area? Turkey Creek should be included within the Aravaipa SRMA due to the rapidly increasing recreational use of the area.

172-18 | Pg. 34 "0.4 The Watson Wash Hot Well site includes a population of endangered Gila Topminnow, so any proposed recreational development of the site should take into consideration protection of this rare fish.

172-19 | Pg. 35-36 Add Aravaipa and Swamp Springs-Hot Springs ACECs to areas withdraw" from mineral entry, mineral sales and surface occupancy.

172-20 | Pg. 40 Recent taxonomic revisions have resulted in the following name changes: Aster lemonii is "cw A. potosinus, Vauquelinia pauciflora is now V. californica var. pauciflora. Also Erigeron piscaticus and Lilaeopsis shaffneriana var. recurva should be added to the list of priority T&E plant species. Rumex orthoneurus is found at higher elevations and is almost certainly not found on the district.

Pg. 41-42 We congratulate you on being a leader in Arizona in managing water resources with your Instream Flow permit at Aravaipa and Unique Waters application at Bonita Creek.

172-21 | Pg. 131 Recent analysis of the mineral potential of the Table Mountain area indicates that the estimated commercial value there is \$0.5 million, not \$22.2 million as stated in Table 3-1 (U.S. Bureau of Mines. 1988. Mineral Resources Of the Aravaipa Study Area. Graham and Pinal Counties, Arizona. Mineral Land Assessment, Open File Report 38-88).

172-22 | Pg. 138 Two invertbrates should be added to the list of Threatened and Endangered wildlife: the Bylas Spring snail (Apachecoccus arizonae) and the Gila Tryonia snail (Tryonia gilae). They are each known from one location on the district, Pg.151. We support a active prescribed burn program to manage grassland habitat.

Pg. 160 I" the long run, riparian vegetation receives high, "ct moderate, benefits from establishment of Instream Flow rights.

172-23 | Pg. 183, item 37 and pg. 184 item 29. The Muleshoe pipeline road was created for construction purposes only and should "ct be opened for public use. It runs close to Bass and Hot Springs Creeks on steep, erosion-prone hillsides. Regular use of this road would lead to erosion and siltation problems in these sensitive streams.

172-24 | Pg. 190, 194 Chemical treatment should not be considered as a method for vegetation management in the Turkey Creek Or Hct Springs watersheds due to risks to water quality and fish populations.

172-25 | Pg. 201 The list of Threatened and Endangered plants should include Erigeron piscaticus and Lilaeopsis shaffneriana ssp. recurva, both of which are candidates for listing by the Fish and Wildlife Service.

172-26 | Pg. 217 The suggestion that wilderness designation may adversely effect wildlife is inappropriate and biased: nowhere else in the RMP do YOU suggest that management activities, such as opening roads for example, may have adverse effects on wildlife.

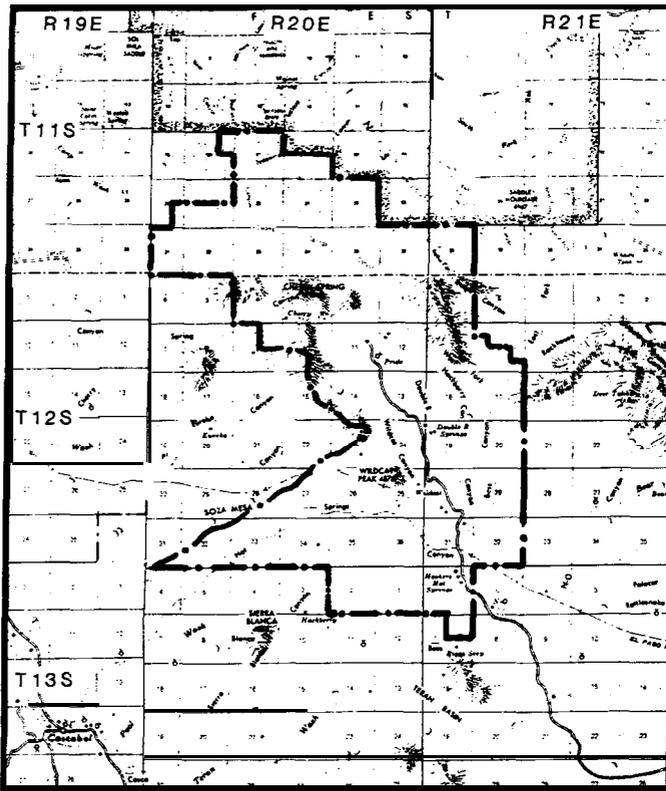
172-27 | Pg. 238 Wild and Scenic River designation can be given by either the Secretary of Interior OR Secretary of Agriculture, without Congressional approval, under Sec. 2a11 of the W and S.R. Act.

172-28 | Pg. 247 The management objectives for Riparian/Aquatic habitat are good, although somewhat vague. Could you provide a definition, or guidelines, for evaluating "good" ecological condition in riparian habitat. Management objectives for riparian/aquatic habitat should address control of exotic fish, which are ONE of the major threats to native fish species.

Thank you for considering our comments on the draft RMP, which are a compilation of input from several on our staff. If we can be of further help, please feel free to contact me.

Sincerely,
Pete L. Warren
Peter L. Warren
Public Lands Protection Planner

MULESHOE RANCH ACEC



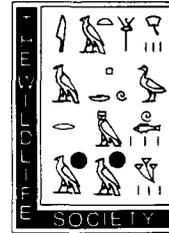
ALTERNATIVE - - - | -



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Basemap © Az. Dept. of Trans.

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THE WILDLIFE SOCIETY, AWONA CHAPTER
P.O. Box 11138
Phoenix, AZ 85017

June 12, 1990

Mr. Ray A. Brady
District Manager
Bureau of Land Management
Safford District
425 E. 4th street
Safford, Arizona 85546

Dear Mr. Brady:

Re: Review of Safford Resource Management Plan (RMP) and
Environmental Impact Statement

The Arizona Chapter of the Wildlife Society has reviewed the above-referenced RMP, and we would like to submit the following comments.

First, we want to commend the Bureau of Land Management (BLM) and the RMP team members for their efforts in the preparation of this comprehensive document. We realize that the integration of the various uses of public land in the Safford District requires trade-offs between a multitude of resource values. With this in mind, it is our intention to provide comments and concerns that are meant to enhance, rather than detract from this document.

Although we generally support most of the management direction proposed in Alternative A (the Preferred Alternative), we believe that the best possible approach would be a combination of management directions from the Preferred Alternative and alternative B.

To help organize our comments, we will be responding to the specific issues and management concerns listed in the Draft RMP.

Issue 1 - Access

We support the Preferred Alternative

Issue 2 - ACEC's

We strongly support the designation of the 17 Areas of Critical Environmental Concern (ACEC's) identified in the Draft. The special protection afforded by the ACEC designation will benefit the wildlife resource in these areas.

We support Alternative B for the following ACEC's:

Bonita Creek
Turkey Creek Riparian
Desert Grasslands Research Natural Area
Dry Spring Research Natural Area

For all other ACEC's, we support the Preferred Alternative

We support the Wild and Scenic River designations recommended in Alternative B for the Gila River segments identified on pages 47 and 48. Many of Arizona's river systems have been adversely impacted by human activities, and we believe that the greatest protection should be given to those portions of our rivers which remain relatively undisturbed. As outlined in Appendix 5, the additional protection provided by inclusion in the National Wild and Scenic River System should not place unreasonable restrictions on mining, livestock grazing, of recreation. The designation would protect the river from water supply dams, major diversions, hydroelectric power facilities, and flood control works.

Issue 3 - Off-Highway Vehicles

We support the designated closures in Alternative B and strongly oppose Alternative C on this issue. Designating most of the acreage in the district as "Open" to OHV use (Alternative C) puts many unique wildlife habitats and the species that depend on these habitats at risk.

Issue 4 - Riparian Areas

We believe that the overall goal for riparian areas on the Safford District should be to improve and then maintain 100 percent of the vegetation in good or excellent condition. However, the RMP's stated objective of maintaining and improving 75 percent of the acres of riparian vegetation in good or excellent condition by 1997 is reasonable.

Management Concern 1 - Wildlife Habitat

In general, we concur with the wildlife habitat management objectives contained in the Draft RMP; however, the information provided in Appendix 6 does not accurately reflect the current

Arizona Game and Fish Department objectives.

173-1

The current strategic plans call of the habitat on BLM lands to References to increasing population from an earlier plan. We recommend Fish Department for clarification

Management Concern 2 - Lands and

We recognize the benefits of co and we support the objectives and Alternative.

Much of the riparian vegetation a River, from the northern boundary National conservation Area to the Pedro Rivers, has been impacted agriculture and other human a remaining riparian habitat is in jeopardy of being lost.

We recommend that the BLM identify lands on the lower San Pedro significant riparian wildlife habitat acquisition of these parcels through to protect the high quality wildlife corridor.

173-2

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Other Management Concerns

For the additional eight management plan, we support the Preferred

It is our hope that these recommendations which we feel will enhance be incorporated while still meet use management.

We would like to thank you for the preparation of this plan and involved in the process.

S:

for R: P:

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THE STATE OF ARIZONA

GAME & FISH DEPARTMENT

2221 West Greenway Road, Phoenix, Arizona 85023-4312 (602) 942-3000

Governor Rose Mofford
Commissioners: Thomas G. Woods, Jr., Phoenix, Chairman; Phillip W. Ashcroft, Eagar; Gordon K. Whiting, Klotzkye; Larry Taylor, Yuma; Elizabeth T. Woodin, Tucson
Director Duane L. Shroufe
Deputy Director Thomas W. Spalding

June 11, 1990

Mr. Ray A. Brady
District Manager
Bureau of Land Management
Safford District Office
425 E. 4th street
Safford, AZ 85946

Dear Mr. Brady:

Re: Draft Safford District Resource Management Plan and Environmental Impact Statement (RMP/EIS)

The Arizona Game and Fish Department has reviewed the above-referenced Draft, and the following comments are provided.

It is obvious that a major effort went into the development of this draft plan. The Bureau of Land Management (BLM) should be commended for their thoroughness in identifying issues, concerns, and opportunities and in developing alternatives which adequately address the various issues. In particular, the Areas of Critical Environmental Concern (ACEC) evaluations indicate a responsiveness to public input and a professional analysis of the resources.

Our Department's comments on specific issues and/or concerns are included in an attachment to this letter. Although we generally support the management direction outlined in Alternative A (BLM's Preferred Alternative), we have concerns with specific management recommendations contained in this Alternative (see attachment). We believe that a combination of management direction from the Preferred Alternative and Alternative B should be considered as the best approach in the Final RMP/EIS.

We appreciate the opportunity to provide comments on the Draft Safford District RMP/EIS. We look forward to continued cooperation with the BLM in the development and implementation of the final plan.

Sincerely,

Thomas W. Spalding
Deputy Director

TWS:DLW:1k1

Attachment

An Equal Opportunity Agency

Attachment.

SPECIFIC COMMENTS ON ISSUES AND MANAGEMENT CONCERNS

Issue 1 - Access

This issue was identified by our Department early in the planning process. Because of the significant number and types of access problems occurring, especially in southeastern Arizona, we recommended that the RMP/EIS provide the framework for the solution of as many problems as possible. Throughout the review process, we have asked all of our Wildlife Managers to pay particular attention to the list of locations being considered for the acquisition of legal access (Appendix 1 in the Draft). The list appears to be very comprehensive and should go a long way toward addressing and resolving many of the access issues that we have identified on public lands in the Safford District. We are aware of only one additional public land access issue that was not identified in the Draft. This issue involves a locked gate located where a road crosses a small parcel of private land in Township 16 South, Range 31 East, Section 17, NENW. The effect of this locked gate is to deny access to a large area of BLM and Forest Service lands in the vicinity of Portal. We are aware that the BLM is currently involved in efforts to resolve this problem, and it may be that resolution is achieved before the RMP becomes final. Nevertheless, we recommend that this site be added to the list of access roads found on page 24 of the Draft.

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174-2

Bonita Creek ACEC. The important resource values associated with Bonita Creek are derived, by and large, from the quantity and quality of water present in the perennial stream channel. These characteristics, and the importance of the stream as the source of domestic water for the City of Safford are well described in the Plan. Numerous studies have demonstrated the relationship between water quality and the condition of the watershed in which a stream is located. Therefore, we believe that the management prescriptions identified in the Preferred Alternative will only be truly effective if they are applied across the Bonita Creek watershed, as proposed in Alternative B. The application of protective features throughout the watershed recognizes that the uplands and the streambed function as an interconnected system.

It appears likely, at this point in time, that Bonita Creek will become part of the Gila Box Riparian National Conservation Area through congressional action. Notwithstanding any such action, we support the designation of the entire Bonita Creek watershed as an ACEC, as proposed in Alternative B.

Gila Box Outstanding Natural Area ACEC. We support the Preferred Alternative. This issue may be moot, however, as the entire area appears likely to be designated as the Gila Box Riparian National Conservation Area.

Turkey Creek Riparian ACEC. This area was nominated, in large part, because of the important riparian resources associated with Turkey, Oak Grove, and-Maple Canyons. Recognizing the profound influence that watershed quality has on riparian resources and in keeping with the reasoning outlined above, we support the ACEC boundaries and management prescriptions identified in Alternative B. The inclusion of the Aravaipa Canyon watershed within the ACEC should provide for a more unified approach to the management of the resources associated with Turkey Creek and Aravaipa Creek.

We are aware that the suspension of grazing on the South Rim Allotment proposed under Alternative B has become an issue of some controversy. Our Department is satisfied that The Nature Conservancy (the grazing permittee) has consistently demonstrated both the willingness and the wherewithall for responsible natural resource management in Arizona. We believe that the Conservancy should be provided the opportunity to continue their tradition of sound stewardship on the South Rim Allotment, regardless of whether or not this stewardship includes livestock grazing.

Table Mountain Research Natural Area ACEC. We support the Preferred Alternative.

Desert Grasslands Research Natural Area ACEC (Pilaes Sombrero Butte and Mesca Ridge). These relict grassland areas provide unique wildlife habitat, critical to a number of State-listed wildlife species. We agree that this area should be designated as a ACEC, but we prefer the additional protection furnished under Alternative B, including closing the area to OHV use,

closing the area to mineral material sales, and prohibiting surface occupancy for mineral leasing. (Tables 2-1 and 2-S do not agree completely with the ACEC Evaluation given in Appendix 2, as relate; to the differences between the Preferred-Alternative and Alternative B for this ACEC with regard to OHV activity.) We support Alternative B on the Desert Grasslands Research Natural Area (RNA) ACEC.

Dry Spring Research Natural Area ACEC. As best as we can determine from Map 11 on page 102, we do not believe that Mescal Warm Springs (T3S, R17E, Section 20, SW1/4) is included in this ACEC. We believe that this spring area should be included in the ACEC. The springs and the Gila Topminnow at this location are important resources that should be protected.

We prefer that the additional protection granted in Alternative B for the Dry Springs ACEC, include:

- ACEC status and special management would be retained, even if Congress designates Needles Eye Wilderness
- additional restrictions would be placed on mineral activities (mining would be withdrawn and no sand/gravel sales would be permitted)
- the area would be closed to OHV use
- overnight camping would not be allowed

Again, Tables 2-1 and 2-S do not entirely agree with the ACEC Evaluation given in Appendix 2, as relates to the differences between the Preferred Alternative and Alternative B for this ACEC. This problem may occur for other ACEC's.

Woodcutting, which we feel is inappropriate for this area, is prohibited under the Preferred Alternative, but not mentioned in Alternative B. We support Alternative B, with the addition of a restriction on any woodcutting for the Dry Springs RNA ACEC.

Swamp Springs-Hot Springs Watershed ACEC. In general, we support the management prescription described in the Preferred Alternative. The riparian plant community and the important native fish populations in the area should benefit from the proposed special management. However, we question the rationale for excluding a portion of Section 32, T12S, R21E, in the Preferred Alternative. Bass Canyon provides important native fish habitat and supports riparian vegetation. It would appear logical to include all of Section 32 within the boundary of the ACEC in order to provide management for the lower Bass Canyon watershed and its associated aquatic community. Therefore, we recommend that the final proposal include all of sections 29 and 32 within the ACEC boundary.

We are pleased to see that the Preferred Alternative provides for the acquisition of legal public access on the Jackson Cabin Road. Our Department has consistently supported the maintenance of access on this road up to the National **Forest** boundary.

Bear Springs Badlands ACEC. we support the Preferred Alternative.

Guadalupe Canyon Outstanding Natural Area ACEC. We support the Preferred Alternative.

Bowie Mountain Scenic ACBC. we support the Preferred Alternative.

Coronado Mountain Research Natural Area ACEC. We support the Preferred Alternative.

Dos Cabezas Peaks ACEC. We support the Preferred Alternative.

Eagle Creek Bat Cave ACEC. We strongly support the Preferred Alternative, especially the acquisition of private lands at the mouth of the cave. **Past acts** of vandalism (shooting into the cave) and unauthorized uses, such as guano mining, have seriously impacted this important maternity colony.

The acquisition of the desired private lands may be a difficult and long-term process. Therefore, **we** recommend the following additional management action for inclusion in the management prescription: Negotiate for a conservation easement and/or cooperative management agreement with the private land owner in order to control access into the cave and to protect the cave **resources**.

Willcox Playa National Natural Landmark ACEC. We support the Preferred Alternative.

111 Ranch Research Natural Area ACEC. We support the Preferred Alternative.

Peloncillo Mountains Outstanding Natural Area ACEC. Much of the proposed ACEC lies within the proposed Peloncillo Wilderness Area and many of the management activities would be accomplished under wilderness management. We support the Preferred Alternative.

Wild and Scenic River Designations. It is difficult to determine the relationship between the alternatives contained in Appendix 5 and the recommendations for Wild and Scenic River designation found in the various alternatives. We believe that a **"Wild"** classification **would** result in a greater potential for the long-term protection of the resources associated with the candidate rivers through the restriction of OHV use. Therefore, **we** support the Wild and Scenic River recommendations contained in Alternative **B**. The impacts and additional protection provided by inclusion in the National Wild and **Scenic** River System (NWSRS)

are **well** outlined in Appendix 5, page 242, item 6. Arizona's river systems have been heavily impacted by human activities, and **we** believe that **all** protection should be given to those remaining, relatively undisturbed, rivers. This portion of the **Gila** River provides habitat and water sources for numerous game and **nongame** species in the area, including white-tailed deer, mule deer, javelina, bald eagles, and even an occasional bighorn sheep. **we** believe that the additional restrictions granted by Alternative **B** (providing Congress acts on the **BLM** recommendation and designates the **Gila** for inclusion in the **NWSRS**) would not place unreasonable limitations **on** mining, livestock grazing, or recreation. The designation would protect the river from water supply dams, **major** diversions, hydroelectric **power** facilities, and flood control works.

Issue 3 - Off-highway Vehicles.

we CONCUR with recommendations contained in the Preferred Alternative. **We** believe that the proposed closures should serve to protect sensitive wildlife resources that are currently being impacted by vehicle use. **We** do, however, ask that the Desert Grasslands **RNA** ACEC and the Dry Springs **RNA** ACEC be designated as "closed" to OHV use, as proposed in Alternative **S**. Both of these areas contain unique wildlife habitat that needs protection from OHV use.

As an additional comment, **we** strongly oppose Alternative **C** on the OHV issue. Alternative **C** would designate most acreage in the District (1,311,747 acres) as **"Open"** to OHV use, where all types of vehicle use **is** permitted at all times and anywhere in the area. This designation is not compatible with protection of wildlife habitat resources.

Issue 4 - Riparian Areas.

We support the 1997 objective of maintaining **OR** improving 75 percent of the acres of riparian vegetation in the District in **good OR** excellent condition by 1997. **We** believe that the goal for riparian condition should be 100 percent in good **OR** excellent condition, but agree that 75 percent is a reasonable short-term objective. **we** trust that the objective will not become a target for **success**, but simply serve as a guide toward achieving a greater **goal**.

The management strategies described in the Draft, combined with the more detailed riparian habitat objectives of the Wildlife Program (Appendix **6**), should provide the necessary guidance for achieving the 1997 objective.

Management Concern 1 - Wildlife Habitat.

In general, **we** agree with the wildlife habitat management objectives identified in the Draft, and **we** support the actions proposed to accomplish these objectives. In particular, **we** agree

174-6 that existing **Habitat** Management Plans are in need of revision, both in terms of their boundaries and in terms of their planned actions. We are concerned that planned actions 11 and 12 on page 31 are not **complete**. Livestock allotment management planning potentially impacts wildlife and wildlife habitats in all **areas**. The provision of adequate forage, **cover**, and water for wildlife should be an integral part of every allotment management plan, without reference to habitat type.

Appendix 6 (**Management** Objectives for Priority Species/Habitats) contains some inaccuracies relative to Department Strategic Plan goals and objectives. Apparently, the management goals for big game were taken from an out-dated strategic plan, rather than the one currently in effect. The following changes will be necessary for the final plan:

Bighorn Sheep: The Department objective for **BLM** lands is to increase the capability of the habitat by 10 percent on **BLM** lands by 1990. In addition, this section defines "**viable**" as 125 bighorn. We should point out that this figure was an estimated minimum necessary to sustain a population over time and should **not** be considered a "target". We recommend deleting the figure of 125 sheep.

174-7 **Mule Deer:** The Department Strategic Plan objective is to increase the capability of the habitat by 7 percent on **BLM** lands by 1990.

Pronghorn Antelope: Strategic Plan objectives call for a 15 percent increase in pronghorn habitat capability on **BLM** lands by 1990.

Oak-Woodland Species: Department Strategic Plan objectives are for no change in white-tailed deer, turkey, and black bear populations on **BLM** lands.

Management Concern 2 - Lands and Realty.

In general, we recognize the benefits associated with the consolidation of public land ownership in terms of improving management efficiency. Therefore, we **support** the objectives and proposed actions contained in the Preferred Alternative. Our support is predicated on the assumption that we will continue to be participants in the evaluations of individual land actions as they occur, and that these lands will be traded for other lands of equal **or** preferably higher resource values.

174-8 We would also like to suggest that the following be included in the actions involving land acquisition in the Safford District. The lower San **Pedro** River, from the northern boundary of the San Pedro Riparian National Conservation Area to the confluence of the **Gila** and San Pedro Rivers, supports an often **excellent** Riparian plant community along much of its length. Both cottonwood-willow plant associations and remnant mesquite **bosques**

are located along this stretch vegetation associated with t impacted in the past by clearing activity. Nearly all of the located on private land and jeopardy of being lost.

Our Department strongly encourage private and State Trust land corridor that possess significant potential for acquisition through to protect the important wildlife corridor. The **BLM** may **soon** be property adjacent to the San an excellent nucleus around which and wetland habitats.

174-9 In addition, we are concerned Little **RS** Spring, Yellowjacket springs (specifically **BLM** land **R15E**, Sections 11 and 12: **T3S** area has **high** wildlife value, sections included in the **Hay Area**. We realize that **some** are acquired to make these parcels

Other Management Concerns.

The additional eight management are only marginally involved with cases where wildlife may be in potential conflicts. We do not between the various alternative the Preferred Alternative in each

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Linda K. Wells
P.O. Box 47116
Phoenix, Az. 85068

BLM Safford District
Steve Knox, Team Leader
425 E. 4th Street
Safford, Az. 85546

Dear Steve:

I am writing in response to the Safford District Resource Management Plan Draft EIS.

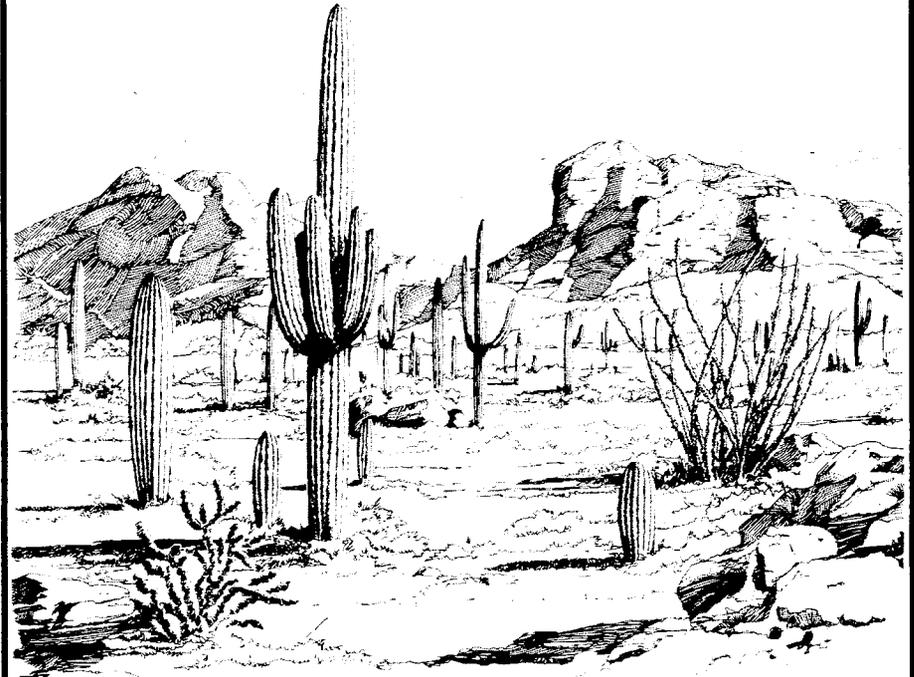
I support road closures into large and sensitive areas. There are 69 T&E and special status wildlife species and 9 T&E plant species in the safford district and the less roads and disturbance the better chances for recovery. I am also against building any more roads for the same reason. You say roads will enhance recreation but wild areas are so degraded by roads that we are killing off what we are going out there to see. Lets leave the pavement to the cities and get out and hike instead.

Off highway vehicles are also very disturbing to wildlife and vegetation. There are too many acres designated for use by OHVS. They are not compatible with the desert environment and they degrade the areas for wildlife and other users. It is also too difficult to keep them off the road in limited areas. Too many of them abuse the land and vegetation. They not only have access to too large an area to allow them to have total access to 1708 acres is incompatible with your concerns for wildlife habitat. OHVS destroy vegetation, destroy burrows and crush animals, rupture ear drums of burrowing animals and compact soils thereby initiating run off. I adamately appose any OHVS on our public lands. The rights of the wildlife to survive without that kind of harrassment far outweighs the rights of the people who don't want to leave their machines in the city.

I would also like to see all of the safford district closed to ADC. Their goals are counter to the goals of a healthy wildlife habitat. I am also against killing rabbits and rodents to improve vegetation cover. The solution to their overpopulation is to stop killing predators for livestock interests. They pay a reduced fee because they share forage and will loose cattle to wildlife. If livestock production is not economically feasible within a healthy wildlife habitat then it should not continue.

I do commend you closing areas to livestock and encourage you to continue to reduce cattle numbers.

Sincerely,
Linda K. Wells
Linda K. Wells



The results of public comments have been separated into two sections: BLM's general response to public comments and public comment letters and BLM's specific responses.

General Response 1. Assumptions

BLM assumed that full funding and personnel would be available to implement any alternative. This is a basis for comparing reasonable alternatives and analyzing impacts. It is also an important element in selecting the final plan and defining implementation priorities and monitoring needs.

General Response 2. Livestock Grazing

All the requirements of National Environmental Policy Act have been met with respect to the grazing program. As stated in the draft, the livestock grazing issue was studied in the Upper Gila-San Simon (1978) and Eastern Arizona (1986) Grazing Environmental Impact Statements as well as the San Pedro River Riparian Management Plan and Environmental Impact Statement (1988). Livestock grazing decisions in those documents have been or are being implemented through individual grazing decisions according to schedules developed after completion of the Environmental Impact Statement. Monitoring studies, required to determine the effectiveness of those decisions, are taking place. A Range Program Summary Update is prepared periodically to display the results of the studies. If monitoring reveals that stocking levels are too high and the utilization of forage is too great, then the operator is required to reduce the stocking level. If, on the the other hand, increases in stocking levels are requested and, if monitoring reveals that the increases could be accommodated, they could be permitted.

When an operator requests an increased stocking level in an allotment not being monitored, studies will be set in place and at the end of the monitoring cycle the decision to grant or deny the increase can be made.

Grazing by livestock is a use of the public lands historically permitted by Congress. BLM does not feel it is necessary or in the public interest to arbitrarily cease livestock grazing on all public lands. Better management, especially in sensitive areas such as riparian, may be necessary. That is one of the purposes of this document, to identify those sensitive areas and describe the kinds of protection we feel are necessary. The specific plans for protection will emerge from activity plans designed to fit the special management prescription.

General Response 3. Alternative Selection

Each alternative is a complete plan developed around a theme or level of management direction. Each has, as integral parts, various actions or levels of actions that appear to best meet the thrust of that theme. When the decisions are made as to what the plan will contain, parts of any of the alternatives may be included. The alternatives are not designed to require adoption of all of their components.

General Response 4. Animal Damage Control Activities.

Except for a few identified areas such as Aravaipa Canyon Wilderness Area and San Pedro Riparian National Conservation Area, public lands within the District are open for Animal Damage Control activities. BLM must approve requests before these actions can occur, but unless there are overriding reasons, approval will usually be given. It should be noted that requests for predator control can be based on wildlife needs or human safety (disease outbreaks) as well as livestock losses.

General Response 5. Mineral Withdrawals.

The authority to close lands to mineral entry has not been delegated to the District Office. Recommendations for such withdrawals are reviewed and evaluated by the Director, BLM and The Department of the Interior to determine the rationale and need for these recommendations. Withdrawals can only be made through a Public Land Order or congressional action.

The recommendation must include a detailed mineral report outlining the mineral potential of the subject area. It must also describe why existing laws, regulations and management practices will not adequately protect the non-mineral resources from exploration and mining activity. Economic significance resulting from the loss of mining income if the area is withdrawn from the mining laws must be described so that comparisons can be made with the values retained or enhanced as a result of the withdrawal.

General Response 6. Compliance-with-the National Environmental Policy Act of 1969

Prior to approving any activity plan-level site-specific project BLM will complete the necessary environmental compliance process. In some cases this will entail a Categorical Exclusion Review (40 CFR 1508). If a proposed action, with mitigation, would have significant adverse environmental consequences, the project will be abandoned, revised as necessary to avoid significant adverse impacts, or an environmental impact

statement will be prepared. Environmental compliance procedures are documented and are available for public review. Many involve public participation and comments in their preparation. All decisions based on environmental documentation are available for public review.

Public Letter Responses

Response I-I

The action referenced is found in Alternatives A and C. The proposed woodcutting is designed to help control mesquite and other desert shrubs that have invaded former desert grasslands by helping to control the extent of the invasion and by improving the vegetation diversity. In the long-term, wildlife should benefit by the action. These sites were selected because of the stable soil types.

Response 2-1

See General Response 3. This action is viewed as being within a resource protection/conservation theme. This theme is represented by Resource Management Plan Alternative B; hence, the proposal to nominate cultural properties to the National Register of Historic Places is included in that alternative.

BLM can nominate eligible cultural properties to the National Register of Historic Places under any of the Resource Management Plan alternatives. The authority to do so is given in the National Historic Preservation Act of 1966, as amended.

Response 4-1

See General Response 5. The mineral potential of the area will be reviewed and evaluated prior to any recommendation to the Bureau Director or Department of the Interior for a withdrawal. If the withdrawal is authorized, then any valid mining claim would be subject to valid existing rights.

Response 5-1

Because the recovery plans for aplomado falcons and woundfin were site-specific for the Safford District, we are able to make specific management decisions for only these species in the Resource Management Plan. On a practical basis the species with a recovery plan specific to the Safford District are more likely to be reintroduced than those without, during the life of the Resource Management Plan. Should an existing recovery plan be modified so that a release on public

lands is proposed, the Endangered Species Act would trigger an evaluation despite the lower priority for reintroduction at this time.

The Mexican wolf was listed as an endangered species in 1976, and a recovery plan was completed by the Fish and Wildlife Service in 1982. The plan identified several factors for potential release areas including "middle to high elevations of a 5,000 square mile area"; "adequate amounts of free water"; "broken, sloping country, abundant prey, especially white-tail deer, suitable plant communities and minimal conflicts with livestock."

The Safford District does not have a suitably sized block of land. The total acreage managed by the District is only half the required size. Most of the District's public lands are below the elevation suggested (4,500 feet) and livestock grazing is ongoing. There is abundant water and probably sufficient prey in some blocks of land.

Actions that BLM has taken that would benefit a wolf reintroduction, should it be proposed, include State/BLM land exchanges in the Muleshoe, Aravaipa, Santa Teresa, Gila and Peloncillo mountain areas, Areas of Critical Environmental Concern proposals, big game and livestock waters developed as part of previous Habitat Management Plans and Allotment Management Plans. In addition, proposals to limit vehicles to existing roads and trails, prescribed burnings, reintroduction of bighorn sheep and antelope, and riparian enhancement efforts would benefit the wolf.

Response 6-1

Regulations assure that the United States retains a continuing right of access onto the public lands covered by a right-of-way grant or temporary use permit. Public lands covered with a grazing permit are open for public access. However, BLM cannot force a grazing permittee to provide an easement over his private land.

Response 9-1

Class I Visual Resource Management designations are generally reserved for congressionally designated areas such as wilderness or for Areas of Critical Environmental Concern which are solely based on scenic values. Although Brandenburg Mountain falls in Class a III category according to physiographic province, your letter evidences a high-sensitivity level. The Resource Management Plan/Final Environmental Impact Statement reflects a change to Class II.

Response 1 0-1

BLM's policy is to develop Allotment Management Plans through cooperation with the allottee and an interdisciplinary approach involving other affected resource interests. This gives the allottee opportunities to interact with Arizona Game and Fish personnel on problems involving hunters and hunting seasons.

Response 10-2

The Arizona Game and Fish Department is responsible for determining the hunting seasons. BLM only coordinates with the Arizona Game and Fish on seasons.

Response 11-1

The 1989 Mohave Final Wilderness Environmental Impact Statement analyzed each specific Wilderness Study Area and provided recommendations based on wilderness values. An opportunity for public comment to these recommendations was presented at that time. See page 17 in Resource Management Plan/Draft Environmental Impact Statement for clarification.

Response 11-2

BLM analyzed the environmental effects of livestock grazing in two previous Environmental Impact Statements. Mining is a legitimate use of the public lands authorized by law, although BLM can require mitigating measures and enforce current laws and regulations. Alternative A restricts off-highway vehicles to existing roads and trails over much of the District (1,310,713 acres) and closed to off-highway vehicleless on 87,879 acres. Only 1,708 acres would be left open to unrestricted use. (See General Responses 2 and 6).

Response 1 1-3

The goal to achieve 75 percent of the riparian vegetation in good or excellent condition is based on data indicating it is achievable. Some areas cannot respond enough to reach good or excellent condition by 1997. For example, the north end of the San Pedro Riparian National Conservation Area, even with livestock removed, will not reach good or excellent condition in the predictable future. The problem is the encroachment of salt cedars and the erosion present in the stream channel. Unrestricted and unmanaged livestock use is not the sole reason for poor conditions of riparian areas. Proper management of livestock in those areas can speed riparian area improvement, however.

Response 12-1

See Response 5-1.

Response 14-1

The actions from implementing each alternative would be reviewed for compatibility with adjacent land uses and consistency with state, federal and focal plans.

Existing cooperative agreements would be continued, and processes for developing new cooperative efforts will be pursued.

Response 14-2

The resolution of legal boundary questions is beyond the scope of this Resource Management Plan. BLM will continue to work cooperatively with other agencies to assure that the present condition of the lands in question is maintained or enhanced until the legal questions regarding boundaries are resolved.

Response 143

The Bonita Creek area would benefit by the revision of the existing Cooperative Management Agreement with the City of Safford to include the San Carlos Apache Tribe in the management of the Bonita Creek Watershed. This is not specifically addressed in the Resource Management Plan because it is an activity-level action. (See General Response 6).

Response 14-4

BLM advised the Tribe by mail, Federal Register Notice of Intent, newsletters and newspaper public service announcements of scoping meetings to be held. Summaries of the scoping meetings were submitted to the Tribe for information and comment. Invitations to the public meetings were sent to the Tribal Council and the Bureau of Indian Affairs. BLM also attended Tribal Council meetings whenever requested.

Response 14-5

The cultural needs of the San Carlos Apache Tribe are a consideration in all the Resource Management Plan alternatives. Alternatives A, B and C propose ethnographic studies in the Bonita Creek and Aravaipa Canyon areas. Alternative D proposes action to "conduct studies to identify socio-cultural values." Such a study would also be ethnographic.

To date, the Safford District's attempts to involve the San Carlos Apache Indian Tribe in the identification and protection of important Apache historical, religious or ceremonial sites have taken place during a public meeting in San Carlos, and through formal notification of the development of the Resource Management Plan and requests for comments or input.

Response 14-6

The need for environmental education plans was discussed on page 37 of the Draft Environmental Impact Statement. Specific environmental education plans are not, however, appropriate for an Resource Management Plan. Environmental education is an ongoing program in the Safford District. BLM personnel present special programs to schools, usually in conjunction with programs such as Archaeology Week or Wildlife Week.

Response 14-7

No special effort was made beyond those mentioned above (14-4) and in Chapter 5, to discover ongoing planning efforts of the San Carlos Apache Tribe. BLM welcomes the opportunity and invitation to work with the Tribe as it develops a new Resource Management Plan.

Response 15-1

BLM intends to improve riparian areas and, if possible, allow other legitimate uses of the public land to occur. See Issue 4, page 17 of the Resource Management Plan/Draft Environmental Impact Statement. Current plans are for livestock grazing to be removed from some riparian areas and for grazing to be managed in other areas to enhance riparian areas. See General Response 2.

Response 20-1

Mountain bicycles are no longer listed with off-highway vehicles.

Response 21-1

See Response 20-1.

Response 47-1

The subject map in the Resource Management Plan/Draft Environmental Impact Statement will not be republished. All new maps printed by BLM will reflect the modification of the boundary across the Coronado National Forest.

Response 47-2

BLM hopes to continue negotiations with the San Carlos Apache Tribe to acquire access primarily for recreational purposes to the Needles Eye area by Ranch Creek Road.

Response 47-3

BLM data indicate that bighorn sheep are more susceptible to disease from domestic sheep than from cattle. Conflicts between bighorn sheep and cattle can arise through competition for food and water. However, with proper livestock management this has not been the case with the Aravaipa bighorn herd, as documented in a major study by Arizona Game and Fish Department.

Response 51-1

This Proposed Resource Management Plan contains a revised boundary configuration for the Guadalupe Canyon Area of Critical Environmental Concern. See Map 13.

Response 51-2

BLM policy is to manage livestock to minimize impacts on riparian zones. When the management plan is written for the Guadalupe Canyon Area of Critical Environmental Concern, wording similar to yours will be included in the activity plan. (See General Response 6.)

Response 52-1

The intent of the statement was to point out that vegetation would be enhanced in riparian areas. Wildlife, using only a portion of the vegetation would not benefit as much. In addition, priority wildlife species that did not require riparian vegetation would not benefit.

Response 61-1

See Response 1 H.

Response 63-1

The riparian areas are depicted by a solid line. In riparian area 37, the line follows the San Simon River and several short side-channels. The line encompassing the larger area simply helps identify particular riparian areas listed in the legend. We regret the confusion created by the use of these area lines. Riparian areas near a mining area do not necessarily place major constraints on mining operations. Mining

plans or mining notices will be required and are subject to National Environmental Policy Act compliance. (See General Response 6.)

Response 64-1

Closing sheep lambing areas reduces stress during a critical time in the sheep's life cycle. Once lambing is completed and those areas are no longer needed for that purpose, these existing roads and trails can be reasonably be opened to vehicle use since sheep range quite far during the remaining part of the year.

Allowing the public to drive on existing 4x4 roads the rest of the year will not adversely impact bighorn sheep. Off-highway vehicle use is generally light in these areas.

Closure of the District to vehicle use would not resolve the difficulties in assuring compliance with the closure.

Response 66-1

A Special Recreational Management Area plan will be developed following the approval of the Resource Management Plan. Environmental compliance documents will be completed as part of the recreation plan. (See General Response 6.)

Response 68-1

Visual Resource Management classes are assigned to establish management objectives that maintain the desired scenic **quality** of the public lands. Visual Resource Management classes are determined by considering scenic quality, sensitivity level and distance zones. Based on these three factors, lands are placed into one of four visual resource management classes. Although a Class IV designation represents land of least visual value, it does not allow for total destruction of the land. The management objective of a Visual Resource Management Class IV area is to allow modification of the landscape, but the changes must still reflect a natural occurrence. Regardless of class, approval for proposed surface-disturbing activities is subject to National Environmental Policy Act compliance. (See General Response 6.)

Response 74-1

See Response 11-1.

Response 76-1

An interpretive program addressing types of gates and interpretive signs is planned as part of the Area of Critical Environmental Concern management plan.

Since the Eagle Creek Canyon is owned by Phelps Dodge, a firearms discharge ban is not an appropriate action for this Resource Management Plan. (Also, see General Response 6.)

Response 76-2

The need for a more effective gate will be evaluated as part of the management plan for the Eagle Creek bat cave. (See General Response 6.)

Response 83-1

See Response 5-1. The Arizona Game and Fish Department did not include BLM in the list of those sent copies of the letter and, when contacted for this information, indicated this was only an initial list from which to begin discussions among members of the Mexican wolf recovery team. It was not a list of sites being evaluated for releases.

Response 86-1

Although this is activity-level planning and is not addressed in the Resource Management Plan, the Area of Critical Environmental Concern management plan will include educational information as part of the interpretation of the Eagle Creek bat cave. The need for a better gate is being evaluated and construction will be initiated if necessary. Withdrawal from mining is part of the Area of Critical Environmental Concern prescription, but this does not preclude activities of those holding valid existing rights. Firearms restrictions cannot be initiated within the canyon by BLM, as canyon lands are privately owned. (See General Response 6 for additional information.)

Response 89-1

See Response 20-1.

Response 91-1

If mineral withdrawals are included in the approved Resource Management Plan, the necessary steps for withdrawal will be pursued. The mineral potential of the area will be reviewed and evaluated prior to any recommendations to the Bureau Director or Department of the Interior for a withdrawal. (See General Response 5)

Response 91-2

See Response 63-1.

Response 913

See Response 91-1.

Response 93-1

The need for a more effective gate is currently being evaluated. (See General Response 6.)

Response 96-1

See Response 20-l.

Response 97-1

BLM set out three traffic counters between 1981 and 1986. The counters were located at the end of the asphalt road, below the BLM Aravaipa parking lot and above the BLM parking lot. The data for the high-use periods, March through May and September through December shows a range of 5 to 14 vehicles per day. Of that number, 7 to 20 percent were there for use of the BLM recreational facilities. (See General Response 6.)

Response 97-2

See Response 97-l. Since a 50 person per day limit (30 from the west end) was placed on Aravaipa Canyon, visits have slowly increased but are expected to level off as capacity is reached.

Response 97-3

See Responses 156-6 and 172-6.

Response 97-4

See Response 97-3.

Response 98-1

Departmental policy states that every **wildland** fire is either a wildfire or a prescribed burn. All Safford District **wildland** fires are fully suppressed regardless of whether or not they occur within a wilderness area. Wilderness fires receive special suppression considerations to minimize any impacts.

Plans to develop prescribed fire criteria and goals are currently underway which will address both natural and planned ignitions. These plans will include wilderness and non-wilderness areas and will be incorporated later into the Safford District Fire Management Activity Plan. (See General Response 6.)

Response 98-2

BLM is currently a member of the State Riparian Task Force and is working with the state and other federal agencies to develop a coordinated riparian inventory

system for the state as a whole. Current inventory efforts are consistent with existing BLM guidelines and technical standards.

Response 98-3

The proposed plan (Resource Management Plan/Final Environmental Impact Statement) has been changed to include "in cooperation with the Arizona Game and Fish Department."

Response 100-1

The subject lands located on the west slopes of the Santa Teresa mountains have been identified in the proposed plan (Resource Management Plan/Final Environmental Impact Statement)

Response 100-2

Please refer to Map 27 which has been revised to reflect lands identified for acquisition.

Response 100-3

The spring is located on the referenced parcel of land. The list of lands qualified for disposal has been modified to exclude this parcel because of wildlife habitat values.

Response 100-4

See General Response 2 for partial response. Most lands acquired in the exchanges were already under BLM grazing management as part of an allotment. In some cases the allotment categorization changed from custodial to intensive, requiring the development of an allotment management plan. In any case, the uses of these lands will continue under BLM management. Monitoring studies will determine the effectiveness of current management. Monitoring results are reflected in the periodic Range Program Summary Update which displays the progress of grazing decisions originating from the grazing Environmental Impact Statements.

Response 100-5

Bureau policy (Manual 6840) directs BLM to carry out management consistent with the principles of multiple use, for the conservation of candidate species and their habitats. It also ensures that actions authorized, funded or carried out do not contribute to the need to list any of these species as threatened or endangered. Sensitive species may be designated by the State Director in cooperation with other groups and agencies

to receive protection. Species designated by the State Director will receive the same level of protection as candidate species. This process is not tied directly to the planning system; it is ongoing and may change with the changes in species status.

Response100- 6

The areas delineated on the maps include the major riparian areas found in Safford District with public land status. As indicated in Alternatives A, B and C, a system to inventory all riparian areas in the District needed to be established. This system has now been established. A system to prioritize riparian area management based upon objectives, resource condition, resource conflict and the potential of the area to respond to treatment needs to be defined. (See General Response 6.)

Response100- 7

Many riparian areas in the Safford District do not have aquatic habitat. Aquatic habitat concerns will be incorporated in the development of specific Wildlife Habitat Management Plans if they are not addressed as part of an Area of Critical Environmental Concern, Wilderness, T&E species recovery effort or as part of the Water Resources Concern in this document. (See General Response 6.)

Response100- 8

The subject land was part of an exchange with the state. As a condition of the exchange, BLM was obligated to allow grazing authorized by the state leases. Allotment Management Plans are currently being developed that will address grazing in the riparian areas on public lands along the Babocomari River. (See General Response 6.)

Response100- 9

The subject changes to the boundaries of Swamp Springs-Hot Springs Watershed and Guadalupe Canyon Areas of Critical Environmental Concern have been made in this Resource Management Plan/Final Environmental Impact Statement. Other Areas of Critical Environmental Concern boundaries are considered in one or more of the alternatives.

Response100-

The uses referenced will be, in most cases, more intensively managed under an Area of Critical Environmental Concern designation. All Areas of Critical Environmental Concerns have special values, but not

the same values and do not necessarily require the same management direction or intensity. Approval of all Areas of Critical Environmental Concern management plans will be subject to the completion of National Environmental Policy Act compliance documents. Most Areas of Critical Environmental Concern values can be protected from minerals impacts with the approval of mitigation measures in a mining plan. Similarly if grazing levels will adversely affect the values of the Areas of Critical Environmental Concern, BLM can reduce those levels or eliminate them from pan or all of the Areas of Critical Environmental Concern. (See General Response 6.)

Response100-

All anticipated management actions can be implemented within the Wilderness Management Plan for the areas; therefore, the Area of Critical Environmental Concern designation and management plan would be duplicative. The special values of the Area of Critical Environmental Concern area would be recognized in the management plan developed for the designated Wilderness Area.

Response100- 12

BLM cannot implement any action that will affect a listed species without requesting input from the Fish and Wildlife Service. Each area proposed for vegetation treatment, regardless of method, will be subject to an individual environmental assessment with opportunity for public participation. (See General Response 6.)

Response100- 13

The Resource Management Plan/Draft Environmental Impact Statement states that BLM can "transplant and augment populations of priority wildlife species" (Page 30, # 4). This allows reintroduction of any of the priority species listed. The text has been changed with respect to the aplomado falcon and woundfin.

Decisions regarding the management of the San Pedro Riparian National Conservation Area are incorporated into this proposed plan (Resource Management Plan/Final Environmental Impact Statement) by reference.

Response100- 14

The Bureau does not introduce or reintroduce wildlife species. BLM coordinates and cooperates with agencies having those responsibilities.

All requests for transplants etc., will be coordinated with the Arizona Game and Fish Department and other agencies as appropriate. BLM will comply with Executive Order 11987 concerning release of exotic organisms.

Response100- 15

This specific action/recommendation is not appropriate in an Resource Management Plan. However in developing specific management prescriptions for the area BLM will work closely with the Bureau of Reclamation and other agencies to assess the feasibility and, as appropriate, encourage a plan to build the Aravaipa Creek fish barrier. (Also, see Response 100-49.)

Response100- 16

The actions associated with Alternative D (No Action) are based on current management approaches. These are detailed in the Management Situation Analysis. Since that analysis is available for public review at the District office, the wording does not need to be changed.

Response100- 17

Change has been made.

Response100- 18

Issues, sometimes involved with controversy, provide the focus for the planning process. Issues are based primarily on public input. Management concerns are primarily based on internal input and address those activities in which BLM must engage and which require identification and allocation of resources.

Response100- 19

The term "Resource Conservation Area" is a management designation designed to provide management consideration to areas with special resource values that do not require the protection that an Area of Critical Environmental Concern designation confers.

Response100- 20

All candidate species are also priority species and as such influence management objectives. Candidate species and their management are also discussed in Management Guidance Common to All Alternatives (see page 18, draft Resource Management Plan/ Environmental Impact Statement).

BLM is required to promote efforts to down-list or delist T&E species. Recovery objectives will be defined, implemented and monitored in approved recovery plans. Recovery teams should include BLM personnel when habitat of listed species include BLM-managed lands.

Response100- 21

The general soil objective is to minimize accelerated erosion. In public meetings and as shown in the soils portion of the Management Situation Analysis, the San Simon Watershed was the main problem area. As other activity plans are written, specific soil management objectives will be incorporated into the plan if needed. (See General Response 6.)

Response100- 22

All laws under which we function are incorporated in each alternative. Grazing decisions as determined through the grazing Environmental Impact Statements are incorporated by reference into each alternative. (See Chapter 2, Introduction, Paragraph 2.)

Response100- 23

See text on page 18, Management Objectives Common to All Alternatives in draft Resource Management Plan/Environmental Impact Statement.

Response100- 24

Climatic changes referenced here recognize their effect on the production of wildlife habitat. Drought reduces this potential, while moisture will increase the potential. Climatic changes influence optimum wildlife population capability.

Response100- 25

The Resource Management Plan/Final Environmental Impact Statement states that transplant and augmentation of priority and other native wildlife species should occur within the known historic range of the species being transplanted.

Response100- 26

The text now includes revisions on indigenous vegetation.

Response100- 27

Wildlife input to Allotment Management Plans is provided for all wildlife species and most particularly for priority species. (See General Response 6)

Response100- 28

This is correct. While not mentioned specifically, it is inferred under "Management Guidance Common to all Alternatives" on page 18 of the Draft Environmental Impact Statement, Management Concern 1 Wildlife Habitat.

Response100- 29

Candidate, threatened or endangered animals and plants are included in the term "natural resource values." Evaluations for these types of plants and animals is a requirement of any land disposal action. (See General Response 6.)

Response100- 30

Lands identified for acquisition are shown on Map 27 in this Resource Management Plan/Final Environmental Impact Statement. Lands for disposal are public lands found in the white area of Map 27 and are identified specifically in Appendix 5.

Response100- 31

Special Recreation Management Area are defined on page 283 of the Draft Environmental Impact Statement.

Response100- 32

The statement of river closure has been deleted from the Resource Management Plan/Final Environmental Impact Statement. This issue will be addressed in the ensuing activity plan for the Gila River. (See General Response 6.)

Response100- 33

Appropriate revisions are in the Resource Management Plan/Final Environmental Impact Statement. *Vaquelinia californica* should properly be listed as a federal category 2 species. Although *Rumex othoneurus* is unlikely to occur on BLM lands, it was included because the plant was submitted by your office in a *Biological Opinion for the San Bernardino Geothermal Environmental Assessment* prepared by BLM in 1980.

Response100- 34

Correction to text has been made.

Response100- 35

Beaver are presently found in Bonita Creek. Early in the recovery phase they did constitute a threat to the

riparian vegetation recovering from destructive flooding in 1979-1980. They now appear compatible with riparian objectives. The proposed plan does not consider any actions for the San Pedro Riparian National Conservation Area. The land use plan for that area has been incorporated into this document by reference.

Response100- 36

Items 14 and 15 will be carried over into the other alternatives. However, the area below Coolidge Dam will be included in a Wild and Scenic River Environmental Impact Statement to be undertaken in the future. If designated, the withdrawal revocation will be pursued. (See General Response 6.)

Response100- 37

Allotment Management Plans are revised as needed, according to BLM policy. Plans are generally revised when allottees change and when allotment evaluations reveal a need for a change in management. (See General Response 6.)

Response100- 38

The structure now known as the Timber Draw Dam was the originally proposed Tanque structure. The Tanque structure was moved upstream due to poor dam foundation materials at the original location. Because the new location is closer to Timber Draw than to the old railroad water stop at Tanque, the name was changed. The function remains the same.

Response100- 39

McColly & Anderson (1987) gives the value of Table Mountain Mining District as 22.2 million dollars. The information in Chapter 3 provides background data only. More detailed mineral evaluations will be prepared prior to any mineral withdrawal actions. (See "Introduction,")

Response100-

The list has been expanded to include the lowland leopard frog.

Response100- 41

All habitat components of seven bat species will be protected because of their status as priority species, federally listed or candidate species. Other bat species will be afforded protection through specific management plans. (See General Response 6.)

Response 00- 42

The following species have been added to the list on Table 3-3.

Bylas springsnail	(<i>Apachecoccus arizonae</i>)
Gila Tryonia snail	(<i>Tryonia gilae</i>)
Arizona grasshopper sparrow	(<i>Ammodramus savannarum ammolegus</i>)

Response 00- 43

The text has been revised in response to this comment. The reference to *Cereus greggi* var. *greggi* listed in the *Federal Register* (February 21, 1990) as in federal category 2 has been changed to *Cereus greggi* var. *transmontanus*. We assume that the second species exists in the area and should be listed as federal category 3C.

Table 3-4 lists Cochise pincushion cactus as a probable occurrence. Inventory data in the area of its known occurrence is limited. Until further inventories are completed, we will continue to list the cactus as probably occurring on public lands in the area.

We have no data showing that *Acuna* cactus occurs on public lands in the Resource Management Plan area. Data on its distribution limit it to below 2,000 feet elevation and typical of the Sonoran Desert type vegetation. The range of distribution given for the cactus seems to limit it to lands administered by the Phoenix District, further to the west.

The *Federal Register* (Feb 21, 1990) lists *Erigeron lemmonii* as a federal category 2 species. The Fish and Wildlife Service, in a memo dated March 2, 1990, continues to list the plant as a category 2 species. We are reluctant to change the text until we receive a *Federal Register* notice to the contrary.

The subject name change of *Neolloydia erectocentra* var. *erectocentra* to *Echinomastus erectocentrus* var. *erectocentrus* has been made.

Response 00- 44

Such actions are required for environmental documentation of all proposed land uses.

Response 00- 45

The subject areas, listed on page 69 of the draft Environmental Impact Statement are: (1) Desert tortoise: a, e, f, g, h, i, j, k and l; (2) Gila Topminnow: d

through l. Your attention is directed to the last paragraph, column 2, page 69. (Also see General Response 6.)

Response 00- 46

The reference given described the existing situation within the Bonita Creek Area of Critical Environmental Concern. On page 18 of the draft Resource Management Plan/Environmental Impact Statement the section, "Management Guidance Common to All Alternatives" specifies cooperation with National Marine Fisheries and Fish and Wildlife Service in planning and providing for the recovery of Threatened and Endangered species. Although the Bonita Creek Area of Critical Environmental Concern has been dropped because of the Gila Box Riparian National Conservation Area designation, the prescriptions defined in the draft Resource Management Plan/Environmental Impact Statement will be carried forward. (See General Response 6.)

Response 00- 47

We agree. Gila Box will be sampled and monitored for all Threatened and Endangered and candidate fish species.

Response 00- 48

See Response 100-l 4.

Response 00- 49

The following objectives are consistent with the proposed plan and have been added to this Resource Management Plan/Final Environmental Impact Statement.

1. Protect native fish and wildlife by exclusion or removal of nonnative species which may adversely affect native species.
2. Protect and restore springs and seeps and their native vegetation and wildlife.

Response 00- 50

The presence of the Mexican garter snake has been confirmed in the San Pedro Riparian National Conservation Area. It is, however, the only known site in the Safford District.

Response 102-1

The following areas mentioned in your letter as well as others were considered but determined ineligible as follows:

Not reasonable flow or length

San Simon
Guadalupe Canyon
Black Wash
Oak Grove Canyon
Hot Springs Creek
Spring Canyon
Mescal Creek
Wildcat Canyon
Horse Camp Canyon
Parsons Canyon
Virgus Canyon
Markham Creek
Fishhooks Canyons
Numerous others

Less than 40% public land along identified segment

Bass Canyon
Redfield Canyon
Eagle Creek
Cherry Springs

(See Appendix 3 for explanation.)

Response 103-I

See Response 20-I.

Response 103-2

The statement of river closure has been deleted. This issue will be addressed in an ensuing activity plan for the **Gila** River. (See General Response 6.)

Response 105-I

See response 76-I.

Response 11 O-I

This information is part of the description of the Affected Environment. The source of the data was the Valley National Bank "Arizona Statistical Review." Analysis of the alternatives does not show that there would be any significant adverse impacts on the economic sector.

Response 11 I-I

The impact analysis of the alternatives is focused on identifying those actions that may significantly affect the quality of the human environment. Because the actions are relatively general and because subsequent specific activity-level plans depend on National

Environmental Policy Act compliance review, the impacts of implementing actions are generally not significant. If an action that would adversely affect an economic sector is contemplated, a benefit-cost analysis would be part of the environmental compliance document.

The impact analysis section (Chapter 4) has been reconsidered and, where necessary, revised. The impacts have been evaluated on a geographic (local, Districtwide) basis and have been reclassified as appropriate.

Response 11 I-2

See General Response 1.

Response 11 1-3

In 1981 only the San Francisco River was studied. BLM is required to assess Wild and Scenic Rivers in the Resource Management Plan pursuant to BLM planning regulations. The lower San Francisco was recognized as an integral part of the **Gila** system and should be analyzed in this context.

Response 11 I-4

This has been readdressed. Also, see Response 111-I.

Response 11 I-5

Between the two statements you quoted is the statement "Regulations require that mining operations be carried out in a manner that does not cause undue or unnecessary degradation of the environment." The next sentence has been revised to include "undue or unnecessary."

Response 11 I-6

The text has been changed. Bullet 4 now reads "Which lands should be closed to the operation of the mining laws." Bullet 5 has been deleted. Terms, conditions and special stipulations are the function of a mining plan or site-specific action and will vary in each case. See General Response 6.

Response III-7

The Resource Management Plan/Final Environmental Impact Statement describes 13 Areas of Critical Environmental Concerns totalling 31,949 acres. Of that acreage, 9,829 have requests for withdrawal from mineral entry prescription. Also see Response 91-I.

Response 11 I-8

The water in question is the surface flow within the stream. Safford's water supply is basically **ground-**water from the watershed. Many resource values in the Bonita Creek area depend on the quality of the surface water, i.e. fish, wildlife and riparian vegetation. BLM is required by the Federal Land Policy and Management Act of 1976 to protect these values, and monitoring of these values is consistent with our management responsibility.

Monitoring shows the surface water flow in Bonita Creek is of high quality. Consequently, the stream has been nominated for protection under Arizona's Unique Waters designation. (See "Unique Waters," page 29 of the Resource Management Plan/Draft Environmental Impact Statement.) The water quality will be protected and enhanced through appropriate management of the watershed below the reservation boundary in accordance with Arizona Department of Environmental Quality criteria for the Unique Water designation.

Should the water quality decline, measures will be undertaken as necessary, to restore the stream to its original high quality.

Response 11 I-9

See Response 91-I.

Response 11 I-I 0

If a valid mining claim exists at the time of mineral withdrawal, the inherent rights of that claim will be honored.

Response 11I-11

The lands referenced adjacent to the tailings facilities near Morenci have been identified for disposal in the Resource Management Plan/Final Environmental Impact Statement. (See General Response 6.)

Response 11 I-12

This withdrawal table includes the acreages from the proposed Areas of Critical Environmental Concerns.

Response 11 I-I 3

The Arizona Electric Power Company line is contained within a proposed utility corridor. The text has been changed to state that new rights-of-way outside the corridor would not be allowed within the Area of Critical Environmental Concern boundary. Existing **rights-of-**way, if not perpetual, would probably be renewed.

Response 11 I-I 4

At the time of preparation of state air quality standards, many of the smelters were operational and were producing sulfur dioxide which has been implicated in acid precipitation. Since that time some smelters in the area have either ceased operations or have changed to alternative methods of concentration. The Environmental Protection Agency lists the communities cited in the text of the Draft Environmental Impact Statement as non-attainment areas due to sulfur. We recognize the problem of air pollution is a complex one and single causes are not the entire problem. Literature on the subject consistently points out that airborne pollutants may travel hundreds of miles before returning to earth as dry fallout or acid rain. The stability of the pH readings locally would seem to indicate that the area smelters are not the major contributing factors of the local acid rain. Other sources of pollution such as automobiles, power plants and agriculture probably contribute to the airborne pollutants in the Safford District.

Response III-15

Correction has been made to the text.

Response III-I 6

The information in Chapter 3 provides background data relevant to analyzing significant impacts. It is not meant to be exhaustive. See "Introduction" Draft Environmental Impact Statement, p. 125.

Response 11 I-17

The Eagle Creek Bat Cave Area of Critical Environmental Concern listed in the Preferred Alternative includes only public lands administered by BLM, with management tied directly to the cave and Mexican free-tailed bats.

Response 11 I-I 8

A change has been made to the text.

Response 11 I-I 9

Exchange is the preferred form of acquisition. See General Response 6.

Response 11 I-20

The proposed **Gila** Box Area of Critical Environmental Concern boundary includes that portion of the area deserving special protection which lies outside the boundaries of the **Gila** Box Riparian National Conservation Area.

Response 111-21

See Response 11 I-I 3.

Response 111-22

This item referring to actions under Alternative B is consistent with an emphasis on greater protection. The social and economic impacts associated with the implementation of this alternative were not found to be significant.

Response 11 I-23

The focus of the Resource Management Plan is to consider acquisition of lands and to analyze the impacts of acquiring lands that are ecologically important to management of adjacent public lands without regard to their availability.

Mixed land ownership does not preclude designation of an Area of Critical Environmental Concern on public lands. Management is possible through the development of a cooperative management agreement signed by all parties. (See General Response 6.)

Response III-24

BLM procedures require an analysis of Wild and Scenic Rivers in the Resource Management Plan planning process. See Response 11 I-3 and Appendix 3 for additional information.

Response 111-25

The text has been modified.

Response 11 I-26

See Response 11 I-23.

Response 111-27

See Response 11 I-I 1.

Response 11 I-28

The private land in Section 12, Township 5 South, Range 29 East is limited to a small mineral patent. This, along with numerous scattered parcels of public lands, were not shown due to the small scale of the Resource Management Plan map.

Response 112-1

See Response 102-1.

Response 112-2

Legal subdivisions were used in determining the boundary of the area. In all cases the boundary includes the Gila River corridor except where private lands come near the river corridor. These boundaries are also consistent with other designations pending for the area.

Response 112-3

Classification has been reexamined in this Resource Management Plan/Final Environmental Impact Statement.

Response 112-4

See Response 102-1.

Response 112-5

See Response 102-1.

Response 113-1

The draft Resource Management Plan/Environmental Impact Statement, page 16, in the section, "Management Guidance Common to All Alternatives," states that the Desert Tortoise Rangeland Plan 'will be incorporated into all alternatives considered in this plan.'

Response 113-2

Tortoise management issues were addressed throughout the draft document. We refer you specifically to the following:

- a. Page 23, Alternative A, Issue 1, Access. This contains two approaches applicable to desert tortoise management. Item 2 minimizes the impacts of existing and proposed access; Item 5 addresses road closures. Also, Objective 8E requires mitigation to reduce rights-of-way impacts.
- b. Page 26, Table 2-1. This identifies Threatened and Endangered species in the Swamp Springs-Hot Springs Watershed Area of Critical Environmental Concern as a value and proposes a management prescription that would benefit the desert tortoise present within the Area of Critical Environmental Concern boundary.
- c. Page 29, Issue 3, Off-Highway Vehicles. This stipulates that only one small area containing no known desert tortoise habitat will be open to off highway vehicles within the District. The remainder

will be closed to off highway vehicles or limited to existing roads and trails. By including Category III habitat in an off highway vehicle restriction area, we have exceeded Objective 9A of the Rangewide Plan, which only discusses Categories I and II habitat.

- ct. Page 30, Management Concern 1, Wildlife Habitat. This identifies the desert tortoise as a priority species in item 1c. It recommends actions that would benefit tortoise management in inventory, habitat management, monitoring, habitat improvement, prescribed fire, wildfire suppression, activity plans, categorization and Areas of Critical Environmental Concerns.
- e. Page 31, Management Concern 2, Lands and Realty. This requires consideration of tortoise habitat as a factor in land disposal evaluations and as a reason for acquisition of lands. It is consistent with Objective 8 of the Rangewide Plan.
- f. Pages 135-136. This material describes the desert tortoise habitat requirements.
- g. Pages 247-248. This Appendix contains specific management objectives for the desert tortoise in the Safford Resource Management Plan.

Response 113-3

The BLM planning manual requires that Resource Management Plan resource management objectives follow specific directions included in the "Supplemental Program Guidance" (Manual 1620-1 622). The habitat-related determinations in this Resource Management Plan comply with the Supplemental Program Guidance. By incorporating the Rangewide Plan into this Resource Management Plan by reference, tortoise objectives for the Resource Management Plan have been clearly defined.

Response 113-4

Apparently there is a misunderstanding here on inventory efforts. A search for potential habitat areas began in 1987, and inventories were started in July 1988. Funds were allocated for about four work months for desert tortoise inventory in 1988 and 1989. Since these inventories are not completed we need to continue the inventories to meet the the Resource Management Plan's 1992 deadline for categorization.

Response 113-5

The Safford District has met or is in the the process of meeting all objectives set forth in the Desert Tortoise

Management Plan. The Resource Management Plan is not the appropriate document to display all of the discrete actions to meet those objectives. See Response 113-2 for some of the major issues which relate to desert tortoise management. Also, see General Response 6.

Response 113-6

The Council on Environmental Quality regulations for implementing National Environmental Policy Act require that a range of alternatives be considered. The range of alternatives in this Resource Management Plan/Environmental Impact Statement provide realistic options for multiple use management.

Response 113-7

The statement has been revised. BLM evaluates the quality of wildlife habitat very carefully prior to any land transaction being completed. If the land being exchanged has high-quality habitat, then the action would probably not go forward. Low impacts would then occur because only lower quality habitat is being removed from BLM management. (See General Response 6.)

Response 113-8

We regret the omission of the Desert Tortoise Council from the list of individuals and organizations. The Resource Management Plan/Final Environmental Impact Statement has been corrected.

Response 113-9

Copies of this Resource Management Plan/Final Environmental Impact Statement were sent to all those on our mailing list and will be sent to anyone else requesting copies until stocks are exhausted.

Response 116-1

As stewards of the land, BLM is required to complete an activity plan for the Aravaipa area. The plan will address the concerns of recreation use. A plan does not increase recreation activity but sets an appropriate framework for recreation to occur that does not affect other sensitive resources. We have no plans to increase the Aravaipa Canyon Wilderness visitor use limit.

Response 117-1

The existing gate at Eagle Creek Bat Cave is currently locked. Interpretive conservation messages will be addressed within the Area of Critical Environmental

Concern management plan. Firearms prohibitions can be initiated by BLM within the cave, but land ownership by Phelps Dodge necessitates their agreement to broaden firearm restrictions. (See Responses 76-1, 76-2 and 86-1 and General Response 6.)

Response 118-1

BLM is evaluating the need for a better gate, and your offer of design assistance is appreciated. Conservation messages will be developed as part of an interpretive plan for the cave.

Response 119-1

Acquisition of additional lands will only be pursued if there is a willing seller. The need for a better gate at Eagle Creek Bat Cave is being evaluated and will be addressed in the Area of Critical Environmental Concern plan. Educational messages will be developed as part of an overall interpretive program for the Area of Critical Environmental Concern. (See General Response 6.)

Response 120-1

Refer to page 134 of Resource Management Plan/Draft Environmental Impact Statement.

Response 124-1

Seasonal restrictions on off-highway vehicle use can be established in areas such as Areas of Critical Environmental Concerns where the values need to be protected. However, closure of all riparian areas to off-highway vehicles during nesting or breeding seasons would not be reasonable since it could adversely restrict other uses of public lands that would not disturb nesting raptors. Restriction of vehicles to existing roads will provide sufficient protection since nesting raptors select sites with a tolerable level of disturbances. Observations indicate that disturbance from vehicles on established roads is much less than from pedestrians who travel slower and will meander towards interesting areas such as defended nests.

Response 125-1

The Resource Management Plan identifies the Black Hills and Round Mountain Rockhound Areas as needing some recreation planning and development. A project plan will be prepared to determine the type and amount of development at each rockhound area. As part of the project plan preparation, we will consider ripping (plowing) small portions of the rockhound areas. The project plan will also include an environmental document to determine the impacts of implementation. (See General Response 6.)

Response 125-2

This site has potential to be developed as a public rockhound area. This location has been added to this Resource Management Plan/Final Environmental Impact Statement as an area needing some recreation planning and development. A project plan and appropriate National Environmental Policy Act compliance documents will be prepared prior to any development. (See General Response 6.)

Response 127-1

See Response 5-1.

Response 129-1

See Response 124-1

Response 129-2

See General Response 4.

Response 130-1

These access routes have been identified for future negotiation of easements to allow access for the public into the area. The district is also developing a transportation plan which will identify all areas in need of reasonable public access. (See General Response 6.)

Response 131-1

See Response 5-1.

Response 132-1

The BLM Safford District has no authority to change the Wilderness Act or BLM Wilderness Management policy as regards the use of minimum tools. Specific Wilderness management prescriptions are prepared for designated Wilderness areas in compliance with the Wilderness Act, BLM Wilderness policy and Arizona BLM guidelines in Wilderness Management Plans. Approval of these plans is subject to prior completion of National Environmental Policy Act compliance documentation (see General Response 6.)

Response 132-2

See Response 20-1.

Response 132-3

In the desert ecosystem that comprises most of the Safford District, wildlife populations fluctuate widely because of shifts in rainfall and vegetation. Our habitat

management objective is to reduce these population fluctuations by providing supplemental resources such as water sources and/or reduced livestock numbers during droughts. BLM will support Arizona Game and Fish Department proposals for increased hunting opportunities (for game species) or support transplants of Threatened and Endangered species when populations are very high. The optimum populations would be based on the reproductive potential, longevity, management objectives of each species and the ecological conditions present in an area as well as the role the species plays in an ecologically functional community. It will be somewhere between the minimal viable population and the carrying capacity of an area. Optimum population has now been defined in the Glossary.

Response 135-1

Roads in riparian areas will be examined to determine if they can be moved to routes with less environmental impact than they now present. Any action to remove or close roads in riparian areas will be subject to the completion of a National Environmental Policy Act compliance document, and will be coordinated with riparian objectives and the District Transportation Plan.

Response 135-2

Visual Resource Management Class I designations are generally reserved for congressionally designated areas such as wilderness areas or for Areas of Critical Environmental Concerns where designation is based solely on scenic values.

Response 135-3

See Response 124-1

Response 135-4

See General Response 4.

Response 135-5

Actions pertaining to the San Pedro Riparian National Conservation Area are not addressed in this Resource Management Plan. See page 15, Draft Resource Management Plan/Environmental Impact Statement.

Response 135-6

The values of wildlife resources are considered in all land acquisition and disposal actions. All aspects of habitat management are reviewed.

Response 141-1

See Response 5-1.

Response 142-1

See Response 5-1.

Response 143-1

See Response 5-1.

Response 144-1

See General Response 2.

Response 144-2

See Appendix 6, pages 247-249, of the draft Resource Management Plan/ Environmental Impact Statement.

Response 145-1

See Response 15-1.

Response 145-2

See General Response 4.

Response 145-3

See Response 135-1.

Response 145-4

See Response 135-2. Areas of Critical Environmental Concern designations of any new land acquisitions can only occur through preparation of an Resource Management Plan amendment and public review.

Response 145-5

See Response 135-6.

Response 145-6

Areas behind erosion control dams are routinely fenced off and livestock excluded until revegetation is accomplished. Livestock are then allowed to use the area under a grazing system designed to protect the revegetated area.

Response 146-1

See Response 112-1.

Response 147-1

BLM policy is to manage livestock in riparian areas to minimize impacts and to enhance these areas. All Allotment Management Plans have or will have riparian management objectives tailored to the needs of the riparian area. The Safford District has also prepared a riparian area management policy for the District. (See General Response 6.)

Response 147-2

Planning will be detailed to this level in a subsequent activity plan.

Response 147-3

See Response 147-2.

Response 147-4

Tamarisk control is desirable and is presently occurring in the Aravaipa Canyon area. Hand grubbing is the only alternative available in the Aravaipa Canyon Wilderness, and this method is satisfactory. Reinfestation from sources outside the Wilderness Area can be controlled by this manual method.

Response 148-1

See General Response 2.

Response 148-2

See Response 144-2.

Response 149-1

See Response 147-1. In addition, Tule Springs is not on public lands.

Response 150-1

We prefer to allow natural revegetation to occur wherever possible, but we will retain the option of reintroducing native species where necessary. We have included an option of removing non-native vegetation (such as tamarisk or alianthus) from riparian areas where practical. (Issue 4, Item 9)

Response 150-2

See Response 112-1.

Response 150-3

Livestock grazing is prohibited within the San Pedro Riparian National Conservation Area. Grazing on

other public lands are addressed in individual Allotment Management Plans. You may want to also examine the data and maps in the Safford District grazing Environmental Impact Statements (Upper Gila-San Simon, Eastern Arizona) and to look at the Range Program Summary documents. Grazing also was discussed on pages 139-140 in the draft Resource Management Plan/Environmental Impact Statement.

Response 150-4

This has been corrected.

Response 152-1

See Response 14-2.

Response 152-2

The land status map in the draft Resource Management Plan/Environmental Impact Statement will not be reprinted. New maps or revisions now show the realignment of the San Carlos Indian Reservation and Coronado National Forest boundary.

Response 152-3

Data indicates that access is needed across the reservation for the use of the recreating public. The BLM will work with the Tribe to resolve any concerns and to reach mutually acceptable solutions.

Response 152-4

The draft Resource Management Plan/Environmental Impact Statement stated that the "San Carlos Tribe has not expressed an interest in seeing the Gila River designated a pan of the National Wild and Scenic River System and in providing for its management" (p. 244). At the time of activity-level planning each specific proposal identified in the Resource Management Plan will be addressed. The Tribe will be invited to join in the planning effort at that time. BLM realizes that these proposals may potentially affect tribal lands. BLM also agrees issues of trespass will require coordination and cooperation.

Response 152-5

Managing cultural resources for public values, which includes socio-cultural values of Native Americans and other groups, is one of the three objectives specified for cultural resources under all Resource Management Plan alternatives. The proposed ethnographic studies for Bonita Creek and Aravaipa Canyon under Alternatives A, B, and C would provide for the identification of traditional **lifeway** values. The identification of

socio-cultural values described in Alternative D would also provide for the identification of traditional lifeway values.

Response 152-6

Aboriginal hunting rights of the San Carlos Apache Tribe on public lands are not abrogated in any way by the Resource Management Plan. Hunting of game animals is an activity regulated by the Arizona Department of Game and Fish, as is the taking of fish. Gathering, except for firewood, is permitted subject to state requirements regarding certain protected species.

Response 153-1

Only those portions of the Jackson Cabin Road which are in need of immediate repair will be upgraded. It will be retained as a 4x4 route.

Response 153-2

Turkey Creek has one pair of black hawks. The typographical error has been corrected.

Response 153-3

See Response 76-2.

Response 153-4

Eagle Creek is almost entirely privately owned. Unless significant land exchanges could be accomplished, BLM will have little influence on the uses of the riparian portion of the canyon, which is also the area of access.

Response 153-5

See Response 98-2.

Response 153-6

Correction to text has been made to alleviate any confusion.

Response 153-7

After the Resource Management Plan is selected, specific management plans and actions will be developed with appropriate National Environmental Policy Act compliance documentation. A Resource Management Plan Implementation Plan containing implementation priorities, a monitoring plan and mitigation measures will be developed after the Record of Decision selecting the Resource Management Plan is issued.

Response 153-8

Allotment Management Plans do consider wildlife needs. These two actions relate to special considerations given priority species.

Response 153-9

The discussion on page 135 of the draft Resource Management Plan/Environmental Impact Statement has been revised to make it consistent with Chapter 2.

Response 153-I 0

Montezuma quail have specific habitat requirements and a group of priority species requiring oak-woodlands habitat can be managed simultaneously. Scaled quail and Gambel's quail have less specific habitat requirements, so there is little overlap with other species with similar management needs.

Response 153-I 1

The spelling error has been corrected.

Response 153-I 2

Selection of Alternative A or B would authorize the planning and introduction of the Gould's turkey as requested by the Arizona Game and Fish Department. The introductions would take place in areas with high densities of oak trees near riparian areas.

Response 153-I 3

Continued close coordination between the Forest Service and BLM concerning prescribed fire should alleviate any management conflicts between the agencies.

Response 153-I 4

The definition of public lands appears in the Glossary and is appropriate for lands administered by the BLM.

Response 153-15

Close coordination between BLM and the Forest Service is a prerequisite to the successful management of the **Muleshoe** Ranch or any other similar area. BLM has not established a management goal for "preservation" of this area but would manage for the best uses consistent with resource values, should additional private or state lands be acquired.

Response 153-I 6

The Arizona Trail and the **Galiuro/Aravaipa/Santa Teresa Trail** are two separate entities. The Arizona Trail does not cross the Safford District. The **Galiuro/Aravaipa/Santa Teresa Trail** is only a proposal at this time. The BLM will coordinate with the Forest Service office in preparing any specific plans that would involve the lands they administer.

Response 153-17

An intensive archaeological inventory of all lands in the Safford District is not considered a reasonable action because of the high costs that would be incurred in surveying almost one and a half million acres of public land. With regards to vandalism, the District has conducted some field inventories to document damage and acquire information on patterns of vandalism to cultural properties. As funds become available, further field inventories focusing on areas most affected by vandals will be completed and the information added to the existing data base.

Response 153-18

The Safford District has no intention of using predictive modeling as a substitute for conducting on-the-ground inventories. This is specifically prohibited in BLM manual guidelines on cultural resource management.

The major usefulness of predictive modeling is in the area of planning, especially regarding the budgeting and evaluation work needed to assess a given area's cultural resource sensitivity. Models are very useful for determining the funding and personnel needed for conducting on-ground inventories, particularly those involving large tracts of land. Budget figures are calculated from the quantity and nature of the resources predicted to occur. Without the use of such models, large-scale inventories often run out of money long before the work has actually been completed.

Predictive models are also useful for estimating the cultural resource values of lands being considered for either acquisition or disposal.

Response 153-I 9

Special attention has been directed to the documentation of rock art due to its extremely vulnerable nature. Many of the known sites in the District are being eroded due to natural forces, while others are often the object of vandalism.

Revision of the existing District Rock Art Cultural Resource Management Plan (the "research design")

will simplify many of the documentation requirements that have inhibited past rock art recording efforts within the District. The revision is expected to represent a modest expenditure for BLM.

Response 153-20

The District has an active volunteer program to assist in collecting ethnographic and other types of oral history information. We anticipate that adequate funds will be obtained to facilitate research.

Response 154-I

Opening of Virgus Canyon Road could increase disturbance to wildlife on approximately 9,000 acres of public lands. Rebuilding the road will make it accessible to four wheel drive vehicles.

BLM is encouraged to provide legal access to large blocks of public land where resource conflicts would be minimal. Approval of a District Transportation Plan and specific actions such as construction of the Virgus Canyon Road is subject to the prior completion of National Environmental Policy Act compliance documentation. See General Response 6.

Response 154-2

See General Response 2.

Response 154-3

Recreational use of the Hot Well Dunes area includes hunting, off-road vehicle use, camping, bathing and picnicking. BLM has placed several trash cans in the area to help control litter from the users. BLM has not yet established a campground facility.

The Resource Management Plan calls for designating the Hot Well Dunes area as a Special Recreation Management Area to manage current recreation use. An activity plan will then be prepared before designating the area as an open off road vehicle use area and developing facilities. As part of this plan, a complete cultural and paleontological inventory will be conducted to determine impacts to the resources and to provide mitigation measures to eliminate or reduce the impacts. (See General Response 6.)

Response 154-4

Specific recovery plan details are not within BLM's responsibilities as they are prepared by the Fish and Wildlife Service. BLM will follow the direction of the recovery plans as they pertain to the District. This direction is indicated on page 19 of the draft Resource

Management Plan/Draft Environmental impact Statement.

Recovery plan objectives of each Threatened and Endangered wildlife species involved are reviewed by BLM for coordination between agencies responsible for the species and those agencies with habitat responsibilities.

Response 154-5

See Response 5-l.

Response 154-6

Management objectives will be specific for each Area of Critical Environmental Concern. Management plans to meet those objectives will necessarily be specific also. Livestock grazing is one of the uses that will have to be evaluated to determine the effects of grazing within a particular Area of Critical Environmental Concern. If the grazing will not compromise any resource values being managed, then it may continue. If the grazing cannot be managed successfully, then it may be discontinued.

Response 155-1

The term "limited off-highway vehicle use" is defined on page 281, Glossary in the draft Resource Management Plan/Environmental Impact Statement. Use of the existing road through Turkey Creek will not be restricted by the Area of Critical Environmental Concern.

Response 155-2

See Response 132-3.

Response 156-1

See General Response 2.

Response 156-2

See General Response 2.

Response 1563

BLM current policy and practice is to leave 60 percent of the vegetation after grazing.

Response 156-4

The Upper-Gila San Simon Environmental Impact Statement and Eastern Arizona Grazing Environmental

Impact Statement state the standards by which grazing impacts will be judged. The Record of Decision and/or Rangeland Program Summary for the two Environmental Impact Statements give the categorization for each allotment in the District and status of management. On pages 139-l 40 of the draft Resource Management Plan/Environmental Impact Statement is a complete definition of the three management categories.

Response 156-5

In the specific case of riparian vegetation, the "benchmarks" are the few relict areas that have never, or seldom ever been directly disturbed by human activities. Based upon the physical and biological factors that resulted in these relict locations we have established goals for the riparian areas being actively managed. The ecological potential of each riparian area may differ due to physical parameters and therefore "good" condition vegetation may look and function differently in individual areas.

For other plant communities we will use relict areas (such as the Desert Grassland Area of Critical Environmental Concern), historical accounts (ethnoecology), scientific literature and/or the best professional judgment to determine the ecological potential. In some communities, such as the desert grasslands, we also include the desired objectives of management since the ecological climax is less stable hydrologically and will support fewer livestock and less wildlife species than when fires occasionally burn patches of brush and grasses.

Response 156-6

The purpose of a Resource Management Plan is to provide general management guidance (43 CFR 1601 .O-5 (k)(7)). Implementation priorities will be defined when the Safford Resource Management Plan is selected.

Budget considerations or estimates before the plan is selected would be premature because of the general nature of the Resource Management Plan process and the subsequent activities involved in preparing specific plans and associated National Environmental Policy Act compliance documentation. Budget considerations for the other BLM areas mentioned in the comment are not relevant for this Resource Management Plan/Final Environmental Impact Statement. Detailed information on the BLM budget process can be obtained from personnel in the Safford District Office.

Response 156-7

See Response 5-l.

Response 156-8

Portions of Turtle Mountain and Day Mine Wilderness Study Areas were evaluated for Areas of Critical Environmental Concern consideration during the development of the draft Resource Management Plan/Environmental Impact Statement. They did not meet the basic Area of Critical Environmental Concern criteria and were dropped from further Area of Critical Environmental Concern study. (Table 3-6: Markham Creek, Trujillo Canyon and Turtle Mountain.)

Evaluations of the three Wilderness Study Areas you nominated did not meet basic Area of Critical Environmental Concern criteria. The documentation for these evaluations is now included in Appendix 2.

Response 156-9

Discussion included in Response 115-8.

Response 156-I 0

Discussion included in Response 156-8

Response 156-I 1

Discussion included in Response 156-8.

Response 156-12

BLM has tried to avoid overlapping designations of land. Management prescriptions for the Areas of Critical Environmental Concern will be included in the management prescriptions of the Wilderness Management Plan. (Also, see General Response 6.)

Response 156-I 3

This option will be considered when the management plans are developed. If a single management plan cannot be defined for the entire area, then the Area of Critical Environmental Concern may have to be divided.

Response 156-I 4

Eligibility and classification have been analyzed in the Wild and Scenic River Study reports in identified in Appendix 3. Clarifications have been made in this Resource Management Plan/Final Environmental Impact Statement.

Response 156-I 5

The Hot Well Dunes area is designated as an open off-road vehicle use area partly because it is near several

population centers. If, after National Environmental Policy Act compliance documentation is completed, the area is developed as an open off-road vehicle use area, it will be clearly signed as such, and will be closely monitored by BLM personnel. All other areas will either be closed to off highway vehicle use or be designated as limited to existing roads and trails.

Response 156-I 6

The Resource Management Plan presents reasonable goals which could be achieved in the 15-year scope of this plan. As you have indicated, influences beyond our control could limit our success and therefore make our 75 percent goal unobtainable.

Response 156-17

See Response 147-1

Response 156-I 8

See Response 147-1

Response 156-I 9

The Safford District Riparian Area Management Policy indicates no need to exclude every riparian area from livestock grazing to meet riparian area objectives. BLM has actively engaged in meeting these objectives through development of **exclosures** along Bonita Creek and the Gila River and many smaller areas. **Exclosures** are only one of many management tools for improving riparian vegetation.

Response 156-20

See Response 11 I-20.

Response 156-21

Data shows no appreciable harm has been done to Aravaipa Creek by livestock grazing in the Aravaipa watershed. Appropriate livestock management in the northern portion of the Area of Critical Environmental Concern will provide adequate protection to the watershed values.

Response 156-22

The area nominated for Research Natural Area designation is included in the Proposed Action. The other riparian areas you referenced were inventoried but have not been nominated because they did not qualify or because they are adequately protected by other designations or legal requirements. Also see Response 174-4.

Response 156-23

See Response 100-8.

Response 156-24

Impacts of mining operations including release of any toxic metals or chemicals must be considered in any mining plan approval. Mitigating actions and stipulations to eliminate or minimize impacts are defined on a site-specific basis in accordance with the 43 CFR 3809 regulation and the completion of National Environmental Policy Act compliance documentation. (See General Response 6.)

Response 156-25

Under the 1872 Mining Law, as amended, mining of locatable minerals is not discretionary with the BLM. The 43 CFR 3809 regulations require the approval of mining plans which include measures to mitigate impacts.

Response 156-26

See General Response 5.

Response 156-27

Less than one-third of the original Rock Art Cultural Resource Management Plan has been implemented since its inception six years ago. Revisions to the plan which would simplify documentation requirements and allow implementation at a more appropriate pace are contemplated.

One of the primary reasons for developing a regional research design is to help to identify the scientific values of a region's cultural resources. Measurement of scientific values would be extremely difficult without a regional research design to tell us exactly what kind of phenomenon constitutes a "scientific value."

See Response 153-18.

Response 156-28

The need for a more effective gate at the Eagle Creek Bat Cave is currently being evaluated. Since most of the canyon bottom is owned by Phelps Dodge, access and firearm restrictions are beyond the scope of this Resource Management Plan/Environmental Impact Statement. Educational messages are part of the cave management that will be developed in the site-specific plan. (See General Response 6.)

Response 156-29

See Response 100-43.

Protection and enhancement of the watershed in the Aravaipa area are concerns of BLM. Herbicides and pesticides would only be used after stringent evaluation and the development of National Environmental Policy Act compliance documentation entailing public participation. (See General Response 6.)

Response 159-I

See General Response 2.

Response 161-I

The BLM Safford District has nominated the 21 mile long Old Safford-Clifton road as the Black Hills Back Country Byway. Other areas could be nominated if public support warrants. The Back Country Byways program is not a function of the Transportation Plan.

Response 161-2

The Bureau and Arizona Game and Fish Department agreements for wildlife water maintainance are valid regardless of changes to special management designations. On several allotments, such as the **Muleshoe** and Southrim, perennial springs and creeks are so abundant that the loss of the few developed waters would have little impact on wildlife. On other, less watered allotments, the livestock waters are vital to maintaining optimum wildlife populations. BLM will request aid from Arizona Game and Fish Department and conservation organizations to help maintain important water sources.

Response 162-I

See General Response 3. Actions proposed in Alternative B may well be included in the Proposed Plan. If determined necessary, BLM will negotiate Memorandums of Understanding or Cooperative Agreements with Arizona Department of Environmental Quality or other parties for the bioassessments.

Response 162-2

Appendix 11, now Appendix 9, lists all the sites on the Safford District where some water quality sampling has occurred. The frequency of collection varied from a one-time sample to a number of samples each year for a number of years. The frequency depended on the management objective. The number and type of water quality measurements also varied according to objectives

During the current fiscal year, data from seven perennial streams are being collected, five of them two or more times. The BLM consulted with Arizona Department of Environmental Quality on the design of the monitoring program. All water quality data will be entered in STORET at the earliest possible time.

Response 162-3

None of the parcels of land identified for disposal or exchange in Appendix 7, now Appendix 5, are located adjacent to or straddle any major waters of the United States.

Response 162-4

BLM will continue to be flexible in updating Allotment Management Plans and protecting the resources. Monitoring and inventorying soil erosion, riparian habitat and water quality will continue. The results of the inventories and monitoring will provide BLM with information to make the necessary revisions in any type of management.

Response 162-5

See General Response 2.

Response 162-6

See General Response 2.

Response 162-7

See General Response 2.

Response 162-8

See Response 15-1

Response 162-9

The San Simon floodplain is managed by a variety of methods, all of which are designed and working to improve the riparian habitat. Behind the Barrier detention dam, livestock are excluded from a 300-acre area to provide protection while vegetation recovers. Above the San Simon Fan structure, livestock are on a rotational grazing system providing periodic rest from livestock grazing. Farther above the Fan structure, in the Contest Well seeding, cattle are on a seasonal system, grazing during the winter months only.

Response 162-I 0

See Response 156-19. The public lands in the proposed Areas of Critical Environmental Concern have

retained their important resource qualities under management systems that will be continued or improved to enhance riparian, water quality, soil stability, vegetation and wildlife resources.

Response 162-I 1

The causes of soil erosion have been documented over the years and are well understood. They include historic overgrazing, roads, drought followed by heavy rains, soil types that are easily eroded and improper agricultural methods creating head cutting. What remains is a long, laborious process of recovery. The recovery process requires good livestock management, restoration of stream gradients, and vegetation manipulation where appropriate.

Response 162-I 2

The livestock management practices for the allotments on Bear Springs Flat were implemented in the early 1980s. Monitoring indicates that our soil erosion objectives are being met under current management and use.

Response 162-I 3

Standards for unacceptable erosion in the Hot Well Dunes Area have not been established.

Response 162-I 4

Maps showing erosion susceptibility are in the "San Simon Soil Survey" and erosion condition maps can be examined at the District Office. Production of maps at the scale required to show erosion condition on a small area in the planning area is not considered feasible.

Response 162-I 5

When vegetation manipulations are proposed on a specific area, National Environmental Policy Act compliance documentation will be completed on a project with site-specific objectives, designation of target species, evaluation of impacts and prescription for future management.

Response 162-I 6

See Response 162-I 5.

Response 162-17

See General Response 4.

Response 162-I 8

Appendix 9 lists only those sites where samples were collected or testing was performed to determine the quality of the water. For an in-depth explanation, please refer to the Water Resources section in Chapter 3, subheading Water Quality (draft Resource Management Plan/Environmental Impact Statement, p. 129). A number of sites were sampled in the late 1970s; most sampling occurred by the mid-1980s. The criteria for water quality sampling or testing were basically concern for public health, management concerns or objectives and Unique Waters program.

Water quality monitoring of the Gila River has been conducted by several agencies including the Fish and Wildlife Service, Geological Survey and Arizona Department of Health Services. Water quality monitoring of the Gila River is not currently a management objective. BLM has constructed fencing adjacent to the Gila Box to reduce the effect of livestock on the area.

Guadalupe Canyon lands were acquired from the state in a land exchange in 1988. BLM is bound by agreements between the ranchers and the state for the term of the permits.

Response 162-I 9

Only significant benefits and impacts are considered in the draft Resource Management Plan/Environmental Impact Statement. There may be significant benefits to riparian vegetation and to wildlife habitat, but not within the 15-year plan. Water quality will improve, but not to a significant degree.

Response 162-20

The Arizona Desert Wilderness Act of 1990 included 12,711 acres in the Aravaipa Canyon and 6,600 acres in the Redfield Canyon (Galiuro) Wilderness areas.

Response 162-21

See Response 112-I.

Response 162-22

BLM has specific restrictions for rights-of-way involving corridors and communication sites and for rights-of-way outside designated corridors (43 CFR 2806 and 2600). National Environmental Policy Act compliance and specific site requirements can determine sideboards. These are considered when determining terms and conditions for rights-of-way, which can vary

considerably depending on requests and site-specific requirements.

Response 162-23

Providing corridors one-mile wide is a common practice where feasible. The purpose is to reduce overcrowding and interference problems. The corridor width for the San Pedro Riparian National Conservation Area was restricted to a 660 foot width because of the environmentally sensitive riparian area.

The proposed corridors currently have major existing right-of-way facilities. Section 503 of the Federal Land Policy and Management Act of 1976 states that "...existing corridors may be designated without further review." Designation of these areas as corridors would also support the Western Utilities Groups' corridor recommendation study.

Any future right-of-way grants within these proposed corridors will depend on case-by-case environmental assessments.

Because of scattered public land patterns and avoidance areas within portions of the Safford District, the usefulness of corridor designations in some areas is limited. Although Resource Management Plan Map 27 depicts the proposed corridors as crossing public, private and state lands, we only have jurisdiction over the public lands. Any future corridor user/applicant will need to work with other landowners to secure the necessary easements where the proposed corridor would cross their lands.

Response 162-24

BLM is required to inquire and conduct on-the-ground examinations for evidence of contamination and presence of hazardous materials in conjunction with other required inspections on all properties to be acquired. If the presence of hazardous materials is suspected, the case will immediately be referred to the State Director for further investigation and guidance. All acquisitions require a statement from the land owner that the non-federal lands are free of hazardous materials.

Response 162-25

Because they involve regrading existing road surfaces and removing obstructions, the proposed road reconstruction projects are not expected to cause significant impacts. Therefore, they were not discussed.

Response 162-26

Rehabilitation measures for eroded areas where roads will be closed will be determined at the time of closure. Although not at a level appropriate for Resource Management Plan consideration, these measures will range from simply road closings and allowing natural revegetation to occur, to ripping and reseeding roadbeds.

Response 162-27

Data indicates that a limited designation will provide adequate protection to riparian areas. We recognize enforcing restrictions are a problem given the extensive area we manage. However, the problem still exists whether enforcing a limited or closed designation.

Response 162-28

The Resource Management Plan calls for designating the Hot Well Dunes area as a Special Recreation Management Area. A Recreation Area Management Plan will then be prepared before development as an open off-road vehicle use area. This plan will include an inventory of vegetation and wildlife species, as well as a plan for monitoring the effects on resources. The associated National Environmental Policy Act compliance documentation will determine impacts to air quality, water quality, soils, vegetation, wildlife, cultural and paleontological resources. Mitigation measures will be identified and implemented to reduce the impacts.

Response 162-29

Data indicates these impacts are minimal with no significant adverse effects to these resources.

Response 162-30

See General Response 5. Salable minerals such as sand and gravel are discretionary actions with BLM and require case by case evaluations and National Environmental Policy Act compliance documentation. (See General Response 6.)

Response 162-31

See General Response 5. Requirement of an approved mining plan under 43 CFR 3809 regulations would provide adequate protection. (See Response 162-30.)

Response 162-32

Cumulative impacts are discussed in the Environmental Consequences section of the Final Environmental Impact Statement. Future minerals actions are either discretionary or require a mining plan or mining notice (43 CFR 3809) developed for a particular action. Environmental assessments will be completed and mitigations identified for each mining plan to address the effects of a particular action. (See General Response 5.)

Response 162-33

Stipulations are developed for mining activities in accordance with the mining laws and regulations. The stipulations are specific to each mining plan.

Response 162-34

A section has been included in Chapter 4 Environmental Consequences to address this issue.

Response 162-35

The Environmental Protection Agency will be included in the list of agencies to be notified when these activity level documents are developed.

Response 163-I

Decisions made in the San Pedro River Riparian Management Plan have been incorporated by reference into this document and are not subject to further review.

Response 163-2

Reconstruction of any roads will be subject to completion of National Environmental Policy Act compliance documents. (See General Response 6.)

Response 163-3

See Response 156-I 9.

Response 163-4

See Response 156-I 9.

Response 163-5

The prescription for management of the Desert Grasslands now includes the exclusion of livestock grazing.

Response 163-6

Preparation of an existing roads and trails map will be part of the District Transportation Plan being developed. It will not be available for distribution with this final Resource Management Plan/Environmental Impact Statement.

Response 163-7

BLM will work to accomplish the actions you have identified as rapidly as possible because they are basic to any management plan. The actions, through Item 5, described in the draft Resource Management Plan/Environmental Impact Statement are sequentially presented. Results achieved through implementation of these actions are often a slow process in the desert environment.

Response 163-8

We have received a number of recommendations supporting this proposal and have added them to our proposed acquisitions. Refer to Map 27 for locations of proposed land acquisition areas.

Response 163-9

Seeding is not planned in vegetation treatment areas. If seeding is done, native species would be utilized, consistent with Executive Order 11987 which prohibits release of most exotic species.

Response 163-10

A listing of sensitive species will not be included in the appendix due to its length and recent taxonomic changes. The Arizona Natural Heritage Program maintains a list of sensitive species in the state.

Response 163-I 1

Detailed monitoring plans will be included in the Implementation Plan and in the activity plans as they are developed.

Response 164-I

The lack of good access to Turtle Mountain has been and continues to be a hindrance to managing of the allotment. A road proposal could be evaluated in the District Transportation Plan and considered after completion of site-specific National Environmental Policy Act compliance documents.

Response 165-I

The Area of Critical Environmental Concern boundary does include this portion of Turkey Creek. There have been some changes to the prescription in this Resource Management Plan/Environmental Impact Statement. (Also see Response 156-I 9.)

Response 165-2

Equestrian use of the tablelands has been and will continue to be an acceptable use of the area. Trails, corrals and other facilities will be addressed later in a more specific activity plan.

Response 166-I

Livestock grazing issues were addressed in the Upper Gila-San Simon and Eastern Arizona Grazing Environmental Impact Statements. Grazing is not an issue in this document. (See General Response 2.)

Response 166-2

Areas of Critical Environmental Concerns are valid multiple-use management designations. Their identification and designation is given priority in the Federal Land Policy and Management Act of 1976 (Sec. 201 (a)).

Response 166-3.

See Response 11 I-23.

Response 166-4

Resource monitoring will be a function of the activity plans which will implement many of the decisions of the Resource Management Plan. Soils inventories have been completed for much of the District as well as plant community inventories using *Brown, Lowe and Pase*. Habitat Management Plans have been developed, but are scheduled for revision to conform to more natural boundaries. The Habitat Management Plans include monitoring activities. The Allotment Management Plans developed for the livestock grazing program also stipulate monitoring.

Response 166-5

BLM is responsible for managing wildlife habitat. Wildlife populations and their management are the responsibilities of the Arizona Game and Fish Department. BLM provides input into the Arizona Game and Fish Department process to determine population levels.

BLM has not relinquished authority to manage forage resources on the Safford District. Arizona Game and Fish Department Strategic Plans and BLM Allotment Management Plans are given consideration in the planning process. Allocation of the forage resource is the result of decisions made through various planning alternatives.

Multiple use implies competing resources cannot be maximized on the same acre at the same time. The Bureau's responsibility is to ensure that a proper balance in the allocation of the forage resource is accomplished so that the basic resource, the vegetation, is not sacrificed.

Response 166-6

Appendix 6, now Appendix 4, discusses various wildlife habitat types for priority species. Vegetation in the draft Resource Management Plan/Environmental Impact Statement, (P.144) refers to the riparian type vegetation as important to livestock.

Response 166-7

No reference to the effects of grazing on desert tortoise is given in Appendix 4.

Response 166-8

Bighorn sheep were first observed in the Gila Box by a member of Coronado's expedition in 1540. In 1825, an early explorer, James Ohio Pattie noted "multitudes of mountain sheep" in the same area. The reoccurrence of sheep in the area was reported in 1979 by Kenyon Udall, an area rancher. The rapid increase in numbers since then indicates the livestock grazing practices were compatible with the bighorn habitat needs.

Response 166-9

Wildlife populations are usually regulated by climatic factors such as rainfall. Occasionally density-dependent factors like disease become important. Documented examples of predators limiting prey populations exist but are special cases and should not form the basis for wildlife management policy. There are provisions within agreements between Arizona Game and Fish Department, BLM and Arizona Plant Health Inspection Service that could allow predator control to protect mule deer, but they have never been used in the Safford District. Deer numbers appear to closely follow the rainfall amounts consistent with Arizona Game and Fish Department research results.

Response 166-10

Wildlife populations are the responsibility of the Arizona Game and Fish Department. The BLM responsibility and role is to ensure adequate habitat to meet the needs of all wildlife species.

Response 167-1

BLM is currently taking action to open access to the public lands at this location.

Response 168-1

Livestock grazing is one of the recognized multiple uses of public land listed in the Taylor Grazing Act, and the Federal Land Policy and Management Act of 1976. Regulation of grazing fees are not within the scope of this document.

Response 169-1

See Response 5-1.

Response 170-1

The lands you describe are included in Alternative B. The BLM planning process and the National Environmental Policy Act enable the decisionmaker to select from any of the alternatives when making a decision. The Preferred Alternative of the draft document is an option, not a decision and while it usually represents a middle ground of land use options, the Proposed Resource Management Plan may contain portions from any of the alternatives evaluated.

Response 171-1

Right-of-way avoidance does not mean exclusion. The approval of an application for a second pipeline is subject to the prior completion of National Environmental Policy Act compliance documents. (See General Response 6.)

Response 171-2

The proposed Bowie Mountain Scenic Area of Critical Environmental Concern will be designated as an avoidance area. This will minimize or eliminate conflicts with sensitive areas, but will not necessarily prohibit authorizations of rights-of-way. The text of the Resource Management Plan has been changed accordingly.

Response 171-3

Your comments are noted.

Response 172-1

The 1988 Aravaipa Canyon Wilderness Management Plan is included in the list of references (draft Resource Management Plan/Environmental Impact Statement, p. 285) and is referred to other times in the text.

Response 172-2

The Muleshoe Ranch Area of Critical Environmental Concern boundary has been revised.

Response 172-3

See General Response 5.

Response 172-4

Vehicle use in Turkey Creek has not significantly affected the resources in the riparian area. The potential for impacts to the area will be addressed in a site-specific activity plan through the development of National Environmental Policy Act compliance documents (See General Response 6). Significant increases in visitor use or indiscriminant activity are not anticipated. The nature of the terrain in 95 percent of the area curtails off-road travel. Rebuilding of Ditmars Road has been deleted from Alternative A.

Response 172-5

Removal of exotic fish from streams to protect endangered native fish is an activity-level action of habitat maintenance and improvement. Actions identified in the wildlife portion of the Resource Management Plan would support this potential activity.

Response 172-6

A basic assumption in the analysis of anticipated impacts (including increased demand for recreation) is that "Funding and personnel would be available to fully implement any alternative" (draft Resource Management Plan/Environmental Impact Statement, p. 159).

Response 172-7

Erosion was addressed districtwide in the Management Situation Analysis developed as part of the planning process. Small areas may have erosion problems and will be dealt with in specific activity plans. The areas needing the most attention are noted in the Resource Management Plan.

Response 172-8

The Aravaipa Canyon Wilderness Management Plan is

included in the Gila Resource Area Management Situation Analysis, which is incorporated into this Resource Management Plan/Environmental Impact Statement.

Response 172-9

Existing cooperative agreements are maintained in the District Office and are can be reviewed at the District Office. Listing these agreements without including the contents would be of limited value. In addition, the list would need continual revisions as new agreements are developed and others expire.

Response 172-I 0

An implementation plan with priorities will be prepared following issuance of the Record of Decision for the Resource Management Plan. Until the specific Resource Management Plan has been selected, we cannot be certain of specific Resource Management Plan actions.

Response 172-I 1

See Response 156-5.

Response 172-I 2

If soil erosion problem areas are noted during routine field work or through other monitoring activities, they will be addressed.

Response 172-I 3

The roads identified in the Resource Management Plan are necessary for public and administrative access. The District Transportation Plan involves a complete road inventory, road classification, road numbering and identification, and a final determination of need. A final District Transportation Plan is not necessary to identify individual road needs.

Response 172-14

The proposed Area of Critical Environmental Concern management prescription will be incorporated into the Wilderness Management Plan to the extent that the prescriptions are consistent with the Wilderness Act.

Response 172-I 5

An action item has been added to the Riparian section in Chapter 2, Management Guidance Common to All Alternatives.

Response 172-I 6

There is no Aravaipa Canyon Watershed Area of Critical Environmental Concern in the Preferred Alternative of the Resource Management Plan. Your point is well taken with respect to Alternative B in which the Aravaipa Canyon Watershed Area of Critical Environmental Concern did not provide for right-of-way avoidance. The topography of this Area of Critical Environmental Concern as well as others in the vicinity precludes most right-of-way needs. Alternative routes are more efficient and cost effective. We have included this prescription in the alternative.

Response 172-17

The proposed Special Recreation Management Area boundary includes Turkey Creek.

Response 172-18

This site has been subjected to two unauthorized releases of native and exotic fishes. Appropriate Fish and Wildlife Service Section 7 consultation has already been initiated to resolve the problems at Watson Wash because of the seriousness of the situation.

Response 172-I 9

See Response 162-31.

Response 172-20

See Response 100-33.

Response 172-21

See Response 100-39.

Response 172-22

These species have been identified in Table 2-3.

Response 172-23

BLM has identified the Muleshoe pipeline road for access to that particular area for administrative purposes.

Response 172-24

All actions of this nature would be subject to National Environmental Policy Act compliance procedures. (See General Response 6.)

Response 172-25

See Response 100-43. *Lilaeopsis shaffneriana* var. *recurva* has not been documented as occurring on public lands within the District.

Response 172-26

The referenced discussion is from the wilderness suitability report. With the passage of the Arizona Desert Wilderness Act of 1990, references to the suitability report have been deleted from this Final Environmental Impact Statement.

Response 172-27

The authority for designation of Wild and Scenic Rivers has been changed.

Response 172-28

See Responses 156-5 and 172-5.

Response 173-I

The discussion of management objectives for Priority Species/Habitats has been changed to reflect the management goals of the current strategic plan.

Response 173-2

Those lands in the lower San Pedro River corridor that possess significant riparian wildlife potential have been identified in this Safford District Resource Management Plan/Final Environmental Impact Statement.

Response 174-I

See Response 167-I. If this problem is not resolved before printing of this document, this area will be added to the list for acquisition of public access.

Response 174-2

Changes have been made to reflect these dates.

Response 174-3

The Dry Spring Area of Critical Environmental Concern has been included as part of the Needles Eye Wilderness Area through the Arizona Desert Wilderness Act.

Response 1744

See Response 174-3. Appropriate Area of Critical Environmental Concern prescriptions will be carried forward to the Wilderness Management Plan, but dual status will not be sought.

Response 174-5

The lands you reference are identified in Alternative B and are now also part of the Preferred Alternative. The original boundary described in the draft was based on an existing fenceline.

Response 174-6

When Allotment Management Plans are developed, wildlife habitat input is obtained and incorporated into the plan, regardless of the status of species or habitats within the allotment.

Response 174-7

Corrections have been made to text.

Response 174-8

See Response 173-2.

Response 174-9

These lands have been identified for acquisition. However, they are low in the District's acquisition priorities because of limited access caused by land ownership patterns. In addition, lands with riparian values and Threatened and Endangered species have higher priorities for acquisition. Access acquisition is identified in Appendix 1.

Glossary

Activity Plan. A more detailed plan of actions to implement planning decisions over a specified time period. Examples include allotment management plans, recreation area management plans, habitat management plans and cultural resource project plans.

Air Quality Classes. Classes established by the Environmental Protection Agency to define the amount of air pollution considered significant within an area.

Class I areas where any change in air quality would be considered significant and therefore would not be allowed.

Class II areas where the pollution normally accompanying moderate well-controlled growth would be considered allowable.

Class III areas where air pollution up to the national standards would be allowed.

Allotment. A land area where one or more operators graze their livestock. It generally consists of public land but may include parcels of private and state-owned land. The number of livestock and seasons of use are stipulated for each allotment.

Allotment Management Plan. A livestock grazing management plan for a specific allotment, based on multiple-use resource management objectives. The allotment management plan considers livestock grazing in relation to other uses of the range and in relation to renewable resources-watershed, vegetation and wildlife. An allotment management plan establishes the seasons of use, number of livestock permitted on the range and needed rangeland developments.

Ambient Air Quality. Related to the quantity of pollutants found in a mass or body of air surrounding or encompassing an area.

Aquatic. Growing or living in or frequenting water.

Area of Critical Environmental Concern. A public land area 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.

Benefit. Any impact from an action that produces intentional or causal positive or beneficial results.

Blancan Age Assemblage. Refers to the different species of mammals that characterize the Blancan Land Mammal Age in North America. The Blancan Age occurred from 4,300,000 years ago to 1,900,000 years ago. Mammals typical to the period include *Equus* (horse), *Borophagus* and *Chasmoporthetes* (carnivores), *Stegomastodon* (elephant-like), and *Hemiauchenia* (camel), among others.

Bosque. A woodland dominated by trees over 15 feet tall.

Bureau of Land Management (BLM). An agency of the U.S. Department of the Interior responsible for the balanced management of the public lands and resources and their various values so that they are considered in a combination that will best serve the needs of the public. Management is based on the principles of multiple use and sustained yield; a combination of uses that takes into account the long-term needs of future generations for renewable and non-renewable resources. These resources include recreation, range, timber, minerals, watershed, vegetation, fish and wildlife habitat, wilderness, natural, scenic, scientific and cultural values.

Candidate Species. Any plant or animal species not protected under the Endangered *Species Act* but under consideration by the Fish and Wildlife Service for inclusion on the list of federally threatened or endangered species.

Cenozoic Era. A geologic era that began about 65,000,000 years ago and has lasted through the present time.

Chaparral. A plant community characterized by evergreen shrubs, usually less than 15 feet tall.

Clenega. A riparian community characterized by low sedges growing on saturated, highly organic, reducing soils.

Community. An aggregate of organisms that form a distinct ecological unit. Such a unit may be defined in terms of plants, animals, or both.

Conglomerate. Sedimentary rock consisting of relatively large rounded grains (about gravel-sized) cemented together with much finer grains (sand or silt-sized).

Conifer. A cone-bearing tree or shrub.

Cretaceous Period. A subdivision of the Mesozoic Era that occurred from about 145 million to 65 million years ago.

Cultural Resource. The fragile and nonrenewable remains of human activity, occupation, or use; as reflected in districts, sites, artifacts, ruins, works of art, architecture, and natural features. These resources include physical remains, areas where significant human events occurred (even though evidence of the event no longer remains), and the environment immediately surrounding the resource. Also, traditional lifeway values are abstract, nonmaterial cultural resources that make up a group's shared values.

Cultural Resource Inventory Classes.

Class I a prepared study of existing cultural resource data from published and unpublished documents, various institutional site inventory records, state and national registers, and other sources leading to a compilation and analysis of all available data and synthesis of the data.

Class II a professionally conducted, statistically based sample survey designed to characterize the probable density, diversity and distribution of cultural properties within a project area. Sample units are inventoried with the methods described under **Class III**. Several phases with differing sample designs and intensities may be conducted.

Class III a professionally conducted, systematic and intensive survey of a given area, aimed at locating and recording all cultural properties. Crew members commonly walk parallel, closely-spaced transects until the area has been thoroughly examined.

Cultural Resource Site. A physical location of past human activities or events. Sites vary in size, ranging from the location of a single cultural resource object to a cluster of cultural resource structures with associated objects and features.

Cumulative Impacts. The collective impacts of all actions affecting a particular resource.

Dispersed Recreation. Recreation activities that do not require developed sites or facilities.

Disposal. Transferring of land out of federal ownership by various methods such as exchange, sale, Recreation and Public Purposes Act and/or state indemnity selection,

Diversity. The relative abundance of plant and wildlife species, communities, habitats or habitat features per unit of area.

Ecosystem. A complex self-sustaining natural system that includes living and non-living components of the

environment and the interactions that bind them together. Its functioning involves the circulation of matter and energy between organisms and their environment,

Encinal. A woodland dominated by oak trees.

Endangered Species. Any plant or animal species in danger of extinction throughout all or a significant part of its range.

Environment. The surrounding conditions, influences or forces that affect or modify an organism or an ecological community and ultimately determine its form and survival.

Environmental Assessment. The procedure for analyzing the impacts of a 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 Impact Statement. An analytical document prepared for use by decisionmakers to weigh the environmental consequences of a potential decision. An Environmental Impact Statement should accurately portray potential impacts to the environment of a particular course of action and its possible alternatives.

Ephemeral. Lasting only a short period of time.

Erosion. The wearing away of the soil and surface by running water, wind, ice or other geological agents.

Ethnographic Study. The structured and systematic fieldwork-based study and description of specific cultures.

Extensive Recreation Management Area. Areas where recreation is unstructured and dispersed, and where minimal recreation-related investments are required. These areas, constituting the majority of the public lands, give recreation visitors the freedom of recreation choice with minimal regulatory constraints.

Extirpated. Refers to species that once occupied an area but have since been eliminated from that part of their range.

Fauna. Animals or animal life.

Federal Land Policy and Management Act of 1976. The law that gives BLM the legal authority to establish public land policy; establish guidelines for

administering such policy; and provide for the management, protection, inventory, development and enhancement of the public lands.

Fire Management. The integration of fire suppression, prescribed fire and fire ecology knowledge into multiple use planning, decisionmaking and land management activities.

Floodplain. The flat ground along a stream or river covered by water during high flood stage.

Flora. Plants or plant life.

Forage. All browse and herbaceous foods, available to grazing animals, that may be grazed or harvested for feeding.

Fossil. Any remains, trace or imprint of an ancient plant or animal that has been preserved by natural processes.

Gallery Forest. A forest community dominated by very large, mature trees that lack a significant understory of younger, replacement individuals.

Geophysical Exploration. Exploring for minerals by remote sensing means, such as by seismic work.

Geothermal Energy. Energy derived from the earth's natural heating of groundwaters, such as a hot spring.

Herptiles. Amphibians and reptiles as a combined group.

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 geographical area of public land) that identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives and outlines procedures for evaluating accomplishments.

Hardrock Mining. The extraction of locatable minerals, except for placer deposits.

Hazardous Materials. Any substance that poses a threat to the health or safety of people or the environment. These include any material that is toxic, ignitable, corrosive or radioactive.

igneous Rock. Rock formed by the cooling of magma within the earth (intrusive) or on the earth's surface (extrusive or volcanic).

Impact. In this document, any adverse change to the ecosystem from implementing an action.

Inholding. A parcel of State or private land surrounded by public lands.

Instream Flow. Surface water flowing freely in a natural stream channel in sufficient quantity to preserve the associated resource values. A term commonly associated with a water right. In-stream flow can be obtained by submitting an application, to appropriate a specified quantity of surface water, to the Arizona Department of Water Resources. The application requires specific rationale for granting an instream flow, such as the maintenance of fisheries, riparian habitat, recreation use or wildlife. Also required as part of the application are the establishment of minimum flows and the development of a hydrologic assessment to demonstrate that the requested quantity of water is available.

Interim Management Policy. BLM's guidelines for management of lands under wilderness review to preserve their wilderness values. The policy will apply to Wilderness Study Areas until Congress decides to designate the areas wilderness or release them for other uses.

Intermittent Flow. Water flow occurring in a natural channel for longer than several weeks after a major storm but ceases flow during extended dry periods. Any flow lasting longer than 2 weeks, but less than 11 months.

Irringtonian Vertebrate Fauna. Refers to the animals with backbones characterizing the Irvington Land Mammal Age in North America. The Irvington Age occurred from 1,900,000 years ago to 500,000 years ago. Characteristic animals include Mammuthus (elephant), Smilodon (stabbing cat), Paramylodon (ground sloth), among others.

Issues. Controversies or concerns about existing and potential land and resource allocations; levels of resource use, production or protection; and BLM's management practices.

Land Treatment. Alteration of the soil and/or vegetation of an area by mechanical or chemical means or by burning.

Leasable Minerals. Those minerals or materials designated as Leasable under the Mineral Leasing Act

of 1920. They include coal, phosphate, asphalt, sulphur, potassium and sodium minerals, and oil and gas. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

Locatable Minerals. Any mineral or material that can have a mining claim filed for it under the Mining Law of 1872, as amended. Generally includes metallic minerals such as gold and silver and other materials not subject to lease or sale (some bentonites, limestone, talc, some zeolites, etc.). Whether a particular mineral deposit is locatable depends on such factors as quality, quantity, mineability, demand and marketability.

Location. The act of fixing the boundaries of a mining claim according to law or the claim itself.

Management Concern. Planning issues that are not controversial and normally require less detailed analysis to resolve. Management concerns are often identified by BLM staff and present opportunities to improve management of the public lands and resources.

Management Framework Plan. A land use plan that provides a set of goals, objectives and constraints for a specific planning area. An MFP guides the development of detailed plans for management of each resource in the planning area.

Management Situation Analysis. A BLM reference document describing the affected environment of a planning area, including current management practices and programs. The MSA is a basic descriptive and analytic reference for resource condition, trend, demands and capabilities in the planning area and provides the basis for formulating and analyzing plan alternatives.

Mesic. Moist areas.

Mesozoic Era. A geologic era that occurred about 250 million and lasted to 65 million years ago.

Metamorphic Rock. Sedimentary or igneous rock that has been altered by heat or pressure.

Mineral Entry. The filed location of mining claims by an individual to protect his/her right to a valuable mineral.

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.

Mineralized Area. An area that has exposures or near-surface deposits of potentially valuable minerals.

Mining District. A section of country, usually designated by name, that has described or understood boundaries where minerals are found and mined under rules and regulations prescribed by the miners, consistent with the Mining Law of 1872.

Miocene Epoch. An epoch of the Tertiary Period occurring from about 24 million to 5 million years ago.

Mitigation/Mitigating Measure. Methods or actions implemented for the purpose of reducing or eliminating the adverse impacts of an action.

Monitor. To scrutinize or check systematically with a management goal of collecting certain specified categories of data.

Multiple Use Management. Management of the various surface and subsurface resources so that they are used in combinations that will best meet the present and future needs of the public, without unnecessary or undue degradation of the productivity of the land and the quality of the environment.

National Register of Historic Places. A list, kept by the Secretary of the Interior, of districts, sites, buildings, structures and objects significant in American history, architecture, archaeology and culture.

National Register Quality Site. A cultural resource site determined to be eligible for listing on the National Register of Historic Places by virtue of its local, state or national significance.

Non-attainment Area. An area where air quality standards are violated for one or more given pollutants. An area may be non-attainment for one pollutant and attainment for others.

Non-point Pollution Source. A collection of accumulated pollutants in the stream, runoff, seepage and percolation contributing to the degradation of the quality of surface or groundwater that cannot be attributed to direct discharge from a specific source, usually by a method of conveyance.

No Surface Occupancy. A fluid mineral leasing stipulation that prohibits occupancy or disturbance on all or part of the lease surface in order to protect special values or uses. Lessees may exploit the oil and gas or geothermal resources under leases restricted by this stipulation through use of directional drilling from sites outside the no surface occupancy area.

Off-highway Vehicle. Any motorized or non-motorized, tracked or wheeled vehicle designed for cross-country travel over any type of natural terrain.

Off-highway Vehicle Designations.

Open Areas Areas where off-highway vehicles may be operated with no special restrictions. Areas where there are no compelling resource protection needs, user conflicts or public safety issues that warrant limiting cross-country travel.

Closed Areas Areas where all vehicle use is permanently or temporarily prohibited to protect natural resources, promote visitor safety or reduce use conflicts.

Limited Areas Areas where off-highway vehicle use is limited in some manner to meet specific resource management objectives. Restrictions can include limitations on the number or types of vehicles, on time or season of use, to permitted or licensed use only, to designated or existing roads and trails, etc.

Oligocene Epoch. A geologic epoch in the Tertiary Period occurring from 37 million to 24 million years ago.

Optimum Population. Populations based on the reproductive potential, longevity, management objectives and the ecological conditions present, as well as the role species play in an ecologically functional community. The optimum will be somewhere between the minimal viable population and the carrying capacity of an area. It may fluctuate widely due to changing environmental factors such as rainfall and vegetation.

Ore. A mineral deposit of high enough quality to be mined at a profit.

Outstanding Natural Area. A natural area established to preserve scenic values and areas of natural wonder.

Paleontological Resources. Fossils; the remains of animals and plants that provide information about life in past geologic ages.

Paleontological Site Classification System. A fossil site classification system developed and used by BLM. Three different classes are distinguished:

Class I Areas within formations or portions of formations that are known to contain or have produced fossils of significant scientific interest. Fossils are exposed on the surface or are very

likely to be discovered with detailed field surveys in the area.

Class II Fossils are present, but while their scientific value has not been established, high scientific values are not anticipated.

Class III Little likelihood of finding fossils of significant scientific interest. Further consideration of fossils is unnecessary unless future discoveries or information require a change in classification.

Paleontology. The science that deals with the life of past geologic ages. It is based on the study of the fossil remains of organisms and in a restricted sense is the study of fossils.

Paleozoic Era. A geologic era occurring from about 600 million to 250 million years ago.

Patent. A grant made to an individual or group conveying fee simple title to selected public lands.

Patented Claim. A claim on which title has passed from the federal government to the mining claimant under the Mining Law of 1872.

Perennial Stream. A stream that flows yearlong, at least in one segment.

Petroglyph. A figure or symbol cut, carved or pecked into stone.

Phreatophyte. Water loving plants.

Physiographic Province. An area with similar geographical features and climate.

Pictograph. A figure or symbol drawn or painted on a stone surface.

Placer Deposit. An alluvial or glacial deposit, as of sand or gravel, containing particles of gold or other valuable minerals.

Planning Criteria. Factors BLM evaluates to develop solutions to the issues and management concerns. Planning criteria focus the preparation of the resource management plan, establishing limits on the analysis that are needed to resolve the issues and concerns.

Planning Issues. See Issues.

Planning Area. The geographical area for which a resource management plan is prepared and maintained.

Pleistocene Assemblage. The species of mammals characteristic of the Pleistocene geologic epoch (or last great ice age), occurring from about 1 million years ago to 11,000 or 12,000 years ago. Mammals typical to the period include the mammoth, camel, horse, dire wolf, etc.

Pliocene Epoch. A geologic epoch at the end of the Tertiary period, lasting from about 5 million to 1,600,000 years ago.

Precambrian Period. The period of time before the Cambrian Period; lasting from the beginning of the planet to about 600 million years ago.

Prescribed Fire. The skillful application of fire (planned ignition or natural starts) to fuels under planned conditions of weather, fuel moisture, soil moisture, etc. that will allow confinement of the fire to a predetermined area and produce the intensity of heat and rate of spread required to accomplish resource objectives.

Primitive and Unconfined Recreation. Non-motorized and undeveloped types of outdoor recreation (hiking, backpacking, camping, hunting, etc.).

Priority Species. Animal and plant species and habitats having special significance for management. They include endangered, threatened and special status species; species of high economic or recreational value; and aquatic, wetland and riparian habitats. Also included are populations of animals or plants recognized as significant for one or more factors such as density, diversity, size, public interest, remnant character or age.

Proposed Species. Any plant or animal species that is proposed for listing as a threatened or endangered species under the *Endangered Species Act*.

Prospect. An attempt to determine mineral values or the site of this attempt.

Public Land. Lands administered by the Bureau of Land Management.

Quaternary Period. A geologic period lasting from about 2 million years ago to the present.

Raptor. A bird of prey with sharp talons and strongly curved beak, such as hawks, eagles, owls, vultures and falcons.

Reclamation. Returning disturbed lands to a form and productivity that will be ecologically balanced and in conformity with a predetermined land management plan.

Research Natural Area. An area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics: (1) A typical representation of a common plant or animal association; (2) an unusual plant or animal association; (3) a threatened or endangered plant or animal species; (4) a typical representation of common geologic, soil or water features; or (5) outstanding or unusual geologic, soil or water features.

Resource Area. The smallest administrative subdivision of a BLM District.

Resource Conservation Area. A management designation that provides management consideration to areas with special resource values not requiring the protection that an Area of Critical Environmental Concern designation confers.

Resource Management Plan. A BLM planning document that presents systematic guidelines for making resource management decisions for a resource area. A Resource Management Plan is based on an analysis of an area's resources, their existing management and their capability for alternative uses. Resource Management Plans are issue-oriented and developed by an interdisciplinary team with public participation.

Right-of-way. A legal right to use, occupy or access land or water areas for specified purposes.

Right-of-way Avoidance Area. Areas of public land with highly sensitive resource values that are generally prohibited from utility and transportation facility development. Exceptions may be granted if the proposed facility benefits or does not adversely affect sensitive resources.

Right-of-way Corridor. A linear area of public lands with defined and recognizable boundaries and capacities having ecological, technical, economic, social or similar advantages for the present and future location of rights-of-way. Corridors must also be identified and designated by legal public notice.

Right-of-way Exclusion Area. Areas of public lands that are prohibited from utility and transportation facility development. Rights-of-way may be granted only when required by law.

Riparian Area. An area of land directly influenced by permanent water, either on the surface or as free subsurface water in the rooting zone of water-dependent vegetation.

Riparian Vegetation. A plant community dependent upon free water on the surface or free water in the soil.

Salable Minerals. Common variety minerals used mostly for construction projects (e.g., sand and gravel).

Saline Soil. Soil containing soluble salts in an amount that impairs growth of plants.

Salinity. The relative concentration of free salt ions in solution. Salinity is usually expressed in terms of the number of parts per million.

Section. A 1 square mile area forming one of the 36 subdivisions of a standard township.

Sensitive Species. Those species designated by a BLM State Director, in cooperation with a state agency responsible for managing the species, as sensitive. Sensitive species are those species (1) under status review by the Fish and Wildlife Service/National Marine Fisheries Service, (2) whose numbers are declining so rapidly that federal listing may become necessary, (3) with typically small and widely dispersed populations or (4) inhabiting ecological refugia or other specialized or unique habitats.

Scoping. An early and open process for determining the issues to be addressed in an Environmental Impact Statement and for identifying the significant issues related to a proposed action. Scoping may include public meetings, field interviews with interested individuals and user groups, discussions with resource specialists and managers, direct mailings, etc.

Sediment. Soil or mineral material transported by water and deposited in streams or other bodies of water.

Sedimentary Rock. Rock consisting of consolidated sediments (e.g., shale, siltstone, sandstone and limestone).

Shrub. A plant that has a persistent woody stem, a relatively low-growth habit and generally produces several basal shoots instead of a single trunk.

Significance. A high degree of importance as indicated by either quantitative measurements or qualitative judgments. Significant issues and impacts require explicit consideration in the preparation of a plan. Significance may be determined by evaluating characteristics pertaining to location, extent, consequence and duration of an action or impact.

Special Recreation Management Area. An area requiring explicit recreation management to achieve

BLM's recreation objectives and to provide specific recreation opportunities. Special Recreation Management Areas are identified in management plans that may also define the management objectives for the area. BLM's recreation investments are concentrated in these areas.

Special Status Species. A grouping of wildlife species that includes Proposed Species, Threatened and Endangered Species, Candidate Species, State-Listed Species and Sensitive Species (see definitions for these terms elsewhere in this Glossary).

State-Listed Species. Those vegetation or wildlife species proposed for listing or listed by a state in a category implying potential endangerment or extinction. Listing is either by state legislation or regulation.

Stipulation. A requirement, usually dealing with protection of the environment, that is made part of a lease, grant or other authorizing document.

Threatened Species. Any plant or animal species likely to become endangered within the foreseeable future throughout all or a significant part of its range.

Terrestrial. Living on land.

Tertiary. A geologic period lasting from about 65 million million years ago to 2 million years ago.

Unique Waters. A program of the State of Arizona designed to protect high-quality waters associated with exceptional recreation, ecological and wildlife values. The designation requires the submission of a nominating petition with rationale for the nomination and proof of ability to monitor, maintain and manage the stream segment. The designation is approved by the Arizona Department of Environmental Quality.

Upland Vegetation. Vegetation outside riparian zones.

Valid Existing Rights. Legal interests attached to a land or mineral estate that cannot be divested from the estate until that interest expires or is relinquished.

Vehicle Trail. A track, made by the passage of vehicles, regularly used for vehicle travel. Desert washes may be included as trails if they have a history of use.

Vegetation Type. A plant community with distinguishable characteristics described by the dominant vegetation present.

Viable Population. A population of sufficient numbers to maintain itself over time.

Vibroseiser Line. Method of geophysical exploration.

Visual Resources. The visible physical features on the landscape (land, water, vegetation and structures). Scenery.

Visual Resource Management. The inventory, designation and implementation of management objectives to maintain the desired scenic quality of the public lands. Management of BLM activities to mitigate adverse impacts to scenery to acceptable levels.

Visual Resource Management Classes. Classes with specific objectives for maintaining or enhancing scenic quality, including the kinds of modifications to the landscape that are acceptable to meet the established objectives.

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.

Water Quality. The chemical, physical and biological characteristics of water with respect to its suitability for a particular use.

Watershed. The region draining into a river, river system or body of water.

Way. See Vehicle Trail.

Wetlands. Lands including swamps, marshes, bogs and similar areas such as wet meadows, river overflows, mud flats and natural ponds.

Wild and Scenic River System. A system established by the *Wild and Scenic Rivers Act* to protect rivers and their immediate environments that have outstandingly remarkable scenic, recreation, geologic, fish and wildlife, historic, cultural or other similar values. Rivers can be designated in one of three classes:

Wild Rivers- rivers that are free of impoundments and pollution and generally inaccessible except by trail, with essentially primitive watersheds or shorelines.

Scenic Rivers - rivers free of impoundments, with shorelines largely undeveloped, but accessible in places by roads.

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

Wilderness. An area formally designated by Congress as a part of the National Wilderness Preservation System. A wilderness, in contrast with those areas where people and their works dominate the landscape, is recognized as an area where the earth and its community of life are untrammelled, where people visit but do not remain. It is an area of undeveloped land retaining its primeval character and influence, without permanent improvements or human habitation, that is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of human's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geologic, or other features of scientific, education, scenic or historic value.

Wilderness Study Area. A roadless area or island that has been inventoried and found to have wilderness characteristics. An area to be studied to determine its suitability for designation as wilderness.

Wildlife. Animals living in the wild that have not been domesticated by humans.

Withdrawals. The closure of public lands to uses under sales, settlement, location and entry. Withdrawals limit use to maintenance of public values or reserves for a particular use or program. Withdrawals can also transfer jurisdiction of public lands to another federal agency.

Xeric. Dry areas.

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Appendix 1

Locations for Acquisition of Legal Access

Legal access will be acquired across private, state or Indian Reservation lands, for public and/or administrative vehicular use, in the following locations.

Alternatives A and C

1. Murray Springs Road T. 21 S., R. 21 E., Sec. 26.
2. Guadalupe Canyon Road T. 24 S., R. 32 E., Secs. 14,15,16,21.
3. Baker Canyon Road T. 23 S., R. 32 E., Sec. 31;
T. 23 S., R. 31 E., Sec. 1.
4. Emigrant Canyon Road T. 14 S., R. 28 E., Secs. 25,36;
T. 14 S., R. 29 E., Sec. 31;
T. 15 S., R. 29 E., Secs. 3,4,5, 6, 10.
5. Buckeye Canyon Road T. 13 S., R. 27 E., Secs. 26,27,34;
T. 14 S., R. 27 E., Sec. 9.
6. Mascot Mine Road T. 14 S., R. 27 E., Secs. 16,21, 28, 29.
7. Mineral Park Road T. 14 S., R. 26 E., Secs. 8,9, 11, 14, 15, 16.
8. Happy Camp Canyon Road T. 13 S., R. 28 E., Secs. 3,7,8,9.
9. Walnut Gulch Road T. 13 S., R. 26 E., Secs. 23, 26,35.
10. Little Doubtful Canyon Road T. 12 S., R. 32 E., Secs. 26, 27,35.
11. Doubtful Canyon Road T. 12 S., R. 32 E., Sec. 35;
T. 13 S., R. 32 E., Secs. 3,9.
12. West Peloncillo Mountains Roads, including Midway Canyon
T. 12 S., R.31 E., Secs. 11, 12, 13, 24;
T. 12 S., R. 32 E., Secs. 7,18.
13. Day Ranch Road T. 10 S., R. 32 E., Secs. 21,29.
14. Upper San Francisco River Road
T. 3 S., R. 30 E., Secs. 20,29 32;
T. 4 S., R. 29 E., Secs. 12, 13;
T. 4S., R. 30 E., Secs. 5, 6,7, 18, 19, 30.
15. Black River Road T. 4 S., R. 28 E., Secs. 25,26;
T. 4 S., R. 29 E., Secs. 19,20,30.
16. Upper Bonita Creek Road
T. 4 S., R. 27 E., Secs. 27,34;
T. 5 S., R. 27 E., Secs. 3, 10, 11, 14,23.

17. West Ranch Road T. 5 S., R. 26 E., Secs. 26,35;
T. 6 S., R. 26 E., Secs. 2,33;
T. 7 S., R. 26 E., Sec. 4.
18. Black Point Road T. 6 S., R. 25 E., Sec. 7.
19. New Bryce Road T. 6 S., R. 25 E., Sec. 6.
20. Red Knolls Road T. 5 S., R. 23 E., Sec. 25;
T. 5 S., R. 24 E., Secs. 30,31.
21. Black Rock Road Across San Carlos Apache Indian Reservation and private lands along Black Rock Wash.
22. Goodwin Wash Road Across San Carlos Apache Indian Reservation and private lands along Goodwin Wash.
23. Whittaker Ranch Road T. 6 S., R. 17 E., Secs. 17, 19, 20.
24. Rug Road T. 7 S., R. 18 E., Sec. 14;
T. 8 S., R. 18 E., Sec. 1,5, 12, 13, 14, 15, 16.
25. Old Aravaipa Road T. 5 S., R. 19 E., Secs. 24, 25, 26, 36.
26. Dry Camp Road T. 6 S., R. 19 E., Secs. 5,8.
27. Wagner Ranch Road T. 6 S., R. 17 E., Secs. 13,23,24.
28. Oak Spring Canyon Road T. 6 S., R. 17 E., Sec. 26;
T. 6 S., R. 18 E., Secs. 31,32.
29. Wood Ranch Road T. 6 S., R. 17 E., Secs. 23,24.
30. Upper Deer Creek Road T. 6 S., R. 19 E., Sec. 3;
T. 5 S., R. 19 E., Sec. 34.
31. Gila River Road below Coolidge Dam T. 3 S., R. 18 E., Secs. 17, 18.
32. El Capitan Road T. 2 S., R. 15 E., Secs. 23,25,26.
33. Cutter Road Across San Carlos Apache Indian Reservation and private lands from Cutter to Mescal Creek.
34. Chilito Mine Road T. 4 S., R. 15 E., Secs. 22, 23, 27, 34;
T. 5 S., R. 15 E., Secs. 2,9, 11.
35. Cherry Springs Canyon Road T. 12 S., R. 20 E., Secs. 4,9.
36. Jackson Cabin Road T. 12 S., R. 20 E., Secs. 11, 12, 13;
T. 12 S., R. 21 E., Secs. 19, 30,31;
T. 13 S., R. 21 E., Secs. 5,6.
37. Muleshoe Pipeline Road T. 12 S., R. 21 E., Sec. 31.
38. St. David Cienega Road T. 18 S., R. 21 E., Sec. 20.
39. Charleston Admin. Road T. 20 S., R. 21 E., Sec. 36.

Alternative B

1. Murray Springs Road T. 21 S., R. 21 E., Sec. 26.
2. Guadalupe Canyon Road T. 24 S., R. 32 E., Secs. 14,15,16,21.
3. Emigrant Canyon Road T. 14 S., R. 28 E., Secs. 25, 36;
T. 14 S., R. 29 E., Sec. 31;
T. 15 S., R. 29 E., Secs. 3,4,5, 6, 10.
4. Buckeye Canyon Road T. 13 S., R. 27 E., Secs. 26,27,34;
T. 14 S., R. 27 E., Sec. 9.
5. Mascot Mine Road T. 14 S., R. 27 E., Secs. 16, 21,28,29.
6. Mineral Park Road T. 14 S., R. 26 E., Secs. 8,9,11,14,15,16.
7. Walnut Gulch Road T. 13 S., R. 26 E., Secs. 23,26,35.
8. Doubttul Canyon Road T. 12 S., R. 32 E., Sec. 35;
T. 13 S., R. 32 E., Secs. 3,9.
9. West Peloncillo Mountains Roads, including Midway Canyon
T. 12 S., R. 31 E., Secs. 11, 12, 13, 24;
T. 12 S., R. 32 E., Secs. 7,18.
10. Day Ranch Road T. 10 S., R. 32 E., Secs. 21,29.
11. Upper San Francisco River Road
T. 3 S., R. 30 E., Secs. 20, 29 32;
T. 4 S., R. 29 E., Secs. 12,13;
T. 4 S., R. 30 E., Secs. 5, 6,7, 18, 19, 30.
12. Black River Road T. 4 S., R. 28 E., Secs. 25,26;
T. 4 S., R. 29 E., Secs. 19,20,30.
13. Upper Bonita Creek Road T. 4 S., R. 27 E., Secs. 27,34;
T. 5 S., R. 27 E., Secs. 3, 10, 11, 14,23.
14. West Ranch Road T. 5 S., R. 26 E., Secs. 26,35;
T. 6 S., R. 26 E., Secs. 2,33;
T. 7 S., R. 26 E., Sec. 4.
15. Black Point Road T. 6 S., R. 25 E., Sec. 7.
16. New Bryce Road T. 6 S., R. 25 E., Sec. 6.
17. Red Knolls Road T. 5 S., R. 23 E., Sec. 25;
T. 5 S., R. 24 E., Secs. 30,31.
18. Black Rock Road Across San Carlos Apache Indian Reservation and private lands along Black Rock Wash.
19. Goodwin Wash Road Across San Carlos Apache Indian Reservation and private lands along Goodwin Wash
20. Whittaker Ranch Road T. 6 S., R. 17 E., Secs. 17, 19, 20.

21. Rug Road T. 7 S., R. 18 E., Sec. 14;
T. 8 S., R. 18 E., Sec. 1, 5, 12,13,14, 15, 16.
22. Dry Camp Road T. 6 S., R. 19 E., Secs. 5,8.
23. Wagner Ranch Road T. 6 S., R. 17 E., Secs. 13,23,24.
24. Wood Ranch Road T. 6 S., R. 17 E., Secs. 23, 24.
25. Upper Deer Creek Road T. 6 S., R. 19 E., Sec. 3;
T. 5 S., R. 19 E., Sec. 34.
26. Gila River Road below Coolidge Dam T. 3 S., R. 18 E., Secs. 17, 18.
27. Cutter Road Across San Carlos Apache Indian Reservation and private lands from Cutter to Mescal Creek.
28. Jackson Cabin Road T. 12 S., R. 20 E., Secs. 11,12,13;
T. 12 S., R. 21 E., Secs. 19,30,31;
T. 13 S., R. 21 E., Secs. 5,6.
29. Muleshoe Pipeline Road T. 12 S., R. 21 E., Sec. 31.

Appendix 2

Areas of Critical Environmental Concern Evaluations

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Appendix 2

Areas of Critical Environmental Concern Evaluations

Gila Box Outstanding Natural Area

1. **Description of the Value, Resource, System or Hazard:** The Gila Box area is well known for its many significant values. The area contains riparian vegetation along the rivers and is known for the overlap of Sonoran and Chihuahuan Desert vegetation. The Gila Box contains a number of mesquite bosques significant to wildlife and an increasingly rare vegetation community. The area has moderate to high values in known and projected prehistoric archaeological sites and in the numerous historic sites. The rivers may support populations of the threatened loach minnow and spikedace. Endangered bald eagles winter in this area. The area has significant features in the highly eroded volcanic and conglomerate geological formations. Also included is the last free-flowing stretch of the Gila River in Arizona. The Gila and San Francisco rivers are both perennial. The area is noted for its wildlife populations, especially raptors like the black and zone-tailed hawks and bald eagles. The twisting canyons, steep cliffs, erosional features, vegetation, flowing streams and geological formations combine to make this an outstanding scenic area. Finally, the Gila Box is used extensively for recreation, including floatboating, hiking, picnicking, fishing and off-highway vehicle use. This area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories.

This area meets the relevance criterion because it has significant historic values (numerous homesteading sites), prehistoric values (numerous known and projected archaeological sites) and scenic values (twisting canyons with erosional features, perennial streams and interesting geological formations). It also has a fish and wildlife resource in the native fish and bald eagles.

This area meets the importance criterion because it has more than locally significant qualities in the "last free-flowing stretch of the Gila River in Arizona", the perennial condition of the rivers and the outstanding scenic quality of the area. The bald eagles, perennial streams, fishery resource and the scenic qualities are all sensitive and vulnerable to adverse change, especially from surface disturbing activities.

2. **Relationship to Other Areas of Special Management:** A portion of the area was evaluated for wilderness designation, though none of the area was recommended. This area is also being studied for possible designation under the Wild and Scenic Rivers Act. The Gila Box was proposed as an Outstanding Natural Area in past planning efforts. This area also includes about 10 acres of mesquite bosques nominated as a separate Area of Critical Environmental Concern but included in this evaluation.

3. **Rationale for Designation:** The Gila Box area should be designated as an Outstanding Natural Area Area of Critical Environmental Concern of 2,411 acres because the special values identified above meet the relevance and importance criteria and are in need of special management for their protection and enhancement. In addition, the Gila Box is a well-known canyon to many people both in and out of Arizona, making it a highly sensitive area.

4. Special Management Prescriptions - Preferred Alternative

- withdraw the area from mineral entry.
- prohibit surface occupancy for mineral leasing activities.
- close the area to mineral material sales,
- designate the area "Limited" to off-highway vehicle use. Limit vehicle use to existing roads and trails.
- acquire private inholdings, as they become available.
- prohibit authorization of rights-of-way.

- . prohibit woodcutting and gathering for home use. Gathering dead and down wood for campfires is permitted.
- . manage the area as a Visual Resource Management Class II area to preserve the scenic qualities of the Gila Box.

5. Alternatives Considered: In *Alternative B*, an Area of Critical Environmental Concern would be established to include 2,994 acres of public land. This alternative includes the lands in the Preferred *Alternative*, as well as additional lands along the San Francisco River. The management prescription would be the same as under the Preferred *Alternative* with the following exceptions: the river bottoms would be closed to off-highway vehicle use; wildfires in riparian areas would be suppressed; and authorization of rights-of-way would be prohibited in the Area of Critical Environmental Concern outside the existing Arizona Electric Power Company right-of-way.

Alternative C has been eliminated through congressional designation of the Gila Box Riparian National Conservation Area. All lands which were included in *Alternative C* are now within the boundaries of the National Conservation Area.

Turkey Creek Riparian

1. Description of the Value, Resource, System or Hazard: Protection and enhancement of riparian vegetation is a high priority for BLM. Turkey Creek and Oak Grove and Maple canyons contain riparian communities, wildlife, cultural and scenic resources that warrant Area of Critical Environmental Concern designation. This area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories and by a nomination from The Nature Conservancy.

This area meets the relevance criterion because it has significant cultural and scenic values, a wildlife resource and a natural process or system in the riparian vegetation.

The importance criterion is met because the canyons have more than locally significant qualities in the cultural resources, riparian vegetation, wildlife and scenery. These qualities also make the area fragile, sensitive and vulnerable to adverse change.

2. Relationship to Other Areas of Special Management: The Aravaipa Canyon Wilderness adjoins portions of the proposed Area of Critical Environmental Concern. The recommended boundary is a portion of a 40,000-acre Area of Critical Environmental Concern proposed by The Nature Conservancy.

3. Rationale for Designation: The Turkey Creek riparian area should be designated an Area of Critical Environmental Concern since sensitive resources require special management for protection and enhancement. Maple Canyon contains a high quality mixed broad-leaf riparian community that includes big-toothed maple at its lowest known elevation in Arizona. Turkey Creek and Oak Grove Canyon contain riparian, wildlife, cultural and scenic values that require special management of recreation, livestock, access and vegetation to improve ecological conditions in the 2,326 acre area. The watersheds of the canyon areas do not contain special resources and will be properly managed to protect downstream values according to decisions of the Preferred *Alternative*.

4. Special Management Prescriptions - Preferred Alternative

- . designate the area limited to off-highway vehicle use. Limit vehicle use to existing roads and trails.
- . close Turkey Creek Canyon and Oak Grove Canyon (in Area of Critical Environmental Concern) to vehicle use beyond the Oak Grove Canyon corral.
- . manage livestock to avoid yearlong use, consistent with the goals of the Aravaipa Watershed Coordinated Resource Management Plan.
- . monitor water quality and provide input to activity plans to maintain the desired water conditions.
- . manage the area to accelerate recovery of riparian vegetation to reach good ecological condition by 1997.

- acquire adjacent riparian areas and lands within the watershed, as they become available.
- prohibit woodcutting and gathering for home use. Gathering dead and down wood for campfires is permitted.
- manage the area as a Visual Resource Management Class II area to preserve scenic quality.

5. Alternatives Considered: In *Alternative B*, an Area of Critical Environmental Concern would be established to include the approximate 50,290 acres of public lands in the Aravaipa watershed. Livestock grazing on the South Rim Allotment would be suspended for the life of this plan except for the terms of the existing permit. Adjacent lands in the watershed will be acquired from willing owners. Upland vegetation communities will be rehabilitated using fire, mechanical, structural and chemical treatments. Roads and earthen dams will be stabilized to reduce erosion. BLM will integrate watershed treatments with livestock allotment management plans and other activity plans and will develop cooperative agreements with adjacent landowners. Management will emphasize rehabilitation and protection of upland and riparian areas using active management to accelerate processes. The Area of Critical Environmental Concern would become a right-of-way avoidance area.

In *Alternative C*, the Area of Critical Environmental Concern will encompass primarily the 22,510 acres on the south rim of Aravaipa Canyon. This proposal is coupled with designation of no additional wilderness. Management emphasis will be to accelerate rehabilitation of the upland areas by initiating cooperative livestock and watershed management research. Livestock on allotment within the watershed will be managed consistent with goals developed in the Aravaipa Watershed Coordinated Resource Management Plan. Riparian habitat will be managed similar to methods in *Alternative A*.

Table Mountain Research Natural Area

1. Description of the Value, Resource, System or Hazard: The area was nominated by The Nature Conservancy due to the presence of two important plant communities. The top of Table Mountain contains an alligator juniper savanna, a plant community known in less than 20 locations. The adjoining Sycamore and Saddle canyons contain a white oak woodland containing Mexican blue oak at the northernmost limit of its range.

This area meets the relevance criterion because it contains a natural process or system in the presence of two plant communities.

The importance criterion is met because the two plant communities have more than locally significant qualities giving them special worth and distinctiveness.

2. Relationship to Other Areas of Special Management: The nominated area is separate from all other proposed areas. The area originally nominated by The Nature Conservancy included approximately 40,000 acres on the south rim of Aravaipa Canyon and portions of the north rim. This boundary is retained in *Alternative C* for the Turkey Creek Area of Critical Environmental Concern, however the Preferred *Alternative* includes only the areas with special resources. In *Alternative B* the Table Mountain Research Natural Area would be within the 70,000-acre Aravaipa Watershed Area of Critical Environmental Concern.

3. Rationale for Designation: The Table Mountain Research Natural Area should be designated to manage the special botanical values within the 1,220-acre boundary. The plant communities represent important public resources that require management different from surrounding public lands if they are to be maintained.

4. Special Management Prescription - Preferred Alternative

- designate the area limited to off-highway vehicle use. Limit vehicle use to existing roads and trails.
- prohibit woodcutting and gathering for home use. Gathering dead and down wood for campfires is permitted.
- prepare a prescribed burn plan that will allow fire to continue its role in the ecology of the Area of Critical Environmental Concern.
- manage livestock to limit concentrated use.

- withdraw the area from mineral entry.
- . close the area to vegetation sales.
- limit research to the effects of natural processes on this plant community.

5. Alternatives Considered: In Alternative B, management would differ in that the area would be withdrawn from mineral entry, no surface occupancy would be permitted for mineral leasing activities, livestock would be excluded from the area and the area would be a Research Natural Area within the Aravaipa Watershed Area of Critical Environmental Concern. In *Alternative C*, is the same as Alternatives A and B except that a mining plan will be required for all operations and the area would be a Research Natural Area within the South Rim Area of Critical Environmental Concern.

Desert Grasslands Research Natural Areas

1. Description of the Value, Resource, System or Hazard: Desert grasslands on upland soils provide the majority of grazing lands in the desert southwest, provide critical habitat for 13 state-listed wildlife species and are important for watershed stabilization. Relict grasslands provide baseline conditions on which to establish management objectives and gauge management progress. Retention of some undisturbed desert grassland areas is of value to BLM management and scientific research. Three areas (two are on isolated buttes and the other on top of a steep ridge) represent minimally disturbed desert grasslands on two different soils. This area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories and by nomination from The Nature Conservancy.

The area meets the relevance criterion because it contains a natural process or system in the relict grasslands. These grasslands are in three locations on two soil types.

The importance criterion is met because the area contains more than locally significant qualities that give it special worth and distinctiveness in the relict grasslands. These grasslands are also sensitive, rare or vulnerable to adverse change.

2. Relationship to Other Areas of Special Management: None

3. Rationale for Designation: Special management is required to maintain these relict areas for research purposes and to permit only those research projects that would not adversely affect current conditions. The Area of Critical Environmental Concern will encompass 380 acres on Mescal Ridge; 90 acres on the Pilares; and on Sombrero Butte, 60 acres of BLM, 60 acres of private and 240 acres of state land, to be acquired.

4. Special Management Prescription - Preferred Alternative.

- . withdraw 380 acres in the Mescal Ridge Grassland from mineral entry.
- _ acquire adjacent state and private parcels, as they become available.
- _ prepare a prescribed burn plan that will allow fire to continue its role in the ecology of the Area of Critical Environmental Concern.
- . limit research to the effects of natural processes on the grasslands.
- . exclude livestock.

5. Alternatives Considered: In *Alternative B*, management will designate the area closed to off-highway vehicle use, close the area to mineral material sales and prohibit surface occupancy for mineral leasing in addition to prescriptions in *Alternative A*. *Alternative C* differs from Alternatives A and B in that a mining plan will be required.

Swamp Springs-Hot Springs Watershed

1. Description of the Value, Resource, System or Hazard: Portions of the area were identified by BLM as a potential Area of Critical Environmental Concern based on riparian, wildlife and scenic values. A larger area was recommended by The Nature Conservancy for the above resources plus cultural and watershed values. Review of the areas determined that the important cultural resources are located on private lands and the scenic values are of only local importance. The significant resources are located in the major riparian areas of the Swamp Springs and Hot Springs drainages and include riparian vegetation, communities of five species of native fishes and raptor nesting habitat.

This area meets the relevance criterion because it contains a fish and wildlife resource of native fish and nesting raptors. The area also contains a natural process or system in the riparian vegetation.

The importance criterion is met because of the more than locally significant qualities of riparian vegetation, native fish and breeding raptors. These qualities are also fragile, sensitive, rare and vulnerable to adverse change.

2. Relationship to Other Areas of Special Management: Part of the proposed Area of Critical Environmental Concern, east of the Jackson Cabin Road and adjacent to the existing Forest Service Galiuro Wilderness, was determined to be suitable for designation as wilderness. The boundaries proposed by BLM and The Nature Conservancy were adjusted to include other riparian areas with special resources and lands in between them that could be managed to enhance those resources. Excluded were lands that could not be effectively managed or those that did not add to the protection of important riparian resources.

3. Rationale for Designation: The special resources found in the Swamp Springs and Hot Springs drainages require special management. Portions of the watershed also require special management attention to aid ecological stability and increase the speed of riparian recovery. Some adjoining areas have been included to link the important riparian areas and to increase management efficiency. A 22,883-acre Area of Critical Environmental Concern should be designated, including 17,438 acres of BLM, 4,478 acres of The Nature Conservancy lands and 967 acres of state land, to be acquired.

4. Special Management Provisions - Preferred Alternative

- . manage the area to accelerate recovery of riparian vegetation to reach good ecological condition by 1997.
- _ exclude livestock to facilitate rehabilitation of riparian and upland vegetation communities within the Area of Critical Environmental Concern.
- _ manage the area to accelerate recovery of upland vegetation communities.
- . acquire legal public access on the Jackson Cabin road where it crosses private lands. Maintain this road to a four-wheel drive standard for public and administrative use. Acquire legal access to Pipeline Road for administrative use only.
- . consolidate public land ownership within Area of Critical Environmental Concern. Acquire additional lands within Redfield, Hot Springs and Bass Canyon watersheds.
- _ permit recreation, scientific and administrative uses compatible with protection of the riparian resources and restoration of upland vegetation.
- . require a mining plan of operation for all future mining activity.
- _ prohibit woodcutting and gathering for home use. Gathering dead-and-down wood for campfires is permitted.
- . designate the area limited to off-highway vehicle use. Limit vehicles to existing roads and trails. Designate the riparian area of Hot Springs Canyon closed to off-highway vehicle use.

5. Alternatives Considered: Under Alternative B the entire Muleshoe Ranch outside the Redfield Canyon Wilderness Area would be designated as an Area of Critical Environmental Concern and the state land to be acquired on Redfield Creek would be included in the boundary. The size would be approximately 19,400 acres. Management would emphasize rehabilitation of riparian and upland communities using mechanical, chemical, fire, vegetative and livestock management methods. Area of Critical Environmental Concern prescriptions will be retained on lands designated wilderness.

In *Alternative C* only the lands containing the larger riparian areas outside the Redfield Canyon Wilderness Area will be included in the Area of Critical Environmental Concern boundary. This covers 2,556 acres (with 770 acres owned by The Nature Conservancy) within Hot Springs Canyon and adjoining riparian areas. Management emphasis will be to achieve ecologically good riparian condition by 1997. Management action will be initiated to acquire private lands as they become available; exclude livestock; limit off-highway vehicle use to existing roads and trails; develop cooperative management agreements with adjacent landowners; and permit recreational, scientific and administrative uses compatible with protection and management of riparian resources.

Bear Springs Badlands

1. Description of the Value, Resource, System or Hazard: The nominated Area of Critical Environmental Concern is located in a geological badlands setting composed of ridges, small mesas, hillocks, spires and other erosional landforms. The geologic strata in these landforms are extremely well-delineated and many can be seen several miles away due to their contrasting and visually impressive assortment of colors (green, orange and yellow hues).

The fossilized bones of Blancan Age mammals that lived approximately 3 million 4 million years ago are exposed on many of the erosional landforms. Fossilized bones include those from elephant-like mammals (Gomphotheriid), three-toed horse (Nannippus phlegon), camel (Hemiquचना and Camelops) and *Pliohippus* (horse). Also located in the badlands are the fossilized tracks of camel and horse (Equus).

This badlands area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories showing the high scientific and public values of its paleontological resources. Specifically, its fossilized bones are potentially capable of providing substantive information about vertebrate evolution. The fossilized tracks represent one of the few places in North America where one can see such excellent examples of preserved mammal trackways.

This area meets the relevance criterion because it contains a significant scenic value in its impressive erosional features. The area also has a natural process or system in the Class I fossils and tracks of various Blancan Age mammals.

The importance criterion is met because of the more than locally significant Class I fossils and tracks. The fossils and tracks are also fragile, sensitive, rare, exemplary and vulnerable to adverse change.

2. Relationship to Areas of Other Special Management: None.

3. Rationale for Designation: Bear Springs Badlands should be designated an Area of Critical Environmental Concern due to the presence of scientifically important Class I fossils dating to the late Tertiary geologic period. Areas such as these should be preserved for scientific study because they provide one of the best records of mammalian communities during that period. Further, the fossilized tracks provide a rare opportunity to study and appreciate the interaction of animals that lived millions of years ago.

The nominated area contains 2,927 acres under the *Preferred Alternative*. Under this alternative, an additional 320 acres of state land in the north half of Section 9 in Township 7 South, Range 23 East would be added if acquired.

4. Special Management Prescription - Preferred Alternative

- _ intensively inventory the paleontological resources to determine their nature and extent.

- _ require a paleontological collection permit for all fossil collecting.
- _ facilitate scientific and recreational use of the area.
- _ manage the area as a Visual Resource Management Class II area to preserve its scenic quality.
- . prohibit road construction
- . designate the area limited to off-highway vehicle use. Limit vehicles to existing roads and trails.
- . mitigate livestock and soil erosion control actions that will have adverse impacts on fossils.
- . withdraw the area from mineral entry.
- . prohibit surface occupancy for mineral leasing activities.
- . close the area to mineral material sales.
- . right-of-way avoidance area.

5. Alternatives Considered: *Alternative B* would include about 4,127 acres. The management prescription would be similar to the *Preferred Alternative* except it would limit vehicle use to that necessary for administrative purposes. *Alternative C* would include about 2,007 acres. Management differs from the other alternatives primarily in that 3809 regulations would be used to manage mining activity.

Guadalupe Canyon Outstanding Natural Area

1. Description of the Value, Resource, System or Hazard: This area has a number of special resources, including an overlap of Chihuahuan, Rocky Mountain and Sierra Madrean vegetation; an extensive riparian forest dominated by sycamores; unconfirmed reports of jaguars and Mexican wolves, both endangered species; one of the premier birdwatching areas in Arizona; and numerous species of Mexican wildlife, especially birds, that enter the United States in only a few places. The area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories and by a nomination from The Nature Conservancy.

This area meets the relevance criterion because it has significant wildlife resources in the numerous species that enter the United States from Mexico, including threatened and endangered animals. The area also has a unique natural system in the overlap of Chihuahuan, Rocky Mountain and Sierra Madrean vegetation communities.

This area meets the importance criterion because it has more than locally significant qualities (threatened and endangered animals, unique botanical and wildlife representations and a riparian area along Guadalupe Creek). These same qualities are, in some cases, endangered and vulnerable to adverse change. Guadalupe Canyon is widely known as one of the premier birdwatching areas in the United States. National priority concerns include the protection of riparian areas and for threatened and endangered species.

2. The lands in Guadalupe Canyon are adjacent to public lands in New Mexico that are designated as an Outstanding Natural Area. Nearby is a Forest Service zoological/botanical area in upper Guadalupe Canyon.

3. Rationale for Designation: The area should be designated as an Area of Critical Environmental Concern of 989 acres because the special values identified above meet the relevance and importance criteria; it needs special management for the protection and enhancement of these values; and it is perceived by the public as a highly sensitive area. BLM has completed one land exchange and is contemplating additional acquisitions specifically for these high-value resources.

4. Special Management Prescription - Preferred Alternative

- . designate the area limited to off-highway vehicle use. Limit vehicle use to existing roads and trails.

- . develop and implement an allotment management plan to manage livestock.
- _ prepare a prescribed burn plan that will allow fire to continue its role in the ecology of the area.
- . acquire private inholdings, as they become available.
- . prohibit woodcutting and gathering for home use. Gathering dead-and-down wood for campfires is permitted.
- . manage the area as a Visual Resource Management Class II area to preserve the scenic and natural quality of Guadalupe Canyon.

5. Alternatives Considered: In *Alternative B* an Area of Critical Environmental Concern would be established to include 5,838 acres of public lands. This alternative includes the lands in the *Preferred Alternative*, as well as additional lands in the Baker Canyon drainage. The management prescription would be the same as under the *Preferred Alternative*. *Alternative C* is the same as the *Preferred Alternative*.

Bowie Mountain Scenic

1. Description of the Value, Resource, System or Hazard: Bowie Mountain was proposed as an Area of Critical Environmental Concern primarily for the scenic values in the natural setting that surrounds Ft. Bowie National Historic Site. Additional scenic values are found in the steep cliffs on the south side of Bowie Mountain. BLM currently has a protective buffer on 590 acres surrounding parts of the National Historic Site. In addition, historic heliograph stations can be found on Bowie Mountain and Helens Dome. The entire area has historical connections to the fort. This area has past use by peregrine falcons, both for nesting and migration, and the habitat may be reoccupied in the future. This area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories.

This area meets the relevance criterion in that it has significant historic features (heliograph stations) and significant scenic values (the natural setting around Ft. Bowie and the steep cliffs on the south side of Bowie Mountain).

This area meets the importance criterion because any surface-disturbing activity in the viewshed would adversely change the scenic qualities now found in the area. The maintenance of the natural setting was recognized in the San Simon Management Framework Plan through the establishment of a protective buffer around Ft. Bowie National Historic Site. The Area of Critical Environmental Concern proposal seeks to expand that protection to the entire viewshed, as well as to the highly scenic southern slopes of Bowie Mountain.

2. Relationship to Other Areas of Special Management: Much of the proposed Area of Critical Environmental Concern is within the Bowie Mountain Wilderness Study Area, an area not recommended for wilderness designation. In addition, 590 acres are currently within the protective buffer around Ft. Bowie National Historic Site.

3. Rationale for Designation: The lands in the Bowie Mountain area should be designated as an Area of Critical Environmental Concern of 4,190 acres because the special values identified above meet the relevance and importance criteria and need special management to protect these values. Both the public and the National Park Service have expressed concerns about retaining the natural setting around Ft. Bowie, thereby making this a highly sensitive area.

4. Special Management Prescription - Preferred Alternative

- . withdraw 2,230 acres in the viewshed of Ft. Bowie National Historic Site from mineral entry. Require a mining plan of operations for all future mining entry in the remainder of the Area of Critical Environmental Concern.
- . prohibit surface occupancy for mineral leasing activities in the viewshed.
- . close the area to mineral material sales in the viewshed.
- . designate the area limited to off-highway vehicle use. Limit vehicles to existing roads and trails.

- _ suppress wildfired to protect the scenic backdrop, and structures of the Ft. Bowie National Historic Site.
- . acquire private inholdings, as they become available.
- . prohibit woodcutting and gathering for home use. Gathering dead-and-down wood for campfires is permitted.
- . manage the area as a Visual Resource Management Class I area to preserve the scenic backdrop of Ft. Bowie National Historic Site.
- _ designate as a right-of-way avoidance area.

5. Alternatives Considered: *Alternative B* involves the same acreage as the *Preferred Alternative*. The only difference in the management prescription is that the entire 4,190 acres would be withdrawn from mineral entry. In *Alternative C* the Area of Critical Environmental Concern would include only 2,562 acres and focus on the Ft. Bowie viewshed. The management prescription is the same as for the *Preferred Alternative*.

Coronado Mountain Research Natural Area

1. Description of the Value, Resource, System or Hazard: This area was nominated by BLM due to the presence of important plant communities. Coronado Mountain contains a unique plant association of Arizona cypress and Mexican pinyon in a climax condition. The area also contains both pointleaf and Pringle's manzanita, species poorly represented in other Research Natural Areas in Arizona. Intermixed with the manzanitas is an interesting population of netleaf oaks growing as shrubs. The area is also of interest for studies of the primary and secondary succession of plant communities affected by fire. This area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories.

This area meets the relevance criterion in that it has a natural process or system in the unique plant association of Arizona cypress and Mexican pinyon. It also has the potential for studies of primary and secondary succession in a fire affected plant community.

This area meets the importance criterion in that the plant characteristics listed above are of more than local significance and have qualities or circumstances that make the plants unique. This area would make a significant addition to the plant communities and species found in the Research Natural Area network.

2. Relationship to Other Areas of Special Management: Only about half the top of Coronado Mountain is under BLM management and being considered for Area of Critical Environmental Concern designation. The other half is under management of the Apache-Sitgreaves National Forest.

3. Rationale for Designation: The lands in the Coronado Mountain area should be designated as a Research **Natural** Area of 120 acres because the identified special values meet the relevance and importance criteria and need special management to protect these values.

4. Special Management Prescription - Preferred Alternative

- . withdraw from mineral entry.
- . prepare a prescribed burn plan that will allow fire to continue its role in the ecology of the Area of Critical Environmental Concern.
- _ prohibit woodcutting and gathering.
- . manage the area as a Visual Resource Management Class II area to preserve the scenic and natural qualities of the Area of Critical Environmental Concern.
- . prohibit authorization of rights-of-way

5. Alternatives Considered: *Alternative B* is the same as the *Preferred Alternative*. In *Alternative C* only 50 acres would be designated with the management prescription the same as under the *Preferred Alternative*.

Dos Cabezas Peaks

1. Description of the Value, Resource, System or Hazard: The Dos Cabezas Peaks are a noteworthy landmark, both currently and historically. The area contains a small relict grove of aspens and a number of plants normally found in coniferous forest associations, now missing from this range. Because of these plants, the area has some potential for research on processes and interrelationships of isolated and relict species. The type and size of the rock outcroppings are noteworthy. The peaks can be seen from long distances and are quite scenic. This area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories.

This area meets the relevance criterion on two points. It has significant scenic value in that the peaks are well-known and a highly visible landmark. It also shows evidence of relict plants from the wetter and cooler climates of 15,000 to 20,000 years ago and, as such, fits into the natural process or system characteristic.

This area meets the importance criterion in that it is sensitive and vulnerable to adverse change, especially from surface-disturbing activities.

2. Relationship to Other Areas of Special Management: None.

3. Rationale for Designation: The Dos Cabezas Peaks should be designated as an Area of Critical Environmental Concern of 25 acres because the special values identified above meet the relevance and importance criteria and need special management to protect these values.

4. Special Management Prescription - Preferred Alternative

- . close the area to mineral material sales.
- . require a mining plan of operations for all future mining activity.
- . designate the area limited to off-highway vehicle use. Limit vehicle use to existing roads and trails.
- . prepare a prescribed burn plan that will allow fire to continue its role in the ecology of the Area of Critical Environmental Concern.
 - _ prohibit woodcutting and gathering for home use. Gathering dead-and-down wood for campfires is permitted.
 - _ manage the area as a Visual Resource Management Class II area to preserve its scenic quality.
- . prohibit authorization of rights-of-way.

5. Alternatives Considered: *Alternative B* is the same as the *Preferred Alternative*. In *Alternative C* the area is not considered for designation as an Area of Critical Environmental Concern but allocated to mineral development.

Eagle Creek Bat Cave

1. Description of the Value, Resource, System or Hazard: This area has one significant value. The Eagle Creek Bat Cave is a maternity cave for the Mexican free-tailed bat, a species in serious decline throughout its range. This area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories and from a nomination from the Arizona Game and Fish Department.

This area meets the relevance criterion in that it has a wildlife resource in the Mexican free-tailed bats, a rapidly declining species.

This area meets the importance criterion because there is public and environmental concerns about the Mexican free-tailed bats and their maternity cave. The bats are a rapidly declining species, vulnerable to adverse change.

2. Relationship to Other Areas of Special Management: This area is part of a larger area proposed as an Outstanding Natural Area in past planning efforts.

3. Rationale for Designation: The Eagle Creek Bat Cave should be designated as an Area of Critical Environmental Concern of 40 acres because the special values identified above meet the relevance and importance criteria and the area needs special management to protect these values.

4. Special Management Prescription - Preferred Alternative

- . withdraw the area from mineral entry.
- _ prohibit surface occupancy for mineral leasing activities.
- . close the area to mineral material sales.
- _ acquire private lands at the mouth of the cave, as they become available.
- _ manage the area as a Visual Resource Management Class II area to preserve the scenic and natural values.
- . prohibit guano extraction from the cave.
- . limit public access into the cave, particularly during maternity season.
- . monitor and patrol the cave to detect and prevent adverse impacts to the cave and the bats.

5. Alternatives Considered: In Alternative B, an Area of Critical Environmental Concern would be established on 3,160 acres of public land in Eagle Creek Canyon. Included in this acreage is the Eagle Creek Bat Cave, as well as those public lands forming the canyon. Additional values to be protected under this alternative include prehistoric and historic archaeological sites, a wintering population of endangered bald eagles, interesting and highly eroded conglomerate and volcanic geological formations and a significant scenic resource. The management prescription is the same as under the *Referred Alternative* with the exception of land acquisition. The acquisition area includes State and private lands in most of the canyon from the Apache-Sitgreaves National Forests to Eagle Creek's confluence with the Gila River.

Alternative C includes the same lands as the *Preferred Alternative*. The management prescription is similar to that of the *Preferred Alternative* except the area would not be withdrawn from mineral entry, a mining plan of operations would be required for all future mining activity, the area would not be closed to mineral material sales and guano extraction would be permitted if it does not adversely affect the bat population.

Willcox Playa National Natural Landmark

1. Description of the Value, Resource, System or Hazard: The Willcox Playa is a designated National Natural Landmark. The National Natural Landmark program recognizes significant natural features throughout the country. A register of landmarks is maintained by the National Park Service. The Willcox Playa is recognized primarily for its geological values, that being a remnant Pleistocene lake and a typical example of playa lakes in the Southwest. The playa is also of interest because of plants adapting to playa conditions. The area has good potential for archaeological sites around the edges of the playa. The area is occasionally visited by the endangered whooping crane. The Croton Springs area (on private land) has been the scene of studies on deposits of prehistoric pollen. Several rare endemic species of insects and crustaceans are known from the playa. This area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories and from a nomination from The Nature Conservancy.

This area meets the relevance criterion because it is representative of a natural process or system (a typical Southwestern playa lake and a remnant of a Pleistocene lake) and also a fish and wildlife resource (occasional use by whooping cranes and the presence of rare, endemic insects and crustaceans).

This area meets the importance criterion because it has more than locally significant qualities in its designation as a National Natural Landmark, giving it special worth and meaning. The botanical, cultural and wildlife values are sensitive, rare, unique and/or vulnerable to adverse change.

2. Relationship to Other Areas of Special Management: The Willcox Playa is a designated National Natural Landmark.

3. Rationale for Designation: The lands in the Willcox Playa National Natural Landmark should be designated as an Area of Critical Environmental Concern of 2,475 acres because the special values identified above meet the relevance and importance criteria and are in need of special management.

4. Special Management Prescription - Preferred Alternative

- _ designate the area closed to off-highway vehicle use.
- _ acquire state and private lands, as they become available.
- _ prohibit woodcutting and gathering.
- . manage the area as a Visual Resource Management Class II area to preserve its scenic and natural values.
- . prohibit authorization of rights-of-way.

5. Alternatives Considered: This area would retain its landmark designation in the No *Action Alternative*. *Alternative B* is the same as the Preferred *Alternative*. In *Alternative C* the area is not considered for designation as an Area of Critical Environmental Concern, but allocated to off-highway vehicle use.

111 Ranch Research Natural Area

1. Description of the Value, Resource, System or Hazard: The 111 Ranch area contains an extensive and significant deposit of Blancan Age mammal and other fossils. At least 21 described genera of mammals and two previously undescribed nonmammalian species (including the most complete fossil giant tortoise of its kind ever found) have been reported from the area. The 111 Ranch area is one of few known Class I fossil sites in southeastern Arizona, representing late Tertiary deposits. Of considerable scientific interest, the fossils represent one of the better early Pliocene assemblages of the Southwest that are overlain by middle Pliocene deposits. The Blancan vertebrate fauna evidenced in the depositional sequence is an extremely valuable climatological and chronological indicator for the scientific community. This area was identified as a potential Area of Critical Environmental Concern as a result of BLM inventories.

This area meets the relevance criterion because the significant fossil deposits meet the requirements for a natural process or system.

This area meets the importance criterion because it contains more than locally significant fossil deposits. They have special worth and cause for concern, especially when compared to any similar resource. In addition, they are fragile, sensitive and vulnerable to adverse change, especially from surface-disturbing activities.

2. Relationship to Other Areas of Special Management: None.

3. Rationale for Designation: The 111 Ranch area should be designated as a Research Natural Area Area of Critical Environmental Concern of 2,688 acres because the area meets the relevance and importance criteria, contains scientifically important Class I fossils and needs special management for the protection of these values.

4. Special Management Prescription - Preferred Alternative

- . designate the area limited to off-highway vehicle use. Limit vehicle use to existing roads and trails.

- require paleontological inventory and mitigation of impacts for all surface-disturbing activities, such as livestock facilities and wildlife waters.
- prohibit woodcutting and gathering.
- manage the area as a Visual Resource Management Class II area to preserve its scenic and natural values.
- require a paleontological collection permit for all fossil collecting.

5. Alternatives Considered: *Alternative B* is the same as the *Preferred Alternative*. In *Alternative C* only 1,728 acres would be designated as an Area of Critical Environmental Concern. The management prescription in *Alternative C* is the same as under the *Preferred Alternative*.

Areas Considered but not designated

Day Mine

The Day Mine area consists of a portion of the Gila Mountain range extending from the upper bajadas, up and over the vertical rock escarpment, across the badland formations north and east of the crest, to the perennial Left Hand Fork of Markham Creek. Plant communities include Sonoran Desert near the northeastern edge of its range, disclimax grassland-shrub, closed chaparral, border pinyon pine forest and mixed broadleafed riparian areas. The proposed area also contains a number of prehistoric cultural properties and some visually striking scenery overlooking the central portion of the Safford Valley.

The proposed area includes Markham Creek and its watershed. This drainage was identified as a potential Area of Critical Environmental Concern during the inventory process. Its aquatic, riparian, wildlife and cultural resources were found to be "Relevant" to the Area of Critical Environmental Concern system. Upon evaluation the proposal was rejected as the resources lacked, either individually or in combination, more than local "Importance". The stream was similar to many other areas and was not in relict ecological condition; wildlife species and populations contained some regionally localized species (black and zone-tailed hawks and lowland leopard frogs) but none have federal status: cultural and scenic properties were only of local interest.

The addition of the badlands, Gila Mountain crest and the upper bajadas west of Markham Creek does increase the number of plant and animal communities and scenic importance. The border pinyon pine forest is not included in any known regional Area of Critical Environmental Concern but does exist in the Chiricahua National Monument, in several existing Forest Service Wilderness Areas and in the Fishhooks Wilderness immediately north of this potential Area of Critical Environmental Concern. The addition of the Sonoran Desert community still does not create a unique assemblage of vegetation types as this mix is found in the Santa Catalina, Galiuro and Pinal Mountain ranges as well as in the Gilas. Some additional cultural properties are included but none are of more than local importance.

The scenic qualities of the vertical escarpment of the Gila Mountains certainly is of local importance. The formation is readily visible from a considerable distance and an inappropriate development would be apparent to many people in the local area. The visual importance should be recognized and the value protected with a Visual Resource Management Class II rating. However, the scenic resource is relatively distant from the local population centers and so not visible to a large number of travelers so it lacks the necessary "more than local significance" to meet the "Importance" criteria.

In summary, the proposal encompasses an area with a number of resources "Relevant" to the Area of Critical Environmental Concern process. However, the resources are known to exist in a number of other locations already protected by federal designations and they lack regional "Importance." For this reason Day Mine area does not qualify as an Area of Critical Environmental Concern and is dropped from further consideration.

Turtle Mountain

The proposal includes the area between Eagle and Bonita Creeks, the Gila River and the San Carlos Apache Reservation. Plant communities include mixed broadleaf riparian areas at several springs, disclimax grassland-shrub, desert grasslands, encinal woodlands and open chaparral types. Wildlife includes both typical desert and mountain species and Rocky mountain bighorn sheep at the southwest edge of their range in North America, but no federally listed or proposed species. There are a few cultural properties, mostly historic remnants of previous livestock operations. Scenic resources do not include any striking features.

The proposed area includes two areas already evaluated during the Resource Management Plan development process-Turtle Mountain Grassland and Trujillo Canyon. See discussion in this Appendix. BLM guidance identifies the opportunity to include lands between separate Area of Critical Environmental Concerns if it enhances management of the individual Area of Critical Environmental Concerns. The west slope of Turtle Mountain is within the Bonita Creek watershed and special management attention could enhance riparian resources. This potential is recognized in Alternative B. A very small improvement could possibly be obtained by the enhanced management of watershed of the Gila Box by linking it to Turtle Mountain. However, little would be gained for management of Eagle Creek Bat Cave. The lack of similar terrain, management problems, or access routes across Turtle Mountain linking the separate proposed Area of Critical Environmental Concerns greatly reduces the potential for enhanced management efficiency. Rather, the link between the proposed Area of Critical Environmental Concerns is that of the congressionally designated Gila Box Riparian National Conservation Area.

Several resources within a separate Turtle Mountain Area of Critical Environmental Concern will meet the "Relevance" criteria, but none fully meet the criteria for "more than local importance." Therefore, Turtle Mountain does not qualify as an Area of Critical Environmental Concern because it fails to meet the requirements for Relevance, Importance and Need for Special Management.

Fishhooks Canyon: This area was nominated in the 1973 Geronimo Management Framework Plan as an Outstanding Natural Area. In 1986 the area was nominated as an Research Natural Area of Critical Environmental Concern by The Nature Conservancy for its botanical resources. On-site evaluation of the resources documented that the area had been subjected to a long period of livestock grazing, and its location adjacent to the San Carlos Indian Reservation would make the special management prescriptions impractical. The Nature Conservancy withdrew its nomination based on the additional information and the Bureau dropped the area from further Area of Critical Environmental Concern consideration. Riparian values will be protected through the District's riparian policy. Scenic values are protected by Visual Resource Management interim Class II.

Javelina Peak

The Javelina Peak area consists mostly of gently rolling lowlands, with the focal point being the rugged Whitlock Mountain range in the area's northeast portion. These mountains rise abruptly from the San Simon Valley floor and culminate in the rugged, steep-sided 5,592-foot-high Javelina Peak. A small area of highly eroded badlands lies at the western base of Javelina Peak. The southern portion of the area is dominated by heavily vegetated dunes.

The area contains desert shrub, creosote bush and mesquite vegetation types. Common plants include whitethorn, cholla and prickly pear cactus, wolfberry, creosote bush, mesquite, yucca, catclaw, Mormon tea, four-winged saltbush and various grasses.

Resources within the Javelina Peak Area of Critical Environmental Concern include some that meet the Relevance criterion to include: plant communities, cultural and paleontological properties and wildlife. However, none fully meet the criterion for "more than local importance" or "need for special management". The Chihuahuan desertscrub and semi-desert grassland communities are similar to many other areas and are not an outstanding representation of these vegetation types. The cultural resources are believed to be significant only at the local level. Two paleontological areas appear to be of more than local importance. However, because of their location no special management needs have been identified for either area.

No threatened or endangered plants have been found in the area. The night-blooming cereus, a species under review for listing as threatened and endangered, might occur in the area. This plant grows on rock ledges where it would not be disturbed by anticipated land uses.

The peregrine falcon, a threatened and endangered species, is thought to exist in the area and is of more than local importance. However, these birds do not nest or forage in the area, but rather fly over, stopping occasionally to rest and feed. No resource uses that would adversely affect the peregrine falcon, thus no special management is needed.

Javelina Peak does not qualify as an Area of Critical Environmental Concern because it fails to meet the requirements for Relevance, Importance and Need for Special Management.

Johnny Creek: The area was proposed for study as an ONA in the 1973 Geronimo Management Framework Plan. Review and study of the resources has determined that the scenic and riparian values did not meet the "Relevance and Importance" criteria and the area was dropped from consideration as an Area of Critical Environmental Concern. The riparian values will receive protection through the riparian policy, and scenic resources by Visual Resource Class III management designation.

Markham Creek: Riparian, wildlife, fisheries, scenic and cultural values present in the Markham Creek Canyon were the basis for the suggested Area of Critical Environmental Concern nomination. The area was dropped from consideration as the resources did not meet the "Importance" criteria. The natural and cultural resources will receive protection and management through other decisions in this plan.

Red Knolls: The Red Knolls geologic formation was evaluated for Area of Critical Environmental Concern status based primarily on concern for human safety. It was dropped from further consideration when it was determined that no practical management that would reduce the hazards, and nomination would likely attract additional visitors who could not be excluded from the unstable formations.

Salt Creek: The proposal was based upon scenic, cultural and riparian resources. On-site evaluation and consultation with authorities documented that the resources did not meet the "Importance" criteria and the area was dropped from review. The riparian and cultural values will receive management attention by other decisions in this document.

Trujillo Canyon: The area was investigated to determine if riparian or cultural resources required Area of Critical Environmental Concern designation and special management. The resources met the "Relevance" criteria but did not meet the "Importance" criteria and the area was dropped from further consideration.

Turtle Mountain Desert Grassland: The area suggested for Area of Critical Environmental Concern designation contained relevant and important desert grassland resources. However, the preferred management prescription was not special management. The proposed area was dropped from further consideration due to the lack of special management needs. Other relict grasslands are proposed for Area of Critical Environmental Concern status.

Mescal Mountain-Needles Eye: This proposal was a combination of five separate areas suggested for review in the Winkelman Management Framework Plan or nominated by The Nature Conservancy. The Mescal Creek portion was dropped as the wildlife and riparian resources, while relevant and important, did not require special management and will be adequately protected in all alternatives considered in this plan. The entire area is within the Needles Eye Wilderness Area. No special management needs were identified for botanical resources on the El Capitan portion other than retention in public ownership. Riparian, wildlife and scenic resources along the Gila River below Coolidge Dam are within the Needles Eye Wilderness Area and will receive adequate protection through management common to all alternatives in this plan. The other two areas (Desert Grassland and Dry Spring Research Natural Areas) are proposed for designation as Areas of Critical Environmental Concern.

Swamp Springs Canyon: This area was identified as a potential Area of Critical Environmental Concern in the 1980 wilderness inventory conducted by BLM. It is part of an Area of Critical Environmental Concern recommended by The Nature Conservancy in 1988. The resources in this area qualify as an Area of Critical Environmental Concern, but better management would be provided if the area was combined with other lands as part of the Swamp Springs-Hot Springs Watershed Area of Critical Environmental Concern proposal. Therefore, Swamp Springs Canyon has been dropped from consideration as an individual parcel except in Alternative C. Portions of the proposed area are within the proposed additions to the Redfield Canyon Wilderness.

Sycamore Canyon: This area was recommended for Area of Critical Environmental Concern status for its riparian and scenic values in the BLM 1980 wilderness inventory. On-site review determined that it lacked regional importance on its own merits. However, it was found to be important as part of the Swamp Springs-Hot Springs Watershed Area of Critical Environmental Concern, and inclusion in that boundary would facilitate special management attention to that nominated area. Portions of the Sycamore Canyon area are within the Redfield Canyon Wilderness Area.

Government Peak: This area was considered in the San Simon Management Framework Plan as a Research Natural Area. An on-site evaluation showed that the area had been heavily grazed by cattle, had no unique plant associations and offered little from a botanical standpoint for designation as an Research Natural Area. This area was carried forward from past planning and evaluated as an Area of Critical Environmental Concern. Government Peak met the "Relevance" criterion because it has a significant visual resource in the large area of exposed granite boulders and outcrops. This area, however, did not meet any of the categories under the "Importance" criterion. The scenic quality of this area will be protected through a Visual Resource Management Class III designation. This area is within the Dos Cabezas Mountains Wilderness Area.

Happy Camp, Howell and Tar Box Canyons: Howell Canyon was considered in the San Simon Management Framework Plan as a Research Natural Area. An on-site evaluation showed that portions of the area had received heavy cattle grazing, and that the overall area offered little in the way of unique or typical plant communities for designation as an Research Natural Area. This area was carried forward from past planning and evaluated as an Area of Critical Environmental Concern. Happy Camp, Howell and Tar Box Canyons did not meet either the "Relevance" or "Importance" criteria. The riparian values in these canyons will receive protection through the riparian policy. This area is within the Dos Cabezas Mountains Wilderness Area.

Appendix 3

Wild and Scenic River Eligibility and Classification

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Wild and Scenic Rivers

Introduction

As required by BLM Planning Regulations and Guidelines for Fulfilling Requirements of the Wild and Scenic Rivers Act, BLM must study those rivers which potentially qualify for addition to the National Wild and Scenic Rivers System. Two rivers in this area (the Gila and San Francisco) were identified by the National Park Service in 1982 as needing further study. They will be addressed in this document. Other rivers included were identified by BLM personnel and through public input during the draft Resource Management Plan/Environmental Impact Statement review process.

The river study process involves making an eligibility, classification and suitability determination. This Resource Management Plan/Final Environmental Impact Statement addresses only eligibility and classification as required by the Guidelines and will defer suitability determination until a later date due to the need for further public involvement. Only through the detailed suitability and further public involvement will BLM make a recommendation through the Secretary of the Interior to Congress on suitable Wild and Scenic Rivers. Only Congress has the authority to designate a Wild and Scenic River through this process.

Eligibility Determination

Eligibility determination is made through the evaluation of two criteria: (1) whether the river is free-flowing, and (2) whether it possesses one or more outstandingly remarkable values. Free-flowing is defined by Sec 16 (b) of the Wild and Scenic Rivers Act as "existing or flowing in natural conditions without impoundment, diversion, straightening, riprapping, or other modifications of the waterway." Outstandingly remarkable values include scenic, recreational, geologic, fish and wildlife, historic, cultural, or similar values.

It has been suggested that any flowing water in the arid Southwest is outstandingly remarkable in and of itself, constituting a "similar value". Also, a waterway could be regarded as free-flowing regardless of its intermittency, cubic feet per second flow rate (cfs) or length of the segment. Essentially, this could make hundreds of washes and intermittent streams eligible, even though they are a common occurrence throughout the region.

We believe that the intent of the Wild and Scenic Rivers Act was not to reserve or protect an entire region's waterways but rather to analyze and select those areas which may warrant the additional protection of a Congressional designation based not on their collective worth but on their individual, outstandingly remarkable hydrologic value, if present. This means that a river could be eligible based on its hydrologic value even if no other value is present as specifically mentioned in the act as long as it is considered free-flowing.

In this Appendix, those waterways which demonstrated individual outstandingly remarkable hydrologic value to the region or nation have been considered. This selection was based on a reasonable yearly flow, cfs and length. Therefore, if a waterway possesses outstandingly remarkable hydrologic values we can reasonably assume it is free-flowing. Rivers which do exhibit reasonable yearly flow, cfs and length also possess at least one other outstandingly remarkable value, primarily due to the presence of an obligate riparian system.

Those waterways which do not possess outstandingly remarkable hydrologic values or are in areas of less than 40 percent public land include the following:

San Simon River	Virgus Canyon
Black Wash	Bass Canyon
Mescal Creek	Cherry Springs
Parsons Canyon	Hot Springs Canyon
Fishhooks Canyon	Spring Canyon
Eagle creek	House Camp Canyon
Guadalupe Canyon	Markham Creek
Oak Grove Canyon	Redfield Canyon
Eagle Creek	Numerous other washes

These waterways have been determined ineligible under the criteria described above.

Classification Determination

The criteria for determining classification are as follows:

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

Scenic Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped but accessible in places by roads.

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

These criteria are further defined in the *Federal Register* at 47 FR 39457-9

Classification of the segments also establishes guidelines for interim management until a decision on designation can be reached.

Interim Management/Protection Considerations

River values and characteristics of candidate river segments and study areas are protected by interim management considerations until studies and Congressional action have been completed. Once a river segment is determined eligible and the appropriate prospective classification determined (Wild, Scenic or Recreational), it must be afforded adequate interim protection until a final decision can be reached. Management activities and authorized uses shall not be allowed to adversely affect either eligibility or classification, subject to valid existing rights.

The free-flowing characteristics of identified river segments cannot be modified to allow stream impoundments, diversions, channelization and riprapping to the extent BLM is authorized under law. Subject to valid existing rights, outstandingly remarkable values of the segment or area must be protected and enhanced if possible. Management and development of the identified river and its corridor cannot be modified to the degree that its classification would be changed from wild to scenic, or from scenic to recreational.

Classification Standards/Interim Management

The following guidelines set forth standards for making interim management decisions on study rivers by classification (wild, scenic or recreational). These guidelines will be applied to public lands under BLM administration. They do not apply to privately owned lands.

Standards for Wild Rivers

Timber Production: Cutting of trees will not be permitted except when needed in association with a primitive recreation experience (such as clearing for trails and protection of users) or to protect the environment (such as control of fire). Timber outside the boundary but within the visual corridors will be managed and harvested in a manner that provides special emphasis to visual quality.

Water Supply: All water supply dams and major diversions are prohibited.

Hydroelectric Power: No development of hydroelectric power facilities would be permitted.

Flood Control: No flood control dams, levees or other works are allowed in the channel or river corridor. The natural appearance and essentially primitive character of the river area must be maintained.

Mining: The majority of eligible rivers identified as having a wild classification in this appendix are contained within a designated wilderness or National Conservation Area which have been withdrawn from mineral entry and mineral leasing laws. Only Hot Springs Creek and a small portion of the lower Gila River are outside these areas and have not been identified in this document for withdrawal from mineral entry and leasing laws. BLM will deny new mining claims and mineral leases within 1/4 mile of these rivers. Subject to regulations (43 CFR 3809) prescribed to protect the rivers being considered, other existing mining activity would be allowed to continue, but must be conducted in a manner that minimizes surface disturbance, sedimentation and visual impairment. Reasonable access would be permitted.

Road Construction: No roads or other provisions for overland motorized travel would be permitted within a narrow, incised river valley or, if the river valley is broad, within 1/4 mile of the riverbank. A few inconspicuous roads leading to the boundary of the river area at the time of study will not disqualify wild river classification. Also, unobtrusive trail bridges could be allowed.

Agriculture: Agriculture is restricted to a limited amount of domestic livestock grazing and hay production to the extent currently practiced. Row crops are prohibited.

Recreation Development: Major public use areas, such as large campgrounds, interpretive centers or administrative headquarters are located outside the wild river area. Simple comfort and convenience facilities, such as fireplaces or shelters may be provided as necessary within the river area. These should harmonize with the surroundings.

Structure: A few minor existing structures could be allowed assuming such structures are not incompatible with the essentially primitive and natural values of the viewshed. New structures would not be allowed except in rare instances to achieve management objectives (i.e., structures and activities associated with fisheries enhancement programs could be allowed).

Utilities: New transmission lines, gas lines, water lines, etc. are discouraged. Where no reasonable alternative exists, additional or new facilities should be restricted to existing rights-of-way. Where new rights-of-way are indicated, the scenic, recreational and fish and wildlife values must be evaluated in the selection of the site.

Motorized travel: Motorized travel on land or water could be permitted, but is generally not compatible with this classification.

Standards for Scenic Rivers

Timber Production: A wide range of silvicultural practices could be allowed provided that such practices are carried on in such a way that no substantial adverse effect on the river and its immediate environment would occur. The river area should be maintained in its near-natural environment. Timber outside the boundary but within the visual scene area should be managed and harvested in a manner that provides special emphasis on visual quality.

Water Supply: All water supply dams and major diversions are prohibited.

Hydroelectric Power: No development of hydroelectric power facilities would be allowed.

Flood Control: Flood control dams and levees would be prohibited.

Mining: Subject to regulations in 43 CFR 3809 prescribed to protect the values of rivers being considered, new mining claims and mineral leases could be allowed and existing operations allowed to continue. However, mineral activity must be conducted in a manner that minimizes surface disturbance, sedimentation and pollution, and visual impairment.

Road Construction: Roads may occasionally bridge the river area and short stretches of conspicuous or longer stretches of inconspicuous and well-screened roads or screened railroads could be allowed. Consideration will be given to the type of use for which roads are constructed and the type of use that will occur in the river area.

Agriculture: A wider range of agricultural uses is permitted to the extent currently practiced. Row crops are not considered as an intrusion of the "largely primitive" nature of scenic corridors if there is no substantial adverse effect on the natural-like appearance of the river area.

Recreation Development: Larger-scale public use facilities, such as moderately sized campgrounds, public information centers and administrative headquarters are allowed if such structures are screened from the river. Modest and unobtrusive marinas could also be allowed.

Structures: Any concentrations of habitations are limited to relatively short reaches of the river corridor. New structures that would have a direct and adverse effect on river values would not be allowed.

Utilities: This is the same as for wild river classifications.

Motorized Travel: Motorized travel on land or water may be permitted, prohibited or restricted to protect the river values.

Standards for Recreational Rivers

Timber Production: Timber harvesting would be allowed under standard restrictions to protect the immediate river environment, water quality, scenic, fish and wildlife and other values,

Water Supply: Existing low dams, diversion works, riprap and other minor structures are allowed, provided the waterway remains generally natural in appearance. New structures are prohibited.

Hydroelectric Power: No development of hydroelectric power facilities is allowed.

Flood Control: Existing flood control works may be maintained. New structures are prohibited.

Mining: Subject to regulations (43 CFR 3809) prescribed to protect values of rivers being considered, new mining claims and mineral leases are allowed and existing operations are allowed to continue. Mineral activity must be conducted in a manner that minimizes surface disturbance, sedimentation, pollution and visual impairment.

Road Construction: Paralleling roads or railroads could be constructed on one or both riverbanks. There can be several bridge crossings and numerous river access points.

Agriculture: Lands may be managed for a full range of agricultural uses, to the extent currently practiced.

Recreation Development: Campgrounds and picnic areas may be established near the river. However, recreational classification does not require extensive recreation development.

Structures: Small communities as well as dispersed or cluster residential developments are allowed. New structures are allowed for both habitation and for intensive recreation use.

Utilities: This is the same as for wild and scenic river classifications.

Motorized Travel: Motorized travel on land or water may be permitted, prohibited or restricted. Controls will usually be similar to surrounding lands and waters.

Gila Box Segment

Location/Description of Segment

The study area is in Graham and Greenlee counties in southeastern Arizona. The Gila and San Francisco rivers flow through a steep-walled canyon within the Gila Box area. This area, known for its 1 000-foot deep canyons, lies between the Gila Mountains and the Black Hills. Running water, rugged and colorful terrain, highly eroded geologic formations and diversity of plants and animals produce outstanding scenery.

Climatic conditions in the study area are similar to those found throughout the region. In southeast Arizona, lowlands alternate with mountains to create abrupt changes in climatic conditions over short distances. Annual rainfall averages 7 to 16 inches in the valleys, with most falling in the late summer months. Dry conditions are most common from April to June, with less severe dry conditions occurring in the fall.

The study area includes 15,413.62 acres, of which 14,113.80 acres are under BLM administration with the remainder in private ownership. This includes 34 miles of river, with 30.75 miles under BLM administration. The remainder is in private ownership.

The study area begins in the NE1/4 Section 3, Township 6 South, Range 30 East and runs downstream to the SW1/4 Section 29, Township 6 South, Range 28 East. This section includes the Gila River portion of the study area. A total of 26 miles of the Gila River are being evaluated.

The San Francisco section begins in the NW1/4 Section 7, Township 5 South, Range 30 East and runs downstream to its confluence with the Gila River (Section 21, Township 5 South, Range 29 East). Eight miles of the San Francisco River are being evaluated.

Several special features enhance the river's potential for inclusion in the wild and scenic river system. The portion under consideration is free-flowing for the entire length. Natural qualities of this river have made it an increasingly popular rafting and canoeing area. Riparian vegetation, uncommon in the southwestern United States, greatly enhances wildlife habitat. This area is well-known for its population of wintering bald eagles. In addition, there are many outstanding scenic areas with steep cliffs, colorful bluffs, deep canyons and excellent examples of geological erosion. Prehistoric and historic sites have been recorded that qualify for listing on the National Register of Historic Places.

Evaluation of River Values

The study area is a free-flowing river that contains many outstandingly remarkable values including scenic, recreation, geologic, fish and wildlife, hydrologic, historic and cultural values. Twisting canyons, steep cliffs, erosional features, vegetation, free-flowing streams and geologic formations contribute to the outstanding scenery. The Gila and San Francisco are both perennial rivers.

Many opportunities for a wide variety of recreational activities are available. The rivers provide outstanding opportunities for hiking/backpacking, seasonal floatboating, camping, photography, seasonal off-highway vehicle use and sightseeing. There are also good opportunities for hunting, fishing, rock climbing, horseback riding and birdwatching. Floatboating use is steadily increasing during late winter and early spring. The exceptional natural condition of the area, rugged topography, twisting canyons and flowing rivers all help to provide outstandingly remarkable opportunities for recreation.

The area is composed of volcanic and volcanoclastic rocks ranging from Pleistocene to Oligocene. These flows and pyroclastics are chiefly andesites and basaltic andesites. Geothermal features at Gillard Hot Springs as well as outstandingly remarkable geologic features include highly eroded volcanic and conglomerate formations can be found.

Animal life in the study area is greatly enhanced by the perennial rivers and their riparian vegetation. Riparian vegetation contributes to terrestrial wildlife density and diversity. Bald eagles and peregrine falcons, state and federally listed endangered species, occur in the area. Other state-listed species in the study area are the ferruginous pygmy owl, belted kingfisher, black-bellied whistling duck, black hawk, osprey, snowy egret and great egret. Coati and the Arizona mountain kingsnake and are of concern in the study area due to their limited distribution in Arizona.

Aquatic species include game fish such as channel and flathead catfish. Many other aquatic species depend on the perennial rivers, including the federally threatened loach minnow and state-listed razorback sucker, both found in the study area.

Big game species in the study area are javelina, mountain lion, mule deer and Rocky Mountain bighorn sheep. Game birds are quail, dove, numerous duck species, geese and band-tailed pigeons. A very rich assortment of nongame species occur due the presence of water and the riparian habitat.

The Gila and San Francisco rivers are perennial. Since perennial rivers are very uncommon in the Southwest, the hydrologic values are outstandingly remarkable. They are also extremely important for the vegetation, fish and wildlife and recreation values associated with these rivers.

This segment of the Gila River has outstandingly remarkable cultural resource values. At least 11 historic and 14 prehistoric sites are located in the study area. Undoubtedly, many more have yet to be recorded. Two historic and two prehistoric sites qualify for listing on the National Register of Historic Places.

Other River Values

In addition to those values described above, the river also contains the following significant values. Four major vegetation types are present in the study area—grassland, mountain shrub, desert shrub and riparian vegetation. Riparian vegetation is worthy of preservation due to the disappearance of the majority of this type in the arid Southwest. Riparian vegetation is characterized by Fremont cottonwood, Gooding willow, Arizona sycamore, Arizona walnut, velvet ash, seep willow, burro brush, netleaf hackberry and mesquite. The condition of the riparian vegetation in the study area is poor to fair in most places, with limited amounts in good condition. Riparian values of these rivers, however, are still significant due to the limited distribution of this vegetation type.

Eligibility Determination

BLM has determined that 34 miles are eligible for inclusion in the National Wild and Scenic Rivers System. This includes 8 miles of the San Francisco River and 26 miles of the Gila River.

Classification Determination

This section identifies the classification that best describes each eligible river segment as viewed in its existing condition. Five segments have been classified.

Segment 1 (Gila River NW1/4 Sec. 3, T. 6 S., R. 30 E. to SE1/4 Sec. 26, T. 5 S., R. 29 E.). Segment 1 includes a total of 6.85 miles, of which 0.90 mile crosses private land. This segment includes 2,801.55 acres of public land and 240.00 acres of private land.

A Scenic classification best describes this segment of the river. This area possesses outstandingly remarkable scenic, recreation, geologic and fish and wildlife values. This segment is very scenic and is a popular starting point for people floating the river. The area is accessible by only one road. Also, there are only a few minor developments along the river. This section is free from impoundments and the shorelines are largely primitive and undeveloped.

The Old Safford-Clifton Road bridge crosses this segment of the river. In addition to this main road, several trails lead into this segment. A small picnic site is located near the bridge and receives some overnight use during the floating season. Two ranching headquarters are located along this portion of the river.

The road and other minor developments do not significantly affect the naturalness or other outstanding values of this area. Therefore, the Scenic classification best fits this segment.

Segment 2 (Gila River SE1/4 Sec. 26, T. 5 S., R. 29 E. to NE1/4 Sec. 22, T. 6 S., R. 28 E.). Segment 2 includes 15.20 miles, of which 0.25 mile crosses private land. This segment includes 8,110.20 acres of public land and 360.00 acres of private land.

A Wild classification best describes this segment of the river. This area possesses outstandingly remarkable scenic, recreation, geologic, fish and wildlife, historic and cultural values. Segment 2 is free of impoundments and generally inaccessible except by trails. The shoreline is largely primitive and undeveloped. The Wild classification is consistent with the current study of this area for wilderness potential.

Segment 3 (Gila River NE1/4 Sec. 22, T. 6 S., R. 28 E. to SW1/4 Sec. 29 T. 6 S., R. 28 E.). Segment 3 includes 4.50 miles. This segment includes 1,391.86 acres of public land and 5.00 acres of private land.

A Scenic classification best describes this segment of the river. This area possesses outstandingly remarkable scenic, recreation, geologic, and fish and wildlife values. Segment 3 is free-flowing and free from any impoundments. It includes a popular take-out point at Bonita Creek for people floating the river and a picnic site at Spring Canyon. This segment is accessible in places by roads but the shoreline is largely primitive and undeveloped.

These developments and roads do not significantly affect the naturalness or other outstanding values of this area. Therefore, a Scenic classification best describes this segment of the river.

Segment 4 (San Francisco River SE1/4 Sec. 21 T. 5 S., R. 29 E., the confluence with the Gila River, to SW1/4 Sec. 14, T. 5 S., R. 29 E.). Segment 4 includes 3 miles, of which 0.10-mile crosses private land. This segment includes 560.00 acres of public land and 280.00 acres of private land.

A Wild classification best describes this segment of the river. Segment 4 possesses outstandingly remarkable scenic, fish and wildlife and geologic values and is generally inaccessible except by trails. Trails and other developments do not affect the natural character of this segment. This segment is free from any impoundments and the shorelines are largely primitive. A Wild classification is consistent with the current study of this area for wilderness potential.

Segment 5 (San Francisco River SW1/4 Sec. 14, T. 5 S., R. 29 E. to NW1/4 Sec. 7, T. 5 S., R. 30 E.). Segment 5 includes a total of 5 miles, of which 1.75 miles crosses private land. This segment includes 1,250.19 acres of public land and 414.82 acres of private land.

A Recreational classification best describes this segment of the river. Segment 5 possesses outstandingly remarkable scenic, fish and wildlife, and geologic values. It is readily accessible by roads and has evidence of an old railroad grade. The area has also been adversely affected by other activities occurring along the shoreline. The waterway, however, remains natural and riverine in appearance.

Coolidge Dam to Hayden Segment

Location/Description of Segment

The stretch of the Gila River being evaluated covers 32 miles from Coolidge Dam to Hayden in southeastern Arizona within Gila and Pinal counties. The county line is the center of the river. The stretch of river is entirely within the BLM Safford District.

From the dam, the river cuts through the Mescal Mountains forming a deep and narrow gorge, then passes through the open terrain of the southern end of the Dripping Spring Valley and enters another canyon area as it flows through the southern Dripping Spring Mountains to Winkelman. The canyon in the Mescal Mountains contains several deeply incised and constricted passages including the Needle's Eye. Steeply dipping limestone forms much of the geology of the upper half of the study area while volcanic formations make up the study area's lower portion.

The elevation of the river below Coolidge Dam is about 2,320 feet above sea level and drops to about 1,910 feet near the tailings pond at the study area's lower end. The width of the river/flood plain varies from 60 feet to over 600 feet. Major drainages entering the Gila River in the study area include Dick Spring Canyon, Mescal Creek, Dripping Spring Wash, the San Pedro River and from the San Carlos Indian Reservation, Hawk Canyon, Deer Creek and Ash Creek.

Vegetation along the river-banks and in the floodplain is dense riparian growth consisting of cottonwood, sycamore, ash, willow and mesquite. Years of controlled water releases including periods of low flow and lack of large natural floods due to the dam have created extremely thick growth along the river in the upper portion of the study area. In many places large trees are established in the river channel and low branches reach out into or stretch completely across the flow. At times these branches may be submerged by the flow. The channel in the lower half of the study area is also affected by the dense growth, though not so extensively. Out of the floodplain, desert shrub vegetation of saguaro, ocotillo, palo Verde and other Sonoran species is predominant.

The climate of the area is characterized by hot summer days often exceeding 100 degrees F, cool to mild days and cold nights in the winter and pleasant temperatures in the spring and fall. Precipitation averages 9 to 10 inches annually, coming mostly during thunderstorms.

Little cultural development is found along the river in the study area. The upper portion of the study area is inaccessible by vehicle for much of its length. The river is paralleled by Highway 77 in the lower portion and passes through the towns of Winkelman and Hayden at the end of the study area.

The study area contains 8,515 acres of public, state, private and San Carlos Indian Reservation land. Table A-I gives a statistical summary of acres and river miles in each land ownership category.

Table A-I. Study Area Land Ownership

	Acres	River Miles
Public Land	6,130	24.5 (19.1)*
State Land	700	1.4 (0.4)*
Private Land	1,505	5.6 (0.5)*
San Carlos Reservation	180	0.5
TOTAL	8,515	32.0 (20.0)*

*miles in common with San Carlos Indian Reservation

Evaluation of River Values

The entire stretch of the river has no impoundments or diversions. Straightening has not occurred along the river, though Highway 77 has a minor effect on some places where the fill comes down to the river's edge. Otherwise, no riprapping has been done along the river.

Outstandingly remarkable scenic, geologic and fish and wildlife values are present in the study area. Visual resource evaluation of the upper portion of the area has resulted in an "A" rating (highest category) in Scenic Quality under the BLM's Visual Resource Management system. The area is managed as Class II with the objective of retaining the existing character of the landscape. The remaining portion of the river canyon is also highly scenic.

The study area's outstandingly remarkable geologic features include the steeply tilted limestone formations, the Needle's Eye and other deeply incised, narrow stretches of the river canyon. The effect of the river's down-cutting over the centuries is also a remarkable feature. The presence of a flowing river in a desert environment is recognized and highly valued.

Outstandingly remarkable fish and wildlife values are associated with the study area. Bald eagles winter along the river in the upper section of the study area. Other federally listed threatened and endangered and other uncommon animal species such as the peregrine falcon, snowy egret, blackcrowned night heron, osprey, black hawk, zone-tailed hawk, northern beardless tyrannulet and Mississippi kite may occur here. Gila monster and possibly desert tortoise may occur in the study area.

Other River Values

The study area contains other notable values. Portions of the river receive recreation use for fishing, picnicking, camping and tubing. Some cultural resource values are present but little is known of the overall study area. The Gila River canyon is expected to contain significant cultural resource values.

Fish and wildlife other than those listed above also rely on the river for habitat. Warm-water fish such as channel catfish, flathead catfish, largemouth bass, green sunfish and carp are found in the river. A large number of waterfowl occur along this stretch of the Gila River. Many species of both game and non-game animals (mule deer, white-tailed deer, javelina, desert bighorn sheep, elk, mountain lion, bobcat, gray fox, ringtail, coati, dove and quail) may frequent the river and study area at different times.

The dense vegetation that has grown up along the river not only has riparian and wildlife habitat values, but has also proved invaluable in reducing flood severity and in controlling erosion. The dense growth of trees and shrubs slows or impedes the velocity of large flows, thereby reducing the damage caused by flooding.

Eligibility Determination

BLM, as well as determinations of the Nationwide Rivers Inventory, find the Gila River from Coolidge Dam to Hayden to be free-flowing and possessing outstandingly remarkable values. Scenic, geologic and unspecified other values have been identified. The above Evaluation of River Values section also documents the study river's free-flowing and outstandingly remarkable values. All 32 miles of the study river are eligible for further study.

Classification Determination

For the purposes of determining the potential classification of the Gila River in this study, three segments of differing characteristics have been identified. These segments are divided on the basis of obvious changes in land ownership, changes in river character and the presence of differing types and amounts of development.

Each of the segments identified below is classified according to the condition of the river and the adjacent lands as they existed at the time of the study. Each river segment and its immediate environment is considered as a unit. The potential classifications to be assigned as established in the *Wild and Scenic Rivers Act* are Wild, Scenic or Recreational.

Segment 1 begins at the Coolidge Dam (SE 1/4 NW 1/4 Sec. 17, T.3S, R. 18E.) and ends near a point where the river road turns away from the river southward toward the old Hook and Line Ranch headquarters (intersection of the river and the quarter-section line of Sec. 24, T. 3S., R. 17E.). The segment is about 5.5 miles long. Approximately 580 acres of public land on what is generally the north side of the river are contained in the segment study area. About 180 acres of San Carlos Apache Indian Reservation lands are within the segment.

In the upper 0.5 mile of the river, the dam, power plant, associated facilities and other developments have an obvious and significant effect in the Segment 1 study area. The area also has a switchbacked road leading down to the river and a bridge that provides access across the river to the south and east side. A gauging station is located at that point. Much of the river in this segment has been affected by operations of the dam. The discharge from the dam extends down the river a considerable percentage of the segment's distance. Earthen material has been removed from the canyon slopes leaving a visible scar. From the bottom of the switchbacked road, the road to the power plant parallels the west bank of the river.

A low grade dirt road follows the majority of the river's length, crossing a bridge and exiting the study area near its lower end, crossing another bridge back into the reservation. The Hawk Spring Road enters the study area about two-thirds of the way down the segment. A corral and hay shed are near the junction of the Hawk Spring Road with the river road. The river flowing through this area has retained its relatively natural character.

Segment 1 is classified as *Recreational*. The river is readily accessible by a low-grade dirt road that follows the river for most of the segment. Two bridge crossings exist in the segment. Another road intersects the river road about 3 miles down from the segment's beginning. A minor agricultural development, consisting of a corral and hay roof supporting a grazing operation, is near the river at that point.

Segment 2 begins near a point where the road on the reservation side turns away from the river southward toward the old Hook and Line Ranch headquarters (intersection of the river and the quarter section line of Sec. 24, T. 3 S., R. 17 E.) and ends near a road coming down a ridge from the north about 1.5 miles east of Dripping Spring Wash (intersection of the river and the west quarter section line of Sec. 14, T. 4 S., R. 16 E.). Segment 2 is about 12.5 miles long. The segment study area contains about 2,630 acres of public land on the north side of the river.

A 44 kv powerline crosses about 2 miles of the Segment 2 study area and parallels the Gila River near the mouth of Mescal Creek. A road was bladed out to one of the towers some years ago but is no longer passable. The road does not reach the river. A small corral in the canyon bottom and the remains of a mining prospect on the canyon slopes are the only other evidences of development. The shoreline and river flowing through this segment are essentially primitive in character and inaccessible except by trail.

Segment 2 is classified as *Wild*. The river is not accessible by road along this segment. The powerline crossing the segment study area is not easily noticeable and does little to detract from the natural character of the area. It was constructed in the 1920s with almost no vehicle access and its towers have taken on a rusty and non-metallic appearance that blends in with the surrounding landscape. The powerline passes through about 2 miles of the 12.5 mile-long segment. Other developments do not affect the essentially primitive conditions. Waters of the river appear unpolluted, providing aesthetic qualities, habitat for the propagation of fish and wildlife, and primary source of contact for recreation. The amount of livestock grazing occurring within the segment study area is limited and considered to have no effect on the primitive character of the area. Overall, the watershed and shorelines of the segment are essentially primitive.

Segment 3 begins near the end of a road coming down a ridge from the north about 1.5 miles east of Dripping Spring Wash (intersection of the river and the west quarter section line of Sec. 14, T. 4 S., R. 16 E.) and ends south of the eastern edge of the Hayden-Winkelman tailings pond. Segment 3 is about 14 miles long. The segment contains about 2,920 acres of public land, 700 acres of state land and 1,505 acres of private land, totalling 5,125 acres. The private land occurs in separate parcels with the river flowing through each one for a total of 5.6 miles. The river flows through state land in three separate stretches totalling 1.4 miles. The remaining 7.0 miles of river in this segment flows through public land.

Highway 77, a two-lane paved road, parallels the river along much of Segment 3. The river is accessible by vehicle from the highway in several places. Small lengths of three other low-grade dirt roads enter the study area though only one reaches the river. Two undeveloped picnic and fishing sites maintained by BLM are adjacent to the river in the NW1/4, Sec. 28, T. 4 S., R. 16 E., and SW1/4, Sec. 5, T. 5 S., R. 16 E. Fill from the highway reaches the river's edge in some places but has not significantly affected the channel or the character of the river. The waterway remains generally natural in appearance.

Segment 3 is classified as Recreational. The river is readily accessible by road. Highway 77 parallels the river for about 9 miles of the 14-mile-long segment. Several short side-roads approach the shoreline from the highway. One other dirt road drops down the river at the upper end of the segment. Some residential and agricultural development is present along the waterway on the private parcels in the segment study area. No impoundments or major diversion are known to have existed along the river. Some minor modification of the waterway has occurred from highway construction as fill reached the shoreline in places. Portions of the town of Winkelman (residential and some business areas) and the adjacent copper mining operations are within the lower portion. However, the waterway generally retains its natural and riverine appearance.

Aravaipa Creek Segment

Location/Description of Segment

Aravaipa Creek is north of the Galiuro Mountains in eastern Pinal County and western Graham County, Arizona. The creek lies 90 miles southeast of Phoenix and 55 miles northeast of Tucson (the two largest metropolitan areas in Arizona) and 40 miles west of Safford, Arizona.

The stretch of river under consideration covers 11.0 miles from the mouth of Turkey Creek to a point approximately 0.5 mile downstream of the confluence of Hell's Half Acre Canyon. The area is contained between the NW 1/4 SW 1/4 Sec. 19, T.6S, R.19E. and the NW1/4 SE1/4, Sec. 19, T.6S., R.17E.. The segment is entirely within the Aravaipa Canyon Wilderness designated by Congress on August 28, 1984.

Aravaipa Canyon has long been recognized for its natural qualities and significant ecological attributes. Beneath scenic towering cliffs, Aravaipa Creek flows perennially, supporting lush riparian vegetation in stark contrast to the

shrubs of the Sonoran Desert on the canyon slopes. The 1,000-foot-deep canyon is home for a variety of wildlife, including 46 mammals, 46 reptiles, 7 native fish and 8 amphibian species. In addition, more than 200 bird species ranging from permanent residents to rare or migrant species may be found in this area.

Climatic conditions in the study area are similar to those found throughout the region. In southeast Arizona, lowlands alternate with mountains to create abrupt changes in climatic conditions over short distances. Annual rainfall averages 7 to 16 inches in the valleys, with most falling during the late summer months.

Evaluation of River Values

The Aravaipa Canyon Wilderness provides high-quality habitat for a variety of fish and wildlife species. The perennial water of Aravaipa Creek, besides furnishing habitat, allows for the growth of the canyon's riparian vegetation. The high cliffs and dissected uplands provide habitat for additional wildlife.

Desert bighorn sheep, wiped out in the 1930s and reintroduced in the late 1950s and 1973, have increased dramatically and are expanding their range. The number of bighorn sheep in the Aravaipa area is estimated at 160. A small group of bighorn is commonly seen along the north side of the canyon by visitors in the canyon bottom and appears to be tolerant of people hiking or backpacking. The remainder of the sheep use the canyon slopes side canyons and tablelands north of Aravaipa Creek.

Federally listed and candidate threatened and endangered species are found within the area. Three pair of Peregrine falcons are found within the area. The desert tortoise lives in the western part of the area in Sonoran desert habitat in low density. The black hawk, though having no federal status, is listed as a State of Arizona candidate species. This raptor is uncommon in Arizona and the continuation of the species could be in jeopardy in the future. Nesting black hawks are sensitive to disturbance.

Aravaipa Creek contains seven native fish including the loach minnow (*Tiaroga cobitis*) and the spikedace (*Meda fulgida*). Those two species have been listed as threatened under the Endangered *Species Act*. The other native fish found in Aravaipa Creek are roundtail chub, longfin dace, speckled dace, Sonoran sucker and desert mountain sucker. The variety of aquatic habitats-shallow riffles, deep pools, sandy bottoms and gravel bottoms-allows for the variety of fish species. Frequent and often heavy flooding maintains the native assemblage of fish. Exotic species tend to be flushed out of the system by flooding, but some (like the green sunfish) persist in pools in the side drainages. Therefore, it is an outstandingly remarkable fish and wildlife resource.

Aravaipa Creek is also an outstandingly remarkable area for primitive recreation. The creek is a popular destination for day hiking, backpacking, birdwatching, photography, wildlife observations and sightseeing. Hunting occurs in portions of the wilderness during the fall and winter. Horseback riding in the Aravaipa Canyon Wilderness also takes place but less frequently. Most visits happen during the spring and fall when temperatures are moderate and storms are uncommon. However, the climate allows year-round use.

The majority of visitors to Aravaipa Canyon Wilderness come from Tucson and Phoenix, although people from throughout the United States and the world do visit Aravaipa Canyon. The scenery, the desert stream and its tributaries and the opportunities for birding and observing bighorn sheep are the most famed attractions.

Visitor use statistics for Aravaipa Canyon have been kept since the mid-1970s. Over that period, visitor use has remained rather stable with the exception of the years 1980-82 when use increased dramatically, probably because of publicity about the pending wilderness designation. After the flood of October 1983, visitor use lessened for a year but has since returned to that of the 1970s (about 10,000 visitors per year).

Other River Values

The canyon area is rich in nongame species, particularly riparian bird species, but also mammals, amphibians and reptiles. Yellow-billed cuckoos, buff-collared nightjars, beardless flycatchers, black hawks and zone-tailed hawks are some of the uncommon species doing well in the Aravaipa Canyon Wilderness. Ringtail cats, coatis, bobcats, gray fox and raccoons are among the 46 mammals known living in the canyon.

The spectacular canyon, carved to a depth of 1,000 feet by Aravaipa Creek is noted for its scenic beauty. Combined with the well-developed riparian system, Aravaipa is known as one of Arizona's scenic jewels, changing its characteristics with each season.

Aravaipa is also rich in cultural history dating from as long as 10,000 years ago.

Eligibility Determination

BLM has determined that 11 miles of Aravaipa Creek are eligible for inclusion in the National Wild and Scenic Rivers System.

Classification Determination

This section identifies the classification which best describes the eligible river segment(s) as viewed in its existing condition. One segment has been identified.

Segment 1 (Aravaipa Creek NW 1/4 NW 1/4 Sec. 19, T.6S.R.19E. to NW 1/4 SE 1/4 Sec 13, T.6S. R17E.). Segment 1 includes a total of 11 miles through public land. A Wild classification best describes this segment of the river. The area possesses outstandingly remarkable wildlife, fish, recreation and scenic values. This area is very popular for backpacking. The segment is free from impoundments and the shoreline is undeveloped.

Turkey Creek Segment

Location/Description of Segment

The study area is in Graham County, Arizona, approximately 40 miles southwest of Safford. The creek flows through a shallow, carved canyon and well-developed mixed broadleaf riparian zone. Turkey Creek flows for about 2.5 miles for the majority of the year between the mouth at Aravaipa Creek and a point near its confluence with Oak Grove Canyon and the road to the tablelands. The creek involved falls between the SE1/4 SW1/4, Sec. 32 T.6S. R.19E. and SE114 NW1/4, Sec. 19 T.6S. R.19E.. The creek is a main tributary to the east end of the Aravaipa Canyon Wilderness. Turkey Creek is readily accessible by a low-grade dirt road that parallels and occasionally crosses Turkey Creek for the entire section of the study area.

Evaluation of River Values

Outstandingly remarkable values include a cultural site comprising a cliff dwelling previously occupied by the Salado people, known to have lived only in a relatively small portion of Arizona. In addition high scenic values, recreational values including camping and hiking are found here. The area is popular due in part to its proximity to Aravaipa Canyon Wilderness.

Other River Values

Sensitive wildlife species and the presence of a well-developed, mixed broad leaf riparian system upon which most other values depend.

Eligibility Determination

BLM has determined that 2.5 miles are eligible for inclusion in the National Wild and Scenic Rivers System.

Classification Determinations

This section identifies the classification that best describes each eligible river segment as viewed in its existing condition. One segment has been identified.

Segment 1 (Turkey Creek SE1/4 SW1/4, Sec 32 T.6S. R19E. to SE1/4 NW1/4, Sec. 19 T.6S. R19E.). Segment 1 includes 2.5 miles which flows through public land. A Recreational classification best describes this segment of the river. The area possesses outstandingly remarkable cultural, recreational and scenic values. A Salado cliff dwelling interpreted to the public and the draw of the Aravaipa Canyon Wilderness area provides excellent opportunities for historic preservation and recreation. A road parallels and occasionally crosses Turkey Creek for the entire length of the segment. Some fences and a wooden corral are the only modern structures.

Swamp Springs Segment

Location/Description of Segment

The study area is located in Graham County in southeastern Arizona. The stretch of narrow canyon under study flows through 2 miles of public lands from a point 1 mile west of the Jackson Cabin Road to its confluence with Redfield Canyon. The stream contains water throughout the year but is reduced to short flowing reaches and standing pools during drier periods. This segment is situated from NE 1/4 Sec. 34 T.11S. R.20E. to NE 1/4 Sec. 32 T.11 S. R.20E.

Swamp Springs comprises a significant amount of riparian lands in the locale. The entire watershed is contained on public lands.

Evaluation of River Values

Outstandingly remarkable values include the presence of two species of native fish (an uncommon occurrence in the desert southwest) and one federal candidate and state threatened species--the yellow-billed cuckoo. The common black hawk, a state candidate species, also occurs in the area.

Other River Values

The presence of a majority of the riparian lands in the vicinity, the scenic and recreational values including hiking, birding and wading in this drainage are other attributes. The area is currently being considered for wilderness designation.

Eligibility Determination

BLM has determined that 2 miles are eligible for inclusion in the National Wild and Scenic Rivers System. Approximately 0.5 mile of this stream, located at the mouth, flows through state lands.

Classification

This section identifies the classification that best describes each eligible river segment as viewed in its existing condition. One segment has been identified.

Segment 1 (Swamp Springs NE1/4, Sec. 34 T.11S. R.20E. to NE1/4, Sec. 32 T.11S. R. 20E.). Segment 1 includes 2 miles, of which approximately 0.5 mile flows through state land. A Wild classification best describes this segment of the river. The area possesses outstandingly remarkable fish and wildlife values.

Hot Springs Canyon Segment

Location/Description of Segment

The study area is located in Cochise County in southeastern Arizona. The river flows through a broad canyon containing narrow sections for a length of 6 miles, 1 mile of which flows through State and private lands. The area is located between NE1/4, Sec. 36 T.12S. R.20E. and NW1/4, Sec 5 T.13.S R.20E.

Evaluation of River Values

The outstandingly remarkable feature of Hot Springs Canyon is the existence of four species of native fish and nesting gray hawks-one of 55 pair in the United States. Six continuous miles of flow within a deep scenic canyon is enhanced by the riparian vegetation lining the shores.

Other River Values

The area possesses habitat necessary for at least nine species of breeding raptors. The area is scenic and offers opportunities for hiking, horseback riding, birding, wading and camping. There is some off-highway vehicle access at the lower end of the segment.

Eligibility Determination

BLM has determined 6 miles are eligible for inclusion into the National Wild and Scenic Rivers System, 1 mile of which crosses state and private lands.

Classification Determination

This section identifies the classification that best describes each eligible river segment as viewed in its existing condition. One segment has been identified.

Segment 1 (Hot Springs Canyon NE 1/4 Sec. 36 T.12S. R20E. to the NW 1/4 Sec. 5 T.13S. R20E.). Segment 1 includes a total of 6.0 miles of which 1.0 miles crosses private and state land. A Wild classification best describes this segment of river. The area possesses outstandingly remarkable fish values. There are no developments or roads along this segment.

Bonita Creek Segment

Location/Description of Segment

The study area is located in Graham County in southeastern Arizona. The mouth of Bonita Creek can be reached by driving 15 miles northeast of Safford on the Sanchez road. The legal description extends from the SW1/4, Sec. 27 T.4S. R27E. to lands at the mouth of the creek at NW1/4 NE1/4, Sec. 29 T.6S. R. 28E. The creek flows for a distance of approximately 15 miles south of the San Carlos Apache Indian Reservation through a moderately broad canyon which closes to steep-walled sections in some locations. A low grade dirt road, periodically washed out by flash floods, winds along and crosses the creek in many locations for its entire length to the reservation boundary. A few large parcels of private land are contained in the creek bottom. Two miles of Bonita Creek cross private lands.

Evaluation of River Values

Resources which are outstandingly remarkable include habitat for federally listed and proposed Threatened and Endangered wildlife species, 15 miles of riparian habitat, a perennial creek with water quality qualifying for state Unique Water designation, National Register quality cultural resource sites, an area with one of the highest numbers of breeding bird species found in the United States, the greatest standing crop biomass of fishes recorded in a southwestern stream and a very scenic canyon. Bonita Creek is the water supply for the City of Safford. The city maintains a pipeline and pump station facilities within the creek drainage as well as picnic facilities for recreationists.

Outstandingly remarkable values include habitat for federally and state listed and proposed Threatened and Endangered species including bald eagle, peregrine falcon, Gila chub, yellow-billed cuckoo, razorback sucker, and black hawk. The breeding bird diversity is among the greatest in the United States. Other outstandingly remarkable values include numerous historic and prehistoric cultural sites including several well-preserved cliff dwellings and a historic cabin. The proposed National Historic Safford-Morenci Trail crosses the drainage.

Other River Values

Other values which enhance the area's overall social and ecological value include recreational hiking, camping, birding, scenic backcountry driving and water play. The area also has a critical water supply which demonstrates the outstanding quality of the water. Fifteen linear miles of riparian habitat are also present along this perennial stream.

Eligibility Determination

BLM has determined that a total of 15 miles are eligible for inclusion into the National Wild and Scenic Rivers System, 2 miles of which flow through private lands.

Classification Determination

This section identifies the classification that best describes each eligible river segment as viewed in its present condition.

Segment 1 (Bonita Creek SW1/4 SE1/4, Sec. 27 T.4S R.27E. to NW1/4 NE1/4, Sec. 29 T.6S. R.28E.). Segment 1 includes a total of 15 miles of which 2 cross private land. A Recreational classification best describes this segment of river. The area possesses outstandingly remarkable fish and wildlife, cultural/historic and recreational values as well as a critical source of high quality water to the City of Safford. A low-grade road weaves along and crosses the entire length from the mouth of the creek to the Reservation lands. A minor water diversion facility and recreation sites are maintained by the city along the lower portion.

San Pedro River Segment

Location/Description of Segment

The study area is located in Cochise County in southeastern Arizona. The study area is the segment of the San Pedro River contained in the San Pedro Riparian National Conservation Area between the Mexican border and St. David Arizona.

The study area begins in the NW1/4, Sec. 19, T.24S, R.22E. and runs downstream to the NW1/4, Sec. 21, T.18S., R.21 E. A total of 46 miles of the San Pedro River has been evaluated, with 38.25 miles under BLM administration.

The study area lies in the Basin and Range Physiographic Province, characterized as possessing gently sloping valleys separated by abruptly rising mountains. The climate is arid to semi arid. Summers are warm, averaging 95 degrees daily maximum in June. Winters are relatively mild with average maximums in January of 61 degrees F and lows of 34 degrees. Precipitation averages about 13 inches annually with 50-60 percent of that total falling in July-September and 20 percent in December-February.

Evaluation of River Values

The study area contains many outstandingly remarkable values including scenic, recreation, fish and wildlife, hydrologic, paleontological, historic and cultural values. The riparian forest along the San Pedro River is the area's most recognizable visual feature. The riparian forest offers a dramatic visual change from the surrounding country's vegetation, dominated by such Chihuahuan Desert shrubs as creosote, catclaw, tarbush, whitethorn and mesquite.

Natural qualities of this river have made it a very popular area for recreational activities, including birding, wildlife viewing, hiking, camping, horseback riding and nature study. Riparian vegetation, uncommon in the southwestern United States, greatly enhances wildlife habitat. The San Pedro's perennial flow, though sometimes a trickle, is a rare occurrence in the Southwest. In addition, the area contains prehistoric and historic sites that qualify for listing on the National Register of Historic Places.

Animal life in the study area is greatly enhanced by the perennial river and its riparian vegetation. The area supports over 300 species of birds, 80 species of mammals, two native species and several introduced species of fish, and more than 40 species of amphibians and reptiles.

Notable birds include over 25 species of raptors (many hawks, including the rare gray hawk), the Mississippi kite, crested caracara, green kingfisher and yellow-billed cuckoo.

Mammals include many species of rodents, several bats, mountain lion and bobcat. Other mammals, like the whitetail deer, mule deer, javelina, cottontails and jackrabbits, are fairly common.

The portion of the San Pedro River in the study area is perennial. Since perennial rivers are uncommon in the Southwest, the hydrological values are outstandingly remarkable. They are extremely important for the vegetation, fish and wildlife, and recreation values associated with the river.

The paleontological resources of the area rank among the top two paleontological areas in Arizona. They rank in the top five for the late Cenozoic (approximately 1 million-5 million years before present) terrestrial deposits in North America. The area ranks as the top area in the western hemisphere for paleontological sites associated with early mankind because the number of sites, the excellent chronological control of those sites and the potential for additional sites. The fossils of the area have a high potential for yielding important information on mammal evolution and intercontinental dispersal, the earliest humans to occupy North America, late Cenozoic geology and life, vegetation and climatic changes.

The cultural resources of the study area represent a diverse array of site types, cultures and time periods. The human occupation of the area began about 11,200 years ago. Many sites have exceptionally high scientific and/or public values at an international level of importance. The study area provides a unique opportunity for the scientific study, public interpretation and conservation of the full array of cultural resources found in southeast Arizona.

Other River Values

In addition to those values described above, the river also contains the following significant values. The study area, dominated by an extensive riparian corridor, is a composite of several vegetation communities. Long, healthy stretches of Fremont cottonwood and Gooding willow dominate the riparian corridor, along with lesser amounts of Arizona ash and walnut, netleaf hackberry and soapberry. Chihuahuan desertscrub, typified by species such as tarbush, creosote and acacia, dominate the uplands bordering both sides of the river while mesquite and sacaton grass dominate the bottomland adjacent to the riparian corridor.

Eligibility Determinations

To be eligible for inclusion in the Wild and Scenic Rivers System, the river segment being studied must be free-flowing and possess one or more outstandingly remarkable values.

BLM has determined 46 miles of the San Pedro River are eligible for inclusion in the National Wild and Scenic Rivers System.

Classification Determination

This section identifies the classification that best describes the eligible portions of the San Pedro River as viewed in its existing condition.

Segment 1 (San Pedro River NW1/4, Sec. 19, T.24S. R.22E. to NW1/4, Sec 21, T.18S. R. 21 E.). Segment 1 includes a total of 46 miles which flows through public land. The area possesses outstandingly remarkable scenic, recreation, fish and wildlife, hydrologic, paleontological, historic and cultural values. The area is readily accessible by roads. State Highways 82,90 and 92 cross the study area. Two county roads, Charleston and Hereford also provide access to the river. In addition to the five paved roads, several dirt roads provide access to the area.

The Southern Pacific Railroad (Benson to Douglas rail line) parallels the river from Hereford to the northern boundary of the study area. This is an active railroad line. Also, several old railroad grades are located in the study area.

Many rights-of-way including natural gas pipelines, water pipelines, utility easements, powerlines and telephone lines cross the study area. Noticeable concentrations are at the Charleston Road crossing and in the Hereford-Palominas area.

The St. David Irrigation District has a diversion structure and canal in the northern portion of the study area. The small diversion structure diverts water into the canal for use on fields near St. David.

The area also has been adversely affected by past activities in the area. These activities include livestock grazing, sand and gravel operations, mining and farming.

A Recreational classification best describes the entire study area. The study area is readily accessible by five paved roads and numerous dirt roads. Almost the entire length is paralleled by an active railroad line. The area has been affected by numerous rights-of-way and other activities occurring along the shoreline. However, the waterway generally retains its natural and riverine appearance.

Appendix 4

Management Objectives for Priority Species/Habitats Alternatives A, B, and C

1. Riparian/Aquatic Habitat and Species Dependent on Riparian/Aquatic Habitat

Riparian and aquatic habitat supports 60 percent of Arizona's wildlife species and 75 percent of species listed as threatened or endangered, yet they are one of the smallest communities comprising about 1/2 percent of the Safford District. Because wildlife and fishes are concentrated in these small areas, riparian and aquatic habitat management has been the focus of the Wildlife Program. The primary objectives are as follows:

- a. Maintain and improve riparian areas to achieve 75 percent in good ecological condition by 1997.
- b. Increase the amount (length and width) of riparian vegetation to provide more wildlife habitat.
- c. Increase the complexity (number of vegetation layers and plant species) of riparian communities for more niches and greater biological diversity.
- d. Manage for three age classes (large decadent, mature and sapling) of riparian trees.
- e. Manage for development of a complete shrub and grass/forb component.
- f. Increase the duration and length of surface water flow in drainages.
- g. Improve water quality.
- h. Conduct inventories to document current use of riparian and aquatic habitats by fish and wildlife and to identify management needs or transplant opportunities.
- i. Increase number of fish and amphibian populations by transplants, in conjunction with the Fish and Wildlife Service and the Arizona Game and Fish Department.
- j. Monitor riparian and aquatic habitat to document conditions and response to management actions by vegetation, water conditions and animal use.
- k. Protect native fish and wildlife by exclusion or removal of non-native species which may adversely affect native species.
- l. Protect and restore springs and seeps and their native vegetation and wildlife.

2. Species identified for Reintroductions in Fish and Wildlife Service Plans

One of the primary tools available for wildlife management is transplanting species from captive populations or areas where they are common to suitable habitat currently unoccupied or with a non-viable population. Such transplants are always done in conjunction with the Arizona Game and Fish Department, and with the Fish and Wildlife Service when a federally listed or candidate species is involved. Opportunities exist for many species (such as Gila topminnow, spikedace or wild turkey) that are currently present on public lands to be transplanted to suitable, unoccupied habitat elsewhere in the District. The management objective for these species is to increase the number of viable populations on public lands. Different problems exist for species totally extirpated from the District and special attention is focused on this group of fishes and wildlife.

Only two federal recovery plans specifically identify Safford District for reintroduction of extirpated species: woundfin minnow and the aplomado falcon. The Endangered *Species Act* mandates Bureau support, and *Alternatives A and C* emphasize these species. Other extirpated species were present within the District, but their recovery plans do not identify public lands here for reintroductions. In *Alternative B*, BLM will shift management emphasis to support potential efforts to reintroduce all extirpated species. These species include grizzly bear, wolf, ocelot, jaguar, Colorado River squawfish and Mexican garter snake. Habitat management for game species would be de-emphasized to free personnel and funding for these other species.

3. Desert Tortoise

BLM completed a rangewide management plan for desert tortoise in November 1988. The Bureau's goal is "...to manage habitat so as to ensure that viable desert tortoise populations exist on public lands. This will be accomplished through cooperative resource management aimed at protecting the species and its habitat."

The District's first objective is to determine the distribution and relative population of desert tortoise on public lands. Then, based upon four criteria, (1) importance of the habitat to maintaining viable populations, (2) resolvability of conflicts, (3) tortoise density and (4) population status, specific management actions will be initiated. In view of the relative health of the Sonoran Desert population of desert tortoise and the small, isolated parcels of suitable habitat managed, Safford District may have few opportunities to enhance habitat conditions. The District, however, will make every effort to protect and enhance viable desert tortoise populations on public lands.

4. Desert and Rocky Mountain Bighorn Sheep

Both Rocky Mountain and desert bighorn sheep utilize public lands within the Safford District. The management goal for desert bighorns is to increase the capability of habitat by 10 percent to support populations of sheep in all potential areas. Objectives include the following:

- a. Support Arizona Game and Fish Department reintroductions.
- b. Develop water sources in suitable habitat.
- c. Develop livestock and fire management systems compatible with sheep needs.
- d. Mitigate other actions to prevent avoidable adverse impacts.
- e. Conduct BLM inventories and support other inventory and monitoring efforts of bighorn sheep and their habitat.

Rocky Mountain bighorn sheep are currently using the northeast corner of the District and are rapidly increasing their range and numbers in the Eagle Creek area. Management objectives are to monitor the distribution and size of this population, especially in relation to the distribution of desert bighorns in the Peloncillo Mountains.

5. Mule Deer

Most public land in the Safford District supports mule deer; however little habitat contains high numbers. Arizona Game and Fish Department objectives are to increase the capability of the habitat by 7 percent on BLM lands. Bureau objectives parallel those of the state. Specific management objectives are as follows:

- a. Improve forage conditions through better livestock management and use of controlled burns.
- b. Provide yearlong water at 3-mile intervals in important habitat.
- c. Block up public lands to improve management efficiency and to support viable populations
- d. Mitigate avoidable adverse impacts by other programs and authorized actions.
- e. Conduct BLM inventories and support other inventories and monitoring efforts of mule deer and their habitat.

6. Prong horn Antelope

Public lands in the Safford District provide habitat for one population of pronghorn. Arizona Game and Fish Department strategic plans call for a 15 percent increase in pronghorn habitat capability on BLM lands. District objectives are to improve habitat for the one herd so that it will support a viable population:

- a. Improve forage condition.
- b. Provide water, where it is a limiting factor.
- c. Reduce mortality factors, as identified.
- d. Conduct or support monitoring or inventory efforts of pronghorn and their habitat.

Improved management techniques of desert grasslands may create new areas with habitat suitable for pronghorn. Opportunities for transplants to produce new populations will be investigated and conducted in cooperation with Arizona Game and Fish Department, where warranted.

7. Oak Woodlands and Species dependent on Oak Woodland Habitat

Oak woodlands provide crucial habitat for several priority wildlife species. Management efforts will benefit all these species and so the goals overlap. Priority species include white-tailed deer, Montezuma quail, wild turkey and black bear. Arizona Game and Fish Department strategic plan goals are for no change in white-tailed deer, turkey and black bear populations on public lands. Specific management objectives are as follows:

- a. Increase perennial grass height to provide better cover for whitetailed deer fawns, Montezuma quail and nesting turkeys.
- b. Increase food quality and quantity for all wildlife species.
- c. Reintroduce Merriam's and Gould's turkeys to areas with suitable habitat, in cooperation with Arizona Game and Fish Department.
- d. Increase white-tailed deer numbers 10 percent through better livestock management and use of prescribed fire.

Bear and Montezuma quail numbers will benefit as habitat conditions improve, increasing in numbers and distribution.

8. Saguaro-Palo Verde

The eastern edge of the Sonoran Desert lies in the Safford District. Where this community is dominated by saguaro cactus and palo verde shrubs, it is the most structurally and floristically diverse desert type in the world. Several priority species such as desert tortoise and javelina key into this community. Other wildlife of possible future concern, such as Harris hawks and purple martins, also concentrate here. Management objectives are as follows:

- a. Maintain this community in good or better ecological condition.
- b. Mitigate disturbances to prevent avoidable adverse impacts.
- c. Control fire to prevent loss of this fire-sensitive community.
- d. Block up the land ownership pattern to acquire management units.

9. Desert Grassland

Desert grasslands in the Safford District include Sonoran desert, Chihuahuan desert and plains grassland types. All are fire-dependent communities. Historic management methods resulted in shrub, cactus and juniper invasion at the expense of perennial grasses. Priority species such as pronghorn, bighorn sheep and the extirpated aplomado falcon, plus other species of growing concern such as Cassin's sparrows, Brewer's sparrows and the massasauga are adversely affected as grasses decline. Currently 13 grassland-dependent wildlife species are included in the list of state threatened species.

The management objective of the Safford District is to reduce invading shrubs, cactus and junipers and increase native perennial grasses in the most productive portions of the public lands. Methods will include changes in livestock and fire management practices. Benefits to riparian and aquatic areas will also occur due to improved watershed conditions. Some changes in distribution and local populations of species that prefer shrublands, such as javelina, may occur as this objective is attained.

10. Wetlands

Riparian and aquatic habitat is very important to most of the District's wildlife. Wetlands, as a type of riparian community characterized by saturated soil at the land/water junction, are especially crucial to waterfowl, shorebirds and amphibians. Currently only an estimated 100-200 acres of wetlands are found in the District. Previous planning efforts have identified the need for additional wetlands. In *Alternative B* wetland habitat would be separated from the riparian and aquatic topic to give it special emphasis. Management objectives are as follows:

- a. Prevent avoidable disturbances to improve existing wetlands.
- b. Construct low dams, water diversions and water spreading projects to develop additional wetlands.
- c. Acquire additional wetlands from willing owners, and develop as necessary.
- d. Acquire water rights to ensure continued supply.

11. Other Species and Habitats of Interest

Many wide-ranging species must be managed by Districtwide practices and policies. Bureau policy, NEPA and the Endangered *Species Act* provide general guidance for management and mitigation. Consultation with Arizona Game and Fish Department and the Fish and Wildlife Service provides additional support. The District's goal is to protect and enhance habitat for all priority species on public lands. All actions will be evaluated for possible effects to wildlife and Arizona Game and Fish Department or Fish and Wildlife Service will be consulted where applicable. Site-specific habitat improvements will be identified in activity plans and adverse impacts will be mitigated in individual actions or plans as proposed.

Appendix 5

Lands that Meet Federal Land Policy and Management Act Requirements for Sale

Alternatives A, B, and C

The following public lands qualify for sale under Section 203(a)(l) of Federal Land Policy and Management Act of 1976. The tracts are difficult and uneconomical to manage because of their location or other characteristics. Although they qualify for sale, the preferred method for disposal is by exchange or Recreation and Public Purposes Act lease/patent.

These parcels identified for disposal are not to be considered all-inclusive. Unforeseen future land management concerns or public demand may necessitate the need for other public lands not within the disposal areas to be sold or exchanged. The parcels considered at that time will be subject to the same BLM planning process and National Environmental Policy Act as those identified in this document.

	Land for Sale Under Alternatives:		
	A	B	C
Gila and Salt River Meridian, Arizona			
T. 2 S., R. 14 E.,			
Sec. 7, NE1/4NE1/4 excluding mineral patent;	X	X	X
Sec. 31, lots 1 and 2, NE1/4NW1/4.	X	x	x
T. 2 S., R. 15 E.,			
Sec. 20, lot 1 S1/2NE1/4, N1/2SE1/4,			
SE1/4SE1/4, unpatented mineral survey;	X	X	X
Sec. 29, lots 5, 9, 10-13 incl., E1/2NE1/4,			
N1/2SE1/4, unpatented mineral survey in			
N1/2 and W1/2;	X	x	x
Sec. 31, NE1/4, N1/2SE1/4.	X	X	X
T. 3 S., R. 29 E.,			
Remaining public land in			
Sec. 32	X	x	x
Sec. 35	X	x	x
Sec. 36.	X	x	x
T. 4 S., R. 28 E.,			
Remaining public land in			
Sec. 12, E1/2NE1/4 (within).	X	x	x
T. 4 S., R. 29 E.,			
Remaining public land in			
Sec. 1	X	x	x
Sec. 2	x	x	x
Sec. 3	X	x	x
Sec. 4	X	x	x
Sec. 6, S1/2S1/2 (within);	X	X	X
Sec. 7	X	x	x
Sec. 8	X	x	x
Sec. 10	X	X	X

Land for Sale Under
Alternatives:

Gila and Salt River Meridian, Arizona

	A	B	C
Sec. 11	X	X	X
Sec. 12	X	X	X
Sec. 18	X	X	X
Sec. 29, NE1/4NW1/4 (within).	X	X	X
T. 5 S., R. 23 E.,			
Sec. 9, NE1/4NE1/4;	X	X	X
Sec. 11, E1/2NW1/4, NW1/4SW1/4;	X	X	X
Sec. 13, W1/2SW1/4SW1/4, SE1/4SW1/4SW1/4.	X		X
T. 5 S., R. 29 E., Sec. 12			
Lot 2	X		X
Lot 3	X		X
Lot 4	X		X
NE1/4NW1/4	X		X
N1/2 Lot 5	X		X
N1/2S1/2 Lot 5	X		X
N1/2 Lot 6	X		X
SE1/4 Lot 6	X		X
N1/2SW1/4 Lot 6	X		X
N1/2 Lot 7	X		X
SW1/4 Lot 7	X		X
W1/2SW1/4 Lot 7	X		X
N1/2NW1/4 Lot 10	X		X
NW1/4NE1/4 Lot 10	X		X
N1/2NE1/4 Lot 11	X		X
NW1/4NW1/4	X		X
N1/2SE1/4NW1/4	X		X
SW1/4SE1/4NW1/4	X		X
N1/2SE1/4SE1/4NW1/4	X		X
SW1/4SE1/4SE1/4NW1/4	X		X
N1/2SW1/4NW1/4	X		X
N1/2SE1/4SW1/4NW1/4	X		X
T. 6 S., R. 16 E.,			
Sec. 27, unplotted parcel in SE1/4NW1/4.	X	X	X
T. 6 S., R. 17 E.,			
Sec. 7, south of San Carlos bdy.;	X	X	X
Sec. 8, south of San Carlos bdy.	X	X	X
T. 6 S., R. 22 E.,			
Sec. 26, all south of San Carlos bdy.	X	X	X
T. 6 S., R. 24 E.,			
Sec. 9, E1/2SW1/4.	X	-	X
T. 6 S., R. 25 E.,			
Sec. 8, S1/2NE1/4SE1/4;	X	X	X
Sec. 13	X	X	X
Sec. 14	X	X	X
Sec. 24	X	X	X

Land for Sale Under
Alternatives:

Gila and Salt River Meridian, Arizona		A	B	C
Sec. 25,	N1/2, N1/2SE1/4, SE1/4SE1/4	X	X	X
Sec. 26,	N1/2SE1/4	X	x	x
Sec. 22,	SE1/4NE1/4;	x	x	x
Sec. 25,	SW1/4SW1/4NW1/4;	X	x	x
Sec. 26,	N1/2NW1/4NE1/4, E1/2SW1/4NW1/4NE1/4, SE1/4NW1/4NE1/4	X	x	x
T. 6 S., R. 26E.,				
Sec. 31,	Lots 1-3,5-6, 9, 12, 15, 16	X	x	x
Sec. 32,	Lot 5, NE1/4, N1/2SW1/4, N1/2SE1/4	X	X	X
Sec. 33,	Lots 1-12, Lots 15, 16	X	X	X
T.6 S., R. 27 E.,				
Sec. 33,	all	X	x	x
Sec. 34,	N1/2, SW1/4, N1/2SE1/4	X	x	x
Sec. 35,	Lot 4, N1/2NE1/4, NW1/4, NW1/4SW1/4	X	X	X
Sec. 36,	Lots 7, 8, NE1/4, N1/2NW1/4	X	X	X
T. 6 S., R. 28 E.				
Sec. 31,	Lots 1 through 5	X	X	X
T. 6 S., R. 30 E.,				
Sec. 1,	lots 14, 18, 22;	X	X	X
T. 7 S., R. 16 E.,				
Sec. 10,	lot 7, SE1/4SE1/4;	x	-	X
Sec. 11,	S1/2S1/2;	x	-	X
Sec. 12,	S1/2SW1/4;	x	-	X
Sec. 13,	N1/2NW1/4, E1/2SE1/4NW1/4;	x	-	X
Sec. 14,	N1/2N1/2, W1/2SW1/4NW1/4;	x	-	X
Sec. 15,	lot 12, NE1/4NE1/4.	x	-	X
T. 7 S., R. 27 E.,				
Sec. 1,	Lots 1 through 3, SE1/4NE1/4	X	X	X
Sec. 4,	lots 1-5 incl., S1/2N1/2, SW1/4;	X	x	x
Sec. 7,	lots 1 and 2, NE1/4, E1/2NW1/4;	X	x	x
Sec. 8,	lots 1, 2,3, NW1/4, N1/2SW1/4;	X	X	X
Sec. 9,	lots 14-19 incl.;	X	x	x
Sec. 21,	N1/2SW1/4NE1/4.	X	X	X
T. 7 S., R. 31 E.,				
Sec. 34,	E1/2NE1/4SE1/4, W1/2NE1/4SE1/4;	X	X	X
Sec. 35.	NW1/4NW1/4SW1/4.	X	X	X
T. 8 S., R. 16 E.,				
Sec. 21,	NW1/4;	X	X	X
Sec. 24,	E1/2NE1/4;	x	-	X
Sec. 29,	SE1/4SW1/4.	X	X	X
T. 8 S., R. 17 E.,				
Sec. 19,	E1/2SW1/4 (R&PP).	X	X	X

Land for Sale Under
Alternatives:

Gila and Salt River Meridian, Arizona

	A	B	C
T. 8 S., R. 26 E., Sec. 10, NE1/4NE1/4	X	X	X
Sec. 20, lots 1 and 2;	X	X	X
Sec. 21, E1/2NE1/4NE1/4, W1/2NW1/4SW1/4	X	X	X
Sec. 29, lots 17, 19, 20,21, N1/2NW1/4NE1/4, W1/2E1/2NW1/4.	X	X	X
T. 8 S., R. 31 E., Sec. 11, E1/2NE1/4, NE1/4SE1/4; Sec. 35, E1/2E1/2.	X	X	X
T. 8 S., R. 32 E., Sec. 9, E1/2SE1/4; Sec. 10, W1/2SW1/4; Sec. 30, W1/2NW1/4SE1/4.	X	X	X
T. 12 S., R. 29 E., Sec. 29, SE1/4SW1/4.	X	X	X
T. 13 S., R. 30 E., Sec. 26, E1/2NE1/4SE1/4, N1/2SE1/4SE1/4, SW1/4SE1/4SE1/4, W1/2SE1/4SE1/4SE1/4; Sec. 35, SE1/4.	X	X	X
T. 13 S., R. 31 E., Sec. 20, SW1/4SW1/4; Sec. 29, W1/2NW1/4, NW1/4SW1/4; Sec. 31, lot 2.	X	X	X
T. 14 S., R. 30 E., Sec. 1, S1/4; Sec. 11, E1/2SE1/4; Sec. 13, NE1/4.	X	X	X
T. 14 S., R. 31 E., Sec. 4, SW1/4SW1/4, E1/2SE1/4; Sec. 5, SE1/4SE1/4; Sec. 6, lot 6, NE1/4SW1/4; Sec. 8, NE1/4NE1/4, NW1/4, E1/2SW1/4, W1/2SE1/4; Sec. 9, N1/2NW1/4; Sec. 17, NE1/4, SW1/4, SE1/4; Sec. 18, S1/2SE1/4; Sec. 19, SE1/4; Sec. 20, S1/2S1/2; Sec. 21, NE1/4, SE1/4; Sec. 22, NW1/4; Sec. 23, SW1/4NE1/4, W1/2SE1/4.		X	X
T. 14 S., R. 32 E., Sec. 19, lot 4.	X	X	X

		Land for Sale Under Alternatives:		
Gila and Salt River Meridian, Arizona		A	B	C
T. 15 S., R. 27 E.,				
Sec. 3,	SW1/4NW1/4, N1/2SW1/4;	X	x	x
Sec. 11,	SW1/4NE1/4.	X	x	x
T. 15 S., R. 28 E.,				
Sec. 4,	W1/2NE1/4SW1/4.	X	x	x
T. 16 S., R. 22 E.,				
Sec. 1,	S1/2SW1/4, SW1/4SE1/4 excluding mineral patent;	x	.	X
Sec. 2,	lots 12, 13, 14 excluding mineral patent, NW1/4NW1/4NW1/4 excluding mineral patent;	x	.	X
Sec. 3,	lots 5, 8, 9, 10, 14-18 incl.;	x	.	X
Sec. 4,	lot 5, N1/2SE1/4, SW1/4SE1/4;	x	.	X
Sec. 6,	lots 3-7 incl., SE1/4NW1/4, E1/2SW1/4;			X
Sec. 8,	N1/2SW1/4, SW1/4SW1/4, NW1/4SE1/4;	x	.	X
Sec. 9,	SW1/4SW1/4;	x	.	X
Sec. 10,	lots 1 and 2, SW1/4NE1/4, NW1/4SW1/4;	x	.	X
Sec. 12,	NE1/4SE1/4, S1/2SE1/4 excluding mineral patent;			X
Sec. 13,	lot 7, N1/2NE1/4, NE1/4NW1/4 excluding mineral patent;	x	.	X
Sec. 17,	SW1/4NE1/4, SE1/4NW1/4, SE1/4;	x	.	X
Sec. 18,	lot 4, N1/2SE1/4, SE1/4SE1/4;	x	.	X
Sec. 21,	W1/2NW1/4;	x	.	X
Sec. 22,	MS 2356;	x	.	X
Sec. 23,	lot 5, MS 2356;	x	.	X
Sec. 24,	lots 4-7 incl.	x	.	X
T. 16 S., R. 23 E.,				
Sec. 4,	SE1/4NW1/4, NE1/4SW1/4;	x	.	X
Sec. 6,	lots 7 and 8;	x	.	X
Sec. 23,	lot 2, W1/2NE1/4, S1/2, MS 585, unpatented mineral surveys;			X
Sec. 24,	MS 586.	x	.	X
T. 16 S., R. 27 E.,				
Sec. 30,	SE1/4SE1/4;	X	x	x
Sec. 31,	NE1/4NE1/4;	X	X	X
Sec. 34,	SE1/4NE1/4, NE1/4SE1/4.	X	x	x
T. 16 S., R. 30 E.,				
Sec. 14,	SW1/4NE1/4.	x	.	X
T. 17 S., R. 31 E.,				
Sec. 5,	SE1/4SE1/4.	x	.	X
T. 17 S., R. 32 E.,				
Sec. 6,	lot 2.	x	.	X
T. 18 S., R. 25 E.,				
Sec. 1,	lots 1 and 2, S1/2NE1/4, N1/2SW1/4,			

Land for Sale Under
Alternatives:

Gila and Salt River Meridian, Arizona

A B C

	SE1/4SW1/4, SE1/4, excluding mineral patent;			X
Sec. 4,	lot 4;	X	X	X
Sec. 5,	lots 1, 10, 11;	X	x	x
Sec. 6,	lots 6-10 incl., N1/2SE1/4, NE1/4SW1/4;			X
Sec. 7,	lots 1 and 2, E1/2NW1/4.			X
T. 19 S., R. 22 E.,				
Sec. 34,	SE1/4SE1/4SW1/4NE1/4, S1/2NW1/4SE1/4NE1/4, E1/2SE1/4NE1/4, N1/2SW1/4SE1/4NE1/4, SW1/4SW1/4SE1/4NE1/4, SE1/4SW1/4SE1/4NE1/4, NW1/4NW1/4NE1/4SE1/4, NE1/4NE1/4NW1/4SE1/4.	x	x	x
T. 19 S., R. 24 E.,				
Sec. 4,	lot 4;	x	x	x
Sec. 9,	SW1/4NE1/4, NE1/4SE1/4;	X	x	x
Sec. 12,	lots 1, 2, 3;	X	X	X
Sec. 13,	lots 1-9 incl.;	x	x	x
Sec. 14,	lot 2, MS 2738;	X	x	x
Sec. 26,	SW1/4.			X
T. 19 S., R. 25 E.,				
Sec. 4,	S1/2NE1/4, SE1/4;	-	-	X
Sec. 9,	NW1/4NE1/4, NE1/4NW1/4;	-	-	X
Sec. 17,	lots 1, 3, 9-15 incl., 17, 18;	-	-	X
Sec. 18,	N1/2SE1/4NE1/4;	-	-	X
Sec. 20,	lots 1-8 incl., SW1/4NW1/4, W1/2SW1/4, unpatented mineral survey;	-	-	X
Sec. 21,	lots 1-8 incl. excluding mineral patent, E1/2SE1/4 excluding mineral patent.	-	-	X
T. 19 S., R. 27 E.,				
Sec. 17,	SW1/4SW1/4.	x	.	X
T. 19 S., R. 28 E.,				
Sec. 4,	lot 4.	x	.	X
T. 20 S., R. 22 E.,				
Sec. 11,	lots 1-18			
Sec. 14,	lots 1-20	X	X	X
T. 20 S., R. 26 E.,				
Sec. 6,	lots 10-13 incl.			X
T. 21 S., R. 22 E.,				
Sec. 3,	lot 3.	X	x	x
T. 21 S., R. 23 E.,				
Sec. 7,	SE1/4SE1/4;	X	x	x
Sec. 8,	NW1/4NW1/4.	X	x	x

Land for Sale Under
Alternatives:

Gila and Salt River Meridian, Arizona	A	B	C
T. 22 S., R. 21 E., Sec. 15, SE1/4NE1/4; Sec. 20, E1/2NW1/4.	X X	X X	X X
T. 22 S., R. 23 E., Sec. 4, SW1/4SE1/4.	X	X	X
T. 22 S., R. 26 E., Sec. a, SW1/4SE1/4; Sec. 19, SE1/4NE1/4, E1/2SE1/4.	X X	X X	X X
T. 22 S., R. 28 E., Sec. 23, SW1/4NW1/4; Sec. 30, lot 5; Sec. 34, S1/2S1/2.	X X		X X X
T. 22 S., R. 29 E., Sec. 15, W1/2E1/2, E1/2SW1/4; Sec. 24, NW1/4NE1/4; Sec. 31, SE1/4SE1/4.	X X		X X X
T. 23 S., R. 23 E., Sec. a, lot 2; Sec. 9, lot 5; Sec. 28, SE1/4NE1/4.	X X X	X X X	X X X
T. 23 S., R. 25 E., Sec. 4, NW1/4SW1/4; Sec. 5, NE1/4SE1/4; Sec. 10, SE1/4NE1/4.	X X X	X X X	X X X
T. 23 S., R. 27 E., Sec. 28, NW1/4SW1/4.	X	X	X
T. 23 S., R. 28 E., Sec. 3, lots 1, 2, 4, SW1/4NW1/4, NW1/4SW1/4; Sec. 10, SE1/4NE1/4; Sec. 11, N1/2NW1/4.	X X X	X X X	X X X
T. 24 S., R. 25 E., Sec. 1, E1/2NE1/4SE1/4, NE1/4SE1/4SE1/4; Sec. 12, SE1/4NE1/4NE1/4, W1/2NE1/4NE1/4; Sec. 14, lots 1, 2, 3; Sec. 22, lots 1-4 incl.; Sec. 23, lots 2, 3, 4; Sec. 24, lots 1, 2.	X X X X X X	X X X X X X	X X X X X X
T. 24 S., R. 26 E., Sec. 6, lots 6,7, E1/2SW1/4, NW1/4SW1/4SE1/4; Sec. 19, lots 1-4 incl.; Sec. 24, lots 1-4 incl.	X X X	X X X	X X X

Land for Sale Under
Alternatives:

Gila and Salt River Meridian, Arizona

				A	B	C
T. 24 S., R. 28 E.,						
Sec. 11,	SE1/4NE1/4,	N1/2NW1/4NW1/4,	W1/2SW1/4;	x	x	x
Sec. 13,	E1/2NW1/4;			X	X	X
Sec. 22,	lots 1-4 incl.;			X	x	x
Sec. 23,	lots 1-4 incl.;			x	x	x
Sec. 24,	lots 1-4 incl.			X	x	x
T. 24 S., R. 29 E.,						
Sec. 1,	SW1/4NE1/4;			X	x	x
Sec. 5,	SE1/4SW1/4,	SE1/4SE1/4;		x	x	x
Sec. 6,	E1/2NE1/4;			X	x	x
Sec. 19,	lots 1-5 incl.			x	x	x
T. 24 S., R. 30 E.,						
Sec. 19,	lot 1;			X	x	x
Sec. 20,	lots 1-4 incl.			X	x	x

Appendix 6

Visual Resource Management Class Objectives

Bureau Manual 8410, Visual Resource Inventory (BLM 1986), places the management of visual resources (scenery) into four management classes.

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

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

Class III The objective of this class is to partially retain the existing character of the landscape. The level of activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

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

Appendix 7

Legal Description for Lands Proposed for Mineral Withdrawal

The following lands are proposed for withdrawal from mineral entry under the Mining Law of 1872.

Alternative A

Gila and Salt River Meridian, Arizona

1. Gila Box Outstanding Natural Area, Area of Critical Environmental Concern 2,411 acres

T. 5 S., R. 30 E.,
Sec. 30, lots 3 and 4, SW1/4SE1/4, E1/2SW1/4;
Sec. 31, lots 5, 6, 9-11, 15, 16, 18, 19, E1/2, SE1/4SW1/4;
Sec. 32, SE1/4SE1/4, W1/2SE1/4, W1/2.

T. 6 S., R. 30 E.,
Sec. 3, lots 9-12, S1/2NW1/4;
Sec. 4, lots 1 and 8-15, S1/2NW1/4;
Sec. 5, lot 1.

2. Table Mountain Research Natural Area, Area of Critical Environmental Concern 1,220 acres

T. 7 S., R. 18 E.,
Sec. 9, S1/2SW1/4SW1/4;
Sec. 15, SW1/4;
Sec. 16, all;
Sec. 17, E1/2NE1/4;
Sec. 22, W1/2.

3. Desert Grasslands Research Natural Area, Area of Critical Environmental Concern 380 acres

T. 3 S., R. 16 E.,
Sec. 16, lots 1-4, S1/2S1/2;
Sec. 21, N1/2NE1/4;
Sec. 22, N1/2NW1/4.

4. Bear Springs Badlands Area of Critical Environmental Concern 2,927 acres

T. 6 S., R. 23 E.,
Sec. 26, SW1/4SW1/4;
Sec. 27, S1/2NE1/4, S1/2;
Sec. 34, lots 3 and 4, NW1/4, N1/2SW1/4.

T. 7 S., R. 23 E.,
Sec. 1, SW1/4SW1/4, SE1/4SE1/4;
Sec. 2, S1/2;
Sec. 3, lots 3 and 4, S1/2NW1/4, S1/2;
Sec. 4, S1/2;
Sec. 10, N1/2;
Sec. 11, N1/2;
Sec. 12, N1/2.

5. Bowie Mountain Scenic Area of Critical Environmental Concern 2,230 acres
 - T. 15 S., R. 28 E.,
 - Sec. 11, S1/2;
 - Sec. 12, S1/2S1/2;
 - Sec. 13, N1/2, SE1/4, E1/2SW1/4, NW1/4SW1/4;
 - Sec. 14, NE1/4, NE1/4SE1/4, E1/2NW1/4SE1/4, NE1/4NW1/4, NE1/4SE1/4NW1/4.
 - T. 15 S., R. 29 E.,
 - Sec. 7, SW1/4SE1/4, SW1/4SW1/4;
 - Sec. 18, all;
 - Sec. 19, N1/2N1/2.
6. Coronado Mountain Research Natural Area, Area of Critical Environmental Concern 120 acres
 - T.3S., R.29E.
 - Sec. 31, NW1/4NE1/4, SW1/4NE1/4, NW1/4SE1/4, SW1/4SE1/4
7. Eagle Creek Bat Cave Area of Critical Environmental Concern 40 acres
 - T. 5 S., R. 29 E.,
 - Sec. 6, NE1/4SW1/4.
8. Fourmile Canyon Campground 159 acres
 - T. 7 S., R. 20 E.,
 - Sec. 18, lots 1 and 2, NE1/4NW1/4, SE1/4NW1/4.
9. Oliver Knoll Atmospheric Deposition Monitoring Station 10 acres
 - T. 4 S., R. 24 E.,
 - Sec. 22, SW1/4SE1/4SE1/4NE1/4, SE1/4SW1/4SE1/4NE1/4, NW1/2NE1/4NE1/4SE1/4, NE1/4NW1/4NE1/4SE1/4.
- 10 District Office Site (proposed) 12 acres
 - T. 7 S., R. 25 E.,
 - Sec. 24, that portion of the W1/2NW1/4NE1/4 lying north of the Golf Course Road.
- 11 Yuma Wash Archaeological Site 120 acres

No legal description will be listed, as required by the Archaeological Resources Protection Act.
- 12 Tres Alamos Archaeological Site 160 acres

No legal description will be listed, as required by the Archaeological Resources Protection Act.
13. Midway Cave Archaeological Site 40 acres

No legal description will be listed, as required by the Archaeological Resources Protection Act.

Alternative B

Gila and Salt River Meridian, Arizona

1. Gila Box Outstanding Natural Area, Area of Critical Environmental Concern 2,994 acres

T. 5 S., R. 29 E.,

- Sec. 11, SE1/4NE1/4, SE1/4;
- Sec. 12, lot 1 and 5-16, SW1/4, S1/2NW1/4;
- Sec. 14, N1/2, SW1/4;
- Sec. 15, S1/2NE1/4, SE1/4, S1/2SW1/4;
- Sec. 16, S1/2SE1/4;
- Sec. 20, S1/2S1/2;
- Sec. 21, E1/2, SW1/4;
- Sec. 22, all;

T. 5 S., R. 30 E.,

- Sec. 7, lots 3, 4, 6, and 7;
- Sec. 30, lots 3 and 4, SW1/4SE1/4, E1/2SW1/4;
- Sec. 31, lots 5, 6, 9-11, 15, 16, 18, 19, E1/2, SE1/4SW1/4;
- Sec. 32, SE1/4SE1/4, W1/2SE1/4, W1/2.

T. 6 S., R. 30 E.,

- Sec. 3, lots 9-12, S1/2NW1/4;
- Sec. 4, lots 1 and 8-15, S1/2NW1/4;
- Sec. 5, lot 1.

2. Table Mountain Research Natural Area, Area of Critical Environmental Concern 1,220 acres

T. 7 S., R. 18 E.,

- Sec. 9, S1/2SW1/4SW1/4;
- Sec. 15, SW1/4;
- Sec. 16, all;
- Sec. 17, E1/2NE1/4;
- Sec. 22, W1/2.

3. Desert Grasslands Research Natural Area, Area of Critical Environmental Concern 790 acres

T. 3 S., R. 16 E.,

- Sec. 16, lots 1-4, S1/2S1/2;
- Sec. 21, N1/2NE1/4;
- Sec. 22, N1/2NW1/4.

T. 6 S., R. 19 E.,

- Sec. 17, S1/2SW1/4SW1/4, SW1/4SE1/4SW1/4;
- Sec. 20, W1/2NE1/4NW1/4, NW1/4NW1/4.

T. 8 S., R. 18 E.,

- Sec. 22, E1/2SE1/4;
- Sec. 23, W1/2W1/2SW1/4;
- Sec. 26, W1/2W1/2NW1/4;
- Sec. 27, E1/2E1/2.

4. Bear Springs Badlands Area of Critical Environmental Concern 4,127 acres

T. 6 S., R. 23 E.,
Sec. 26, SW1/4SW1/4;
Sec. 27, S1/2NE1/4, S1/2;
Sec. 34, lots 1-4, N1/2, N1/2S1/2;
Sec. 35, lot 4, W1/2NW1/4, NW1/4SW1/4.

T. 7 S., R. 23 E.,
Sec. 1, SW1/4SW1/4, SE1/4SE1/4;
Sec. 2, lots 3 and 4, S1/2NE1/4, S1/2NW1/4, S1/2;
Sec. 3, lots 1-4, S1/2N1/2, S1/2;
Sec. 4, lots 1-4, S1/2N1/2, S1/2;
Sec. 10, N1/2;
Sec. 11, N1/2;
Sec. 12, N1/2.

5. Coronado Mountain Research Natural Area, Area of Critical Environmental Concern 120 acres

T.3S.R.29E
Sec. 31 NW1/4NE1/4, SW1/4NE1/4, NW1/4SE1/4 SW1/4SE1/4

6. Eagle Creek Canyon Outstanding Natural Area, Area of Critical Environmental Concern 3,642 acres

T. 4 S., R. 28 E.,
Sec. 3, lot 3, S1/2NW1/4, SW1/4;
Sec. 4, lots 1-4, S1/2N1/2, S1/2;
Sec. 5, lots 1 and 2, SE1/4NE1/4, E1/2SE1/4;
Sec. 9, E1/2E1/2;
Sec. 23, SW1/4SW1/4;
Sec. 25, SW1/4SE1/4, SE1/4SW1/4;
Sec. 26, NW1/4SE1/4, N1/2SW1/4, SW1/4SW1/4, NW1/4;
Sec. 35, SE1/4, NW1/4.

T. 5 S., R. 28 E.,
Sec. 1, lots 1 and 4, SE1/4NE1/4, S1/2SE1/4, E1/2SW1/4, S1/2NW1/4;
Sec. 12, N1/2NE1/4;
Sec. 13, E1/2NE1/4.

T. 5 S., R. 29 E.,
Sec. 6, NE1/4SW1/4;
Sec. 7, E1/2E1/2, NW1/4NE1/4, W1/2W1/2;
Sec. 18, NE1/4NE1/4, SE1/4SE1/4, W1/2SW1/4, NE1/4SW1/4;
Sec. 19, E1/2E1/2, SW1/4NE1/4, SW1/4SW1/4, NW1/4NW1/4;
*Sec. 30, W1/2NE1/4.

*This 80-acre parcel is also located in the Gila Box ONA ACEC.

7. Fourmile Canyon Campground 159 acres

T. 7 S., R. 20 E.,
Sec. 18, lots 1 and 2, NE1/4NW1/4, SE1/4NW1/4.

8. Oliver Knoll Atmospheric Deposition Monitoring Station 10 acres

T. 4 S., R. 24 E.,
Sec. 22, SW1/4SE1/4SE1/4NE1/4, SE1/4SW1/4SE1/4NE1/4, NW1/4NE1/4NE1/4SE1/4,
NE1/4NW1/4NE1/4SE1/4.

9. District Office Site (proposed) 12 acres
 T. 7 S., R. 25 E.,
 Sec. 24, that portion of the W1/2NW1/4NE1/4 lying north of the Golf Course Road.
10. Yuma Wash Archaeological Site 120 acres
 No legal description will be listed, as required by the Archaeological Resources Protection Act.
11. Tres Alamos Archaeological Site 160 acres
 No legal description will be listed, as required by the Archaeological Resources Protection Act.
12. Midway Cave Archaeological Site 40 acres
 No legal description will be listed, as required by the Archaeological Resources Protection Act.

Alternative C

Gila and Salt River Meridian, Arizona

1. Bowie Mountain Scenic Area of Critical Environmental Concern 2,562 acres
 T. 15 S., R. 28 E.,
 Sec. 11, S1/2;
 Sec. 12, S1/2S1/2;
 Sec. 13, N1/2, SE1/4, E1/2SW1/4, NW1/4SW1/4;
 Sec. 14, NE1/4, NE1/4SE1/4, E1/2NW1/4SE1/4, NE1/4NW1/4, NE1/4SE1/4NW1/4.
 T. 15 S., R. 29 E.,
 Sec. 7, SW1/4SE1/4, SW1/4SW1/4;
 Sec. 18, all;
 Sec. 19, N1/2N1/2.
2. Fourmile Canyon Campground 159 acres
 T. 7 S., R. 20 E.,
 Sec. 18, lots 1 and 2, NE1/4NW1/4, SE1/4NW1/4.
3. Oliver Knoll Atmospheric Deposition Monitoring Station 10 acres
 T. 4 S., R. 24 E.,
 Sec. 22, SW1/4SE1/4SE1/4NE1/4, SE1/4SW1/4SE1/4NE1/4, NW1/4NE1/4NE1/4SE1/4,
 NE1/4NW1/4NE1/4SE1/4.
4. District Office Site (proposed) 12 acres
 T. 7 S., R. 25 E.,
 Sec. 24, that portion of the W1/2NW1/4NE1/4 lying north of the Golf Course Road.

Appendix 8

Legal Description of Lands Proposed for Mineral Leasing Withdrawal

Alternative A

No lands are proposed for withdrawal from mineral leasing under this alternative.

Alternative B

No lands are proposed for withdrawal from mineral leasing under this alternative.

Alternative C

No lands are proposed for withdrawal from mineral leasing under this alternative.

Appendix 9

Water Quality Testing Sites

Water Quality Testing Sites Alternatives A, B, and C

Site Name	Legal Description	Type of Analysis	Reason for Sampling
Aravaipa Creek	T. 6 S., R19 E., Sec. 19, SW1/4NE1/4	chemical/ biological	public health/ Unique Waters
Aravaipa Creek	T. 6 S., R. 17 E., Sec. 13, NW1/4SE1/4	chemical/ biological	public health/ Unique Waters
Aravaipa Creek	T. 6 S., R. 18 E., Sec. 16, NW1/4NW1/4	chemical/ biological	public health/ Unique Waters
Aravaipa Creek	T. 6 S., R. 18 E., Sec. 17, NW1/4NE1/4	chemical/ biological	public health/ Unique Waters
Virgus Canyon	T. 6 S., R. 18 E., Sec. 27, SE1/4	chemical/ biological	data base
Hell's Half Acre Canyon	T. 6 S., R. 18 E., Sec. 18, SW1/4SW1/4	bacterio- logical	public health
Javelina Canyon	T. 6 S., R. 18 E., Sec. 7, SE1/4SE1/4	bacterio- logical	public health
Horse Camp Canyon	T. 6 S., R. 18 E., Sec. 9, SW1/4SW1 /4	bacterio- logical	public health
Booger Canyon	T. 6 S., R. 18 E., Sec. 15, NE1/4NW1/4	bacterio- logical	public health
Paisano Canyon	T. 6 S., R. 18 E., Sec. 14, NW1/4NW1/4	bacterio- logical	public health
Hell Hole Canyon (Deer Creek)	T. 6 S., R. 18 E., Sec. 13, SW1/4SW1/4	bacterio- logical	public health
Parsons Canyon	T. 6 S., R. 18 E., Sec. 24, SW1/4NW1/4	bacterio- logical	public health
Turkey Creek	T. 6 S., R. 19 E., Sec. 19, NW1/4SE1/4	bacterio- logical	public health
Fourmile Canyon Campground	T. 7 S., R. 19 E., Sec. 18, NE1/4NW1/4	chemical/ biological	public health

Site Name	Legal Description	Type of Analysis	Reason for Sampling
Aravaipa Well	T. 7 S., R. 19 E., Sec. 7, NE1/4SE1/4	chemical/ biological	public health
Aravaipa Well	T. 6 S., R. 17 E., Sec. 24, NW1/4SW1/4	chemical/ biological	public health
Bonita Creek	T. 5 S., R. 27 E., Sec. 3, SW1/4SE1/4	chemical/ biological	Unique Waters
Bonita Creek	T. 5 S., R. 27 E., Sec. 36, SE1/4NW1/4	chemical/ biological	Unique Waters
Bonita Creek	T. 6 S., R. 28 E., Sec. 16, NE1/4SW1/4	chemical/ biological	Unique Waters
San Pedro River	T. 23 S., R. 22 E., Sec. 9, SE1/4SE1/4	chem/biological/ bacteriological	public health/ data base
San Pedro River	T. 20 S., R. 21 E., Sec. 3, SW1/4NW1/4	chem/biological/ bacteriological	public health/ data base
Hereford Well	T. 23 S., R. 22 E., Sec. 10, SE1/4SW1/4	chem/biological/ bacteriological	public health
Hereford Well	T. 23 S., R. 22 E., Sec. 16, NW1/4SW1/4	chem/biological/ bacteriological	public health
Boquillas Ranch Well	T. 20 S., R. 21 E., Sec. 15, SE1/4NE1/4	chemical/ biological	public health
San Pedro House Well	T. 22 S., R. 22 E., Sec. 6, SE1/4NE1/4	chemical/ biological	public health
Fairbank Well	T. 20 S., R. 21 E., Sec. 3, SW1/4NE1/4	chem/biological/ bacteriological	public health
Fairbank Well	T. 20 S., R. 21 E., Sec. 3, NW1/4SE1/4	chem/biological/ bacteriological	public health
Redfield Canyon	T. 11 S., R. 20 E., Sec. 32, NW1/4SW1/4	chemical/ biological	Unique Waters
Bass Canyon	T. 12 S., R. 20 E., Sec. 6, SE1/4NE1/4	chemical/ biological	Unique Waters
Hot Springs Canyon	T. 12 S., R. 20 E., Sec. 32, SE1/4SE1/4	chemical/ biological	Unique Waters
Hot Well	T. 10 S., R. 28 E., Sec. 36, NE1/4NE1/4	chemical/ biological	public health

Appendix 10

Reasonably Foreseeable Development for Leasable Minerals Activities

The only leasable minerals with potential for significant development during the life of this plan are oil and gas and geothermal energy. No significant reserves of other leasable minerals, such as coal, helium, potassium, phosphate or sodium are known to occur within the District.

One factor that affects future development is the availability of lands for exploration and development. Under current management practices (Alternative D), the only constraints on public lands (other than wilderness areas) are a No Surface Occupancy stipulation for several riparian zones in the District. This stipulation would have relatively minor impacts on future development because these riparian zones represent narrow tracts of land (up to one-quarter mile on each side of the riparian zone) that can still be reached by the drill bit by using standard directional drilling practices. The preferred alternative (Alternative A) would expand the use of the No Surface Occupancy stipulations to include several Areas of Critical Environmental Concern, more riparian zones, three archaeological sites, one lambing area, and four administrative sites. All of these except the Areas of Critical Environmental Concern represent small tracts of land that probably would have little or no impact on future leasable activities. The Areas of Critical Environmental Concern that would have this stipulation are Gila Box, Bear Springs Badlands, Guadalupe Canyon, Bowie Mountain and Eagle Creek Bat Cave.

Another factor that affects future development is the potential for leasable minerals. With two exceptions, potential for oil and gas and geothermal energy throughout the District is none, low or unknown. None of these resources have been commercially produced in the District, so any ratings of moderate or high potential would be speculative at best. Several portions of the District have been classified as being "prospectively valuable" for oil and gas or geothermal energy but these classifications are based on geologic conditions rather than any actual discoveries or production. Thus, these areas are given a low potential rating, and the rest of the district is given a none or unknown potential rating.

The exceptions are for geothermal energy resources in the Clifton area (classified as "prospectively valuable"). This area contains the only two Known Geothermal Resource Areas in the state, the Clifton and the Gillard. Although there has been no commercial production from these areas and the Bureau has no active geothermal leases in the District, these Known Geothermal Resource Areas contain the hottest springs in the state. Federal lands near the Clifton geothermal area are subject to standard lease conditions but the Gillard geothermal area is in the Gila Box Area of Critical Environmental Concern, subject to the No Surface Occupancy stipulation. Due to the lack of any production, these Known Geothermal Resource Areas are given a moderate potential rating.

Since no oil and gas or geothermal energy has been produced from within the District, the degree of surface disturbance occurring as a result of field development is difficult to determine. In order to assess the cumulative environmental effects of issuing leases, several assumptions will be made concerning both hypothetical exploration and development of these resources in the District. These assumptions are as follows:

1. With the exception of wilderness areas and designated National Conservation Areas, unleased areas would continue to be available for leases.
2. Geologic history, source rock, reservoir rock, thermal maturation, sealing and trapping are assumed to all be appropriate for hydrocarbon origination, migration, accumulation and preservation in the sedimentary rocks at depths within the district. This is especially true for the Pedregosa basin, located in the southeastern portion of the District (see Greenwood, et al., 1977).
3. Any economically recoverable oil and gas accumulations or geothermal resources occurring under leased lands will be developed.
4. Exploration would continue at the same rate it has since exploration began in 1910.

5. For this analysis, let's assume that an oil and gas field will be developed.
6. Disturbance associated with each well pad and access would average 8 acres.
7. Reclamation of disturbed areas would be successful, and all reclamation would commence immediately following cessation of exploration operations or depletion of the resource. Reclamation, consisting of reshaping the surface, soil stabilization and reestablishment of vegetation would be completed within 10 years.
8. Laws and regulations concerning the protection of other resource values including cultural resources and threatened or endangered plant and animal species would be complied with and would be effective.

Based on the above assumptions, one oil and gas exploration well would be drilled on the average of every one and one-half years in the District. This would result in approximately 10 exploration wells being drilled over the life of the plan. Surface disturbance resulting from this exploration would total approximately 80 acres. Assuming that no production would be established from any of these exploratory wells, reclamation would begin immediately following exploration operations. Reclamation would be successful and all disturbed areas would be fully reclaimed within 10 years of exploration operations.

For the purpose of this analysis, it is assumed that one oil or gas field would be developed over the life of the plan. Assuming a field size of 3,500 acres and an average well spacing of 80 acres, approximately 44 wells would be required to develop the hypothetical field. Assuming 8 acres disturbed per well, approximately 350 acres would be disturbed through field development.

Appendix 11

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, the inferred geologic processes and the reported occurrences or valid geochemical/geophysical anomaly indicate moderate potential for accumulation and preservation of mineral resources.
- H The geologic environment, the inferred geologic processes, the reported mineral occurrences and/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

- A The available data are insufficient and/or cannot be considered as direct or indirect evidence to support or refute the possible existence of mineral resources within the respective area.
- 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 is 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.

** As used in this classification, 'potential' refers to potential for the presence (occurrence) of a concentration of one or more energy and/or mineral resources. 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 economical.*

Appendix 12

Cultural Resource Management Objectives and Use Categories

Cultural Resource Management Objectives

All cultural resource properties, both known and projected to be present, will be managed under each alternative according to the management objectives established for the property. The management objectives are determined by the type of values (scientific, public use) held by the property. A site may have more than one management objective assigned and the objectives do not have to be fully compatible. The management objectives established for a given site may be changed as new data is acquired or management goals change. The following management objectives were established for the RMP.

1. **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.
2. **Manage for Public Values.** Cultural resources included under this objective possess identified socio-cultural, education, recreation or other public values. Their locations are to be managed in a manner that gives adequate consideration to these values.
3. **Manage for Conservation.** Cultural resources included under this objective have overriding scientific or historic importance. They are to be managed to maintain them in their present condition and to protect them from potential conflicting land or resource uses.

Cultural Resource Use Categories

All cultural properties will be allocated to uses. A cultural property should generally be allocated to a single use-the primary intended use-and management prescriptions formed to allow non-conflicting uses. Use allocation will be deferred to Cultural Resource Management Plans. The following are the Bureau's Cultural Resource Use Categories.

- A. **Scientific Use** is a category that applies to any cultural property determined to be suitable for consideration as the subject of scientific or historic study utilizing current research techniques. This includes studies resulting in its physical alteration and signifies that the property need not be conserved in the face of an appropriate research or data recovery (mitigation) proposal. (Management Objective: Manage for Information Potential.)
- B. **Management Use** is a category that may be applied to any cultural property considered most useful for controlled experimental study resulting in its physical alteration. This is conducted by BLM or other entities concerned with the management of cultural properties. Expenditure of cultural properties or cultural resource data may be justified for purposes of obtaining specific information ultimately aiding in the management of other cultural properties. Experimental study may be aimed toward a better understanding of kinds and rates of natural or human-caused deterioration, effectiveness of protection measures and similar lines of inquiry. (Management Objective: Manage for Information Potential.)
- C. **Public Use** is a category that may be applied to any cultural property found to be appropriate for consideration as an interpretive exhibit-in-place, a subject of supervised participation in scientific or historic study, or related education and recreation uses by members of the general public. (Management Objective: Manage for Public Values.)

- D. Socio-cultural Use is a category to be applied to any cultural resource that is perceived by a specified social and/or cultural group as having attributes contributing to maintaining the heritage or existence of that group. This use category signifies that the cultural resource is to be managed in a way that takes those attributes into account, as applicable. (Management Objective: Manage for Public Values.)
- E. Conservation for Future Use is a category reserved for cultural resources that are unusual because they are scarce; have research potential that surpasses the current state-of-the-art; or are of singular historic importance, architectural interest or comparable reasons. Therefore, they are not currently appropriate for consideration as the subject of scientific or historic study resulting in their physical alteration. They are considered worthy of segregation from other land or resource uses threatening the maintenance of their present condition and will remain in this use category until the following provisions are met in the future. (Management Objective: Manage for Conservation.)
1. No other property exists that could yield the information required to meet the priority regional (southeast Arizona) research objectives.
 2. All properties of this type allocated to public use have been developed to their greatest capacity for public use and no other property exists that could meet a high public need and demand for public use.
 3. The change in allocation to another use is determined by the District Manager to be the best use of the property at the time to meet the District's and the Bureau's cultural resource management goals.
 4. Another property has been discovered that would be as suitable for allocation to conservation use and it will be so allocated.
 5. The property was allocated to conservation use because its research potential surpassed the current state of the art and research methodologies have developed to the point where the property's research values can now be appropriately recovered.
- F. Discharged Use means either: (1) that a cultural resource that previously qualified for assignment to any of the categories defined above no longer possesses the qualifying characteristics for that use or for assignment to an alternative use . or (2) that a cultural property's scientific use potential was so slight that it was exhausted at the time the property was recorded and no alternative use is appropriate **. Allocation to discharged use also means that records pertaining to the property represent its only remaining importance and that its location no longer presents a management constraint for competing land uses.

** A small, shallow rock-shelter could be fully excavated, thereby realizing its scientific use potential, or it could be completely looted, destroying its potential. Knowledge that once existed is still important and it would continue to be represented in the inventory records.*

*** A small lithic scatter could be sufficiently recorded on discovery that no further field study could be needed. Because field inspection and recording of individual cultural properties must precede the recommendation and allocation, classes of unrecorded cultural properties may not be allocated to discharged use in advance of discovery.*

Appendix 13

Desert Tortoise Categorization Criteria

These are goals and criteria for three categories of desert tortoise habitat areas. The criteria are ranked by importance to the categorization process, with Criterion 1 being the most important.

Items	Category I Habitat Areas	Category II Habitat Areas	Category III Habitat Areas
Category Goals	Maintain stable, viable populations & protect existing tortoise habitat values; increase populations, where possible.	Maintain stable, viable populations & halt further declines in tortoise habitat values.	Limit tortoise habitat and population declines to the extent possible by mitigating impacts.
Criterion 1	Habitat area essential to maintenance of large, viable populations.	Habitat area may be essential to maintenance of viable populations.	Habitat area not essential to maintenance of viable populations.
Criterion 2	Conflicts resolvable.	Most conflicts resolvable	Most conflicts not resolvable.
Criterion 3	Medium to high density or low density contiguous with medium or high density.	Medium to high density or low density contiguous with medium or high density.	Low to medium density not contiguous with medium or high density.
Criterion 4	Increasing, stable or decreasing population.	Stable or decreasing population.	Stable or decreasing population.

Source: Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan.