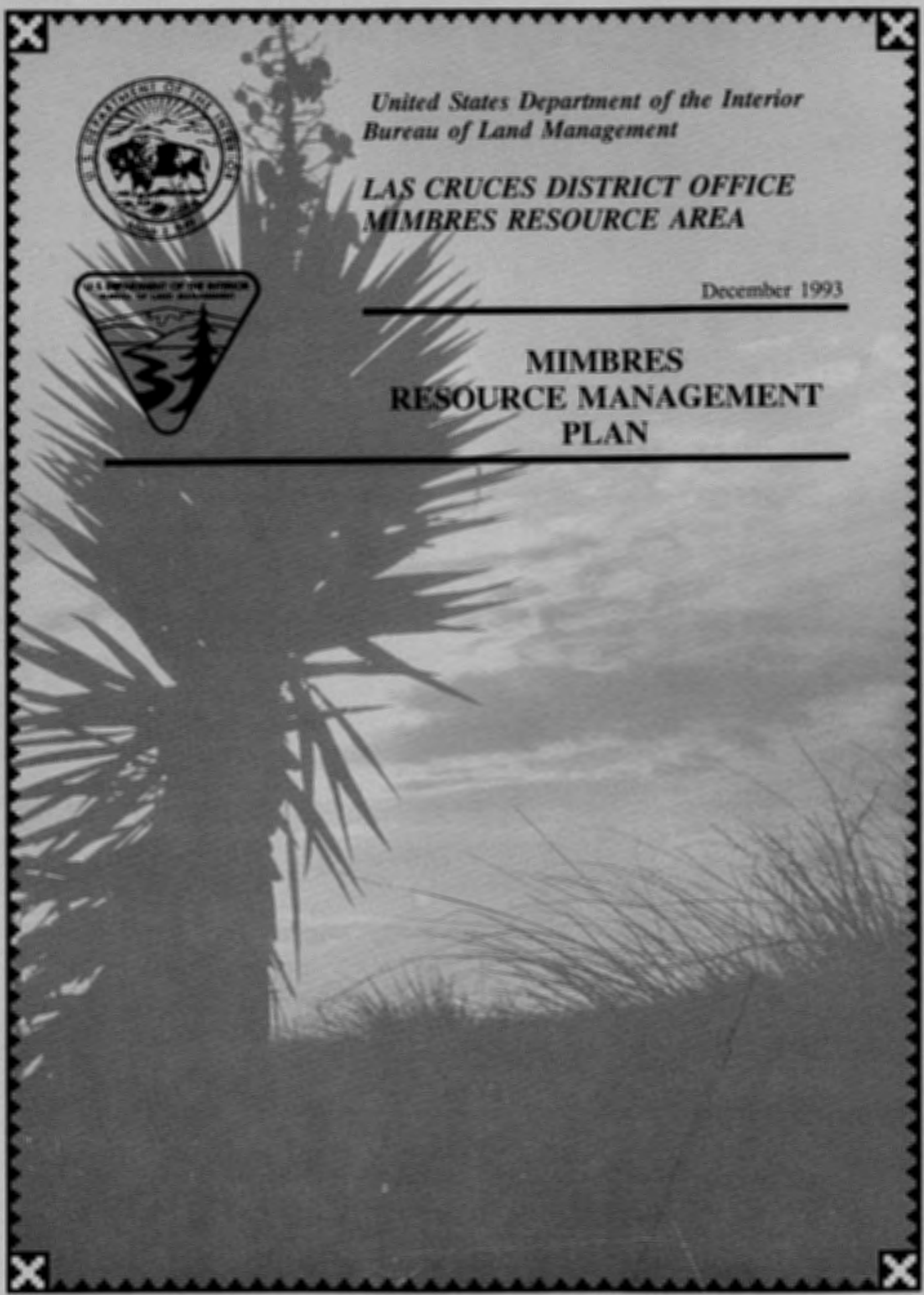

United States Department of the Interior
Bureau of Land Management

LAS CRUCES DISTRICT OFFICE
MIMBRES RESOURCE AREA

December 1993

MIMBRES RESOURCE MANAGEMENT PLAN

BUREAU OF LAND MANAGEMENT

The Bureau of Land Management is responsible for the balanced management of the Public Land and resources and their various values so that they are considered in the combination that will best serve the needs of the American people. BLM management is based upon 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 nonrenewable resources. These resources include recreation, range, timber minerals, watershed, fish and wildlife, wilderness and natural, scenic, scientific and historical values.

BLM-NM-PT-93-009-4410

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Las Cruces District Office
1800 Marquess St.
Las Cruces, New Mexico 88005

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

1600 (036)

December 1993

Dear Reader:

This document is the culmination of the Mimbres Resource Management Plan (RMP) preparation process. It contains both the Approved Resource Management Plan and the Record of Decision (ROD). Although this may mark the completion of the land use planning stage, it denotes the beginning of the plan implementation stage.

Signed on April 30, 1993, the ROD for the Mimbres RMP records the acceptance of the Proposed RMP (with some modification) as the land use plan for the Mimbres Resource Area, and will shape the management direction of its resources for the next 20 years. Since the approval of the ROD, we have begun implementing the RMP.

The Approved RMP as presented in this document will serve as a basis from which both the BLM and the public can track the implementation of the Plan. You will continue to be informed of the progress in implementation through the publication of an Annual RMP Update. This annual update will identify completed actions, as well as actions planned for the coming year, thus enabling you to be involved in specific land management actions.

Your continuing interest and involvement in BLM's management of the public land and resources within the Mimbres Resource Area will be the key to successful implementation of the RMP. We look forward to our continued partnership in managing your public land. If you desire more specific information or would like to become more involved in the resource management process, we encourage you to write to the above address or call (505) 525-4352.

Sincerely,

Robert R. Calkins
Acting Area Manager
Mimbres Resource Area

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LIST OF MAPS (concluded)

LIST OF FIGURES

RECORD OF DECISION

RECORD OF DECISION

INTRODUCTION

This document formally records the Bureau of Land Management's decisions for managing approximately 3 million surface acres of public land and 4.1 million subsurface acres in the Mimbres Resource Area. The Mimbres Resource Area encompasses BLM-administered public land in Dona Ana, Luna, Hidalgo, and Grant Counties in southwestern New Mexico.

DECISION

The proposed decisions as described in the Proposed Mimbres Resource Management Plan (RMP)/Final Environmental Impact Statement (EIS), dated October 1992 (as modified in the Modifications and Corrections Section, ROD page 4 and 5) are selected as the Approved Plan.

The RMP was prepared under the regulations for implementing the Federal Land Policy and Management Act (FLPMA) of 1976 [43 CFR 1600]. The EIS was prepared for this plan in compliance with the National Environmental Policy Act (NEPA) of 1969.

Approval of this plan constitutes formal designation of 21 Areas of Critical Environmental Concern (ACECs), 4 Section 202 Wilderness Study Areas (WSAs), 4 Research Natural Areas (RNAs), and 2 Wild and Scenic River Study Areas. The plan also makes decisions concerning land ownership adjustments, vehicle designations, access, rights-of-way, minerals, recreation, cultural resources, wildlife, watershed, and vegetation management.

ALTERNATIVES CONSIDERED

Four Alternatives were described and analyzed in the Draft RMP/EIS. These Alternatives outlined the management of resources or programs that were considered issues or concerns by BLM and the public. The Alternatives in the Draft Plan represented a reasonable range of possible management options to resolve the identified issues and concerns.

The management of resources and programs not at issue was described in the Continuing Management Guidance section of the plan. The Continuing Management Guidance described how these resources and programs would continue to be managed, regardless of the Alternative selected.

Current Management (No Action) Alternative

This Alternative described the current management of resources and programs at issue, based upon existing land use plans. This Alternative would continue current management, however it does not resolve identified issues and concerns.

Resource Preservation Alternative

This Alternative described the resolution of issues and concerns in a manner that placed primary emphasis on maintaining or improving environmental values. This Alternative would have changed current management to emphasize noncommodity resources and programs such as wilderness, cultural resources, wildlife, and visual resources.

Resource Production Alternative

This Alternative described the resolution of issues and concerns in a manner that placed primary emphasis on making public land available for use and development. This Alternative would have changed current management to emphasize commodity production of resources and programs such as livestock grazing and mining.

Resource Conservation Alternative

This Alternative was the Preferred Alternative in the Draft RMP/EIS and with modification became the Proposed Plan. This Alternative described the resolution of issues and concerns in a manner that provides for a combination of resource uses that allows for economic development and commodity production while protecting important environmental values.

DECISION RATIONALE

The decision to choose the Proposed Plan is based on: 1) the need to resolve the issues and management concerns identified through the planning process, 2) input received from the public, other Federal and State agencies, and State and local governments, 3) planning criteria listed in Chapter 1 of the Proposed Plan, and 4) the environmental analysis of each Alternative considered (contained in Chapter 4 of the Draft RMP/EIS). The Proposed Plan is considered by BLM to best meet the legal mandate of the Federal Land Policy and Management Act for management of the public land under the principles of multiple use and sustained yield.

MONITORING

The Approved RMP will provide the framework and guidelines for making specific management decisions in the Resource Area for the next 15-20 years. A monitoring program will be developed and included in the Approved RMP. The monitoring program will include evaluation standards for implementing the plan, ensuring conformance with the plan, and determining whether mitigation measures which have been built into the plan are effective in minimizing environmental impacts. A formal evaluation will be conducted every 5 years to determine the adequacy of the RMP and the need for revision. The plan may be amended as needed at any time with full public involvement.

PUBLIC INVOLVEMENT

Public opinion and input have been sought throughout the planning and decision-making process. In order to continue this process during plan implementation, an annual RMP/Rangeland Program Summary (RPS) Update will be prepared to inform the public of the progress made in implementation of the RMP. This document will also provide information on planned actions for the coming year and explain how the public can become involved in specific land management activities. A public meeting or open house may be held in conjunction with issuing the annual Update. In addition, BLM plans to brief each County Commission on a quarterly basis to discuss the RMP or any other issues affecting the Counties.

PROTEST RESOLUTION

A total of 16 "letters of protest" was received by the Director. Three were determined to be invalid for failure to follow the requirements for protests in the planning regulations (43 CFR 1610.5-2). One letter was withdrawn by the protester following agreement with the Mimbres Resource Area on text changes for the Approved Plan.

The Director then addressed issues in the 12 remaining letters, dismissing the protests with only minor text changes for the Approved Plan. Several protesters raised valid concerns which were addressed by the New Mexico State Director in a written response.

CONSISTENCY

There are no known or identified inconsistencies with the plans, programs, and policies of other Federal agencies and of State and local governments.

PUBLIC AVAILABILITY OF THIS DOCUMENT

All those names on the current RMP mailing list were mailed copies of this ROD and will also be mailed copies of the Approved RMP. In addition, review copies of these documents will be available at all BLM offices in New Mexico as well as most public libraries. Additional copies of the documents are available upon request at the address at the top of the cover letter.

CONCLUSION

This Record of Decision constitutes the final Bureau action on approving the Mimbres RMP. Any person adversely affected by a decision of the Bureau Officer in implementing any portion of this RMP may appeal such action to the Interior Board of Land Appeals pursuant to 43 CFR 4.400 at the time the action is proposed for implementation.

APPROVAL

Monte G. Jordan
Acting State Director, New Mexico
Bureau of Land Management

APR 30 1993
Date

MODIFICATIONS AND CORRECTIONS

The following modifications and corrections are a result of comments and protests received on the Proposed Plan. These changes will be carried forward in the Approved Plan.

Summary

P. S-14, Column 1, Proposed Plan, Recreation. Delete "acquisition of six State Parks."

Purpose and Need

P. 1-6, Access, Column 2, last two lines. Delete "and as a last resort, condemnation."

Chapter 2 - Continuing Management Guidance

P. 2-37, Column 1, paragraph 2, line 27. Add the following paragraph:

"The specific land disposal area described as T. 20 S., R. 3 E., Sections 28 S1/2, 33, and 34; T. 21 S., R. 3 E., Sections 3, 4, 7 SE1/4, 8, 9, 10, 14 N1/2, 15 N1/2, 17, and 18 will be retained. A right-of-way (NMNM66383) has been granted to the National Aeronautics and Space Administration and a subsequent Memorandum of Understanding (NM-030-45) was signed in April 1990 reserving the public land for ground water monitoring wells. Based on the ground water studies, these lands may need to be withdrawn from multiple use management to protect public safety."

P. 2-38, Column 1, paragraph 5, last line. After "Appendix H-2", add:

"The route identified would be adhered to as much as possible in the development of the trail, but trail development would not necessarily be limited to the corridor. If deviation from the identified corridor is necessary because of water needs or to facilitate easement acquisition, this would be addressed through the plan amendment process."

P. 2-44, Column 2 under Land Treatments, line 7. Beginning with the word "Creosotebush", delete all text through line 18 ending with "breaks". Replace with the following:

"Chemical herbicides will be used for control of noxious weeds, during ROW maintenance, and control of competing or unwanted vegetation consistent with the New Mexico Record of Decision (ROD) for Vegetation Treatment on BLM Lands in the Thirteen Western States (August 1991). Such actions will be identified in site-specific environmental analysis on proposed vegetation control plans, which will be documented using an interdisciplinary approach.

Minimum width buffer strips and other criteria stipulated in the New Mexico ROD (see page 10) will provide an adequate level of protection in almost all situations. For those situations when additional protection is warranted, the buffer may be extended or other criteria developed that is appropriate to the local area.

Within the Mimbres Resource Area, additional protection of perennial streams will be provided by utilizing a 0.5 mile buffer when pelletized Tebuthiuron is used to treat creosotebush, mesquite, and mixed desert shrub, except during ROW maintenance operations. For economic reasons, usually only areas two sections in size or greater (1,240 acres) would be treated. Pelleted Tebuthiuron is also not effective and would not be used on the following range sites: bottomland, draw, clay, salt flats, salty bottomland, igneous hills, limestone hills, malpais, and breaks."

P. 2-47, Column 1, paragraph 2. Delete the last six lines.

Chapter 3 - Affected Environment

P. 3-2, Column 1, paragraph 2, line 4. Add in parentheses "volcanic tuff, granite, monzonite."

P. 3-9, Column 1, paragraph 3, line 10. "Harky" should be "Harkey."

P. 3-10, Column 1, paragraph 3, line 5. Add "Uvas and Chaparral."

P. 3-24, Column 2, paragraph 2, line 4. "12,000 B.C." should be "9,500 B.C."

P. 3-26, Column 2, paragraph 2, line 18. "chamisa" should be "rabbitbrush."

Chapter 4 - Environmental Consequences

P. 4-28, Table 4-7. Add the following: "Allotment Number 15001, W. F. Blythe, 1024."

Appendix H

P. H-12, Central Peloncillo Mountains ACEC map. This map has several land status and boundary errors which will be corrected in the Approved Plan.

P. H-25, Gila Middle Box ACEC map. "T-18W and T-17W" should be "R-18W and R-17W."

Page following H-36, Organ/Franklin Mountains ACEC map. Add lands acquired from New Mexico State University to base map and amend boundary. The Range numbers at the bottom of the map should be R2E, R3E, R4E, and R5E.

P. H-38, Robledo Mountains ACEC, Column 2, last line. Add "semi-primitive motorized."

Page following H-41, Uvas Valley ACEC map. Delete the Luna/Dona Ana County line from the map.

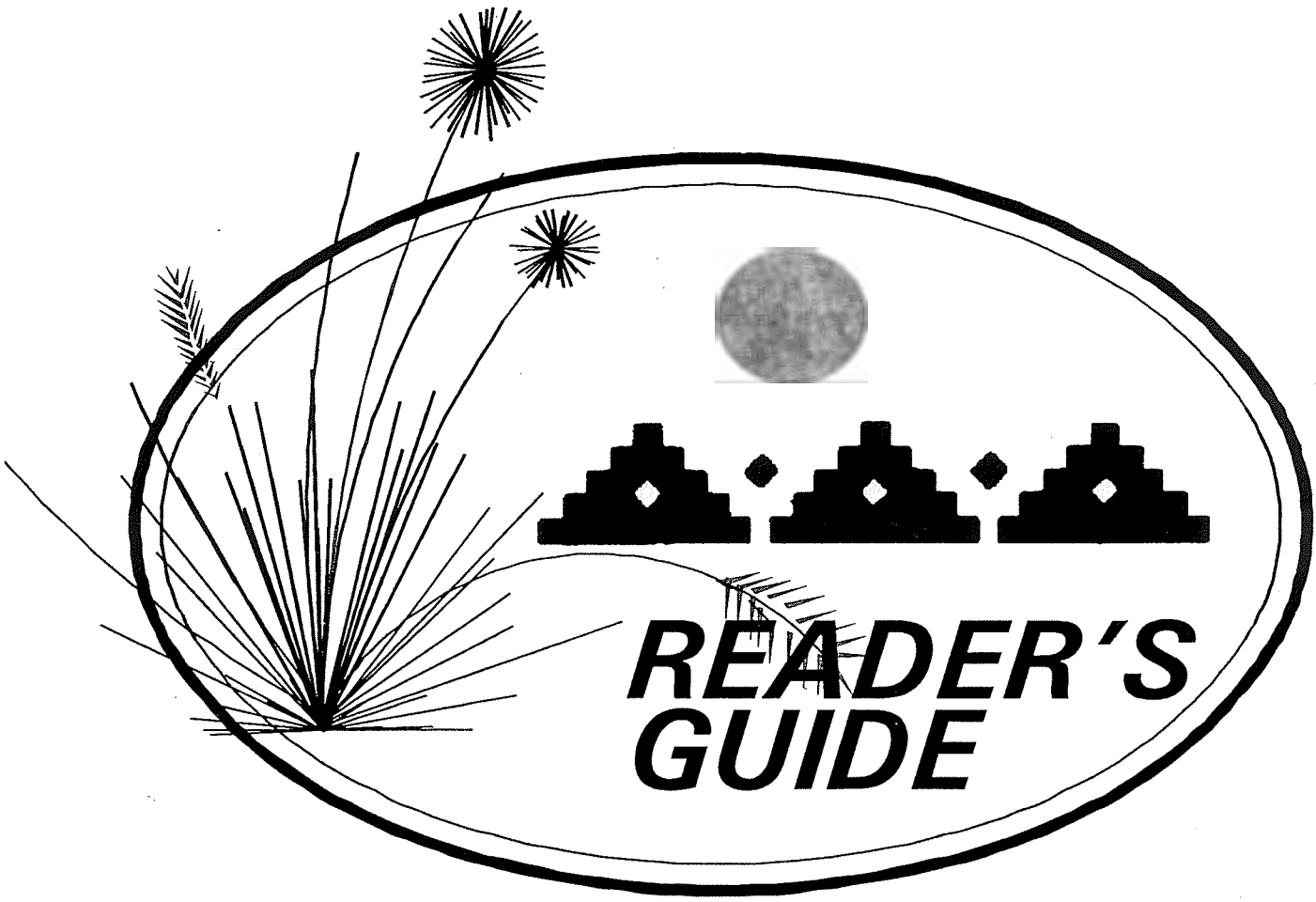
P. H-50, Aden Lava Flow RNA, Column 2. Add "Develop grazing activity plan."

P. H-53, Antelope Pass RNA map. Section numbers are shifted incorrectly 1 mile to the north.

Appendix I

P. I-4, Pena Blanca and Organ Needles WSA map. The Range numbers at the bottom of the map should be R3E, R4E, and R5E.

P. I-11, Gray Peak WSA map. This map has several land status errors which will be corrected in the Approved Plan.


READER'S
GUIDE

READER'S GUIDE

The Mimbres Resource Management Plan (RMP) represents the work of many Bureau of Land Management (BLM) employees and members of the public over the past 5 years. The intent is to provide general management direction for public land in the Mimbres Resource Area over the next 10-20 years and guide all land and resource actions to achieve plan decisions.

SECTION 1 INTRODUCTION

Provides background information on the planning area, the planning process, the planning issues, public involvement, and consistency with other plans.

SECTION 2 MANAGEMENT PROGRAMS

Describes the management philosophy for administering public land in the Mimbres Resource Area. Each resource program is profiled through a written program objective, description, continuing management guidance and actions of each program, and specific land-use decisions, if applicable.

SECTION 3 PLAN IMPLEMENTATION AND MONITORING

Describes the procedure through which the RMP will be implemented and monitored to track decision implementation.

SECTION 4 PLAN MAINTENANCE AND EVALUATION

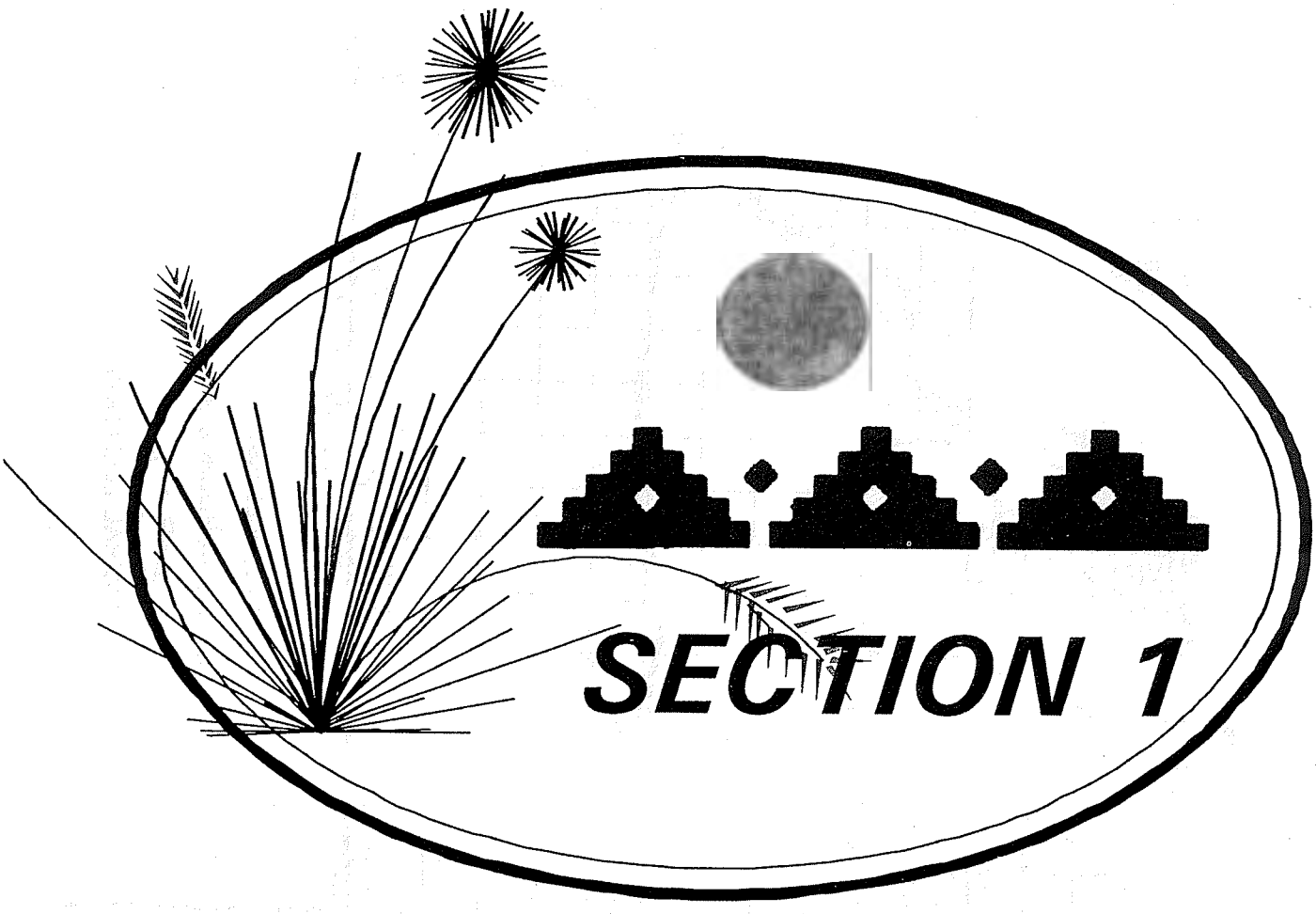
Describes how the RMP will be managed to extend its usefulness by updating the text with new information. Procedures are also identified for evaluating how effective plan implementation is in accomplishing plan decisions. Forms are included in this section to be used in facilitating the tracking process.

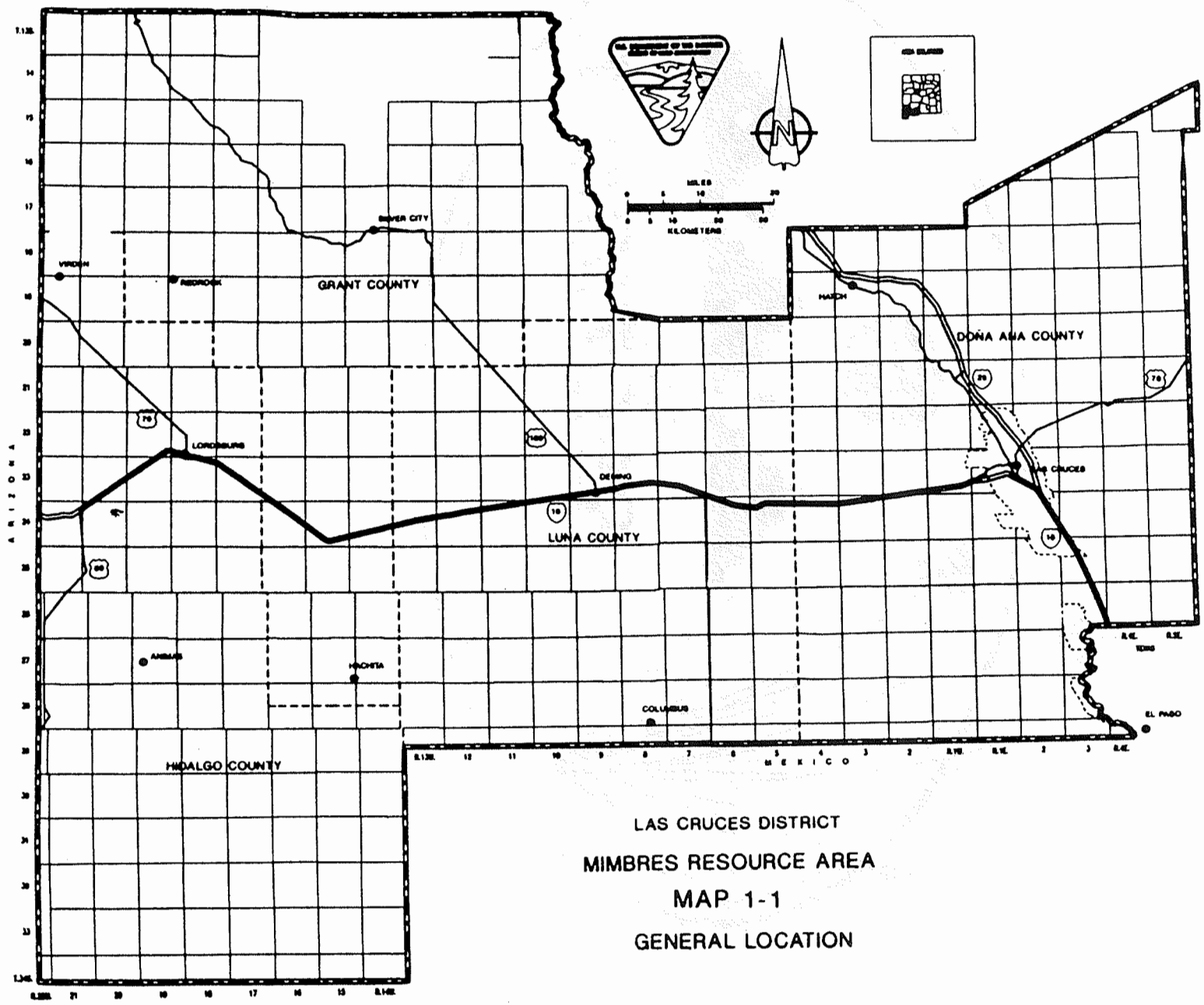
SECTION 5 AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACECs)/ SPECIAL MANAGEMENT AREAS (SMAs)

Identifies unique areas designated through planning. Each narrative provides a description of the ACEC/SMA, primary management goals and management actions as well as a corresponding location map. Some ACECs/SMAs are specifically not shown due to the sensitive nature of resource values in the area.

APPENDICES

A - Planning Issues, Criteria and Management Concerns
B - Mineral Resources
C - Lands
D - Livestock Grazing
E - Desired Plant Community
F - Cultural Resources
G - Recreation
H - Visual Resource Management
I - Wilderness
J - Gila River Wild and Scenic River Inventory Report Summary
K - Major Soil Types in the Mimbres Resource Area
L - Special Status Species


SECTION 1



LAS CRUCES DISTRICT

MIMBRES RESOURCE AREA

MAP 1-1

GENERAL LOCATION

SECTION 1 INTRODUCTION

BACKGROUND

The Mimbres Resource Management Plan (RMP) has been prepared to provide a comprehensive framework for managing public land and for allocating resources during the next 20 years using the principles of multiple use and sustained yield. These two principles are defined in the Glossary. The RMP establishes areas for limited, restricted, or exclusive uses, levels of production, allowable resource uses, resource condition objectives, program uses, program constraints, and general management direction.

This RMP sets forth the land use decisions, terms and conditions for guiding and controlling future management actions on public land in the Mimbres Resource Area. All uses and activities in the Resource Area must conform with the decisions, terms and conditions as described herein. The Plan was prepared in accordance with the requirements of the Federal Land Policy and Management Act (FLPMA) and the National Environmental Policy Act (NEPA) requirements for comprehensive land-use planning for public land. The requirement (by Executive Order 11644) that public land be designated as "open", "limited", or "closed" to off-road vehicle use will also be met. Plan amendments, if necessary, will keep the RMP current with resource management needs and policies.

Between 1976 and 1982, the Mimbres Resource Area prepared land-use plans, known as Management Framework Plans (MFPs), for the majority of the public surface and minerals within its area of jurisdiction. The MFPs include the Gila and Southern Rio Grande MFPs and various amendments (Red Rock Withdrawal, Elena Gallegos Land Exchange, Navajo-Hopi Land Exchange, Southern Rio Grande Plan Amendment/EIS, Las Cruces/Lordsburg MFP Amendment and Southwell Ranch Headquarters Amendment).

LOCATION AND SIZE

The Mimbres Resource Area (formerly known as the Las Cruces/Lordsburg Resource Area) is located in the southwest portion of New Mexico and contains approximately 3,053,820 acres of public land and 4,126,780 acres of Federal minerals (see Map 1-1 and Table 1-1). The public land is located in Doña Ana, Grant, Luna, and Hidalgo Counties. Generally, the public land is well-blocked in Doña Ana County, southern Luna County and portions of Hidalgo County. Private and State trust lands are concentrated in much of Grant County, southern Hidalgo County and northern Luna County.

PLANNING PROCESS

The BLM RMP process consists of nine basic steps (see Figure 1-1). This process requires the use of an interdisciplinary team of resource specialists for the completion of each step. The steps described in the planning regulations and followed in preparing this RMP are summarized below.

Step 1. Identification of Issues

The first step in the planning process is intended to identify resource management problems or conflicts that can be resolved through the planning process. These problems or conflicts (issues) were identified by the BLM and other agency personnel as well as members of the public. Four issues and nine management concerns were identified and considered in this document. Each are discussed in detail in Appendix A.

Step 2. Development of Planning Criteria

During this step, preliminary decisions are made regarding the kinds of information needed to clarify the issues, the kinds of alternatives to be developed,

TABLE 1-1
LAND STATUS (In Acres)

LANDHOLDER/MANAGER	DONA ANA	LUNA	HIDALGO	GRANT	TOTAL
SURFACE ESTATE					
BLM	1,126,270	759,220	850,210	318,120	3,053,820
Forest Service	0	0	0	0	0
National Park Service	52,600	0	0	0	52,600
Military Withdrawal	503,560	2,070	0	1,670	507,300
Other Withdrawn land	155,840	630	12,210	24,440	193,120
State Trust	287,500	549,560	373,880	352,190	1,563,130
Private	315,420	586,340	893,330	977,910	2,773,000
TOTAL	2,441,190	1,897,820	2,205,170	2,540,990	9,085,170
MINERAL ESTATE					
BLM Administered					
All Minerals	1,416,850	884,090	1,134,470	691,370	4,126,780
Coal Only	0	0	0	0	0
Oil, Gas and Coal Only	0	0	0	0	0
Oil and Gas Only	3,940	12,790	10,840	5,170	32,740
Other	6,610	1,710	80	830	9,230
National Park Service	52,600	0	0	0	52,600
USFS Administered	0	0	75,540	857,940	933,480
WSMR Administered	503,550	0	0	0	503,550
No Federal Minerals	457,640	999,230	984,240	985,680	3,426,790
TOTAL	2,441,190	1,897,820	2,205,170	2,540,990	9,085,170

Source: Mimbres Resource Area Geographic Information System Data, 1990.

and the factors to be considered in evaluating alternatives and selecting a preferred RMP/EIS. As each issue was identified, a list of planning criteria was developed to help guide the resolution of that issue. The planning criteria are listed in Appendix A.

Step 3. Inventory Data and Information Collection

This step involves the collection of various kinds of environmental, social, economic resource, and institutional data needed for completion of the process. This step can include detailed field studies, literature studies, or consultation with appropriate professionals. In most cases, this process is limited to inventories needed to address the issues.

Step 4. Management Situation Analysis (MSA)

The step calls for deliberate assessment of the current situation. It includes a description of current BLM management guidance, a discussion of existing problems and opportunities for solving them, and a consolidation of existing data needed to analyze and resolve the identified issues. The end result of this step is the development of an unpublished companion document known as the MSA. That document is used to develop the Continuing Management Guidance and Actions section of the RMP. The MSA is used as a basis for compiling the Affected Environment chapter. A copy of the MSA is available for review in the Mimbres Resource Area Office.

Step 5. Formulation of Alternatives

During this step several complete, reasonable resource management alternatives are prepared, including one for no action and others that strive to resolve the issues while placing emphasis either on environmental protection or resource production.

Step 6. Estimation of 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. This step, is also known as the Environmental Consequences section.

Step 7. Selection of the Preferred Alternative

Based on the information generated during Step 6, the District Manager identifies and recommends a preferred alternative to the State Director. The Draft RMP/EIS document is then prepared and distributed for public review.

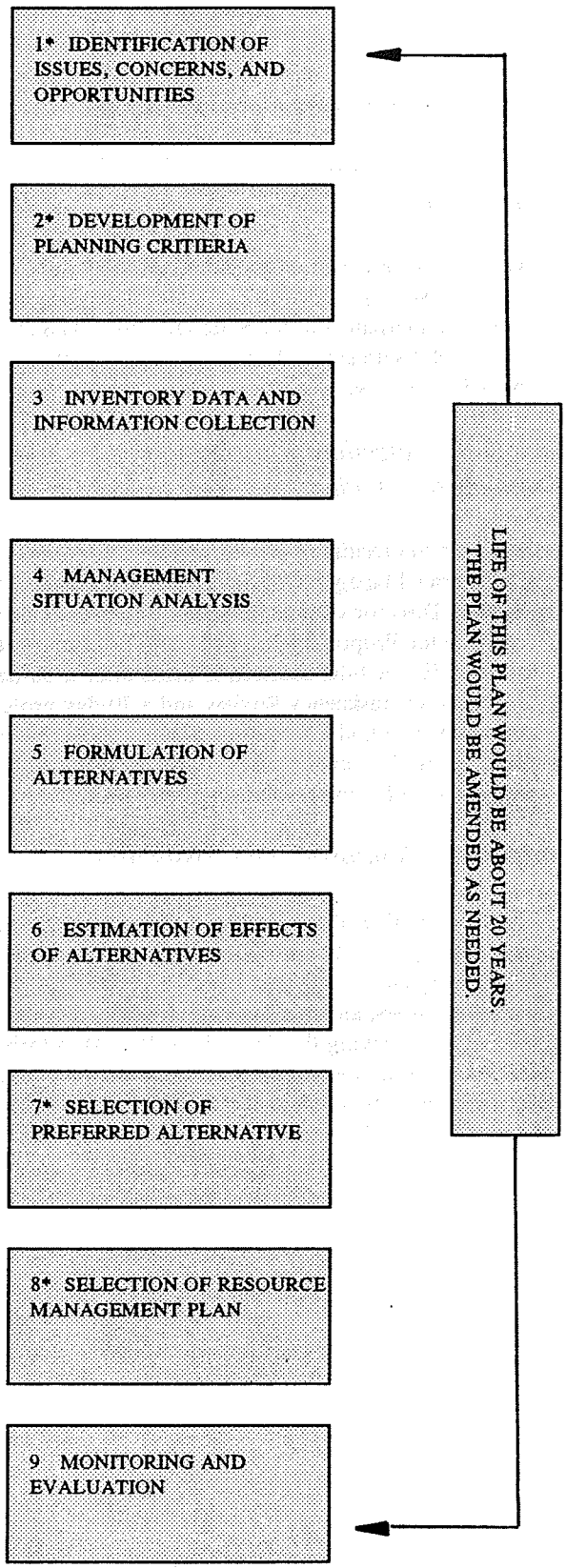
Step 8. Selection of the Resource Management Plan

Based on the results of public review and comment, the District Manager will select and recommend to the State Director various proposals or alternatives to comprise the Proposed RMP and publish it along with a Final EIS. A final decision is made after a 60-day Governor's Consistency Review and a 30-day protest period on the Final EIS are completed. A Record of Decision (ROD) and Approved RMP will then be published, following resolution of any protests.

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, and to ensure that implementation of the plan is achieving the desired results. Monitoring continues from the time the RMP is adopted until changing conditions require a revision of the whole plan or any portion of it.

FIGURE 1-1
STEPS IN THE RESOURCE MANAGEMENT PLANNING PROCESS
* Public Participation Opportunities



PLANNING ISSUES, CRITERIA, AND MANAGEMENT CONCERNS

The BLM planning regulations equate land-use planning with problem solving and issue resolution. An issue is defined as an opportunity, conflict, or problem, regarding the use or management of public land and resources.

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

Management concerns are those nonissue related procedures or land-use allocations which have proven, during the preparation of this RMP/EIS, to need modification. Management concerns focus on use conflicts, requirements, or conditions that cannot be resolved administratively and did not, during initial public scoping appear to meet the criteria to qualify as a planning issue but were identified for resolution in the Mimbres RMP.

The Planning Issues and Management Concerns covered in the Mimbres RMP are as follows and are further described in Appendix A.

ISSUES

- Issue 1: Land Ownership Adjustments
- Issue 2: Areas of Critical Environmental Concern (ACECs) and Other Special Management Areas (SMAs)
- Issue 3: Vehicle Management
- Issue 4: Access

MANAGEMENT CONCERNS:

- Management Concern 1: Rights-of-Way
- Management Concern 2: Minerals
- Management Concern 3: Recreation
- Management Concern 4: Cultural and Paleontological Resources

- Management Concern 5: Wildlife Habitat
- Management Concern 6: Soil, Air and Water
- Management Concern 7: Vegetation
- Management Concern 8: Riparian and Arroyo Habitats
- Management Concern 9: Special Status Species

CHANGING THE PLAN

The Plan may be changed, if necessary, through amendment. Monitoring and evaluation findings, new data, and new or revised policies will be evaluated to determine if there is a need for an amendment. Any change in circumstances or conditions which affect the scope, terms, or conditions of the RMP may warrant an amendment. In all cases, a proposed action that does not conform to the RMP and warrants further consideration before an RMP revision is scheduled would require an amendment. Generally, an amendment is site-specific or involves only one or two planning issues.

A plan revision, if necessary, would involve the preparation of a new RMP for the entire Resource area.

PUBLIC INVOLVEMENT

Public participation in the Mimbres RMP is a dynamic process occurring throughout the development of the Plan and beyond. In addition to formal public participation steps, informal contacts occur frequently with public land users and interested persons through meetings, field trips, telephone calls or letters. All applicable public participation is documented and analyzed in the planning process and kept on file in the Mimbres Resource Area.

A notice was published in the Federal Register on September 22, 1988, announcing the formal start of the planning process.

Prior to publishing the Notice of Intent, informal public meetings were held as early as March 1988 and have continued throughout development of the RMP. Meetings were held with BLM's District Advisory Council, Dona Ana County Associated Sportsmen, Sierra Club, Southern New Mexico Coalition of Conservation Organizations, Native Plant Society, Desert Trophy Hunters, Picacho Gun Club, Fort Bliss Rod and Gun Club, Rio Grande Corridor Committee, BLM Safford District, Range Improvement Task Force, and Hidden Valley Ranch.

A comprehensive public participation plan was prepared, with the intent of involving interested or affected parties early and continuously throughout the planning process. The plan emphasizes localized one-to-one contacts, media coverage, direct mailings and continued coordination with local, State and other Federal agencies.

Meetings to determine the scope of the RMP and to obtain input on issues and planning criteria were held in Las Cruces (July 26, 1989), Deming (July 18, 1989), Lordsburg (July 19, 1989), and Silver City (July 20, 1989), New Mexico and El Paso, Texas (July 25, 1989). A scoping report which outlined issues and management concerns was issued prior to the meetings in June 1989. The report also gave the times and locations for the public meetings. A Follow-up Scoping Report was distributed in November 1989. The Report contained revisions to the preliminary issues, management concerns, and planning criteria based upon public review and comment. On June 25, 1990, a letter was sent to over 1,500 individuals on the RMP mailing list to update them on the progress of the RMP.

Section 202 of FLPMA of 1976 requires the BLM to coordinate land use planning activities with other Federal agencies, State and local governments and Indian tribes. FLPMA also requires BLM to ensure that consideration is given to non-Bureau plans that are pertinent to the development of the RMP, assist in resolving inconsistencies between Federal and non-Federal government plans and to provide for meaningful public involvement of other Federal agencies, State and local government officials and Indian tribes in the development of the RMP. In line with these requirements, BLM held initial interagency meetings throughout the month of June 1989 with over 40 entities of Federal, State and local governments, and Indian tribes. (See Table 1-2.) BLM officials have continued these contacts throughout the process by providing RMP updates at regularly scheduled meetings of the various governmental entities. Specifically, the Luna and Grant County Commissioners were briefed on the RMP status prior to release of the Draft RMP/EIS in 1990.

Because of concerns raised during the review of the draft, after the formal comment period ended, BLM held nearly 20 separate meetings with grazing permittees, utility company representatives, county officials, and others (including local environmentalists and the Bootheel Sportsmen's Association). A total of about 200 people attended these meetings. The average size of these meetings was 13 people, ranging from one person to 25 people. In addition, BLM attended a "Town Meeting" in Rodeo, New Mexico in early January with about 200 people. Most of the small group meetings followed that meeting.

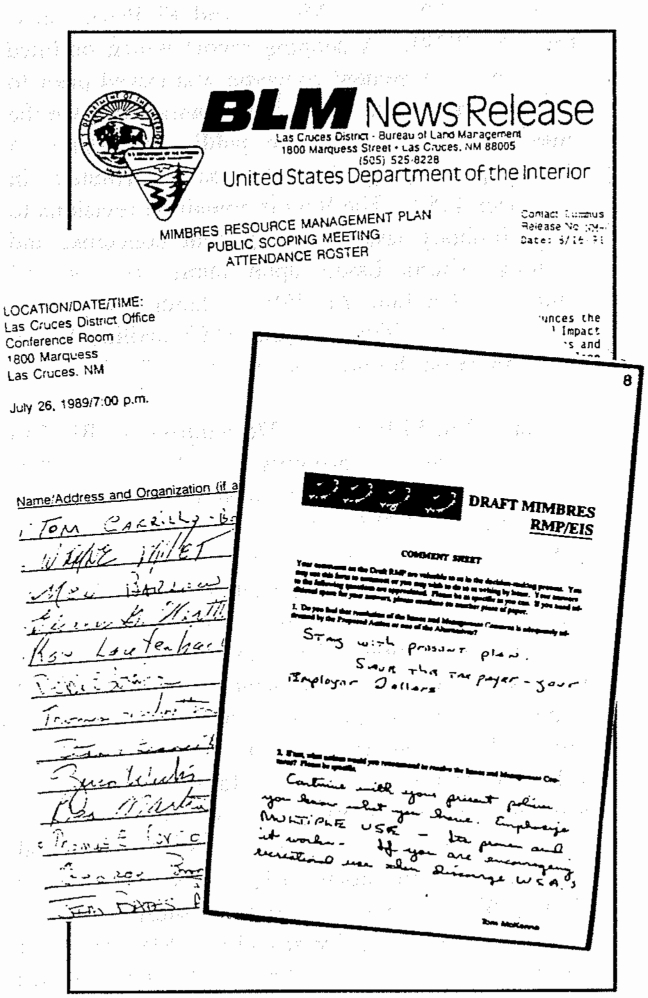


TABLE 1-2
MIMBRES RMP INTERAGENCY MEETINGS

AGENCY	DATE
Luna County *City of Deming NM Highway Dept	June 6, 1989
Hidalgo County *City of Lordsburg	June 6, 1989
*Grant County	June 8, 1989
Gila National Forest	June 8, 1989
NM Dept of Game and Fish Animal & Plant Health Inspection Svc	June 14, 1989
New Mexico State University NASA ("A" Mountain)	June 14, 1989
Dona Ana County City of Las Cruces *Town of Hatch Town of Mesilla *Las Cruces Public School District Gadsden Public School District	June 15, 1989
U.S. Border Patrol U.S. Customs Service	June 15, 1989
NM Environmental Improvement Division	June 20, 1989
Bureau of Reclamation Elephant Butte Irrigation District International Boundary and Water Commission Dona Ana County Flood Commission	June 20, 1989
Ft. Bliss White Sands Missile Range NASA (White Sands) Test Facility	June 21, 1989
Soil Conservation Service State Land Office Range Improvement Task Force	June 21, 1989
U.S. Fish and Wildlife Service NM Bureau of Mines NM Mining and Minerals Division *NM Forestry Division *NM State Parks	June 22, 1989
Local Congressional Staffs	June 26, 1989

SOURCE: BLM Files 1989

NOTE: * Meeting Scheduled but agency did not attend.

FORMAL CONSULTATION

Consultation with the U.S. Fish and Wildlife Service (FWS) is required prior to initiation of any project by BLM that may affect any Federally listed special status species or its habitat.

Consultation is required by Section 7 of the Endangered Species Act of 1973. This RMP is considered a major planning effort, and formal consultation has been completed. Letters of formal consultation are on file in the Mimbres Resource Area Office. Coordination and consultation will continue throughout the planning process and implementation of the plan.

The New Mexico Department of Game and Fish (NMDGF) and the New Mexico Natural Resources Department have been contacted in regard to State listed threatened and endangered animal and plant species. This plan is consistent with legislation protecting State listed species. NMDGF also provided information on existing wildlife population levels and proposed wildlife population goals. Coordination and consultation with the State will continue throughout the planning process and during implementation of the plan.

The BLM cultural resource management program operates in accordance with 36 Code of Federal Regulations (CFR), Part 800, which provides specific procedures for consultation between the BLM and the State Historic Preservation Office (SHPO). A Memorandum of Understanding (MOU) NMSO-168 between the SHPO, Advisory Council on Historic Preservation and the BLM New Mexico State Office became effective October 19, 1982. This MOU incorporates procedures for exchanging information with the SHPO concerning cultural resources on public and private lands. It defines activities requiring consultation and establishes reporting standards. The SHPO has been consulted during the development of the RMP.

PUBLIC REVIEW OF THE RMP

Table 1-3 is a partial listing of various Federal, State and local agencies, organizations, Indian Tribes, and individuals to which the RMP was sent for review and comment.

Informal coordination with the public has taken place throughout the planning process through personal contacts, telephone calls, and letters, and will continue throughout the Plan implementation process.

Draft RMP/EIS

The Draft RMP/EIS was filed with the Environmental Protection Agency (EPA) on August 16, 1991. The 90-day comment period began on August 23, 1991, and ended November 25, 1991. A notice of availability was published in the Federal Register on August 20, 1991. During the comment period, five public workshops were held: September 17 in Deming, September 18 in Lordsburg, September 19 in Silver City, September 24 in El Paso, Texas, and September 25 in Las Cruces. BLM staff who were familiar with the Draft RMP/EIS were available at these workshops to answer questions and concerns. Public hearings were held in Las Cruces, New Mexico (on October 22) and Lordsburg, New Mexico (on October 23, 1991) to provide an opportunity for the public to present oral comments. The public was notified about the hearings in the Federal Register, local newspapers, and personal letters and contacts. Complete transcripts are available for public inspection at the Mimbres Resource Area Office.

A total of 226 written and 6 oral comments were submitted during the formal comment period. Responses were made to all substantive comments presented in letters. Substantive comments were those which addressed either the adequacy and accuracy of the Draft RMP/EIS or the merits of the alternatives or both. The responses are presented adjacent to the comments in each letter. Additional letters received were given full consideration in the final decision.

Proposed Plan/Final EIS

The notice of availability for the Proposed Plan/Final EIS was published in the Federal Register on October 15, 1992. The document was filed with the Environmental Protection Agency on October 8, 1992. The Federal Register notice specified a 30-day protest period ending on November 16, 1992.

A total of 16 letters of protest were received by the BLM Director. Three letters were determined to be invalid for failure to follow the requirements for protests in the planning regulations (43 CFR 1610.5-2). One letter was withdrawn by the protestor following agreement with the Mimbres Resource Area on text changes on the Continental Divide Trail.

TABLE 1-3
PARTIAL LISTING OF DOCUMENT RECIPIENTS

FEDERAL GOVERNMENT
Department of Agriculture
  Agricultural Stabilization
    and Conservation Service
  Animal & Plant Health Inspection Service
  Farmers' Home Administration
  Soil Conservation Service
  U.S. Forest Service
    Southwest Regional Office
    Gila National Forest
    Coronado National Forest
Department of the Army
  Corps of Engineers
  Fort Bliss
  White Sands Missile Range
Department of Commerce
Department of the Interior
  Bureau of Indian Affairs
  Bureau of Mines
  Bureau of Reclamation
  National Park Service
  Office of Surface Mining and Reclamation
  U.S. Fish and Wildlife Service
  U.S. Geological Society
Department of Energy
  Office of Environmental Compliance
U.S. Border Patrol
NASA
Environmental Protection Agency
Department of Transportation
  Federal Highway Administration
Congressional Staff
International Boundary and Water Commission

STATE GOVERNMENT
Arizona
Game and Fish Department
New Mexico
Bureau of Mines and Mineral Resources
Department of Finance and Administration
Range Improvement Task Force
Historic Preservation Division
  State Historic Preservation Officer
Energy and Minerals Department
Governor of New Mexico
Health and Environmental Department
  Environmental Improvement Division
State Land Office
Natural Resources Department
New Mexico Department of Game and Fish
Division of State Forestry
State Highway Department
Congressional Delegation
Museum of New Mexico
Soil and Water Conservation Division
New Mexico State University
New Mexico State Police
New Mexico Army National Guard
New Mexico Department of Agriculture
New Mexico Department of Commerce and Industry
State Engineer
  Interstate Stream Commission
New Mexico State Livestock Board
State Oil Conservation
New Mexico Mining Association
Texas
Governor of Texas

LOCAL GOVERNMENTS
Mayors
  Towns of:
    Mesilla
    Hatch
  Cities of:
    Anthony
    Hurley
    Bayard
    Las Cruces
    Central
    Lordsburg
    Deming
    Mesilla
    El Paso
    Silver City
County Commissioners:
  Grant
  Dona Ana
  Luna
  Hidalgo
El Paso Public Service Board
Southwest New Mexico Council of
  Governments - Silver City
Arizona/New Mexico Coalition of Counties
Elephant Butte Irrigation District
Las Cruces Extra-Territorial Zone Commission
New Mexico Border Commission
New Mexico Association of Counties
West Texas Council of Governments

SPECIAL INTEREST GROUPS
Continental Divide Trail Society
New Mexico Cattle Growers Association
Albuquerque Archaeological Society
Museum of Natural History
Earth First!
Natural Resources Defense Council
Central New Mexico Audubon Society
National Audubon Society
New Mexico Oil and Gas Association
New Mexico Wildlife Federation
Sierra Club
The Nature Conservancy
Society for Range Management
Native Plant Society
Independent Petroleum Association of
  New Mexico
Farm and Livestock Bureau
Public Land Council
The Wilderness Society
New Mexico Bureau of Land Management
  Wilderness Coalition
Grazing Permittees
New Mexico Environmental Law Center
New Mexico Natural History Institute
American Rivers
Minerals Exploration Coalition
  Land Use Planning Committee

TRIBAL GOVERNMENT
Ysleta del Sur
Mescalero
Pueblo of Acoma
Pueblo of Isleta
San Carlos Apache Tribe
White Mountain Apache Tribe
Zuni Tribe

Source: BLM Mailing List, 1993.

The Director then addressed issues in the 12 remaining letters, dismissing the protests with only minor text changes for the Approved Plan. Several protestors raised valid concerns which were addressed by the New Mexico State Director in written responses. On February 4, 1993, members of the Las Cruces District Advisory Council met with the District Manager, Area Manager and Team Leader to review protest issues and BLM responses on the Mimbres RMP. Additional meetings were held with County Commissions to update them on the status of the RMP.

Record of Decision

The Record of Decision (ROD) was signed by Acting State Director, Monte G. Jordan, on April 30, 1993. It was mailed to the public on June 10, 1993, and a notice of the Record of Decision's availability was published in the Federal Register on June 21, 1993. The ROD approved the proposed decisions as described in the Proposed Plan/Final EIS with only minor text changes as described in the ROD pages 4 and 5 at the beginning of this document.

CONTINUING PUBLIC PARTICIPATION

The Mimbres Resource Area plans to prepare an RMP summary update every year following the published final RMP. The purpose of this update will be to inform the public of the progress made in implementing the RMP. The summary will also describe the activity plans to be prepared the following year so that interested members of the public may request copies and comment on them. The BLM hopes that this will enable the public to become further involved in the specific land management actions resulting from the implementation of this RMP. The first annual update was published in March 1993.

CONSISTENCY WITH OTHER PLANS

The BLM planning regulations require that RMPs be "consistent with officially approved or adopted resource-related plans, and the policies and procedures contained therein, of other Federal agencies, State and local governments, and Indian Tribes, so long as the guidance and RMPs are also consistent with the purposes, polices and programs of Federal laws and regulations applicable to public lands..." (43 CFR 1610.3-2). In order to ensure such consistency finalized plans were solicited from Federal, State, and local agencies as well as Tribal governments listed in Table 1-3.

At this time there are no known inconsistencies between any of the alternatives and officially approved and adopted resource-related plans of other Federal agencies, State and local governments, and Indian tribes. Coordination and consultation will continue throughout the planning process and implementation of the plan.


SECTION 2

SECTION 2
MANAGEMENT PROGRAM

The outcome of the resource management planning process resulted in decisions to resolve the four planning issues and nine management concerns identified during the planning process. These decisions, when combined with the continuing management guidance, provide a comprehensive land management program for public land in the Mimbres Resource Area for the next 20 years. The continuing management guidance was developed primarily from laws, regulations, manuals, and relevant decisions carried forward from previous land use plans.

MANAGEMENT PHILOSOPHY

The overall management strategy for the Mimbres Resource Area is based on achieving and maintaining healthy ecosystems while providing for human values, products, and services. The desired plant community objectives for the public land in the Resource Area will be met by a combination of proper grazing management and land treatments consisting of prescribed natural fire, prescribed fire, and chemical treatments of brush-dominated areas. Land development and improvement projects will be thoroughly analyzed and modified, as appropriate, to limit the amount of new surface disturbance, reduce resource conflicts, and aid in the management of resources. Restoration and maintenance of the limited but highly productive riparian and arroyo habitats will be underscored.

Resolution of the Land Ownership Adjustment and Access issues sets the stage for more efficient management, utilization, and maintenance of the public land resources within the Mimbres Resource Area. Identification of the public land to be retained, acquired, or disposed of effectively displays where Bureau funding, program efforts, and management attention will be focused. Acquiring access to 19 blocks of public land would be accomplished by building new roads, land ownership adjustment, or easement acquisition. Specific access routes or methods of developing access would be identified in the route analysis completed for each area and coordinated with adjacent landowners and permittees.

Management of the designated Areas of Critical Environmental Concern (ACECs) and Special Management Areas (SMAs) will be highlighted. All resource disciplines will adjust their program activities to meet the administrative intent of each ACEC and SMA. The RMP identifies the dominant public values and uses for each ACEC and SMA. Where feasible, the management prescriptions for the areas are identified and no further planning for these areas is necessary.

The establishment of right-of-way exclusion and avoidance areas is intended to notify all public land users of the restrictions and limitations that exist in these areas. This management approach was established to protect the area's special and sensitive resource values and limit or restrict development.

During implementation of this RMP, emphasis and consideration will be given to the role of non-BLM managed lands in achieving land use objectives, working with adjacent landowners, forming partnerships, and consulting with local and State government officials. When additional activity planning is needed to develop specific management prescriptions and these areas overlap with one another, coordinated resource management plans will be prepared.

On an annual basis, the Bureau will present the previous years accomplishments and upcoming years planned actions to the public for their review. In addition, a record and status of all NEPA documents is maintained in the Resource Area Office.

The decisions reached through the RMP process are listed on the following pages. These decisions will be the focus of future evaluations to measure the level of accomplishment and effectiveness in resolving the planning issues and management concerns.

RESOURCE PROGRAMS

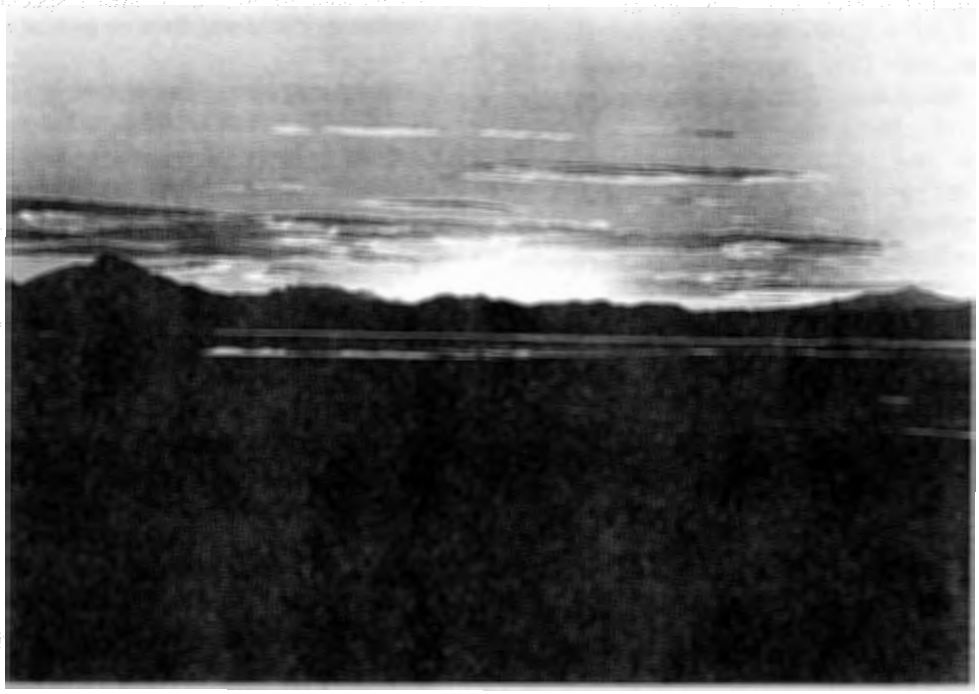
This section is arranged by resource program. Each program contains a discussion on objectives, descriptions, continuing management guidance and actions, and specific resource decisions. The program objective describes the mission and direction for program management. The program description identifies the existing resources and major programs currently operating within the Resource Area.

The "Continuing Management Guidance and Actions" is a summary of basic management policy that will continue without change under the Plan. Public land, resources, and programs not affected by the resolution of issues and management concerns will be managed as outlined in this section. It is based on detailed discussions of the "Existing Management Situation" section of Management Situation Analysis (MSA), a companion document to the RMP.

Management guidance for resource programs include laws, Executive Orders, regulations, Department of Interior manuals, BLM Manuals and instruction memoranda. Valid planning decisions found in the Gila and Southern Rio Grande Management Framework Plans (MFPs) and various amendments are available for review in the Mimbres Resource Area Office. Together, these form the basis for the Continuing Management Guidance and Actions that will continue for public land resources and programs in the Mimbres Resource Area.

Specific land allocation decisions are listed for each program requiring land allocations as part of issue or management concern resolution.

The management prescriptions or planned actions, listed for each ACEC or Special Management Area (SMAs) discussed in Section 5, make up the action steps to be taken, to implement resource programs identified under the management goals.



MINERALS

OBJECTIVE

The objective of the minerals program is to provide for the public use of leasable, locatable and saleable minerals consistent with the laws that govern these activities and to minimize environmental damage.

DESCRIPTION

The minerals program in the Mimbres Resource Area involves activities with leasable, locatable and salable mineral resources. Under leasable minerals, oil, gas and geothermal are the principal activities. Locatable minerals include metallic minerals such as gold, silver, lead, zinc and copper and nonmetallic minerals such as barite and fluorspar. Salable minerals include material such as sand, gravel, clay, caliche, stone and volcanic cinders.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

The policy of the BLM is to make mineral resources available in accordance with the objectives of the Mining and Minerals Policy Act of 1970 and the National Materials and Minerals Policy Research and Development Act of 1980. These acts require the Federal Government to facilitate the development of mineral resources to meet National, regional, and local needs for domestic and defensive purposes.

The BLM is also responsible for ensuring that mineral development is carried out in a manner which minimizes environmental damage and provides for the rehabilitation of affected land. The BLM official policy appears in Appendix B-1. Most of the public land in the Mimbres Resource Area is available for mineral entry, except where restricted by withdrawals for military, flood control, conservation, or other specific purposes. Unless otherwise specified, all

acreage figures in this section refer to Federal mineral estate managed by the BLM.

LEASABLE

Most phases of exploration, development, and production operations require National Environmental Policy Act (NEPA) review before authorization. Exceptions are oil and gas geophysical work. Pre-lease geophysical exploration (including the drilling of geothermal temperature-gradient holes and oil and gas seismic operations) is authorized by a permit or conducted under a Notice of Intent. However, all other operations including exploratory drilling and extraction and production of oil, gas, and geothermal resources requires a lease. See Appendix B-2 for mineral leasing proposals.

Table 2-1 shows the total number of leases and lease acreage by County within the Resource Area as of June 1990.

OIL AND GAS

The Mimbres Resource Area is responsible for permitting, inspecting, and enforcing Notices of Intent (NOIs) for geophysical exploration work. Surface management responsibilities associated with permits to drill are also handled by the Resource Area. The Roswell District is responsible for executing all technical work for monitoring "down hole" activities. In the event of petroleum production, the Resource Area will be responsible for surface management related to production facilities, and the Roswell District will be responsible for the management of more technical operations such as production reporting and abandonment.

GEOTHERMAL

Geothermal resources are managed in a manner similar to oil and gas. There are three Known Geothermal Resource Areas (KGRAs) in the Resource Area. These occur in Las Cruces (Tortugas Mountain), Radium Springs, and Animas (Lightning Dock). All lands within KGRAs are open to competitive geothermal leasing. Other areas in the Resource Area are available for noncompetitive geothermal leasing. All leases are subject to the special fluid leasing stipulations.

NONENERGY LEASABLE MINERALS

Currently, there are no potassium or sodium leases within the Resource Area. There are no existing lease stipulations that affect areas having potential for the occurrence of nonenergy leasable minerals. If prospecting permits are issued, maintaining compliance with current regulations will be the main responsibility of the Mimbres Resource Area.

TABLE 2-1
OIL AND GAS AND GEOTHERMAL LEASES

	OIL AND GAS		GEOTHERMAL	
COUNTY	NO. LEASES	ACRES	NO. LEASES	ACRES
Dona Ana	19	54,451	9	13,126
Grant	11	12,065	0	0
Hidalgo	29	41,980	1	2,501
Luna	13	17,485	0	0
TOTAL	*72	125,981	10	15,627

Source: BLM Files, 1990.
Note: *Actual lease total is 70 because there are two leases that overlap the Hidalgo/Luna County line.

LOCATABLES

The Mining Law of 1872 allows for the location of mining claims on public land for the purpose of exploration, development, and production of minerals. Locatable commodities include metallic minerals such as gold, silver, lead, zinc, and copper and nonmetallic minerals such as barite and fluorspar.

Before commencing any surface-disturbing mining activities, an operator is required to submit either a "notice" that describes the proposed activities or a more comprehensive "plan of operation" to the BLM. A notice is required for disturbing 5 acres or less or for driving off-road in an area designated as limited to existing roads and trails. A plan of operation is required for disturbing more than 5 acres or for operating within Wilderness Study Areas (WSAs), ACECs, or areas designated as closed to off-road vehicle use.

The BLM must prepare an environmental assessment (EA) for a plan of operations. An EA is not required for a notice, and the BLM has no authority to approve notices. However, it is standard practice in the Mimbres Resource Area to review all notices for National Environmental Policy Act (NEPA) compliance and to advise the operator of any special environmental concerns and reclamation practices. Operators are not required to provide reclamation bonds for notices unless they have established a record of noncompliance. Reclamation bonds are mandatory for plans of operation.

SALABLES

Salable minerals include materials such as sand, gravel, clay, caliche, stone, and volcanic cinders. These "mineral materials" must be purchased from the BLM. Most materials are sold by the cubic yard. Stone is usually sold by the ton. Some organizations and government agencies qualify for "free use" and are not charged for extracting mineral materials from public land. However, they are required to perform reclamation and reseeding on disturbed areas.

Most applications for mineral material sales and free use must go through the NEPA review process. The exceptions are sales and free use from community pits and common use areas. These sites have already been evaluated through NEPA review and have been designated suitable for extraction of mineral materials. Permits for community pits and common-use areas are sold "over the counter" and do not require individual EAs. Sales from community pits and common use areas will continue. See Table 2-2.

Stipulations and reclamation and reseeding requirements for mineral material pits will be developed on a case-by-case basis.

TABLE 2-2
COMMUNITY PITS/COMMON-USE AREAS

COMMUNITY PIT/ COMMON USE AREA	COMMODITY	LOCATION
No. 1 (Shalem)	Stone/Sand and Gravel	T. 22 S., R. 1 E. Sec. 19
No. 2 (Hatch)	Sand and Gravel	T. 19 S., R. 3 W. Sec. 17, 18
No. 5 (West Picacho)	Caliche	T. 23 S., R. 1 E. Sec. 19
No. 9 (Mossman)	Crusher fines	T. 25 S., R. 3 E. Sec. 28
No. 11 (Little Black Mtn)	Volcanic cinders and stone	T. 25 S., R. 1 E. Sec. 24
Jornada[a/]	Red Fill Dirt	T. 22 S., R. 2 E. Sec. 10
Rincon[a/]	Building Stone	T. 19 S., R. 3 W. Sec. 4
O'Hara Road North[a/]	Sand and Gravel	T. 26 S., R. 4 E. Sec 19
O'Hara Road Caliche[a/]	Caliche	T. 26 S., R. 4 E. Sec 26
La Union[a/]	Sand and Gravel Red Dirt Caliche	T. 27 S., R. 3 E. Sec 13

Source: BLM Files, 1993.
Notes: a/ Common-use Area.

SPECIFIC DECISIONS

LEASABLE MINERALS

Approximately 266,950 acres are closed to fluid mineral leasing. This includes all ACECs, RNAs, and NNL, in addition to the existing closed areas. (See Map 2-1.)

The current special stipulations for fluid mineral leasing will continue (274,000 acres).

About 65,000 acres are open to leasing with no surface occupancy (see Appendix B-2). The remainder of the Resource Area is open to mineral leasing, subject to standard terms and conditions: oil and gas, 3,532,300 acres; and geothermal and nonenergy leasable, 3,499,500 acres.

LOCATABLE MINERALS

The following areas, totalling 64,000 acres, are petitioned for withdrawal from locatable mineral entry (see Map 2-2):

- Apache Box ACEC
- Guadalupe Canyon ACEC
- Organ/Franklin Mountains ACEC
- Paleozoic Trackways RNA

The remainder of the Resource Area is open to locatable mineral entry, subject to standard mitigating measures.

Existing withdrawals will continue and include:

- Guadalupe Canyon
- Organ Mountains Recreation Area
- Baylor Recreation Area
- Needle's Eye Picnic Site

SALABLE MINERALS

All ACECs, RNAs and NNL and the Butterfield and Continental Divide National Scenic Trails are closed to mineral material disposal (331,950 acres). See Map 2-1.

The remainder of the Resource Area is open to mineral material disposal, subject to standard stipulations.

A competitive sale program will be established; the site(s) will be determined later based on mineral surveys and would probably be within 10 miles of Las Cruces.

Processing miscellaneous negotiated mineral material sales and Free-Use Permits (FUPs) will continue.

MITIGATING MEASURES

The following mitigating measures apply to lands open to locatable (under Plan of Operations only), salable, or leasable mineral entry:

- Riparian areas will not be disturbed.
- Activities on critical soils on slopes over 20 percent require special mitigation.

NOTES

OBJECTIVE

The objective of the lands program is to facilitate the acquisition, exchange, or disposal of public land in order to provide the most efficient management of public resources. In addition, the program is responsible for granting rights-of-way across public land and acquiring easements.

DESCRIPTION

The BLM administers approximately 3,053,820 acres of public land in Dona Ana, Luna, Hidalgo, and Grant Counties in southwestern New Mexico. Public land comprises about 34 percent of the total surface ownership within the Mimbres Resource Area. In addition to the surface ownership, BLM also administers 4,126,780 acres of Federal mineral estate. See Table 1-1.

The Mimbres Resource Area is characterized by its rural qualities, vast open spaces, and generally sparse population. However, a large and expanding urban populations exists along the Rio Grande and Mesilla Valley from Las Cruces to El Paso. Other populated areas include Deming, Lordsburg, and Silver City.

The urban population, particularly in the Rio Grande and Mesilla Valleys, put a great demand on nearby public land to provide for the needs of these growing communities. Typical actions and authorizations include leases, permits, exchanges, communication site rights-of-way, linear rights-of-way, and recreation and public purposes (R&PP) leases and patents for cemeteries, gun clubs, parks, and school sites.

Many of the linear facilities authorized under various right-of-way grants have led to the establishment of defacto right-of-way corridors. Seven officially designated corridors also exist as a result of previous management framework plans (MFPs). The placement of facilities has in the past been largely due to topographic and land status constraints.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

It is BLM policy to make public land and its resources available for use and development to meet National, regional, and local needs, consistent with National objectives. The Mimbres Resource Area has an active lands and realty program as a result of intense local and regional demands. See Appendix C-1 for Lands and Minerals Disposal Policy.

Federal Land Policy and Management Act (FLPMA) (Public Law 94-579) provides authority for land ownership adjustments by sale, exchange, withdrawal and other means. The Act further requires that adjustments be in conformance with existing land-use plans.

Specific items to be examined while considering the merits of any disposal or acquisition action include:

1. Consistency and conformance with current planning.
2. Relative values.
3. Public Interest.
4. Willingness to sell or exchange on part of the landowner.
5. Prime and unique farmlands.
6. Floodplain/flood hazard evaluation.
7. Cultural and paleontological resource values.
8. Native American religious values.
9. Visual resources.
10. Areas of Critical Environmental Concern.
11. Wetlands and riparian areas.
12. Existing rights and uses.
13. Controversy.
14. Health and Safety.
15. Adjacent uses and ownership.
16. Air resources.
17. Special status species plants or animals and their habitat.
18. Mineral resources.
19. Recreation and wilderness values.

There are currently 14 Memorandums of Understanding and Cooperative Agreements in the Resource Area that address the lands program. These are listed in Appendix C-3.

PUBLIC LAND EXCHANGES

Laws such as FLPMA and the Federal Land Exchange Facilitation Act provide specific authority for land exchanges.

The emphasis for the exchange program in the Mimbres Resource Area is to acquire private and State trust lands in areas that have high resource values or unique characteristics that would enhance management of the public land, and dispose of public land that is valuable for urban expansion or other physical characteristics that make them difficult or uneconomical for BLM to manage. Every effort will be made to avoid creating split-estate when exchanging land. Existing split-estate land will be exchanged if they meet FLPMA disposal criteria.

Prior to filing a formal written proposal, an informal discussion of the exchange proposal is held with the non-Federal party. At this time, formal exchange proposals that are clearly not in the public interest are discouraged. Written proposals are reviewed to determine if the lands are covered by an approved RMP or MFP.

SALES OF PUBLIC LAND

The objective is to provide for the orderly disposition, at not less than fair market value, of public land identified for sale as part of the land-use planning process.

Under FLPMA, BLM is authorized to sell public land where, as a result of land use planning, it is determined that the sale of such tracts meets the following disposal criteria:

1. Such tract, because of its location or other characteristics is difficult and uneconomic to manage and is not suitable for management by another Federal department or agency; or

2. Such tract was acquired for a specific purpose and the tract is no longer required for that or any other Federal purpose; or

3. Disposal of such tract will serve important public objectives, including but not limited to, expansion of communities and economic development, which cannot be achieved prudently or feasibly on land other than public land and which outweigh other public objectives and values, including, but not limited to, recreation and scenic values, which would be served by maintaining such tract in Federal ownership.

LAND WITHDRAWALS

BLM policy is to keep the public land open for public use and enjoyment. However, there are conditions which may warrant the removal or withdrawal of certain public land from multiple use such as public safety or protection of special uses and resources. Withdrawals designate public land for a particular project, purpose, or use. They may transfer jurisdiction to another Federal agency. Normally, the land is closed to entry under all or some of the public land laws including the mining laws.

All withdrawals in the Mimbres Resource Area have been, or will be reviewed, according to the requirements of laws and existing guidance (see Table 2-3). Withdrawals will be continued, modified, revoked, or terminated consistent with the need as rejustified by the withdrawing agency. As withdrawals are revoked or terminated, the land use decisions in the RMP will apply to those areas. For withdrawals where BLM presently has management responsibility, all RMP decisions covering those areas apply.

Lands suitable for restricted management such as water power and reservoir sites are reviewed by the Federal Energy Regulatory Commission (FERC) on a case-by-case basis as they are received. Use restrictions and protection of other resources or prohibitions may be negotiated through the FERC as a result of the case-by-case review.

TABLE 2-3
WITHDRAWALS

NUMBER	DATE	PURPOSE AND SURFACE MANAGER	ACRES[a/]
DONA ANA COUNTY			
EO*	October 17, 1903	Rio Grande Reservoir Site (BOR)	50
Proclamation 2137	May 27, 1907	Protection of US/Mexico Border (Unknown)	998
EO 1526 & EO 2368 & EO 4266	May 3, 1912 April 24, 1916 July 20, 1925	Jornada Experimental Station and Range (USDA)	176,899 28,813 7,957
SO*	November 16, 1926	Rio Grande Project (BOR)	98
EO 8646	January 11, 1941	San Andres Wildlife Refuge (USF&W)	57,215
PLO 883 & PLO 1186	May 21, 1952 July 14, 1955	White Sands Missile Range (COE/DOD)	506,540
PLO 663 & EO 8649 & EO 8780 & EO 9115 & PLO 78 & PLO 1866	August 28, 1950 January 23, 1941 June 11, 1941 March 28, 1942 January 15, 1943 June 11, 1941	Rio Grande Canalization Project (IBWC)	0.27
PLO 2051	February 17, 1970	For Research Purposes (NMSU)	827
PLO 3462	November 23, 1964	For Water Supplies and Facilities to Benefit NASA/WSMR and Access Road (COE)	1,382
PLO 3685	June 10, 1965	For Research Facilities to Benefit NMSU (Antenna and Telecom "A" Mountain) (NASA)	2,789
PLO 4038	June 6, 1966	Ecology Plots & Demonstration Area (BLM)	40
PLO 4263	August 11, 1967	Animal Science Ranch (NMSU)	52,000
PL 101-578	November 15, 1990	Prehistoric Trackway Study	736
LUNA COUNTY			
SO*	November 22, 1894	Public Spring Ft. Cummings (USDI)	320
EO 7442 & EO 5255	August 31, 1936 December 31, 1929	Rifle Range (NM National Guard)	2,080
PWR #107 (SO Intp. 250)	February 16, 1939	Public Water Reserves (USDI)	560
PLO 60	November 13, 1942	Landing Field (NM National Guard)	200
SO 238	July 17, 1947	Air Navigation Site (Civil Aeronautics Admin., Dept of Commerce)	40
PLO 4038	June 6, 1966	Ecology Plots & Demonstration Area (BLM)	40

TABLE 2-3
WITHDRAWALS (concluded)

NUMBER	DATE	PURPOSE AND SURFACE MANAGER	ACRES[a/]
HIDALGO COUNTY			
PLO 4146	January 3, 1967	Protection of Mexican Duck (BLM)	190
PWR #107 (SO Intp. 250)	February 16, 1939	Public Water Reserves (USDI)	360
PWR #107 (SO Intp. 253)	August 19, 1940	Public Water Reserves (USDI)	40
PLO 4038 & PLO 4208	June 6, 1966 April 24, 1967	Ecological Plots & Demonstration Area (BLM)	40
GRANT COUNTY			
EO477	July 14, 1906	Fort Bayard (COE/DOD)	860
EO 637	May 23, 1907	Fort Bayard Water Supply (COE/DOD)	13,622
EO 5889 & EO 551 & EO 759 & EO 83 & WPD #1	July 16, 1932 No Date November 24, 1924 July 2, 1910 August 7, 1916	San Carlos Indian Irrigation (San Carlos Indian Reservation) and Powersites on Gila River (FERC)	35,908
PWR #107 (SO Intp. 250)	February 16, 1939	Public Water Reserve (USDI)	40
PWR #107 (SO Intp. 256)	August 22, 1939	Public Water Reserve (USDI)	240
PLO 6613	February 12, 1986	Red Rock Game Farm	712

Source: BLM Files (State Office and District Office), 1990.

Notes:
a/ Acres have been rounded off.
b/ 104,221 acres of the Jornada withdrawal is within the WSMR withdrawal boundary.
PLO = Public Land Order
SO = Secretarial Order
EO = Executive Order
PWR = Public Water Reserves
WPD = Water Power Designation
*Some secretarial and executive orders issued in early 1900's and before were identified only by date, no number was assigned

Classifications were made under the authority of the Classification and Multiple Use Act of 1964 (78 Stat. 986). These classifications delineated land suitable for disposal consistent with the requirements of the Act or for retention for multiple-use management. The retention classifications segregated the land against entry under certain public land laws. Small areas with highly unique resource values were sometimes further segregated against entry under the mining laws or the mineral leasing laws.

All classifications and classification terminations will be reviewed. This document deals with the questions of disposal and the segregations needed to accomplish these objectives. It also recommends the placement of further segregations against the mining laws or mineral leasing laws where they are needed to protect unique and valuable resources.

DESERT LAND ENTRIES

All lands not identified for disposal in the RMP will be retained in public ownership and managed for multiple use. All lands in soil capability Classes II through VII are not suitable for Desert Land Entries application or agricultural leases.

RECREATION AND PUBLIC PURPOSES (R&PPs)

The R&PP Act provides guidelines and procedures for transfer of certain public land to States or their political subdivisions, and to nonprofit corporations and associations to meet their needs for public land required for historical, recreational and public purposes. Under the R&PP Act, BLM has the authority to lease or patent public land to governmental and nonprofit entities for public parks and building sites at less than fair market value. Such applications are processed under the requirements of NEPA and are subject to public review. R&PP applications for lands outside disposal areas that meet the criteria outlined in 43 CFR 2740 and are consistent with management objectives in this plan will be considered.

The BLM leases or sells these public purpose areas to qualified applicants under a Special Pricing Program. These sale prices are determined in accordance with 43 USC 869-1(a) and (c). Leases or conveyances for recreational or historic monument purposes are issued without monetary consideration to Government entities.

New R&PP regulations will now allow BLM to sell landfill sites to local government entities provided Resource Conservation Recovery Act, NEPA, and FLPMA requirements are met. Any public land that may be used for a regional landfill must meet disposal criteria and be considered suitable for use as a landfill. Previously permitted landfills will be retained until the sites have been closed according to New Mexico Environment Division regulations.

RIGHTS-OF-WAY, LEASES, AND PERMITS

The Mimbres Resource Area grants rights-of-way (ROWs), leases and permits to qualified individuals, businesses, and governmental entities for the use of public land. New ROWs are issued within existing ROWs whenever possible to promote joint use. All ROW actions are coordinated, to the fullest extent possible, with Federal, State, and local government agencies, adjacent landowners, and interested individuals and groups.

All ROW applications are analyzed site-specifically on a case-by-case basis. There are no programmatic EAs for the lands program. Each case is reviewed by an interdisciplinary team. All ROW activities are subject to site-specific environmental analysis. Natural and cultural values are protected or avoided. Mitigation measures are incorporated within the authorizations to minimize the adverse effects of any surface disturbing activity. Project construction areas are rehabilitated by various reseeding and soil erosion control methods using the Resource Area's Reclamation and Reseeding Guidelines for guidance.

Applicants are encouraged to use existing corridors whenever possible. These existing corridors do not have a designated width, unless specified in the management prescriptions for the ACECs in Section 5. Prohibiting factors for width would be other resource conflicts, terrain, and land status. Most lands actions in the Resource Area are compatible, and overlapping ROWs are issued whenever possible. Numerous smaller ROWs (such as roads to private residences) are issued annually in addition to the larger ones mentioned above to accommodate public needs within the Resource Area. (See Map 2-3.)

The Resource Area's terrain offers a prime area for development of communication sites. Because of public demand for communication sites in the San Augustine Pass, the US Department of Army is concerned that frequencies, if not monitored

properly, could conflict with their defense testing. In a meeting with the Mimbres Resource Area Manager and White Sands Missile Range (WSMR) personnel, it was agreed BLM will no longer address communication sites in the San Augustine Pass area so long as WSMR is willing to consider communication site applications for that area. Should WSMR cease considering applications from private parties, the BLM will resume management of the area in accordance with provisions of this Plan. All public inquiries will be transferred to WSMR for consideration. The "A" Mountain site is another management concern. NASA and NMSU want the site to remain closed to future applications because they are concerned further development at the site would interfere with NASA's mission and research being conducted at NMSU.

BLM may make Federal land available for use by other entities. If land use planning procedures reveal that the public land has locations or sites highly suitable for habitation, cultivation or the development of trade or manufacturing, these lands can be made available for such use to individuals or non-Federal entities under a 43 CFR 2920 permit. Factors that are considered are whether the site and location values of the land outweigh the protection, management, utilization or extraction of resources under the Bureau's multiple-use management program or if the proposed use would enhance BLM programs. If so, the lands may be made available to State and local governments or the private sector.

SET ASIDES

Certain parcels of public land, within the boundaries of the Elena Gallegos Exchange, were set aside (reserved) by Memoranda of Understanding with the City of Las Cruces and the Las Cruces School District No. 2 for disposal and future development under the R&PP Act. Certain parcels were also set aside within the 10,000-acre State Land Exchange Area for existing and potential R&PP lease and/or patent. The legal descriptions of these areas are contained in Appendix C-2.

HAZARDOUS MATERIALS

The Resource Area continues to study any site where evidence indicates hazardous materials may be present. As unauthorized sites are found they will be assessed by performing a "Removal Evaluation" and cleaned up as necessary. If hazardous materials contamination cannot be removed, a Preliminary Assessment (PA) may be performed. If the results from the PA indicate that hazardous materials are significant or may have migrated off-site, further study might be necessary through a Site Investigation (SI) or a more comprehensive Expanded Site Investigation (ESI). Table 2-4 shows the status of landfill investigations as of June 1993. Once EPA and the State are satisfied with the investigations under Comprehensive Environmental Response Compensation Liability Act (CERCLA), the landfill will be closed following State regulations and any recommendations resulting from CERCLA investigations. All surface and mineral use authorizations are suspended pending the outcome of the studies. Additionally, the sites listed on the Federal facilities docket may be severely restricted from any other land use in the future. It is possible that only maintenance of the sites and monitoring will be allowed at the docket sites.

TABLE 2-4
LANDFILL INVESTIGATION STATUS

	STATUS	ON FEDERAL FACILITY DOCKET
Anthony	SI completed	Yes
Butterfield Park	PA scheduled	No
Chaparral	PA completed	Yes
Garfield	RE scheduled	No
Hatch	PA completed	Yes
Hill	PA completed	Yes
La Mesa	PA completed	Yes
La Union	ESI completed	Yes
Las Cruces	SI completed	Yes
Mesquite	PA completed	Yes
Mesilla Dam	ESI completed	Yes
Old Las Cruces	RE scheduled	No
Old La Union*	PA scheduled	No
Rincon	RE completed	No
Salem	RE scheduled	No
Salem-Garfield	RE scheduled	No
Virden North	PA scheduled	No
Virden South	RE scheduled	No

Source: BLM Files, 1993.

Notes: *This site has been formally closed by the BLM.
SI = Site Investigation
PA = Preliminary Assessment
ESI = Expanded Site Investigation
RE = Removal Evaluation

SPECIFIC DECISIONS

LAND OWNERSHIP AND ADJUSTMENT

A total of 156,460 acres of public land are identified for disposal through R&PP, sale or exchange (see Map 2-4). None of the areas identified for disposal are within an area of critical environmental concern (ACEC) or other special management area (SMA).

The existing decisions regarding disposal (as outlined in the Southern Rio Grande MFP Amendment) (BLM 1986) are carried forward with slight modification as follows: seven sections of land adjacent to the proposed Organ Mountains National Conservation Area that were identified for disposal in the Southern Rio Grande MFP Amendment will not be disposed (T. 22 S., R. 3 E., Sections 16, 21, 28, and 33; T. 23 S., R. 3 E., Section 33; T. 25 S., R. 3 E., Section 35; and T. 26 S., R. 5 E., Section 31.). See Appendix C-4 for specific decisions carried forward from the Southern Rio Grande Plan Amendment.

The specific land disposal area described as T. 20 S., R. 3 E., Sections 28 S1/2, 33, and 34; T. 21 S., R. 3 E., Sections 3, 4, 7 SE1/4, 8, 9, 10, 14 N1/2, 15 N1/2, 17, and 18 will be retained. A right-of-way (NMNM66383) has been granted to the National Aeronautics and Space Administration and a subsequent Memorandum of Understanding (NM-030-45) was signed in April 1990 reserving the public land for ground water monitoring wells. Based on the ground water studies, these lands may need to be withdrawn from multiple use management to protect public safety.

To facilitate orderly disposal on the East Mesa, two disposal zones are delineated:

- First priority for disposal is public land west of a north-south line 1 mile east of the boundary between R. 2 E. and R. 3 E.

- Second priority for disposal is public land east of the line described above.

A total of 2,896,080 acres of public land not identified for disposal will be managed in accordance with the provisions of Section 102(a) of FLPMA. See Map 2-4.

No public land contiguous to U.S. Forest Service (USFS) land will be disposed of regardless of parcel size. Coordination will take place with the USFS for reservation of easements on parcels adjacent to but not contiguous with Forest land as they are disposed.

No public land within ACECs and other SMAs will be disposed.

Public land may be disposed of through exchange in order to consolidate other public land outside of disposal areas. Only lands within disposal areas will be exchanged for lands outside the Resource Area.

A total of 93,110 acres of State trust land and 56,210 acres of private land are identified for potential acquisition. All State trust land and private land will be acquired within ACECs and other SMAs through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.

Picacho Peak is also identified for potential acquisition. If acquired, Picacho Peak may have ACEC potential, so the area will be managed under temporary special management until a decision is made in an RMP Amendment or Revision. The temporary special management includes the following:

- Exclude ROW authorizations
- Manage as VRM Class II
- Limit vehicles to designated roads and trails
- Close to mineral material sales

The Doña Ana Recreation Area, Massacre Peak, Fort Cummings, and Granite Gap Recreation Area classifications will be terminated upon publication of a Federal Register notice following completion of this Plan. Guadalupe Canyon, Organ Mountains Recreation Area, Baylor Recreation Area, and Needle's Eye Picnic Site will remain in effect until replaced by a protective withdrawal.

No applications will be accepted for disposal under the Desert Land Act.

RIGHTS-OF-WAY (ROW)

ROW exclusion areas are established for 264,870 acres and avoidance areas are established for 783,400 acres. (See Glossary for definitions of ROW exclusion areas and ROW avoidance areas.)

ROW exclusion areas include all:

- Areas of Critical Environmental Concern (ACECs)
- Research Natural Areas (RNAs)
- National Natural Landmarks (NNLs)

ROW avoidance areas include the following:

- Continental Divide National Scenic Trail
- Butterfield Trail
- Bighorn sheep areas
- VRM Class II areas

The remainder of the Resource Area is open to the location of ROWs, subject to standard stipulations (1,970,180 acres). Map 2-5 shows the location of the ROW exclusion and avoidance areas.

The BLM will encourage new facilities to be located near existing sites or in existing corridors. Existing ROWs within exclusion areas are recognized as grandfathered and operation, maintenance, and renewal of these facilities will be allowed to continue within the scope of the ROW grant.

New linear ROWs that terminate on private inholdings within an exclusion area may be authorized within an exclusion area if no other reasonable alternative exists. Special stipulations for avoidance areas will also apply to these authorizations.

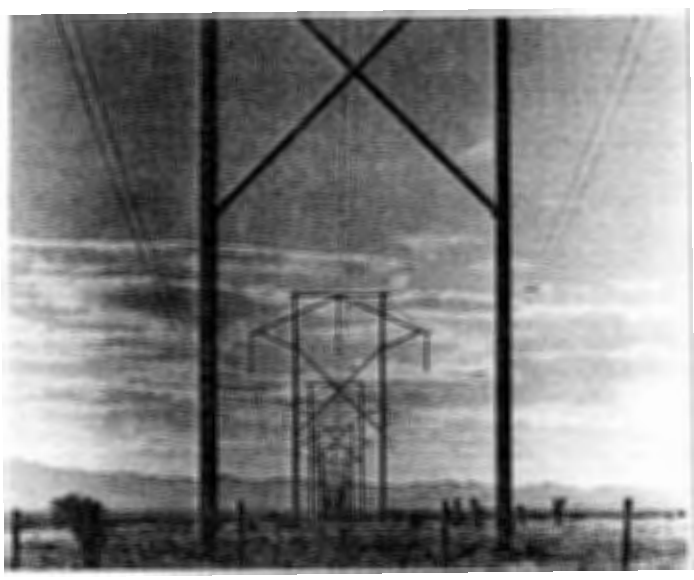
Existing ROWs within exclusion areas are recognized as grandfathered and operation, maintenance, and renewal of these facilities would be allowed to continue within the scope of the ROW grant.

The following special stipulations apply to new facilities within avoidance areas:

- Facilities will not be located parallel to the Continental Divide National Scenic Trail or Butterfield Trail.
- Facilities will not be located within 1/4 mile of any stage station on the Butterfield Trail.
- Facilities will not be located in riparian areas.
- Access routes will be limited and considered on a case-by-case basis. In some cases, construction and maintenance activities will need to be done aerially.

A site management plan will be prepared (with NASA and NMSU input) for "A" Mountain.

Management will continue to authorize routine commercial realty actions under the authority of 43 CFR 2920 throughout the 20-year life of this RMP.



NOTES

OBJECTIVE

The objective of the access program is to enhance access to and across public land in a manner that is compatible with the protection of sensitive resource values. The access program identifies areas where access is lacking or inadequate as well as those where access hinders successful management in other programs, and strives to achieve a balance whereby the public can access public land while having minimal detrimental impacts on natural resources.

DESCRIPTION

Existing transportation routes include Interstates 10 and 25, U.S. Highways 70, 80 and 180, and State Roads 9, 11, 26, 81, 90, 146, 338, and 464. In addition to the major State and Federal highways, numerous county roads traverse many portions of the Mimbres Resource Area.

Traditionally, BLM's transportation network utilizes the Federal, State, and County road systems. The easement acquisition program within the Mimbres Resource Area has been relatively inactive, largely due to a lack of past planning to support an acquisition program and because of minimal funding. In addition to the Federal, State, and County road system, BLM developed and maintains the 5.5-mile long Aguirre Spring Recreation Area access road, the 4.5-mile Pine Tree Trail, and the 6-mile Baylor Pass Trail. BLM also recently acquired and maintains approximately 3 miles of roads and 5 miles of trails in the Dripping Springs Natural Area.

Access concerns have steadily increased over recent years as the demand for access and use of public land has increased.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

The Mimbres Resource Area normally acquires one or two easements each year. As required by BLM policy, these easements generally provide legal access for one or more of these resource needs: Lands, Minerals, Forestry, Range, Wildlife, Recreation, and Watershed.

On a case-by-case basis, easements are acquired to establish legal access where road or trail easements are the most frequent type of acquisition. The method of determining needed access is in accordance with the BLM Planning Process.

All roads will be constructed or maintained in accordance with the BLM New Mexico Road Policy.

The following criteria guide prioritization of the areas for access development:

- Public demand
- Administrative needs
- Resource values/conflicts
- Availability of existing access

Specific access routes or methods of developing access will be identified in the route analysis which will be completed for each individual area. This process will be coordinated with adjacent landowners and permittees.

Prior to the development of access into any of the identified areas, a signing and patrol plan will be developed to address potential problems related to trespass onto private land, littering, and vandalism.

SPECIFIC DECISIONS

Access will be developed to 19 areas by building new roads, land ownership adjustment, or easement acquisition. Emphasis will be on vehicular or pedestrian access depending on the area and resource conflicts. Mimbres Resource Area will work with adjacent landowners and permittees to develop access.

The areas are shown on Map 2-6 and are listed below (the numbers in parentheses are referenced on the map):

Alamo Hueco Mountains (24) - Acquire legal public access for vehicular use to the north boundary of the WSA/ACEC.

Animas Mountains (14) - Acquire legal public access for vehicular use to the boundary of Cowboy Spring WSA/ACEC and to the Gillespie Peak area. Develop physical access for vehicular use to the north end of the Animas Mountains from State Road 9.

Apache Box (1) - Acquire legal public access to the west boundary (gate) through Bitter Creek.

Bear Creek (2) - Acquire administrative access.

Big Hatchet Mountains (23) - Acquire legal public access for vehicular use to the north, east, and west boundaries of the WSA/ACEC (Chaney, Thompson, and Sheridan Canyons).

Burro Mountains (6) - Acquire legal public access for vehicular use (north and south of Gila River).

Cedar Mountains (20) - Acquire legal public access for vehicular use to the boundary of the WSA/ACEC on the north and west sides.

Community Pit No. 1 (36) - Acquire legal access from Shalem Colony Road to public land (approximately ½ mile).

Cooke's Range (26) - Acquire legal public access for vehicular use on the east (Hadley Draw) and west (north of Provinger Canyon) sides.

Florida Mountains (28) - Acquire legal public access for vehicular use to the boundary of the WSA/ACEC on the south, east, and west sides (Copper Kettle Canyon, Byer's Spring, and Mahoney Park).

Gila Lower Box (5) - Acquire legal public access for vehicular use to the mouth of Nichol's Canyon, Fisherman's Point, and the Caprock Mountain area (north side).

Gila Middle Box (4) - Acquire legal public access to the boundary on either the upstream or downstream side.

Little Hatchet Mountains (19) - Acquire legal public access for vehicular use on the east and west sides (to maintain present physical access).

Organ Mountains (38) - Acquire legal public access for vehicular use south of Soledad Canyon through private properties.

Peloncillo Mountains (13) - Acquire legal public access for vehicular use to the mouth of Owl Canyon (west side) and north of I-10.

Pyramid Mountains (8) - Acquire legal public access for vehicular use into Rockhouse Canyon and the southeast part of the Pyramids.

Robledo Mountains (35) - Acquire legal public access across private land for vehicular use on the north end (via Fred Huff Road or Faulkner Canyon).

San Simon Cienega (9) - Acquire legal public access to the north end.

West Potrillo Mountains (40) - Acquire legal public access to the north and west sides.

NOTES

LIVESTOCK GRAZING

OBJECTIVE

The objective of the livestock grazing program in the Mimbres Resource Area is to manage the rangelands in an efficient manner by providing effective allotment management. This can be accomplished through careful planning, giving attention to proper placement of rangeland improvements, distribution of livestock, the kind and class of livestock, suitable grazing systems, assessing plant and animal requirements and vegetation treatments.

DESCRIPTION

There are 347 grazing allotments within the Doña Ana, Grant, Luna, and Hidalgo County Area. Of these, 206 are within the grazing district boundary and have set grazing capacities for each allotment (Section 3 of the Taylor Grazing Act). Grazing use on these allotments is covered by a term permit. The remaining allotments are outside the grazing district boundary, where grazing use is covered by a term lease (Section 15 of the Taylor Grazing Act). Livestock, owned by 256 livestock operators, utilize the forage on these permits and leases. Approximately 20 allotments located within Hidalgo County are administered by the BLM Safford District Office located in Safford, Arizona. These allotments are administered under a Memorandum of Understanding (MOU) between the Safford and Las Cruces Districts. The MOU also provides for the administration of a portion of one allotment located in Cochise County, Arizona by the Mimbres Resource Area.

There are 30 allotments in the Resource Area which have implemented Allotment Management Plans (AMPs) or Coordinated Management Plans (CMPs). These allotments are on grazing systems set up in cooperation with the individual permittees. The schedules allow for deferment on one or more pastures for a growing season or complete year's rest. Many ranchers are now practicing some type of grazing management through these or other grazing systems.

There is a total active grazing preference of 385,282 animal unit months (AUMs) in the Mimbres Resource Area. According to the most recent data available (1992-1993 grazing fee year), there was an actual licensed use of 295,754 AUMs. The licensed use will fluctuate from year-to-year, depending on market, forage, or other conditions.

Of the 3 million acres of public land in the Resource Area, approximately 90 percent can be grazed by livestock. The remaining 10 percent is considered unsuitable due to steep slopes (greater than 70 percent) or barren areas (less than 2 percent vegetation).

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

Livestock grazing in the Resource Area is authorized under the Taylor Grazing Act of 1934, FLPMA of 1976, and the Public Rangelands Improvement Act (PRIA) of 1978. BLM is directed to authorize and manage livestock grazing on public land under the principles of multiple use and sustained yield and to prevent the degradation of the rangeland resources by providing for their orderly use, improvement, and development.

The Endangered Species Act of 1973, the Archaeological Resource Protection Act of 1971, and NEPA of 1969 can affect livestock grazing activities by requiring additional resource management actions. Through the NEPA process, Federal agencies assess the impacts of their programs and actions on the human environment. Two EIS's on the grazing program cover the Mimbres Resource Area. These are the Southern Rio Grande EIS (BLM 1981) and the Las Cruces/Lordsburg Management Framework Plan Amendment/EIS (BLM 1984). These two EISs and associated MFPs provide program guidance through the proposed actions and management objectives identified. Approximately 20 allotments located in New Mexico are administered by the Safford District (located in Safford, Arizona). These allotments were covered by the Upper Gila-San Simon Grazing EIS (BLM 1978).

GRAZING MANAGEMENT POLICY

BLM's Final Grazing Management Policy established in 1982 and now incorporated in BLM handbooks identified goals and objectives consistent with BLM's responsibility to improve the rangelands and manage the grazing use on public land in compliance with laws and policies affecting the grazing management program. The intent of the policy is to make the grazing management program more efficient and cost effective by use of a selective management approach. This is accomplished by assigning management priorities among allotments or groups of allotments within a planning area based on similar resource characteristics, management needs, and both resource and economic potential for improvement. Selective management categories can be changed as additional resource information becomes available.

The three management categories specified in the Policy are:

- Category M - those allotments with current satisfactory conditions;
- Category I - those allotments where existing conditions are unsatisfactory and can economically be improved; and
- Category C - those allotments where the opportunity for positive economic return on public investment is unlikely.

Additional information on allotment categorization is located in Appendix D-1.

All allotments within the Mimbres Resource Area have been categorized according to the criteria contained in the grazing management policy (See Appendix D-1). The present allotment categories, including a summary of each allotment in the Mimbres Resource Area, is displayed in Appendix D-2.

GRAZING EIS'S

There are 347 allotments within the Mimbres Resource Area. Of this total, 206 are within the grazing district boundary and 141 are outside the boundary. A small portion of Cochise County in Arizona is administered for grazing in the Mimbres Resource Area. All allotments in the Resource Area

were categorized and decisions issued placing these allotments into one of three management categories. Category I allotments were further broken down into a high, medium and low priority rating depending on resource conflicts, utilization patterns, and needed rangeland improvements.

Under the proposed action alternatives in the two grazing EIS's, a number of rangeland improvement projects were identified for implementation. Table 2-5 shows the projects that were identified and the number that have been completed. The annual Rangeland Program Summary Updates identify the projects completed the preceding year.

The completed projects were done with Range Improvement Funds where the BLM and the permittee share the cost of construction. They do not include other rangeland improvement projects that have been built wholly at the permittee's expense or that have been built with other funds such as wildlife habitat improvement funds.

TABLE 2-5
RANGE IMPROVEMENT PROJECTS
GRAZING EIS's

PROJECTS	NO. PLANNED	NO. COMPLETED
Wells	27	5
Storage Tanks	24	21
Drinking Troughs	105	39
Pipeline	192.5 miles	115 miles
Dirt Tanks	32	0
Fence	216 miles	226 miles
Cattleguards	8	0
Erosion Dikes	77	0
Umbrella Catchments	4	0
Creosotebush Control	46,239 acres	10,664 acres
Mesquite Brush Control	30,846 acres	0

ALLOTMENT MANAGEMENT PLANS/ ACTIVITY PLANS

AMPs and other activity plans will continue to be developed for allotments to resolve resource problems or conflicts. Specific management actions will be developed at the activity plan stage. These plans will be prepared in consultation, cooperation, and coordination with the permittees, other landowners, and affected interests. The priorities for completing AMPs and activity plans will be determined by the allotment category; for example, Category I allotments will be first priority, followed by Category "M" and "C" allotments. Category I allotments will have an activity plan developed as the monitoring studies and allotment evaluations are completed.

GRAZING SYSTEMS

AMPs and other activity plans will normally include a grazing system which will provide periodic rest from livestock grazing. The type of system to be implemented will be tailored to meet the needs of the allotment and will be developed through consultation with the livestock operator and other affected interests. Consideration will be given to permittee needs, level of management, vegetation objectives, the degree and type of resource conflicts, initial costs

to implement the system, such as fences and waters, and other factors. A variety of grazing systems are available for consideration. Some of these are rest-rotation, deferred, deferred-rotation, rotation, and high intensity/short duration grazing.

Allotments with Special Management Areas or riparian zones will receive a higher priority for AMP development due to possible resource conflicts.

RANGELAND IMPROVEMENTS

The PRIA outlines the BLM's goal for investing in economically and environmentally sound rangeland improvements to improve public land for multiple use purposes. Copies of the law and resulting regulations are located in the Mimbres Resource Area Office.

A benefit/cost analysis will be used to help set improvement priorities on all new rangeland improvements. Rangeland improvements and vegetation treatments will continue to be implemented to improve or maintain forage production and range condition. Project implementation and the cost of these actions are based on several assumptions:

- Manpower and funding availability.
- Demand for products (i.e., beef) will continue.
- Objectives will be reached within 20 years of plan implementation.
- Actual implementation of the proposed developments may vary from those described at the planning stage.

During the preparation of the AMPs and activity plans, proposed developments will be further refined to reflect changes in allotment management and needs, along with the ever changing legislation, mandates, and policy.

LIVESTOCK USE ADJUSTMENTS

On an allotment, adjustments can be made by changing one or more of the following: the kind and class of livestock, the season of use, the number of livestock, or the pattern of grazing use. Any such adjustment is made only after the appropriate consultation, cooperation, and coordination with lessees, permittees, other landowners, District Grazing Advisory Board, and other affected interests as required by laws, regulations, and policy. Long-term increases in vegetation will be reserved for wildlife, watershed, and livestock on a case-by-case basis.

Permittees may apply for and be granted nonuse for definite periods of time based upon the following criteria: conservation and protection of the public land, annual fluctuations of livestock operations, financial or other reasons beyond the control of the operator, or livestock disease or quarantine. Such nonuse must be in accordance with the goals of the RMP, benefit or protect sensitive resource values (such as within an ACEC), and be approved by the Authorized Officer. Other applications for livestock use will not be considered while the approved nonuse is in effect.

MONITORING STUDIES

The monitoring of rangeland resources involves collection of data on the present grazing management system, the effectiveness of existing rangeland improvements, and present stocking rate, taking into consideration current precipitation data, livestock use levels, watershed and wildlife habitat needs, and current condition and trend. The studies help identify livestock distribution problems, needed rangeland improvements, vegetation treatments, initial adjusted stocking rates, and possible grazing management systems tailored for the particular allotment and its needs. The rangeland monitoring studies are used in the Mimbres Resource Area to monitor long-term rangeland ecological condition and trend and determine desired plant community goals.

Monitoring studies have been or will be established on all I allotments in the Mimbres Resource Area. The intensity and frequency of the studies depends on the allotment category. Category I allotments are monitored at a greater intensity than Category M and C allotments. Any necessary adjustments in stocking levels or other management practices will be based on these studies and consultation with the permittee, other landowners, and affected interests. There will be no changes in active grazing preference until monitoring studies indicate a change is necessary or as agreed upon with the operator or as provided for in the grazing regulations.

In the Afton Allotment (No. 03056), a series of small exclosures (100 acres total) will be constructed to provide ungrazed research sites.

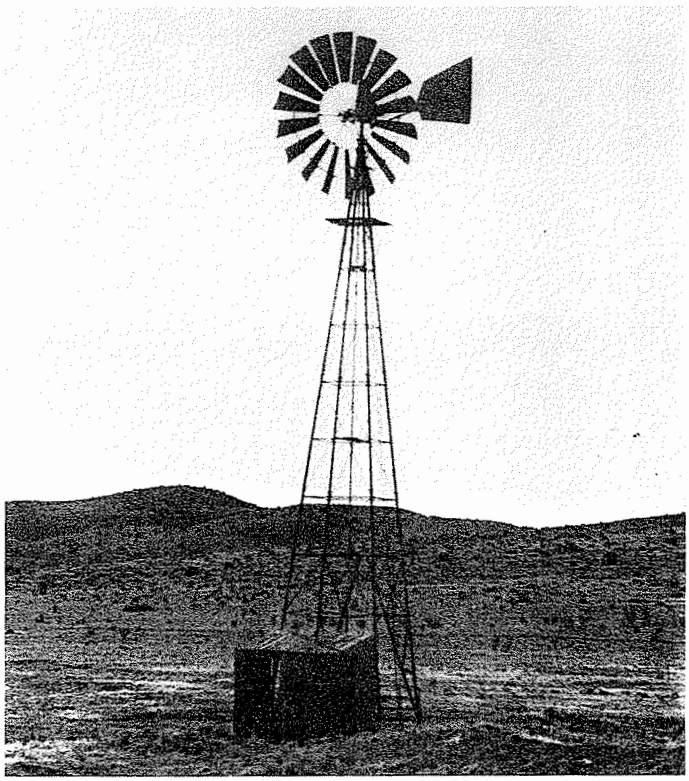
SPECIFIC DECISIONS

Specific decisions for planning issues or management concerns were not identified for the livestock grazing program. Livestock grazing was not an issue in the Mimbres RMP/EIS because specific decisions were made in previous documents, as described in the "Continuing Management Guidance and Actions" section. Some specific decisions relating to livestock grazing are also made under other resource headings.

ACEC prescriptions related to livestock grazing include the following:

- Livestock grazing would be eliminated on a total of 8,026 acres, including the Red Rock Game Farm (1,100 acres), the Central Peloncillo Mountains ACEC (4,446 acres in the Scholes allotment and Owl Canyon), the Bear Creek ACEC (1,480 acres), and portions of the Organ Mountains (1,000 acres). All areas except for Bear Creek are presently excluded from livestock grazing.

The fragile land areas shown on Map 2-7 will receive high priority for AMP or other activity plan revision or development, allotment monitoring, land treatments, allotment recategorization, and possible reduction or exclusion of surface disturbing activities including range improvement development and livestock grazing use. Efforts will be directed towards improving range condition and reaching desired plant community objectives within these areas. Fragile land areas within ACECs will receive the highest priority for improved management.



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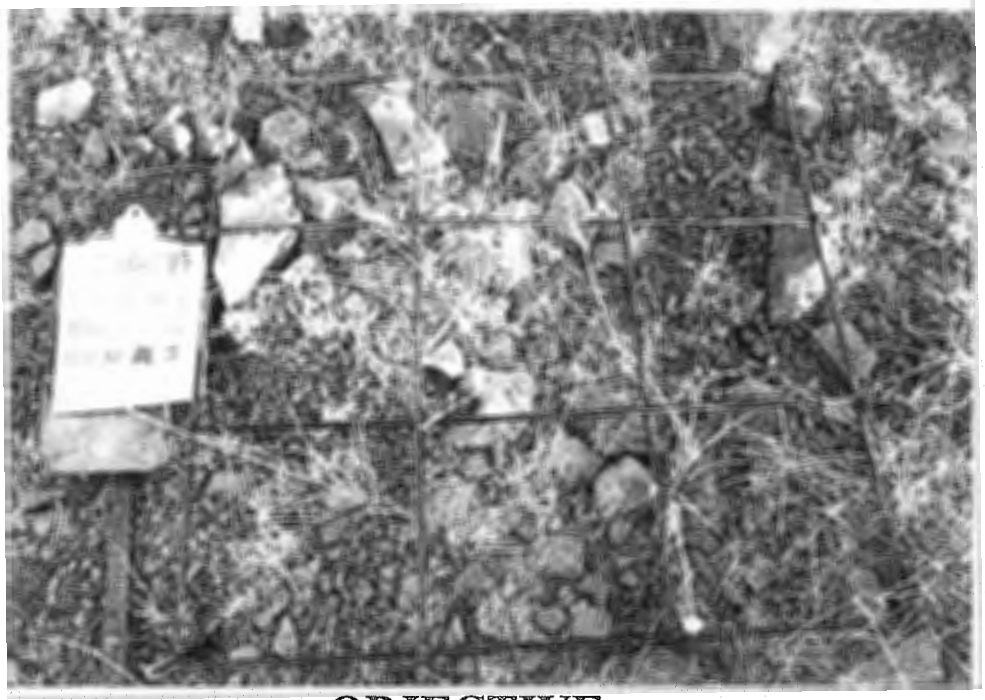
VEGETATION



OBJECTIVE

The objective of vegetation management in the Mimbres Resource Area is to maintain a desired plant community that produces the kind, proportion and amount of vegetation necessary for meeting or exceeding the land use plan goals and activity plan objectives established for each site. This program also establishes and processes vegetation sales, provides direction for land treatments and evaluates activities in fragile land areas.

DESCRIPTION

The vegetation in the Mimbres Resource Area varies greatly in its diversity, production, and potential due to differences in elevation, climate, soils, and topography. The Resource Area exhibits influences from the Chihuahuan Desert, Sonoran Desert, Mexican Highlands, Southern Rocky Mountains, and the Mogollon Plateau. A general description of the vegetation in the Mimbres Resource Area was gathered and compiled from the range surveys and range site mapping done in the late 70's and early 80's.

The Mimbres Resource Area contains portions of two Major Land Resource Areas (MLRAs). The two MLRAs are the Southern Desert-Subresource Area and the Western Plateau-Subresource Area.

The Southern Desert MLRA is characterized by elevations of 3,800 to 5,000 feet with mountain areas up to 8,000 feet. Gently sloping plains are broken by abruptly rising desert mountains. In the Resource Area, 89 percent or approximately 2,670,000 public land acres are in this MLRA.

The Western Plateau MLRA, characterized by elevations of 5,000 to 6,500 feet, is associated with general foothill topography with numerous canyons and dry washes adjacent to mountains. In the 4-County Area, 11 percent or approximately 330,000 public land acres are in this MLRA.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

Timbered or woodland areas are extremely limited in the Mimbres Resource Area. Vegetation sales for fuelwood or fenceposts will continue to be handled on a case-by-case basis. There will be no fuelwood sales except to accomplish other resource management objectives such as mesquite eradication or juniper thinning. Vegetation products for landscaping and decorative purposes are a major demand in the Resource Area.

Prickly pear, sotol, ocotillo, desert willow, little-leaf sumac, range ratany, soaptree yucca, and Spanish dagger are some of the plants sold for noncommercial purposes in the Resource Area. There are no commercial sale areas. Plant collecting is illegal without a permit (with the exception of small quantities for recreational use in accordance with 43 CFR 8365.1-5). Illegal plant collecting is a recurring problem throughout the Resource Area.

Prior to surface disturbing activities, such as sand and gravel operations, plants would be made available to the public and commercial operators. The Adopt-A-Plant program is in its initial stage of development. Under this program, native plants displaced as a result of surface disturbing actions will be "adopted" into private homes.

DESIRED PLANT COMMUNITIES

The desired plant community concept is defined as a plant community that produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan goals and activity plan objectives established for the site. The desired plant community becomes the vegetation management objective for the site. The desired plant community must be consistent with the site's capability to produce the identified community through land treatments such as prescribed fire and chemical brush control and prescribed grazing management. Table 2-6 contains the desired plant community objectives for major vegetation types in the resource area. Appendix E contains a more detailed discussion of the desired plant community concept. Maps showing desired plant communities are also available for review in the Mimbres Resource Area office.

LAND TREATMENTS

Grass upland areas will be treated mainly through prescribed grazing management (grazing systems). Grass bottomlands, mixed desert shrub (> 10 percent slope), snakeweed, and mountain brush types will be treated using combinations of prescribed burning, prescribed natural fire, and prescribed grazing management.

Chemical herbicides will be used for control of noxious weeds, during ROW maintenance, and control of competing or unwanted vegetation consistent with the New Mexico Record of Decision (ROD) for Vegetation Treatment on BLM Lands in the Thirteen Western States (August 1991). Such actions will be identified in site-specific environmental analyses on proposed vegetation control plans, which will be documented using an interdisciplinary approach.

Minimum width buffer strips and other criteria stipulated in the New Mexico ROD (see page 10) will provide an adequate level of protection in almost all situations. For those situations when additional protection is warranted, the buffer may be extended or other criteria developed that is appropriate to the local area.

Within the Mimbres Resource Area, additional protection of perennial streams will be provided by utilizing a 0.5 mile buffer when pelletized Tebuthiuron is used to treat creosotebush, mesquite, and mixed desert shrub, except during ROW maintenance operations. For economic reasons, usually only areas two sections in size or greater (1,240 acres) will be treated. Pelleted Tebuthiuron is also not effective and will not be used on the following range sites: bottomland, draw, clay, salt flats, salty bottomland, igneous hills, limestone hills,

malpais, and breaks. These are usually found in low-lying areas with heavier soils or in areas over 10 percent slope.

The above criteria may change as new chemicals become available. Prescribed fire or prescribed grazing management will be used to maintain these areas to the extent possible. Fire suppression will play a major role in maintaining pinyon-juniper, oak woodland, and conifer types, except where prescribed natural fires may benefit these areas (such as low intensity ground fires where scorch heights are low enough to prevent damage to trees). Table 2-7 summarizes land treatments for specific plant communities. See Maps 2-8 and 2-9.

All areas treated by prescribed burning, prescribed natural fire or chemical herbicides will be rested from grazing for at least two growing seasons in areas where livestock use occurs. Exceptions will be in grass bottomlands where grazing will be allowed after 4 inches of regrowth or as otherwise authorized. Any increase in forage will be reserved for livestock, wildlife, and watershed in accordance with management goals, objectives, and prescriptions for wildlife HMPs, livestock AMPs or other grazing activity plans, and watershed activity plans for specific areas. Prescribed burn plans and EAs will be developed for specific areas prior to the use of prescribed burning or prescribed natural fires. Treatment plans and EAs will be prepared for specific chemical treatment areas prior to herbicide application. Additional information is contained in the Final EIS Vegetation Treatment on BLM Lands in Thirteen Western States (BLM 1991).

SPECIFIC DECISIONS

VEGETATION SALE AREAS

The existing sale areas will be retained until the supply of plants is exhausted. Sale areas will then be expanded into adjacent lands identified for disposal. A new sale area will be located between Deming and Lordsburg.

LAND TREATMENTS

Grass bottomlands, mixed desert shrub (> 10 percent slope), snakeweed, and mountain brush type will be treated using combinations of prescribed burning, prescribed natural fire, and prescribed grazing management. Creosotebush, mesquite, and desert shrub (< 10 percent slope) will be treated almost entirely by the use of chemical herbicides.

Areas over 10 percent slope and within ½ mile of a perennial stream will not be treated chemically.

All areas treated by prescribed burning, prescribed natural fire, or chemical herbicides would be rested from grazing for at least two growing seasons in areas where livestock use occurs, unless otherwise authorized.

DESIRED PLANT COMMUNITIES

Grazing systems will be developed using forage utilization criteria for important forage species as outlined in Appendix D-3. Flexibility will be provided for permittees and lessees to deviate from these criteria where specified in allotment-specific plans which prescribe different use levels or different means of evaluating allotment objectives.

- Designate the Uvas Valley as an ACEC to protect a unique grassland community. Manage as described in Section 5.

TABLE 2-6
DESIRED PLANT COMMUNITY OBJECTIVES[a/]

PLANT COMMUNITY	% GRASS	% SHRUBS	% FORBS	ACREAGE
Creosotebush	40-60	20-30	20-30	695,240
Creosotebush[b/]	0-10	80-100	0-10	339,210
Mesquite	50-65	15-25	30-50	577,200
Mesquite[b/]	0-10	80-100	0-10	138,680
Snakeweed	60-75	10-15	10-30	438,830
Mixed Desert Shrub (<10% slope)	55-75	15-20	10-20	183,200
Mixed Desert Shrub (>10% slope)	20-30	40-60	20-30	203,940
Mountain Brush	35-55	30-40	20-30	158,630
Pinyon-Juniper/Oak Woodland/Conifer	0-30	40-70	0-30	59,350
Grass Bottomlands	70-80	10-20	10-20	571,880
Grass Uplands	65-80	20-30	15-30	696,190
Riparian	30-80 grass or grasslike	40-60 (woody veg)	30-60	4,600
Arroyo	0-15	40-70	18-20	21,050

Source: BLM Files, 1990.
Notes: a/ Specific species will be identified for each plant community at the activity planning level.
b/ These brush types would remain unchanged because they fall in the buffered area along perennial streams or are above the 0-10 percent slope contour and would not be treated chemically. These areas would generally not respond positively to changes in grazing management alone.

TABLE 2-7
PLANNED LAND TREATMENTS

PLANT COMMUNITY	AC. BURN	AC. CHEMICAL TREATMENT	PURPOSE
Creosotebush	N/A	533,200	Wildlife, watershed, forage production
Mesquite	N/A	425,700	Wildlife, watershed, forage production
Mixed Desert Shrub (<10% slope)	N/A	121,610	Wildlife, watershed, forage production
Mixed Desert Shrub (>10% slope)	86,830	N/A	Wildlife, watershed, forage production
Mountain Brush	141,510	N/A	Wildlife, watershed, forage production
Snakewood	281,250	N/A	Wildlife, watershed, forage production
Grass Bottomlands	168,550	N/A	Improve plant vigor, reduce shrub invasion, increase forage and palatability
Grass Uplands	Undetermined as needed	N/A	Wildlife, watershed, control shrub invasion
TOTALS	677,690	1,080,530	

Source: BLM Files, 1990.

SOIL, AIR AND WATER RESOURCES

OBJECTIVE

The objective of the soil, air and water program is to protect, maintain and enhance these resources on the public land as well as provide support to other resource programs.

DESCRIPTION

SOIL

SOIL SURVEYS

There are four existing soil surveys which cover the land within the Mimbres Resource Area. These surveys were conducted cooperatively by the USDA Soil Conservation Service, BLM, and the New Mexico Agricultural Experiment Station. The four surveys are:

1. Doña Ana County Soil Survey, 1980
2. Grant County Soil Survey, 1983
3. Hidalgo County Soil Survey, 1973
4. Luna County Soil Survey, 1980

The soil surveys depict map units which are made up of one or more soil series. Soils within a given soil series have similar diagnostic features and characteristics, therefore, all areas mapped as a given soil series or map unit will express similar soil characteristics (see Appendix K).

AIR

The air quality in the Mimbres Resource Area is generally very good. The air quality does not exceed the State or Federal air quality standards and is classified as a Class II area. A Class II area allows a moderate amount of degradation of air quality.

SURFACE WATER

The Mimbres Resource Area contains portions of three major river basins as designated by the New Mexico State Engineer for regional water planning. They are the Rio Grande, Lower Colorado, and the Rio Yaqui.

GROUND WATER

The Mimbres Resource Area is within the Basin and Range physiographic region and is characterized by north-trending subparallel mountain ranges separated by basins filled with alluvial material. Most of the ground water occurs in the alluvial deposits on lower mountain slopes and deep alluvial or bolson deposits in the valley. The bolson deposits are a heterogenous mixture of rock from the surrounding uplands and generally the product of more than one sequence of erosion. The fill material ranges in age from Pliocene to Pleistocene. Ground water is obtained from sand and gravel interbedded with clay and beds of silt. The ground water is derived from precipitation, with most of the recharge occurring along permeable streambeds. Generally in the closed basins where groundwater sources have been developed, withdrawals exceed recharge (BLM 1983).

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

SOILS

The BLM has cooperated with the USDA Soil Conservation Service in the National Cooperative Soil Survey Program. Participation in the National Cooperative Soil Survey Program will continue. Updating of the soil surveys and soil interpretive data will be used in planning, support, and implementation of resource activities.

Emphasis is placed on prevention of deterioration or degradation as well as conservation of the soil resource. Some protection is provided by the Conservation Reserve Program. All lands in soil capability classes II through VIII are not suitable for desert land entry petition application or agricultural leases. This program seeks to remove highly erodible lands from marginal agricultural operations.

AIR

Reduction of air quality impacts from activities on public land is accomplished by mitigation measures developed on a case-by-case basis through NEPA or other statutory or regulatory processes. Each impact is evaluated to see if it is allowable and acceptable. Activities such as road construction and sand or gravel extraction will have appropriate measures developed to mitigate impacts to air quality (such as dust abatement). These measures will be made a part of the permit or contract.

The BLM is required to comply with the New Mexico State Implementation Plan on air quality as well as meet responsibilities under the Clean Air Act, as amended, and FLPMA.

WATER RESOURCES

Policy and guidance for the management of water resources associated with land administered by the BLM is summarized in various BLM manual sections. A brief description of the different authorities for the program is also presented. General program emphasis is on water rights and watershed management specifically related to water quality and sediment yields.

WATER RIGHTS

A water use and water rights inventory has been completed in the Mimbres Resource Area to identify the status of the BLM's water rights filings. There are no ongoing adjudications in the Resource Area.

All water rights are acquired in accordance with State substantive and procedural law except where Congress or the Executive Branch has created a Federal reservation of a water right.

Federal reserved water rights are defined in legislation and Executive Orders. BLM's Federal reserved water rights claims are primarily associated with the withdrawal established by the Executive Order of April 17, 1926 which concerns public water reserves.

WATER QUALITY

Water quality regulation in the United States receives its basic authority from three laws. The Federal Water Pollution Control Act of 1972 and the Clean Water Act of 1977 as amended are the basic authorities for instream water quality standards and maximum permissible pollutant discharges. The Safe Drinking Water Act of 1974 is the basic authority for domestic water quality standards.

A growing concern is nonpoint source pollution. The New Mexico Water Quality Control Commission recently identified the main stem of the Rio Grande from Doña Ana south as having high amounts of pathogens, while the Mimbres River from Mimbres to San Juan and the Gila River from Davis Creek to the State line are impaired from extensive siltation, nutrients, and temperature. The BLM will continue to participate with the State and Environmental Protection Agency (EPA) in water quality management to ensure that management practices comply with State water quality standards.

The Colorado River Salinity Control Act passed in 1974 directed the Secretary of the Interior to undertake research and development of salinity control projects and to develop methods to improve water quality. An amendment to the Act passed in 1984 specifically requires the BLM to develop a comprehensive program for minimizing salt contributions to the Colorado River from BLM-administered public land.

WATERSHED ACTIVITY PLANS

There is currently one watershed management plan for the Clark Draw watershed on the east side of the Cooke's Range. Other activity plans such as the Placita Arroyo Coordinated Management Plan (CMP), San Simon CMP, and Gila Lower Box Coordinated Resource Management Plan also address watershed and riparian management concerns.

Control of soil erosion, sediment movement, and salt contamination of surface water remains a high priority management goal. Nonpoint source impaired watersheds and areas with critical to severe erosion (1.0 to greater than 3.0 acre $ft/mi^2/yr$) sediment yields, which produce runoff having more than 1,000 milligrams per liter (mg/1) dissolved salts, will be of major focus. Salinity control will be a priority on saline soils within the Colorado River drainage.

Continuing efforts to control erosion will include the following: minimizing surface disturbance from construction projects, closure and rehabilitation of unneeded roads, and control of off-road vehicle use in critical areas.

The soil and water programs will continue to emphasize legislative mandates of protection, as they relate to surface and groundwater quality, as well as provide support to other resource activities in the Mimbres Resource Area.

Project level planning will consider the sensitivity of the watershed (soil, water, and vegetation) resource in the affected area on a site-specific basis. All surface disturbing actions will require appropriate reclamation measures using the Resource Area's Reclamation and Reseeding Guidelines as guidance. All rangeland improvements and land treatments will be designed to minimize adverse impacts to the watershed resource. Project construction areas will be reseeded with a mixture of grasses, forbs, and shrubs as necessary. These projects consist of contour furrowing and pitting, mechanical treatments, and the construction of detention dams, diversions, water spreader, wire checks, and exclosures.

Critical soils on 0-10 percent slopes will be the first priority for land treatments and grazing management to reduce erosion and improve water quality. Critical soils on slopes over 10 percent will be a priority for grazing management to reduce erosion and improve water quality.

Watershed management plans will be developed for the following areas:

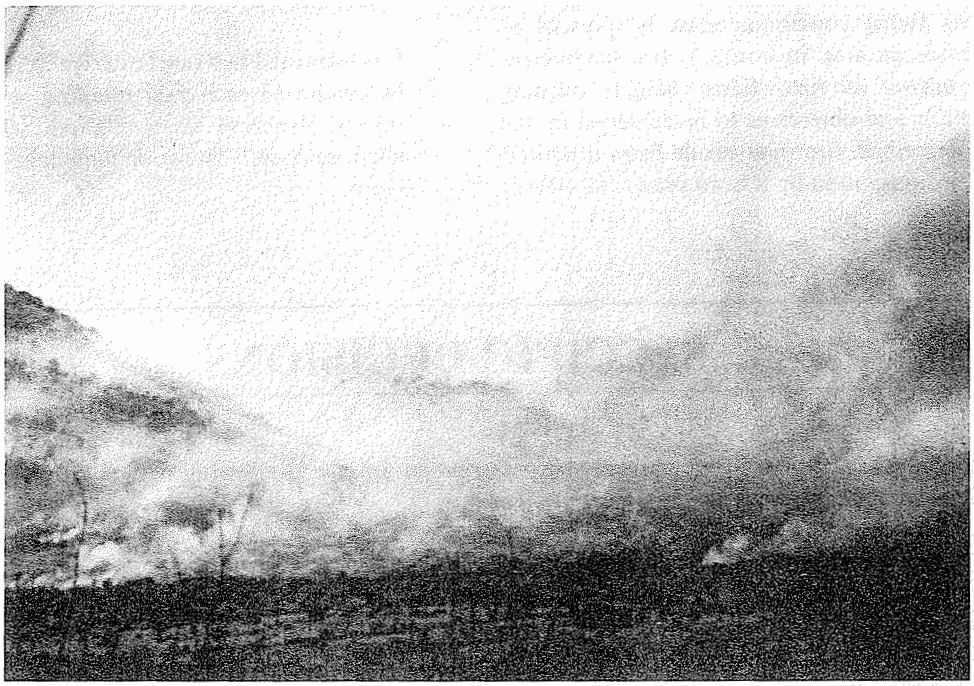
- Starvation/China Draw (southeast side of Cooke's Range)
- North side of Cedar Mountains
- Alamo Hueco/Big Hatchet Mountains (east side)
- Corralitos
- Gila River (Virden to Middle Box, north and south; would include provisions of existing Gila River Coordinated Resource Management Plan)
- Rincon/Hatch (both sides of river)
- Pyramids
- Uvas Valley

The criteria for identification of the areas include nonpoint source impaired watersheds, vegetation, slope, and critical soils. The locations of the areas are shown on Map 2-10.

The focus for management of air quality and efforts to secure guaranteed instream flow will be in ACECs where this is part of the management prescription for the ACEC (see Section 5).

Provisions for erosion control and air quality protection will continue to be incorporated into all surface-disturbing actions.

FIRE MANAGEMENT PROGRAM



OBJECTIVE

The objective of the fire management program is to enhance and protect the resources of the public land by preserving their capacity to contribute towards meeting resource needs. Prescribed fire will also be one tool used to achieve desired plant communities.

DESCRIPTION

The number and size of fires varies from year-to-year, depending on the occurrence of lightning storms and the amount of fine fuels build-up. Between 1977 and 1989, there were 63 fires on land administered by the Mimbres Resource Area. During those years, annual ignitions ranged from a low of 0 in 1986 to 10 ignitions in 1989. During this period, 46 of the fires were caused by lightning with sizes ranging from 1 acre to 3,000 acres. There were 17 man caused fires. Fuels consumed were primarily grass, pinyon/juniper, mixed brush, and creosotebush. A prescribed fire program was begun in the Resource Area in 1989. Since that time, five prescribed burns have been completed. These burns have been done to improve wildlife habitat or to improve rangeland for livestock grazing.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

The current Mimbres Resource Area policy is to initial attack all wildfires on or threatening public land. In high sensitivity areas such as the Organ Mountains or where significant property values exist, suppression strategies are geared towards minimizing burned acreage while protecting important resource values.

Prescribed fire is a management tool that the Resource Area has only recently begun to use. Before any area is subjected to prescribed fire, a fire management plan for that area must be prepared. This management plan identifies management prescriptions (what conditions must be present or existing before an area in burned); fire parameters (size and extent of fire, flame height, burning intensity, etc.); and objectives to be achieved by the burn. A prescribed fire may result from a natural ignition or from ignition by a burn crew. In either case, the conditions and parameters described in the burn plan must be met. In some parts of the Resource Area, such as the Bootheel region, prescribed natural fire will play a major role in vegetation and habitat management.

It is estimated that one to two prescribed burns would be conducted each year totalling several hundred to several thousand acres. These will mainly be in alkali sacaton, tobosa, or mountain shrub vegetation types.

SPECIFIC DECISIONS

ACEC prescriptions state no heavy equipment use in several areas and allowing natural fires to burn in several others. These include the following:

- Exclude heavy equipment for fire suppression in the following ACECs.

  Cooke's Range
  Central Peloncillo Mountains
  Big Hatchet Mountains
  Apache Box
  Alamo Hueco Mountains
  Cowboy Spring
  Florida Mountains
  Granite Gap
  Guadalupe Canyon
  Northern Peloncillo Mountains

- Develop prescribed natural fire plans for the following ACECs

  Big Hatchet Mountains
  Cooke's Range
  Florida Mountains
  Apache Box
  Central Peloncillo Mountains
  Cowboy Spring
  Organ/Franklin Mountains
  Granite Gap
  Guadalupe Canyon
  Northern Peloncillo Mountains
  Robledo Mountains
  Antelope Pass

Develop prescribed burn plans for other areas in the Resource Area where prescribed fire may be able to help meet the objectives of rangeland and wildlife habitat management.

WILDLIFE

OBJECTIVE

The objective of the wildlife program is to improve, enhance and expand wildlife habitat on public land for both consumptive and non-consumptive uses as well as biological diversity.

DESCRIPTION

There are 489 species of wildlife (excluding invertebrates) found in the Mimbres Resource Area. There are six existing Habitat Management Plans (HMPs) and one Coordinated Resource Management Plan (CRMP) which were developed in an effort to improve wildlife habitat. In addition to the development of HMPs, wildlife management actions include habitat developments and participation and review in the development of allotment management plans, mineral actions, and lands activities such as rights-of-way and disposals.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

Legislation such as FLPMA, the Sikes Act, the Endangered Species Act of 1973, as amended in 1982, and the Public Rangelands Improvement Act (PRIA), as amended, has directed the BLM to improve management of wildlife habitat to meet wildlife needs. PRIA outlines the BLM's goal for investing in economically and environmentally sound rangeland improvements to improve public land for multiple use purposes. The Wildlife 2000 initiative places added emphasis on expanding and creating a more effective wildlife program Bureauwide. New Mexico Fish and Wildlife 2000 and the New Mexico Operations Plan for wildlife are companion policy guides. This often conflicts with increasing demands for basic energy supplies, building materials, and food products. It is the responsibility of the Mimbres

Resource Area to identify opportunities to maintain, improve, and expand wildlife habitat on the public land for both consumptive and nonconsumptive uses as well as biological diversity. The RMP process also involves identification of wildlife habitats deserving special attention. Furthermore, it is USDI policy that Interior agency fish and wildlife management strategies assist State agencies in implementing fish and wildlife resource plans.

All actions in the Mimbres Resource Area are reviewed in an interdisciplinary site-specific analysis during the environmental assessment (EA) process to determine whether the action will affect wetland or riparian areas. Also considered are impacts to resident species' habitat, habitat improvement projects, and compatibility with the New Mexico Department of Game and Fish (NMDGF) and BLM Comprehensive Wildlife Plan. All rangeland and watershed improvements will continue to be designed to achieve watershed, range, and wildlife objectives. This includes location and design of waters and vegetation manipulation projects. Fences are designed to minimize resistance to wildlife movement.

ANIMAL DAMAGE CONTROL

Animal damage control activities on public land in the Mimbres Resource Area are guided by USDI policy and the annual Animal Damage Control Plan for the Las Cruces District, prepared jointly by the USDA and the BLM. The USDA has the responsibility for the program and supervises all control activities. The BLM approves all specific control actions on public land.

HABITAT MANAGEMENT

Habitat management plans (HMPs) and portions of Coordinated Resource Management Plans (CRMPs) are developed in an effort to improve wildlife habitat. Implementation and maintenance of existing HMPs and CRMPs will continue utilizing appropriated funds as well as funds to be derived from the Sikes Act Stamp Program. Existing HMPs are on file and available for review at the Mimbres Resource Area Office.

Monitoring of wildlife habitat by key species utilization will continue to be conducted as part of HMP and rangeland program monitoring. The information obtained from the vegetation transects will be incorporated into final grazing decisions where appropriate.

WILDLIFE MANAGEMENT ACTIONS

Wildlife management actions such as spring developments, exclosures, and game waters involve less than 1 acre of surface disturbance per year. The vegetation/land treatment actions for wildlife habitat improvement are included in the total estimate for vegetation treatments.

Prior to authorizing activities in crucial wildlife habitats such as winter ranges, raptor nest sites, and fawning habitat, considerations are made to avoid or minimize disturbance to wildlife. The area and time stipulations are shown in Table 2-8.

Grazing of domestic sheep and goats will not be allowed in bighorn sheep habitat areas. Existing guidance also addresses buffer areas for grazing of domestic sheep.

Prescribed burn projects are designed to improve wildlife habitat. Rangeland management practices and rangeland improvements are designed or modified to maintain or improve wildlife habitats. Livestock grazing management will incorporate the needs of key plant species important to wildlife.

All new fences are built to allow for wildlife passage in accordance with BLM fence standards. Any existing fences obstructing wildlife movements will be brought into conformance with the adopted standards. Wildlife escape devices are installed on all new and existing water tanks or troughs within the Mimbres Resource Area.

The construction of new roads into crucial wildlife habitats will be avoided. Permanent or seasonal road closures may be instituted where problems exist or are expected.

Raptor habitat will be improved by requiring all new powerlines to be constructed to "electrocution proof" specifications. Any existing lines will be modified to be "electrocution proof."

As HMPs are developed and implemented, particularly where the use of Sikes Act funds are involved, attention will be given to the development

of basic facilities for users such as parking lots and trailheads. Sikes Act projects to maintain, improve, or enhance wildlife habitat will be developed and implemented throughout the Resource Area.

TABLE 2-8
WILDLIFE AREA AND TIME STIPULATIONS

SPECIES	TIME PERIODS	AREA
Big Game		
Pronghorn antelope	Yearlong	Critical Habitat Area
Desert bighorn sheep	Yearlong	Critical Habitat Area
T&E and Candidate Species		
Common black hawk	3/1-8/30	1/2 mi. radius from nest
Ferruginous hawk	2/1-7/30	1/2 mi. radius from nest
Peregrine falcon	2/1-8/30	1/2 mi. radius from nest
Species of Concern		
Golden eagle	2/1-7/15	1/2 mi. radius from nest
Special Habitat		
Riparian, springs, wetlands, ponds, arroyo habitats	Yearlong	Within 500 feet

Source: BLM Files, 1990.

SPECIFIC DECISIONS

Continue to implement, maintain or revise existing HMPs or Coordinated Resource Management Plans for Florida Mountains, Big Hatchet-Alamo Hueco Mountains, Peloncillo Mountains, San Simon Cienega, Gila Lower Box, Franklin Mountains and Organ Mountains.

New HMPs will be developed in the Columbus area, the Cooke's Range/Nutt area, the Robledo Mountains, the Uvas Mountains, the Cedar Mountains, and the West Potrillo Mountains (see Map 2-11). Table 2-9 lists these areas with the priority species, objectives, population goals, and actions.

It is intended that population goals can be reached without reduction of livestock numbers (through grazing management and land treatments). Population goals may be revised as necessary through the HMP monitoring and evaluation process.

All HMPs will incorporate the following:

- Obtain production (population) data to correlate with monitoring (at a minimum, harvest information by area)
- Monitoring emphasis will be on preferred habitats for wildlife
- Monitoring will incorporate browse utilization/condition/trend

Animal damage control (ADC) actions will be conducted in accordance with annual ADC plans. The plan will specify times and conditions for control activities in accordance with management prescriptions, objectives, and goals.

In WSAs and wilderness areas (WAs), animal damage control directed at individual offending animals may be permitted, as long as this will not jeopardize the continued presence of any species in

the area. Use of the minimum control measure necessary to achieve the objective is required.

Designate the Gila Lower Box (6,490 acres) and the Gila Middle Box (840 acres) as ACECs to protect special status species and riparian habitat.

Designate Antelope Pass (8,710 acres) and Lordsburg Playa as Research Natural Areas to protect biological and research values.

Designate Cowboy Spring and Northern Peloncillo Mountains as ACECs to protect biological values and sensitive species habitat.

TABLE 2-9
WILDLIFE HMPs

HMP AREA	PRIORITY SPECIES	OBJECTIVES	POPULATION GOALS (MINIMUM)	ACTIONS
Columbus	Antelope[a/]	Transplant/introduce	50	Fence modification. Reserve 50 AUMs forage.
Cooke's Range/ Nutt	Deer/Antelope[a/]	Deer: Improve habitat Antelope: Transplant/introduce		
Robledo Mountains	Deer/Antelope[a/] Upland Game	Deer: Improve habitat Antelope: Transplant/introduce Upland Game: Improve and enhance habitat	Deer: 400 Antelope: 50	Fence modification. Water development.
Las Uvas Mountains	Deer	Improve habitat	300	Water development.
Cedar Mountains	Deer/Antelope[a/]	Deer: Improve habitat Antelope: Transplant/introduce Upland Game: Improve and enhance habitat	Deer: 300 Antelope: 100	Fence modification. Water development.
West Potrillo Mountains	Deer/Upland Game	Deer: Improve habitat Upland Game: Improve and enhance habitat	Deer: 300	Water development. Exclosure near water.
Organ/Franklin Mountains[b/]	Deer/Bighorn		Deer: 500 Bighorn: 100	Prescribed burning. Water development
Florida Mountains[b/]	Deer Ibex Upland Game	Upland Game: Improve and Enhance Habitat	Deer: 500 Ibex: 400	Prescribed burning. Water development.
Big Hatchet/Alamo Hueco Mountains[b/]	Bighorn/Deer	Upland Game: Improve and enhance Habitat	Bighorn: 250 Deer: 750	Prescribed burning.
Peloncillo Mountains[b/]		Bighorn/Deer	Bighorn: 250 Deer: 750	Fence modification

Sources: BLM Files, 1990, New Mexico Department of Game and Fish, 1990.
Notes: a/Antelope objectives and goals contingent on habitat inventory.
b/Existing HMP. Population goals for these HMPs were established at the time the HMPs were developed.

CULTURAL AND PALEONTOLOGICAL RESOURCES

OBJECTIVE

The objective of the Mimbres Cultural Resource Program is to manage cultural resources on public land in a manner that protects and provides for their proper use. Cultural resources include archaeological, historic, and socio-cultural properties. Paleontology and natural history are also managed under the cultural resource program.

DESCRIPTION

Several distinct cultural groups are known to have inhabited the region under consideration during the prehistoric period. The earliest human occupation occurred from about 9,500 BC to approximately 4,000 BC. This culture is known as the Paleoindian period and is divided into three traditions; Clovis, Folsom, and Plano. Isolated projectile points have been found within the study region which have been assigned to these Paleoindian cultures.

The second major prehistoric cultural tradition in the region has been referred to as the "Archaic" or "Desert Archaic." The various Archaic cultures are believed to have occupied the study area from 7,000 BC to about AD 100. The Archaic cultures are believed to have been nonsedentary, pre-pottery hunters and gatherers. Archaic period "lithic scatter" sites are known to occur within the study region, and are primarily identified through various projectile point styles.

The third major southwestern cultural group has been identified as the Mogollon. The Mogollon culture group has been divided into the western Mogollon and eastern or Jornada branch of the Mogollon. The Mogollon period starts at approximately AD 200 and extends to approximately AD 1400. Within this time period, several distinct changes occur and are characterized as the Early Pithouse Period, the Late Pithouse Period, and the Pueblo Period.

Agriculture was a basic element in all of the Mogollon periods, but was probably supplemented by hunting and gathering. Archeological sites from all three of the above stated Mogollon periods are known to occur within the study region.

In addition, the Apache are known to have occupied southern New Mexico from approximately AD 1650 to 1890. Archeological evidence for this occupation is rare, but Apache period sites could occur within the study area, as well as post-contact historic period sites (LeBlanc and Whalen 1980).

A wide variety of historic period sites are known to occur within the Resource Area. Some of these sites are located along two significant historic trails which pass through the Resource Area, the Camino Real and the Butterfield Trail. Historic sites include mining camps, military forts such as Fort Cummings, homesteads, and unique sites such as the historic Dripping Springs Natural Area Resort.

Paleontological resources occur throughout the Mimbres Resource Area. Vertebrate fossils and trace-fossils are found in most of the sedimentary rock formations in the area representing the Paleozoic, Cretaceous, and early Tertiary age, and younger sediments of Pliocene and Quaternary age. Vertebrate fossil faunas represent those of Permian amphibians and early reptiles (280 to 240 million years), Cretaceous dinosaurs (80 to 65 million years), primitive mammals from the Pliocene Santa Fe group (15 to 3 million years), and Pleistocene mammals (3 million to 12 thousand years) much like the animals we know today.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

The degree of management of cultural resources is commensurate with the scientific or socio-cultural values of the resource, the degree of threat, and the resource's vulnerability. Under this concept, the Mimbres Resource Area attempts to protect a representative sample of the full array of cultural resources, both prehistoric and historic, found on BLM-administered public land. Federal laws such as the National Historic Preservation Act of 1966 (NHPA) as amended, the Archaeological and Historic Preservation Act of 1974, the Archaeological Resources Protection Act (ARPA) of 1979 as amended, the American Indian Religious Freedom Act (AIRFA) of 1978, the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), and FLPMA provide for the protection and management of cultural resources.

These laws are implemented through Federal regulations which provide guidance for the cultural resource program in meeting the requirements of the law. These regulations, as amended, determine how the NHPA shall be implemented by Federal agencies, State Historic Preservation Officers (SHPOs), and the Advisory Council on Historic Preservation. In New Mexico, a Programmatic Memorandum of Agreement (PMOA) between the above three parties further defines these roles and streamlines the consultation process.

In addition to Federal regulations, special agreements such as the PMOA cited above, instruction manuals, and memoranda are issued at various departmental levels to provide both general and specific guidance for the management of cultural resources. Current instruction memoranda issued at the National, State, and District levels are retained in the Mimbres Resource Area files and are incorporated by reference.

Archaeological and historic resources are evaluated initially under the eligibility criteria of the National Register of Historic Places. Sites listed or eligible for the National Register are managed under BLM procedures which have been developed in conformance with relevant laws and regulations.

Socio-cultural resources are managed in accordance with AIRFA and NAGPRA, and with relevant sections of the regulations, which take into account concerns of Indian tribes in the implementation of ARPA. The consultation process with Indian tribes concerning sites and locations of traditional religious significance is open and on-going and has occurred in the preparation of this document.

INVENTORY

The BLM undertakes inventory and maintains a cultural resource database for all BLM-administered public land. These inventories are categorized into three classes: Class I - Existing inventory and literature search; Class II - Sampling field inventory (all sample units are inventoried to Class III standards); and Class III -Intensive field inventory. Except under certain specific conditions set forth under the BLM Cultural Resource Manuals, Class III inventory is required before any surface disturbance may occur.

The Mimbres Resource Area maintains a cumulative site inventory documenting the locations of all known sites, all areas surveyed, and areas known to be devoid of cultural resources.

Section 110 of the NHPA and ARPA as amended, state that it is the responsibility of each Federal agency to establish a program to locate, inventory, and nominate all properties under the agency's ownership or control that appear to qualify for inclusion in the National Register. The Mimbres Resource Area cultural resource program will meet its responsibilities to Section 110 by establishing a goal for completion of a 10-percent inventory over the 20-year life of the Plan.

An initial focus will be in Hidalgo and Luna Counties and all cultural ACECs. This sample will provide comprehensive data which may be used to determine significance of sites and enable the BLM to make well-balanced decisions. An overall goal of the sample inventory will be to gather sufficient data to build a model of cultural processes which are reflected in site density and distribution for the Mimbres Resource Area.

National Register nominations will be prepared on a regular basis. A goal of one nomination per year has been set. These actions will allow the cultural resources staff to make better informed decisions about the direct and indirect impacts on cultural resources. It will also significantly strengthen the current management approach for protection of cultural resource sites.

EVALUATION

The management goal category system establishes long-term strategies for each of the five classes of cultural resources. These goal categories provide the basis for committing individual cultural resource sites or properties to a specific-use category.

BLM evaluates cultural resources according to the use-category system. This category system is based on the consideration of actual or potential use of individual sites or properties and includes: (1) Current Scientific Use, (2) Potential Scientific Use, (3) Conservation for Future Use, (4) Management Use, (5) Socio-Cultural Use, (6) Public Use, and (7) Discharge Use.

PROTECTION

Protection of cultural resources is accomplished through the application of both administrative (such as off-road vehicle closure) and physical measures (such as fencing) as necessitated by the cultural resource's scientific and socio-cultural value, vulnerability, and degree of threat. Interim protection focuses primarily on the Patrol and Surveillance Plan, until specific cultural resource management objectives are developed. An active program of signing cultural resource properties under threat of active or potential vandalism will continue.

RESOURCE STABILIZATION

Actions to stabilize ruins may involve physical measures to control erosion and arroyo cutting and acquisition of sterile fill from BLM sources for recontouring damaged sites. Erosion control may average 10 acres of protective measures per year and recontouring may require an average of 2,000 cubic yards of fill annually.

Appendix E provides further detail on cultural resources, inventory, goal systems, and use categories.

PALEONTOLOGY

Management of paleontological resources in the Mimbres Resource Area is basically directed by the Federal Land Policy and Management Act of 1976, interpretation of various other legislative acts, and various instruction memoranda. Through these, the BLM's mandate is to manage and protect fossil resources that occur on the public land it administers. The BLM is presently involved in a process to develop specific legislation and a comprehensive set of Federal regulations for the management of paleontological resources on public land. This effort is being coordinated by BLM with the cooperation of

the U.S. Forest Service, National Park Service, U.S. Geological Survey, representatives of various State governments, professional societies, and amateur and commercial collectors. Draft regulations are expected to be completed in 1994. Presently, paleontological resources are managed through the issuance of scientific use permits (for vertebrate fossils) by the BLM New Mexico State Office.

The finalization of these regulations will not alter policy based on other pre-existing forms of legislation and regulation such as the National Environmental Policy Act of 1969 (NEPA); the Wilderness Act of 1964; 40 CFR 1500; 43 CFR 1600, 2740, 2800, 3000, and 8224.

SPECIFIC DECISIONS

- Designate the following cultural and paleontological areas as ACEC or RNAs and manage each area according to management prescriptions listed in Section 5 of this plan.

  Alamo Hueco Mountains ACEC
  Apache Box ACEC
  Cooke's Range ACEC
  Dona Ana Mountains ACEC
  Los Tules ACEC
  Old Town ACEC
  Organ/Franklin Mountains ACEC
  Paleozoic Trackway RNA
  Rincon ACEC
  Robledo Mountains ACEC
  San Diego Mountain ACEC

- Designate the Butterfield Trail as an historic trail.

- Eliminate livestock grazing at Old Town, Fort Cummings, and Dripping Springs Natural Area in accordance with the applicable cultural resource management plan and ACEC management prescriptions.

- Conduct Class III inventories at Fort Cummings, San Diego Mountains, Pony Hills, and Rincon ACECs.

- Research the historic roads and trails in the Resource Area including Camino Real, Santa Rita Copper Trail, spanish exploration routes, and historic wagon roads. Research historic mining towns and features.

- Conduct field schools at Old Town, Bruton Bead, Indian Basin, East Potrillo, South Florida, and Camp Cody sites.

- Restrict public access to the rock shelters at Apache Box; Apache Cave; Stein's Cave; and elsewhere as needed.

- Acquire (x number) Butterfield Trail Stage Stations on private and State trust lands through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.

- Close road to Bruton Bead site.

- Fence or cover with sterile fill the Los Tules site.

RECREATION

OBJECTIVE

The objective of the recreation program is to enhance opportunities for developed and undeveloped recreation on public land. The recreation program identifies areas with recreational values and enhances the public's knowledge and uses of those areas for recreational purposes.

DESCRIPTION

The Mimbres Resource Area provides many diverse opportunities for recreation, both developed and dispersed. Developed recreation is dependent on developed recreation sites, such as campgrounds or picnic areas, while dispersed recreation occurs over large areas encompassing most of the land in the Resource Area, independent of developed facilities. Public land provides 47, 39, 12, and 34 percent of dispersed recreation opportunities, respectively in Doña Ana, Luna, Grant, and Hidalgo Counties (New Mexico Natural Resource Department 1986).

Developed recreation on public land in the Resource Area is limited to the Organ Mountains, where camping is available at the 57-unit Aguirre Spring Recreation Area. Picnicking is available at the Aguirre Spring Recreation Area, the 14-unit La Cueva Picnic Area, and the 4-unit Dripping Springs Natural Area. Developed hiking trails in the Organs include the 6-mile Baylor Pass Trail, the 4-mile Pine Tree Trail, the 1½-mile Dripping Springs Natural Area Trail, the 1-mile La Cueva Trail, the 1-mile Filmore Canyon Trail, and the 2-mile Crawford Trail.

The Resource Area issues approximately ten Special Recreation Use Permits annually. Approximately half of these permits are for hunting guides while the rest go to annual events including the Baylor Pass Trail Run, the Great Overland Windsail Races, the Renegade Horse Endurance Ride, and the Coyote Classic Mountain Bike Race.

Dispersed recreation in the Resource Area includes hunting, hiking, camping, picnicking, rockhounding, fishing, birdwatching, and vehicle recreation. Table 2-11 summarizes recreation visits by Special Recreation Management Area (SRMA) and activity. Hunting is the most widespread dispersed recreation use in the Resource Area, with hunting seasons for game birds, small game, or big game species open year-round.

TABLE 2-10
ESTIMATED RECREATION VISITS BY
SPECIAL RECREATION MANAGEMENT AREA (SRMA)
AND ACTIVITY

ACTIVITY	ORGAN MOUNTAINS	GILA LOWER BOX	MIMBRES ESTENSIVE
ORV	1,000	100	10,000
CAMPING	10,000	500	3,000
PICNICKING	80,000	500	3,000
HUNTING	10,000	100	100,000
HIKING	40,000	500	10,000
SIGHT SEEING	20,000	0	20,000
ROCK CLIMBING	1,000	0	500
BICYCLE	5,000	0	5,000
TOTAL	187,000	1,700	151,500

Source: BLM, 1991.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

The objective of the program is to ensure the continued availability of quality outdoor recreation opportunities and experiences that are not readily available from other sources. Recreation use is managed in order to protect the health and safety of visitors; to protect natural, cultural, and other resource values; to stimulate public enjoyment of public land and to resolve user conflicts. The Recreation 2000 initiative places added emphasis on expanding and creating a more effective recreation program Bureauwide.

A range of outdoor recreation opportunities such as backpacking, camping, sightseeing, hunting, climbing, picnicking, mountain biking, and motorcycling will continue to be provided for all segments of the public, commensurate with demand. Trails and other means of public access will continue to be maintained and developed where necessary to enhance recreation opportunities and allow public use.

DEVELOPED RECREATION

A recreation area management plan (RAMP) is developed for all special recreation management areas. This plan implements the decisions of the RMP and describes the management direction for an area and addresses all recreation uses and potential recreation activities within the recreation management

area. This includes addressing the level of development and the construction of major facilities to accommodate recreation users.

DISPERSED RECREATION

Current management direction for dispersed recreation opportunities is provided for in the regulations and subsequent BLM manuals. The major form of dispersed recreation in the Resource Area is hunting.

MOTORIZED RECREATION

It is BLM policy (by Executive Order) that all public land be designated as "open", "limited", or "closed" to motorized and nonmotorized vehicle use (see Appendix F-2).

SCENIC OR BACKCOUNTRY BYWAYS

BLM's program of dedicating certain roads as scenic or backcountry byways will continue. After designation, byway management implementation plans will be developed and the routes will be signed. Proposed roads include the following:

- Aguirre Spring Recreation Area Road
- Red Rock Road
- Highway 81, Hachita to Mexican border
- Antelope Pass (U.S. 80)
- Highway 26, Deming to Hatch
- Dripping Springs Road
- Baylor Canyon Road

Environmental assessments of nominations will be prepared on a case-by-case basis.

CAVE INVENTORY AND MANAGEMENT

An inventory of cave resources will be conducted and caves will be managed in accordance with the Federal Cave Resources Protection Act of 1988 and related BLM policy. Significant cave locations will not be made public, and any actions which could adversely affect significant caves will be deferred or denied. BLM will take appropriate protection measures as needed.

RECREATION OPPORTUNITY SPECTRUM (ROS)

The BLM utilizes the ROS as a framework for defining outdoor recreation opportunity environments. It is a management tool for inventory, planning, and administration of outdoor recreation resources on public land. A general description of the ROS classes is contained in Appendix F-1. The ROS inventory needed for the remainder of the Mimbres Resource Area should be completed within the next 5 years.

RECREATIONAL FISHING

The BLM is working to enhance opportunities for fishing on public land through the recreational fishing initiative, which is part of the Recreation 2000 initiative. Recreational fishing opportunities in the Resource Area are limited to the Gila River and the Rio Grande.

RIVERS AND TRAILS

The USDI Heritage Conservation and Recreation Service compiled a Natural Rivers Inventory, Natural and Free-flowing Phase in April of 1980. The report described the Gila River in Arizona and New Mexico as being natural and free-flowing, and qualifying for further study for wild, scenic or recreational river potential. In May 1982, the USDI National Park Service completed an inventory of outstandingly remarkable values of the free-flowing rivers and determined that the Gila River in the Mimbres Resource Area contains five of the seven values which can qualify a river for further study. The Gila River between the Burro Mountains and Virden was evaluated for wild, scenic or recreational study potential as part of the RMP.

The National Scenic Trails Act of 1968 required the Secretary of Agriculture to complete a Comprehensive Plan for the Continental Divide National Scenic Trail and for the Departments of Agriculture and Interior to prepare environmental assessments of the trail. The Comprehensive Plan was completed in 1985 and directed the BLM to analyze potential routes for the Continental Divide National Scenic Trail in RMPs.

SPECIFIC DECISIONS

SPECIAL MANAGEMENT AREAS

The following new Special Recreation Management Areas (SRMAs) are designated (see Map 2-12):

- Dona Ana Mountains
- Fort Cummings

Prepare a Recreation Area Management Plan (RAMP) for the Dona Ana Mountains SRMA. The Fort Cummings SRMA will be managed in accordance with the existing Cultural Resource Management Plan.

Management of the two existing SRMAs will continue. The Organ Mountains SRMA will continue to be managed in accordance with the Organ Mountains Coordinated Resource Management Plan and the Gila Lower Box SRMA will continue to be managed in accordance with the Gila River Coordinated Resource Management Plan.

The focus of interpretive and educational efforts will be on ACECs or RNAs where this is part of the management prescription for the area (see Section 5).

The remainder of the Resource Area will be managed primarily for dispersed recreation opportunities.

Designate Aden Lava Flow (3,930 acres) as a Research Natural Area and continue designation of Kilbourne Hole as a National Natural Landmark to protect geologic, scenic and research values. Manage as described in Section 5.

The Gila Lower Box (2,480 acres) and the Gila Middle Box (760 acres) are designated as Wild & Scenic River Study Areas.

ORV DESIGNATIONS

Vehicle designations for the entire Resource Area are as follows:

- Open 16,190 acres
- Limited to existing roads and trails: 2,371,630 acres
- Limited to designated roads and trails 532,530 acres
- Closed: 133,470 acres

These areas are shown on Map 2-13.

The areas open to vehicle use are the Aden Hills Open Area (8,700 acres) and the Lordsburg Playa Open Area (7,490 acres). The support needs for these areas include a Class 3 cultural survey. The areas limited to designated roads and trails for vehicle use are all SMAs not designated closed and the Broad Canyon competitive motorcycle race area. The areas closed to vehicle use are the Mexican border area, south of the Anapra - Columbus Road and South of State Road 9 in Dona Ana and Luna Counties (89,180 acres), portions of the Organ/Franklin Mountains, Big Hatchet Mountains, and Florida Mountains ACECs (18,900 acres), and the following seven SMAs (18,280 acres):

- Apache Box ACEC
- Bear Creek ACEC
- Gila Lower Box ACEC
- Gila Middle Box ACEC
- Lordsburg Playa RNA
- Old Town ACEC
- Uvas Valley ACEC

Implementation of the border closure will be contingent upon signing. All other areas are limited to existing roads and trails for vehicle use. Existing roads and trails are defined as those in existence at the time of the designation.

Any road or trail created by the passage of vehicles after this date will not be considered open and will be subject to closure.

Exceptions to the vehicle designations may be permitted in writing. Exceptions will be made for public health and safety such as law enforcement and search and rescue, especially along the international boundary. Exception for mining operations will be addressed in Plans of Operations, notices, permits, and sales. Exceptions will be made for livestock grazing permittees for emergencies such as emergency feeding, rescue of sick livestock, and emergency fence repairs along the international boundary. The user is required to notify BLM within 2 working days after such use. The Border Patrol will be notified immediately for fence repairs along the international boundary. Other exceptions may be

permitted in writing for activities such as fence repairs and dirt tank maintenance.

ACEC prescriptions related to Recreation include:

- Impose a no shooting restriction from February 1 to August 15 in Apache Box ACEC.
- Impose a no shooting restriction year-round within the rim of Kilbourne Hole.
- Close Guadalupe Canyon and Cooke's Range ACECs to fuelwood collection.
- Designate the Continental Divide National Scenic Trail Corridor. Mark or construct the trail within that corridor. Work with Gila National Forest (lead) to designate the trail route. Develop four trail heads and parking areas for access to the trail.
- Develop a parking area and trail to Aden Crater.
- Develop trails and primitive hunter camps in the Florida Mountains.
- Secure instream flow in the Gila Lower and Middle Box when State law allows.

NOTES

WILDERNESS

OBJECTIVE

The objective of the wilderness program is to identify areas that are suitable for wilderness designation, and to manage those areas in a manner that will preserve the natural values of those ecosystems.

DESCRIPTION

The Mimbres Resource Area contains 14 Wilderness Study Areas (WSAs) designated in 1980, totalling 382,909 acres. The BLM completed the New Mexico Statewide Wilderness Study Environmental Impact Statement and Wilderness Analysis Reports in January of 1988. Portions of seven of these WSAs (totalling 239,018 acres) have been recommended as suitable for wilderness designation by the New Mexico State Director, Secretary of the Interior, and the President. These areas are the Aden Lava Flow, the Big Hatchet Mountains, the Cowboy Spring, the Gila Lower Box, the Organ Mountains, and the West Potrillo Mountains and Mount Riley WSAs. The Alamo Hueco Mountains, Blue Creek, Cedar Mountains, Cooke's Range, Florida Mountains, Robledo Mountains, and Uvas Mountains WSAs have been recommended as nonsuitable for wilderness designation.

Four other areas within the planning area boundary have been studied for wilderness suitability. All four areas are managed either jointly or completely by the San Simon Resource Area of the Safford District in Arizona. The Peloncillo Mountains WSA contains 4,061 acres that were recommended nonsuitable within New Mexico. In 1990, 19,650 acres of the Peloncillo Mountains within Arizona were designated wilderness. The 4,146-acre Guadalupe Canyon Instant Study Area was studied for wilderness suitability in the Coronado National Forest Plan, and was recommended as nonsuitable for wilderness designation. The 932-acre Apache Box and the 22-acre Hoverrocker WSA were studied for wilderness suitability in the Arizona Mohave Wilderness EIS and recommended as nonsuitable for wilderness designation.

All areas studied for wilderness suitability are currently being managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review, and will continue to be managed as WSAs until Congress either designates the areas as wilderness or releases them from the wilderness review process through legislation.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

The 14 WSAs in the Mimbres Resource Area will be managed under the Interim Management Policy and Guidelines for Land Under Wilderness Review (BLM 1987), until the area is either added to the National Wilderness Preservation System or removed from further wilderness consideration. If designated as wilderness, the area will be managed under the Wilderness Management Policy (BLM 1981). If removed from further wilderness consideration, the area will be managed under the guidance prescribed by this RMP. BLM wilderness recommendations for the 14 WSAs plus four areas in New Mexico that are administered by the Safford District are shown in Table 2-13 and on Map 2-15.

Wilderness suitability recommendations for the 14 existing WSAs were provided in the New Mexico Statewide Wilderness Study Final Environmental Impact Statement (BLM 1988) and will be unaffected by this RMP. The RMP will not address wilderness management of any areas designated by Congress as wilderness. Post-designation management will be detailed in separate Wilderness Management Plans. The RMP will prescribe management for any of the 14 WSAs that are released from wilderness study by Congress.

Public land has been consolidated in four areas through acquisition of State trust or private lands, necessitating wilderness inventories on these areas. The four areas are the southern Organ Mountains from Barr Canyon to Peña Blanca; the Organ Needles WSA in the Organ Mountains from the southern boundary of the Organ Mountains WSA south to Squaw Peak; the Gray Peak WSA in the Peloncillo Mountains from Gray Peak south to Post Office Canyon; and the Apache Box WSA from Apache Box south to Crookson Peak. These four areas all meet the wilderness criteria for size, solitude, opportunities for primitive and unconfined types of recreation, and supplemental values (see Appendix I, for Wilderness Inventory Reports). The Peña Blanca, Organ Needles, and Gray Peak WSAs all appear to be natural. The Apache Box WSA has a number of human impacts to naturalness throughout the area.

As changes in land ownership occur, newly acquired areas will be inventoried and studied as necessary through the RMP process.

TABLE 2-11
MIMBRES RESOURCE AREA
WILDERNESS RECOMMENDATIONS

WILDERNESS STUDY AREA	TOTAL BLM ACRES	SUITABLE ACREAGE	NON SUITABLE ACREAGE
Aden Lava Flow	25,287	25,287	0
Alamo Hueco Mountains	16,264	0	16,264
Apache Box*	932	0	932
Big Hatchet Mountains	65,872	45,374	20,498
Blue Creek	14,896	0	14,896
Cedar Mountains	14,911	0	14,911
Cooke's Range	19,608	0	19,608
Cowboy Springs	6,699	6,699	0
Florida Mountains	22,336	0	22,336
Gila Lower Box	8,555	5,835	2,720
Guadalupe Canyon*	4,145	0	4,145
Hoverrocker*	22	0	22
Organ Mountains	7,283	7,283	0
Peloncillo Mountains*	4,061	0	4,061
Robledo Mountains	12,946	0	12,946
Las Uvas Mountains	11,067	0	11,067
West Potrillo Mountains and Mount Riley	157,185	148,540	8,645
TOTAL	392,069	239,018	153,051

Source: BLM New Mexico Statewide Wilderness Study, Final Environmental Impact Statement, 1988.
Note: *Areas administered by the BLM Safford District.

SPECIFIC DECISIONS

Four areas, totalling 33,280 acres, are designated as WSAs (see Map 2-16). These areas will be managed according to the Bureau's Interim Management Guidelines for areas studied under Section 202 of FLPMA until the study is complete, and the areas are either designated as wilderness or released by Congress.

- Organ Needles (7,630 acres)
- Gray Peak (14,678 acres)
- Apache Box (6,300 acres)
- Pena Blanca (4,470 acres)

NOTES

VISUAL RESOURCES

OBJECTIVE

The objective of visual resources management is to identify areas on public land that contain important scenic quality, and to manage those areas to maintain that scenic quality.

DESCRIPTION

The visual resources of the Resource Area have been inventoried and classified into Visual Resource Management (VRM) classes. VRM classes are management zones wherein management actions and controls on proposed actions vary in relation to scenic values. (See Appendix G.) Management objectives for VRM Classes are:

CLASS I.

Preserve the existing character of the landscape. Natural ecological changes and very limited management activities are allowed. Any change to the characteristic landscape must not attract attention.

CLASS II.

Retain the existing character of the landscape. The level of change to the character of the 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.

Partially retain the existing character of the landscape. The level of change to the characteristic landscape can be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

CLASS IV.

Provide for management activities which require major modification of the existing landscape. The level of change to the characteristic landscape can be high. These management activities can dominate the landscape and be the major focus of viewer attention; however, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Table 2-12 displays the total acreages by class of inventoried public lands.

TABLE 2-12
VISUAL RESOURCE MANAGEMENT ACREAGES
WITHIN THE MIMBRES RESOURCE AREA

CLASS	ACREAGE
VRM CLASS I	159,310
VRM CLASS II	744,621
VRM CLASS III	629,314
VRM CLASS IV	1,546,218
TOTAL	3,079,463

Source: BLM Files, 1990.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

Visual resources will continue to be evaluated as part of resource management activity and project planning. A contrast rating process is used as a project assessment tool during environmental review of affected areas. Appropriate stipulations are established to ensure compatibility of the project with management objectives for visual resources.

The VRM system will continue to be the basic tool for inventory, planning, and management of visual resources on public land. A visual contrast rating will be prepared for all projects proposed within highly sensitive areas and for potentially high impact projects, regardless of location.

Congressionally designated areas and scenic ACECs are subject to Class I VRM guidelines. WSAs are subject to an interim Class II category.

SPECIFIC DECISIONS

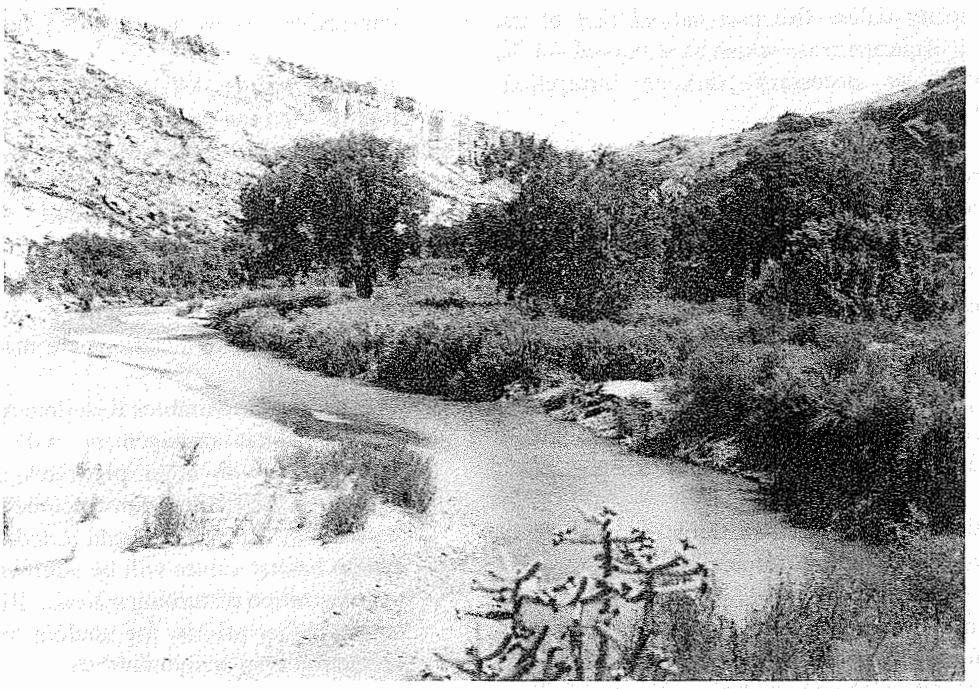
A total of 159,310 acres in 10 areas are designated as Scenic Areas of Critical Environmental Concern (ACEC) and are managed as VRM Class I areas. VRM Class II areas include the wilderness study areas (WSAs), the Organ and Franklin Mountains, and most mountain ranges and hills in the Resource Area, especially along highways. Class III areas are mainly the flatlands, uplands, and basin areas along highways. Class IV areas comprise the nonhilly areas that are not visible from highways. See Map 2-14

The following areas are designated as Scenic ACECs and will be managed as VRM Class I areas. VRM Class ratings will continue for the remainder of the Resource Area.

Alamo Hueco	13,020 acres
Apache Box	2,630 acres
Big Hatchet Mountains	29,180 acres
Central Peloncillo Mountains	12,750 acres
Cooke's Range	17,160 acres
Dona Ana Mountains	1,490 acres
Florida Mountains	15,660 acres
Granite Gap	1,750 acres
Organ/Franklin Mountains	56,480 acres
Robledo Mountains	9,190 acres

NOTES

RIPARIAN AND ARROYO HABITATS



OBJECTIVE

The objective of the riparian program is based on the BLM's formal riparian policy (adopted in 1987) which is directed at achieving a healthy and productive ecological condition for public land riparian areas. Arroyo habitats also contain unique and diverse vegetation and wildlife habitats which may require special management attention.

DESCRIPTION

Riparian areas are defined as an area of land directly influenced by permanent water. They have visible vegetation or physical characteristics reflective of permanent water influence. Spring areas and streambanks are typical riparian areas. Ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil are excluded.

Arroyo habitats associated with the many dry washes throughout the Resource Area are not considered riparian areas by definition. However, because of their unique and diverse vegetation which often occurs in stark contrast to surrounding desert areas, they are considered important areas which may require special management attention.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

In 1987, the BLM adopted a formal riparian policy directed at achieving a healthy and productive ecological condition for public land riparian areas.

Other laws and policies deal with wetlands, floodplains, and related areas which are encompassed by the term riparian.

Riparian areas will not be disposed of through sale or exchange unless disposal would be in the public interest.

Suppression of wildfire in riparian habitats will have a high priority unless fire is a natural part of the ecosystem. Riparian areas which have burned will be rehabilitated as necessary through protection, reseeding or planting.

Grazing management practices will be designed and established to meet riparian and water quality needs in the development of new AMPs and in the revision of existing AMPs. In those instances where management systems alone cannot meet objectives, provisions for fencing or other means of exclusion will be utilized. No livestock-related activities such as salting, feeding, construction of holding facilities, and stock driveways will be allowed to occur within riparian zones unless specifically authorized.

Construction activities which remove or destroy riparian vegetation will be avoided.

Minerals management actions and special stipulations or conditions will be designed to be compatible with riparian habitat management goals. Riparian buffer zones will be identified and provided for in the exploration and development of mineral resources.

There will be no vegetation treatments in riparian areas using herbicides except for selected treatment of non-native species such as salt cedar.

All new spring developments will be designed to protect riparian areas, while selected existing spring developments will be modified for the same reason. Where possible, and if the need exists for wildlife, parts of reservoirs will be fenced or water for livestock will be provided away from the reservoirs in consultation with the permittee. Wildlife habitat needs will be considered when reservoir site determinations are made.

Throughout the Mimbres Resource Area, riparian and arroyo habitat management will continue to be coordinated with other programs and activities as needed. Specific programs include Range, Wildlife, Watershed, Recreation, and Lands. Riparian and arroyo habitat values will be addressed in all surface and vegetation disturbing actions. Riparian areas will have a higher priority for funding, management, and protection than arroyo habitats.

SPECIAL STATUS SPECIES

OBJECTIVE

The objective of the Special Status Species program (BLM Manual 6840.86) is to give priority to the protection and management of habitat for known populations of Federal or State listed species, to prevent the listing of Federal candidates, and to assist in recovery of listed species.

DESCRIPTION

There are 110 special status plant and animal species which may occur in the Mimbres Resource Area (Appendix L-1, L-2). Present management for Special Status Species consists of protecting and enhancing habitat and all proposed actions are evaluated for their potential impact on known populations of, or potential habitat for, listed or candidate species.

CONTINUING MANAGEMENT GUIDANCE AND ACTIONS

The Endangered Species Act requires that the BLM consult with the U.S. Fish and Wildlife Service (FWS) on all actions which may affect a special status species (and to confer for proposed species).

BLM policy, as described in Manual 6840.06, for the endangered species program is to give priority to the protection and management of habitat for known populations of Federal or State listed species, to

prevent the listing of Federal candidates, and to assist in recovery of listed species.

Present management for Federal or State species consists of protecting and enhancing habitat and all proposed actions are evaluated for their potential impact on known populations of, or potential habitat for, listed or candidate species and to develop and implement recovery plans with objectives for listed species on public land. Conservation of habitat can be accomplished through special designations such as ACECs. The Organ Mountains Coordinated Resource Management Plan also provides specific management guidance for special status species within that area. Compliance with the Endangered Species Act (Section 7 Compliance) is required for all Federal actions regardless of land ownership. Other Coordinated Resource Management Plans and HMPs will include objectives and planned actions for the recovery of listed species within those areas, in accordance with recovery plan objectives.

Inventory for Federal listed and candidate species and state endangered or rare species will continue, and monitoring programs will be implemented on known populations of these species. Where monitoring identifies threats to these populations, appropriate actions will be taken to protect the species and its habitat.

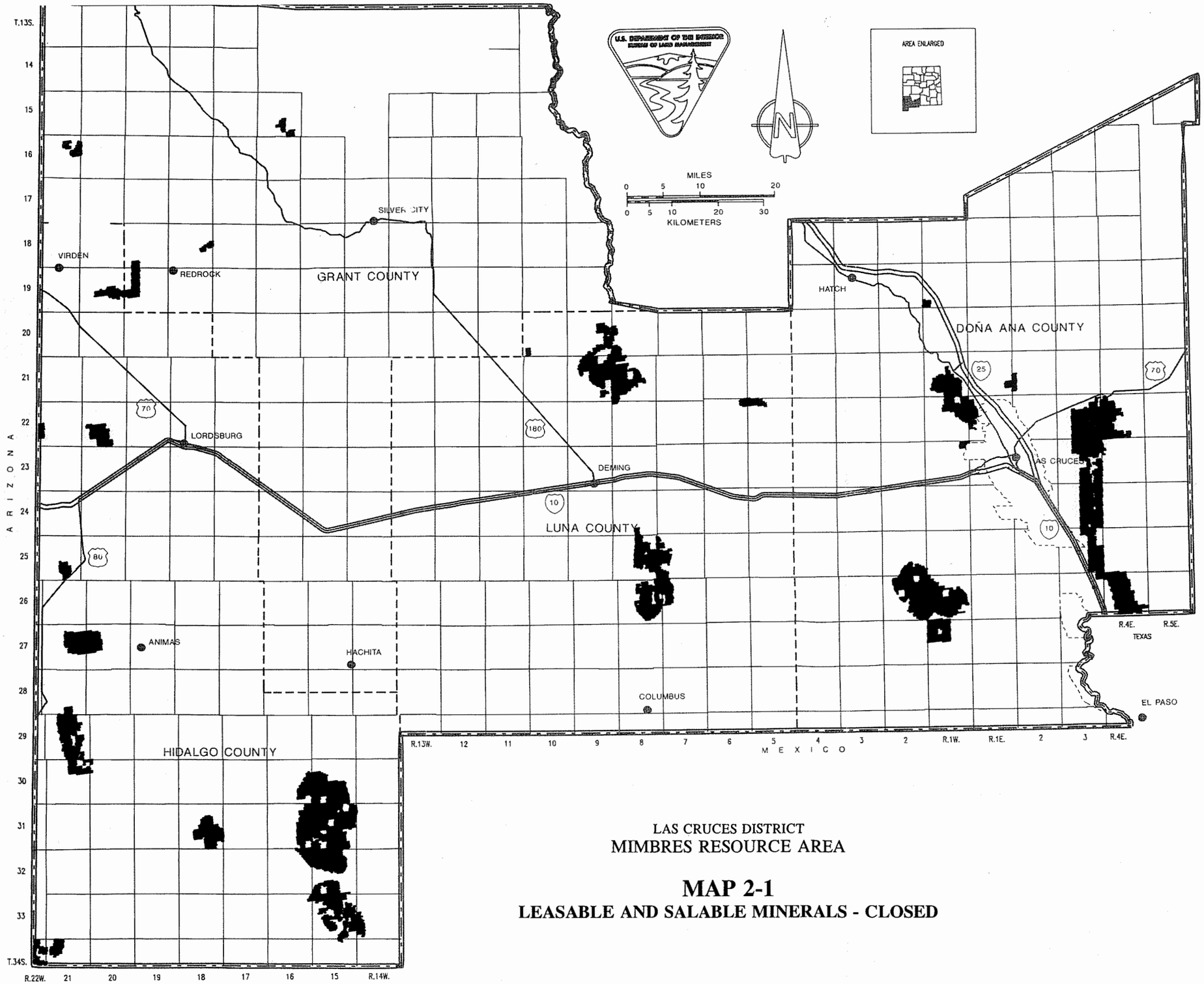
SPECIFIC DECISIONS

Special status species in the following areas are included in the ACEC designations:

- Alamo Hueco Mountains ACEC
- Antelope Pass RNA
- Apache Box ACEC
- Big Hatchet Mountains ACEC
- Central Peloncillo Mountains ACEC
- Gila Lower Box ACEC
- Gila Middle Box ACEC
- Granite Gap ACEC
- Guadalupe Canyon ACEC
- Northern Peloncillo Mountains ACEC

The ACECs and RNA will be managed in accordance with the management prescriptions listed in Section 5.

Management of special status species in the Organ Mountains will continue in accordance with the existing Organ Mountains Coordinated Resource Management Plan.

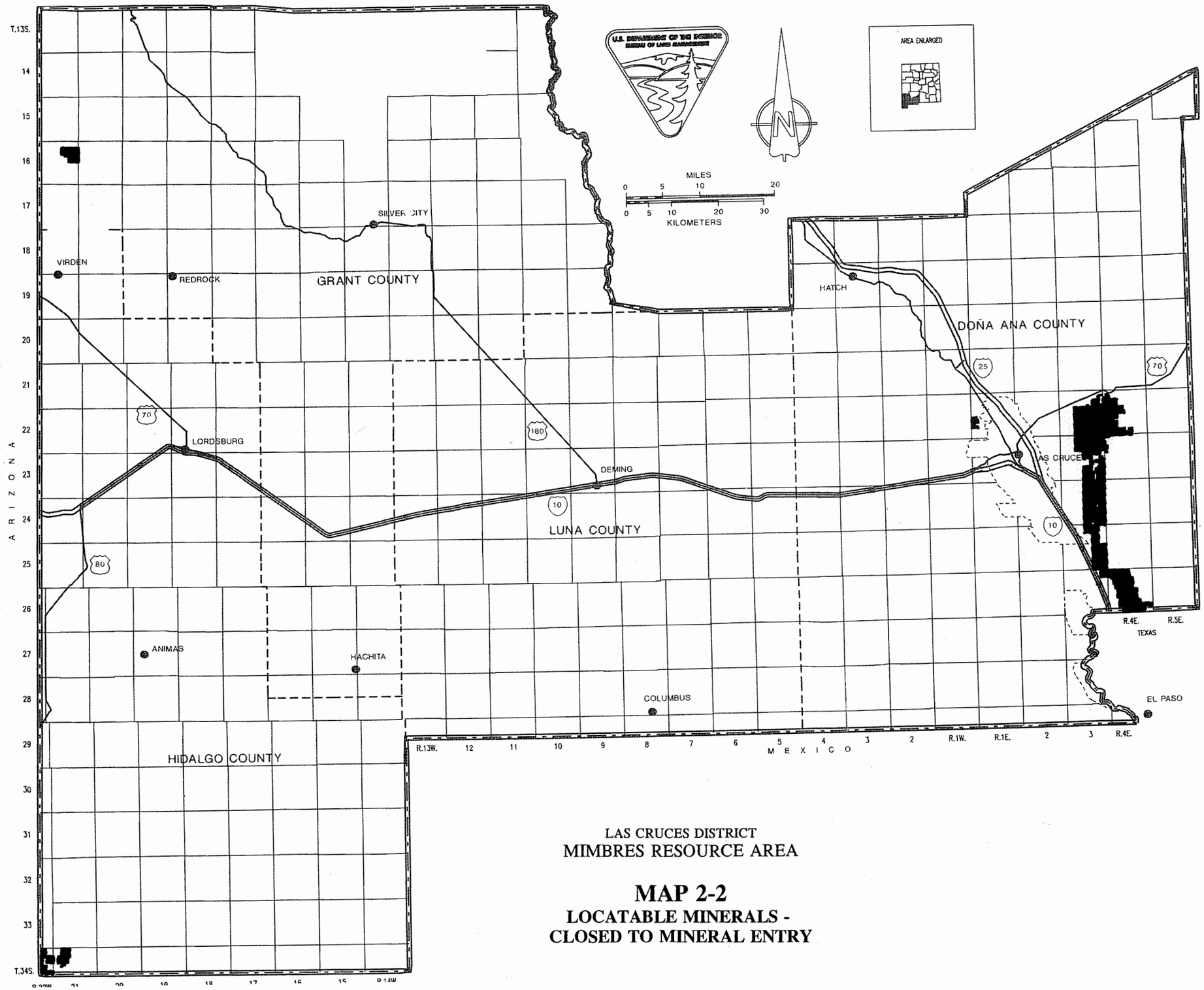


LAS CRUCES DISTRICT

MIMBRES RESOURCE AREA

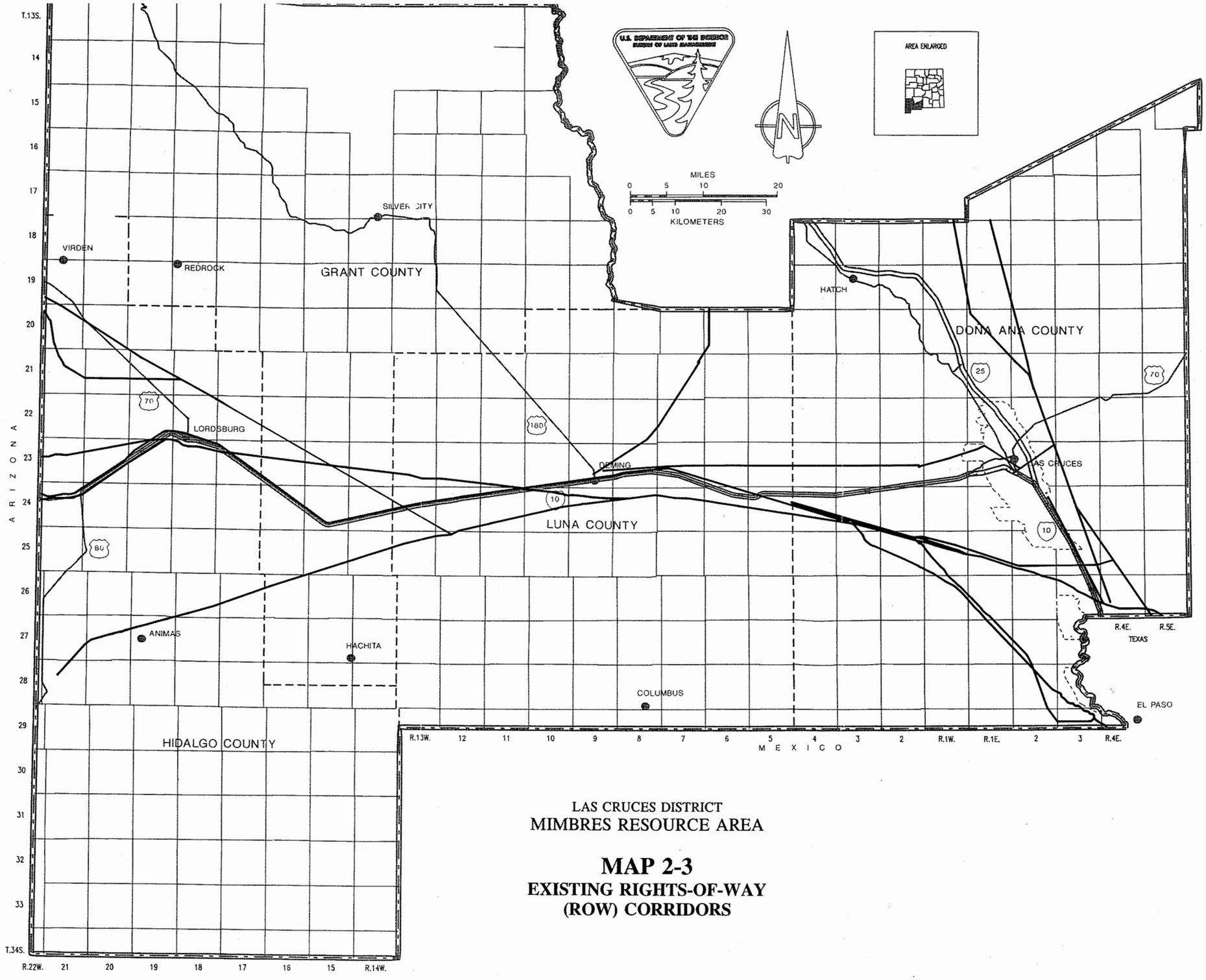
MAP 2-1

LEASABLE AND SALABLE MINERALS - CLOSED



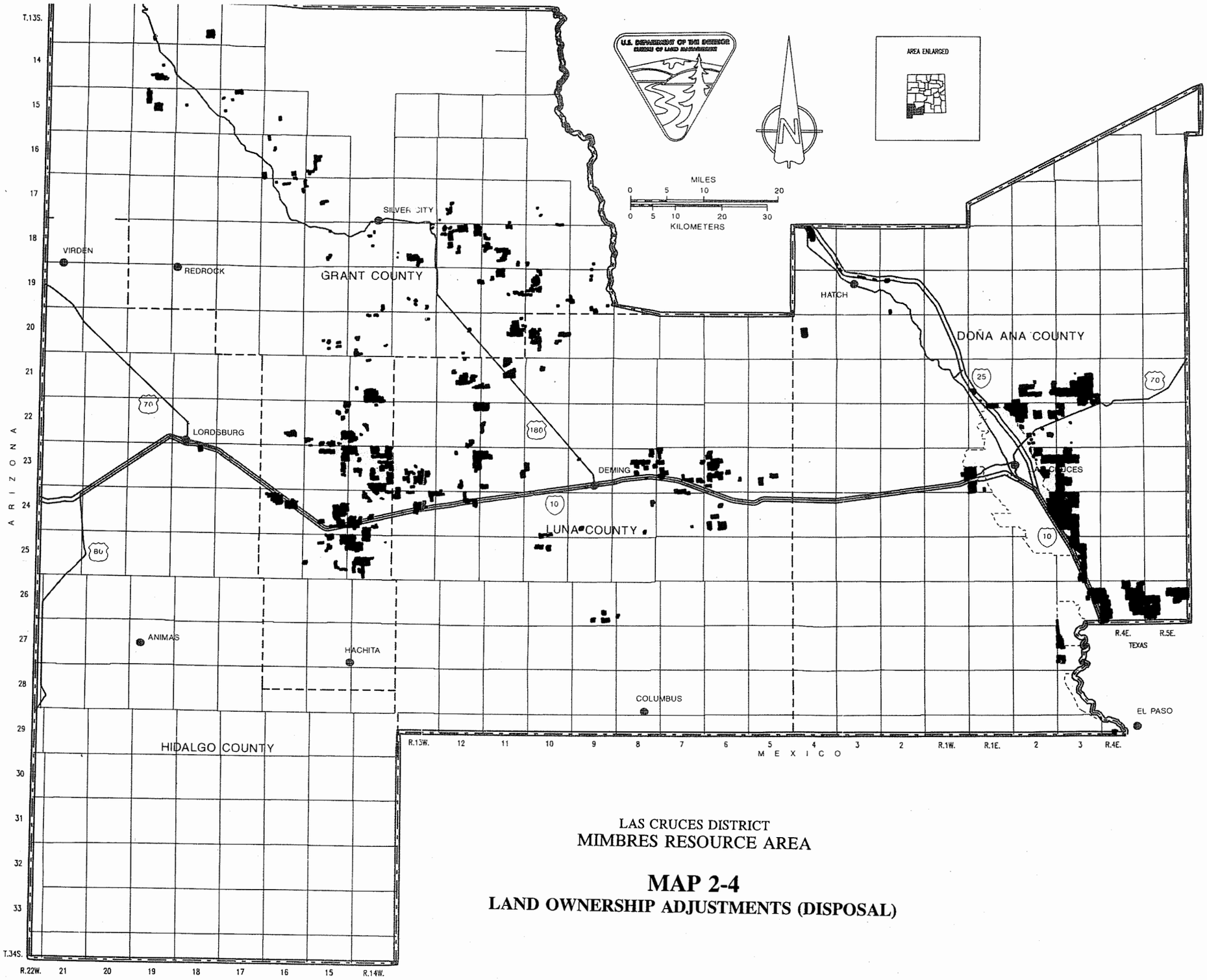
LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-2
LOCATABLE MINERALS - CLOSED TO MINERAL ENTRY



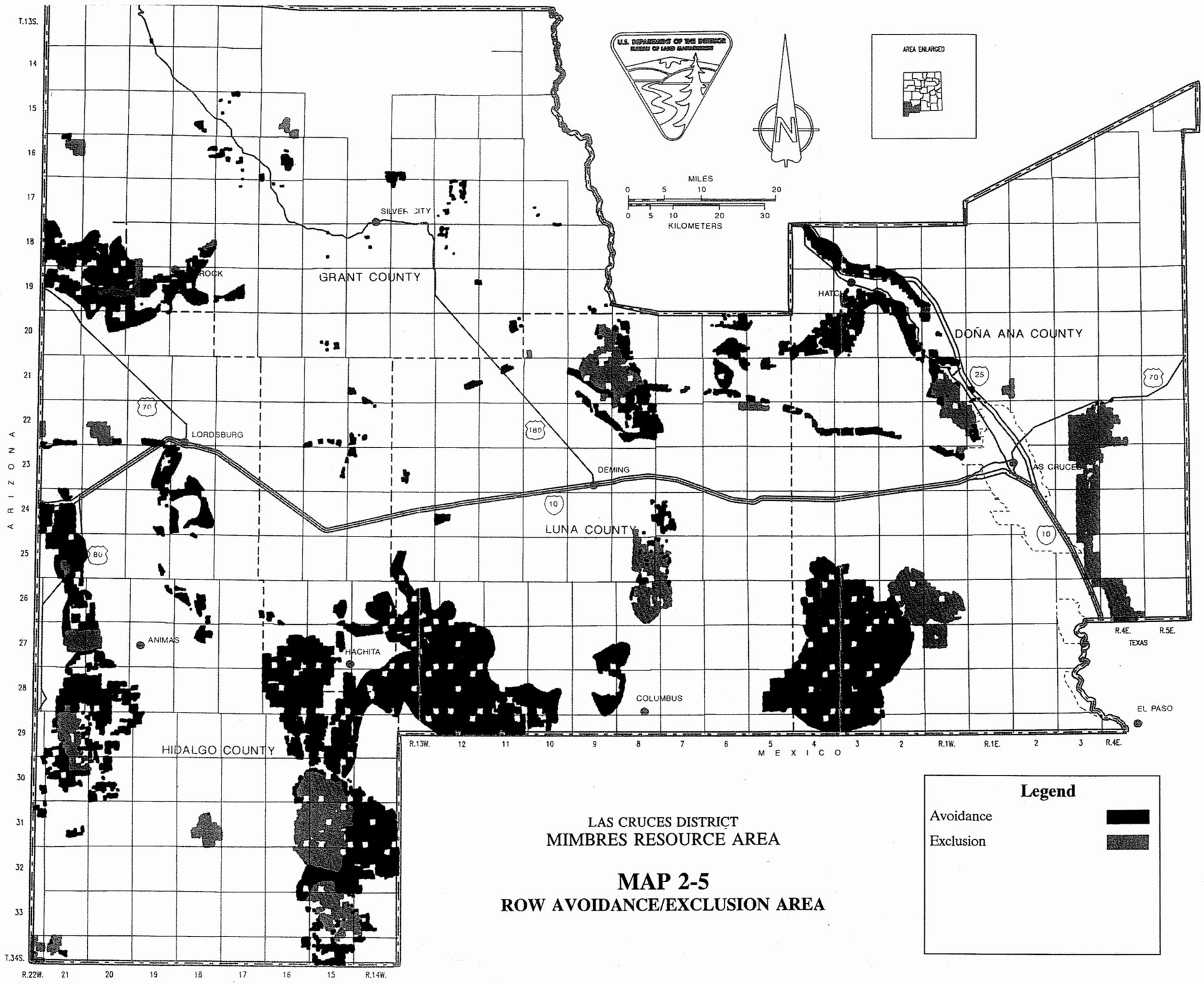
LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-3
EXISTING RIGHTS-OF-WAY (ROW) CORRIDORS



LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-4
LAND OWNERSHIP ADJUSTMENTS (DISPOSAL)



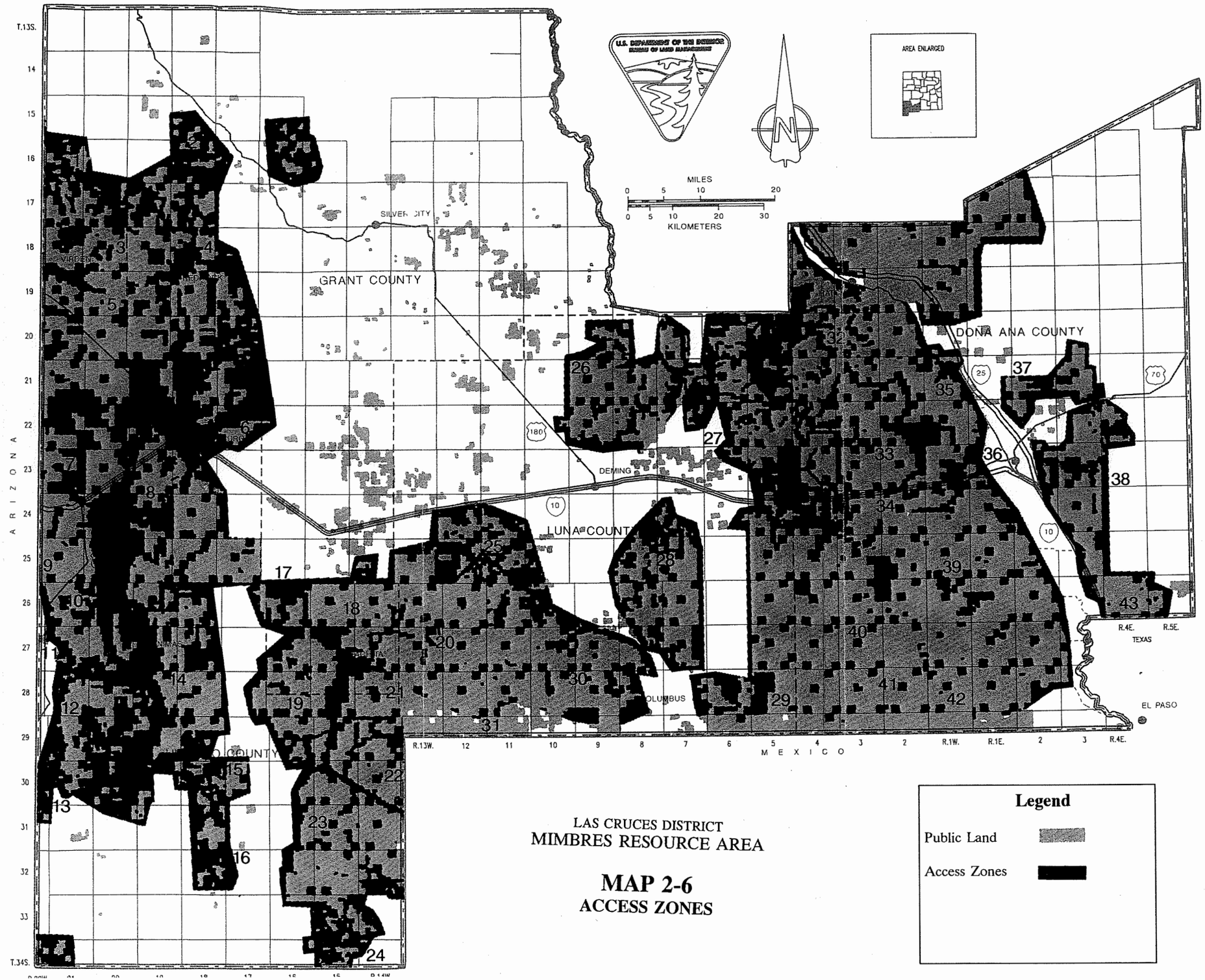
LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-5
ROW AVOIDANCE/EXCLUSION AREA

Legend

Avoidance

Exclusion



LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-6
ACCESS ZONES

Legend

Public Land

Access Zones

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

AREA ENLARGED

MILES
0 5 10 20
0 5 10 20 30
KILOMETERS

GRANT COUNTY
SILVER CITY
LORDSBURG
DEMING
LUNA COUNTY
DOÑA ANA COUNTY
HATCH
AS CRUCES
HIDALGO COUNTY
ANIMAS
CHITA
COLUMBUS
EL PASO
TEXAS
MEXICO
ARIZONA

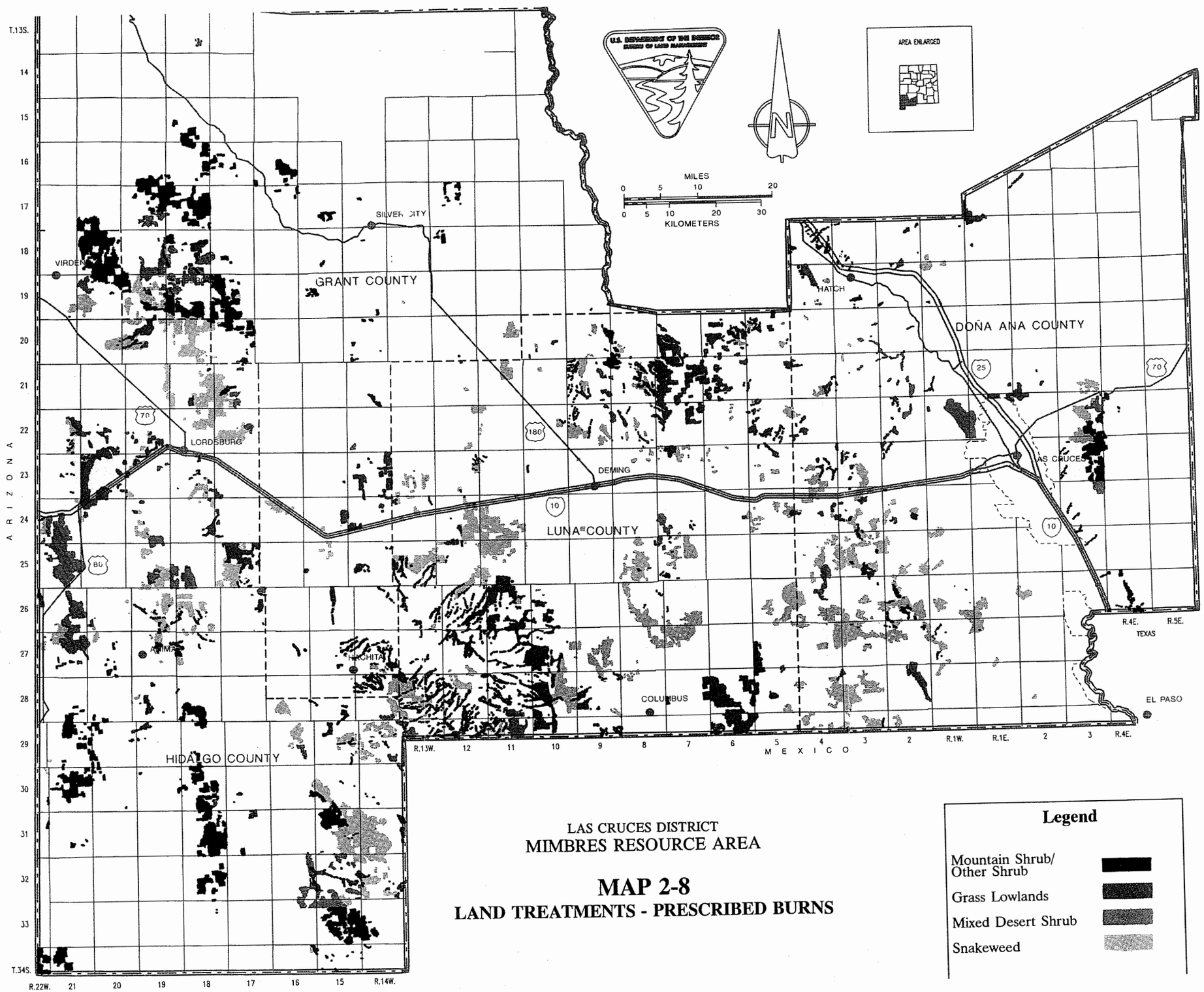
T.13S. 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 T.34S.
R.22W. 21 20 19 18 17 16 15 R.14W.
R.13W. 12 11 10 9 8 7 6 5 4 3 2 R.1W. R.1E. 2 3 R.4E.
R.4E. R.5E.

LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-7
FRAGILE LANDS

Legend

- Shrub - Poor
- Shrub - Fair
- Creosote - Fair
- Grass - Poor
- Grass/Shrub - Hills and Breaks - Poor

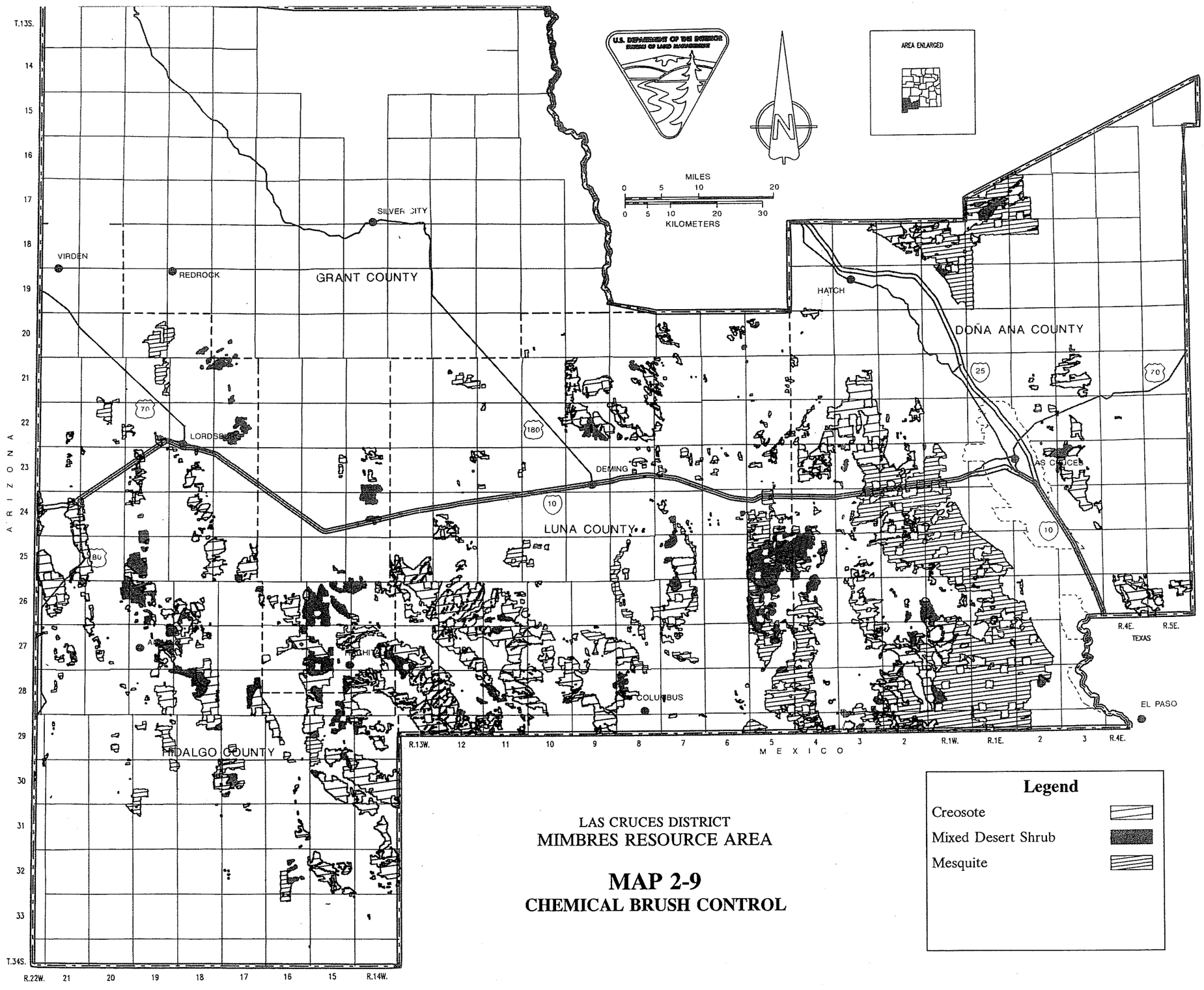


LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-8
LAND TREATMENTS - PRESCRIBED BURNS

Legend

- Mountain Shrub/ Other Shrub
- Grass Lowlands
- Mixed Desert Shrub
- Snakeweed

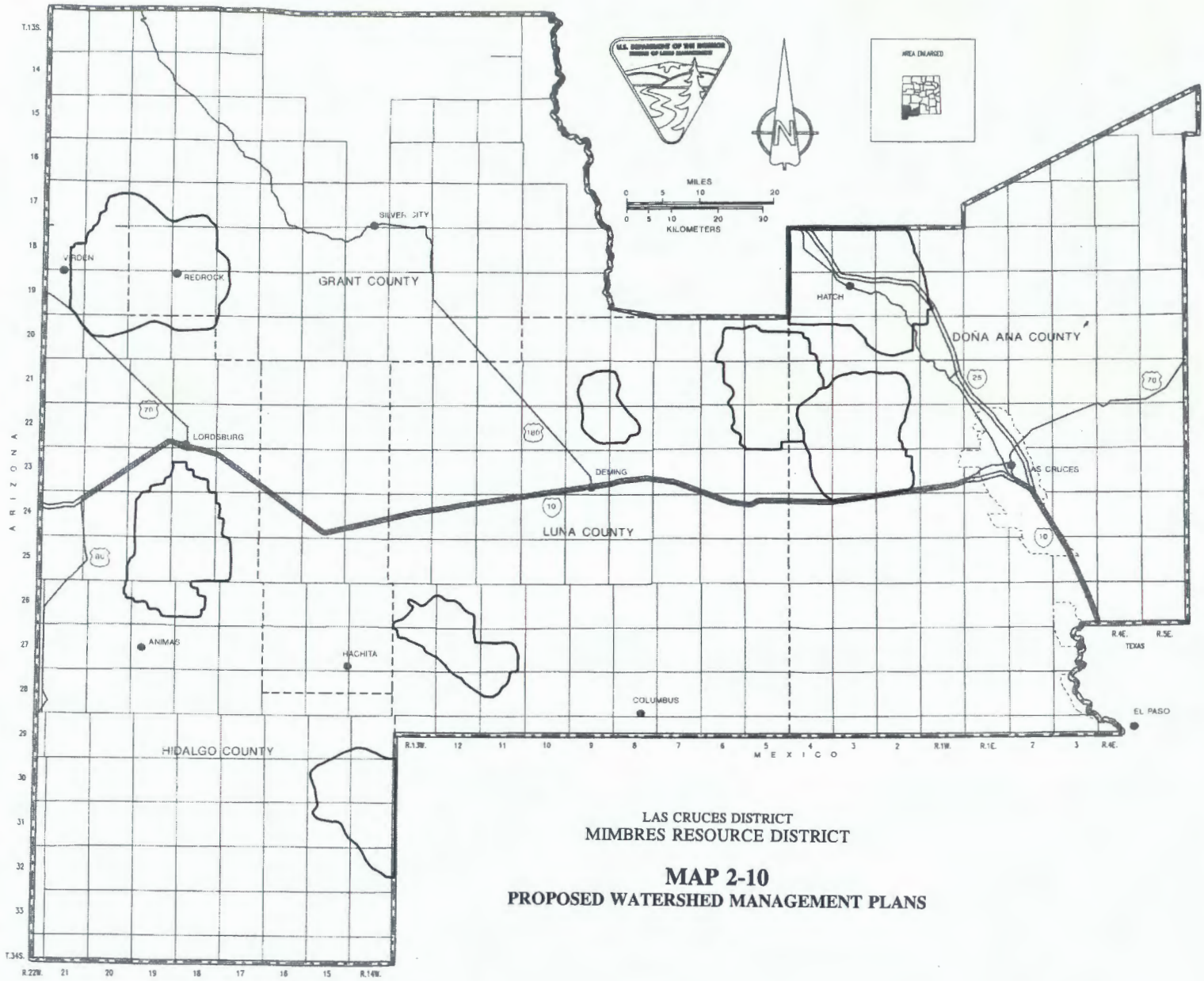


LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-9
CHEMICAL BRUSH CONTROL

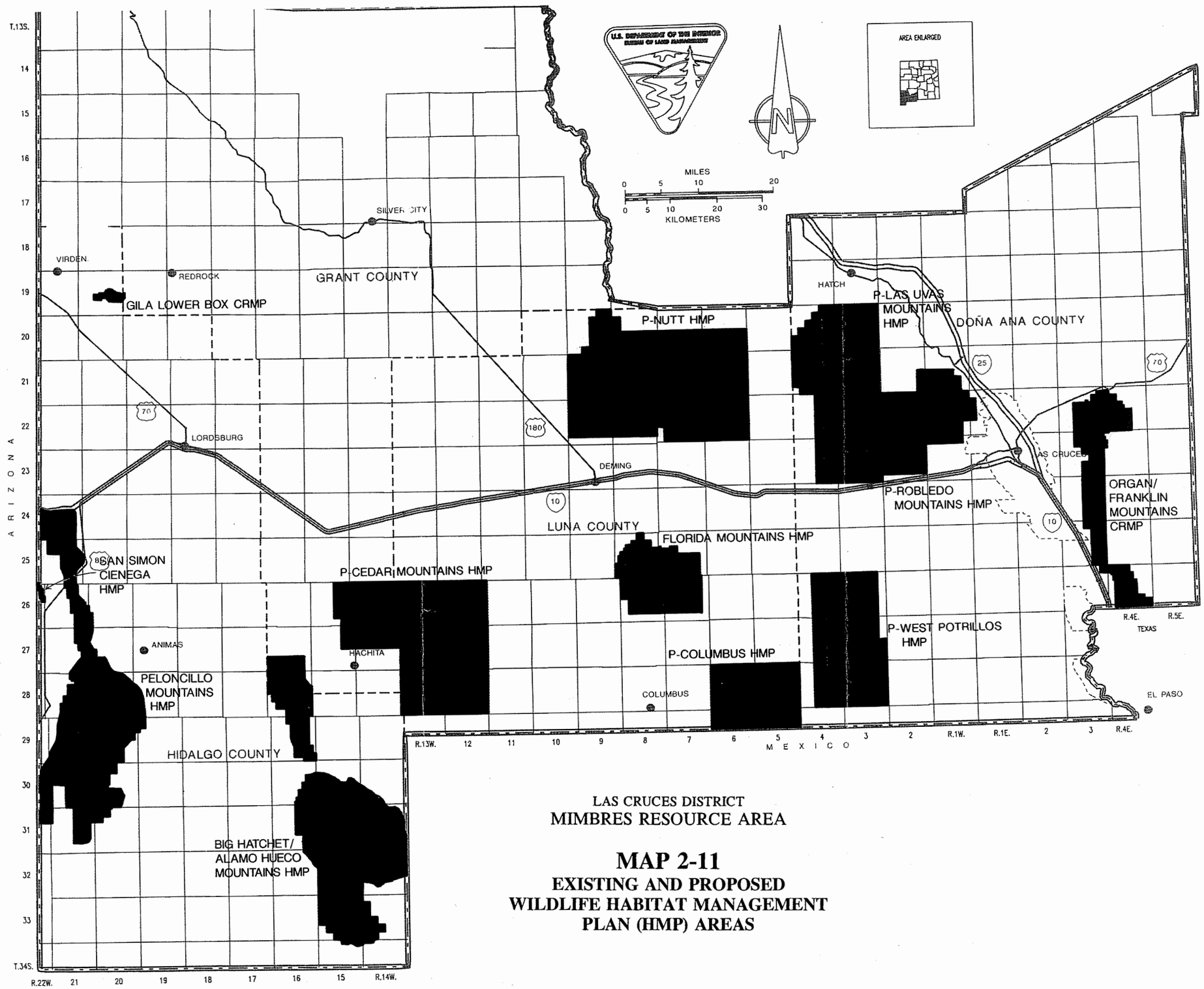
Legend

- Creosote
- Mixed Desert Shrub
- Mesquite



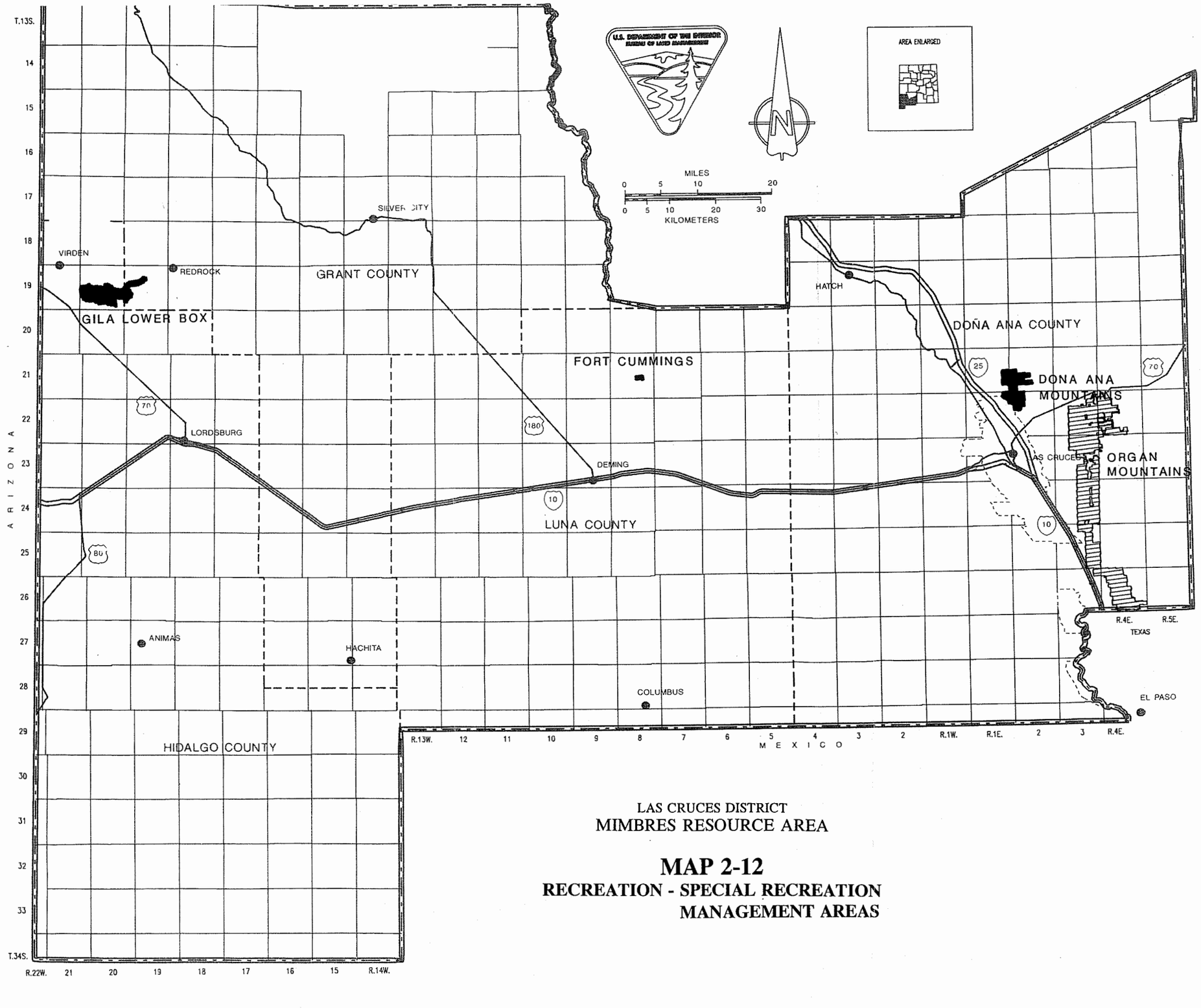
LAS CRUCES DISTRICT
MIMBRES RESOURCE DISTRICT

MAP 2-10
PROPOSED WATERSHED MANAGEMENT PLANS



LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-11
EXISTING AND PROPOSED WILDLIFE HABITAT MANAGEMENT PLAN (HMP) AREAS

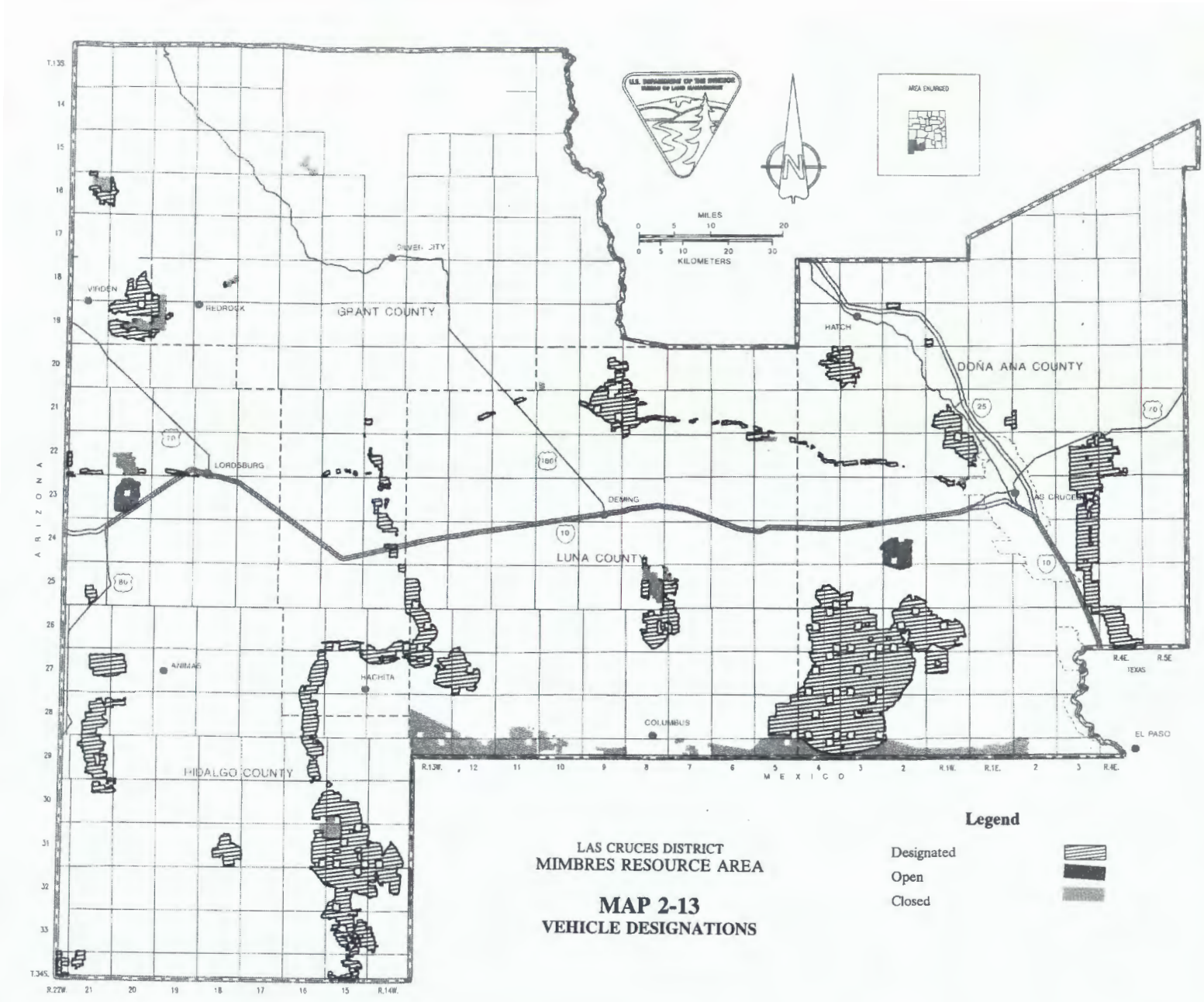


LAS CRUCES DISTRICT

MIMBRES RESOURCE AREA

MAP 2-12

RECREATION - SPECIAL RECREATION MANAGEMENT AREAS

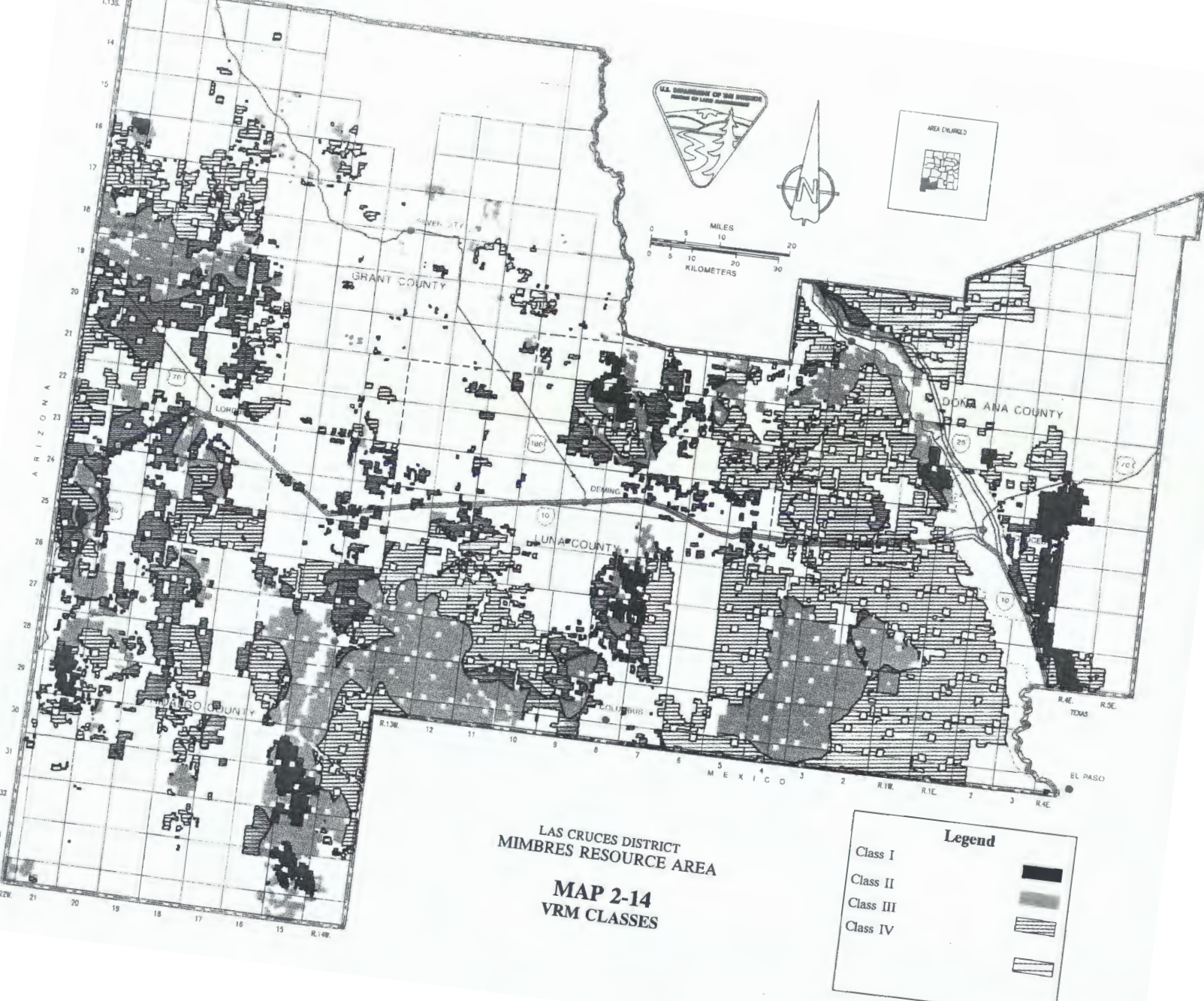


LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-13
VEHICLE DESIGNATIONS

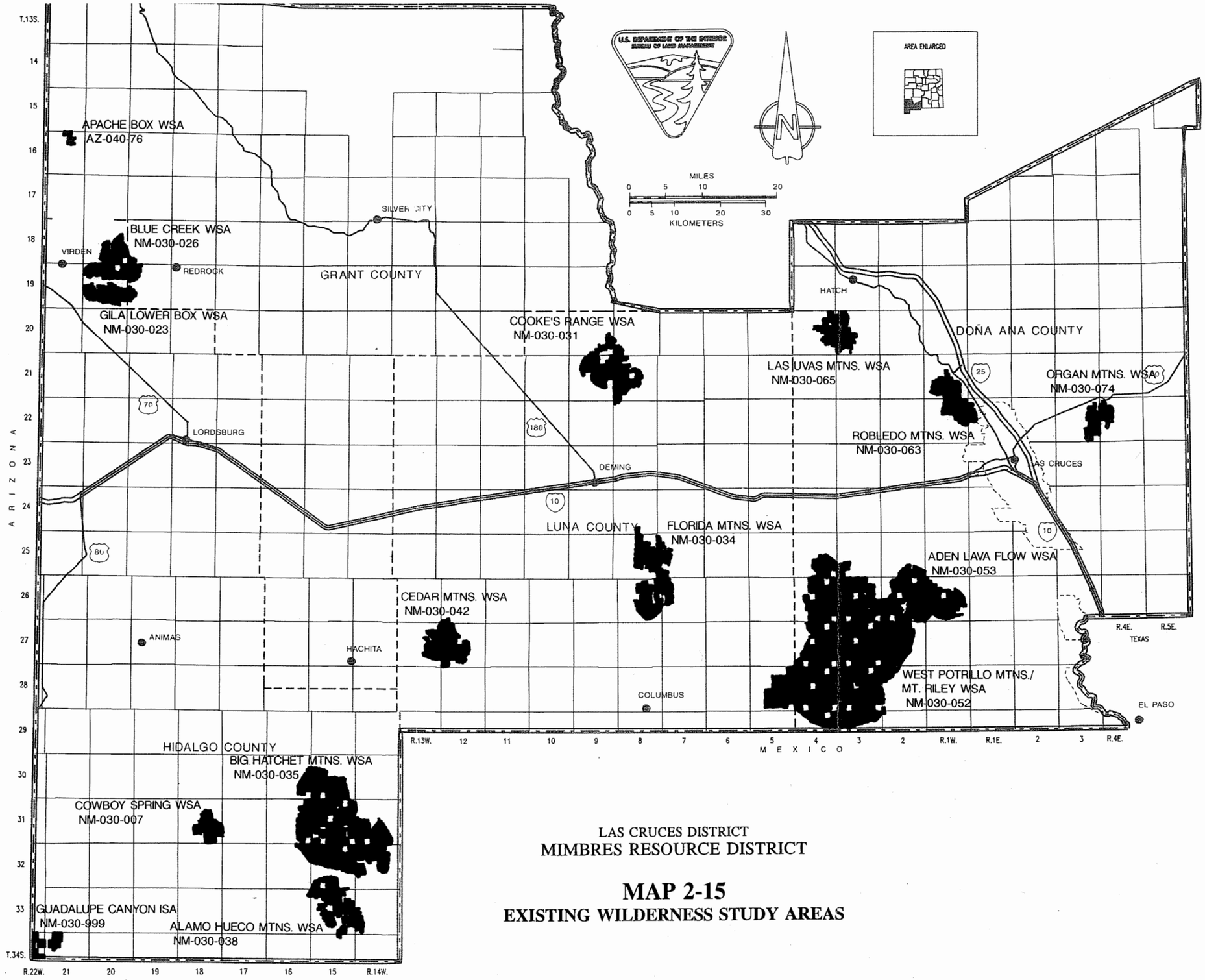
Legend

- Designated
- Open
- Closed



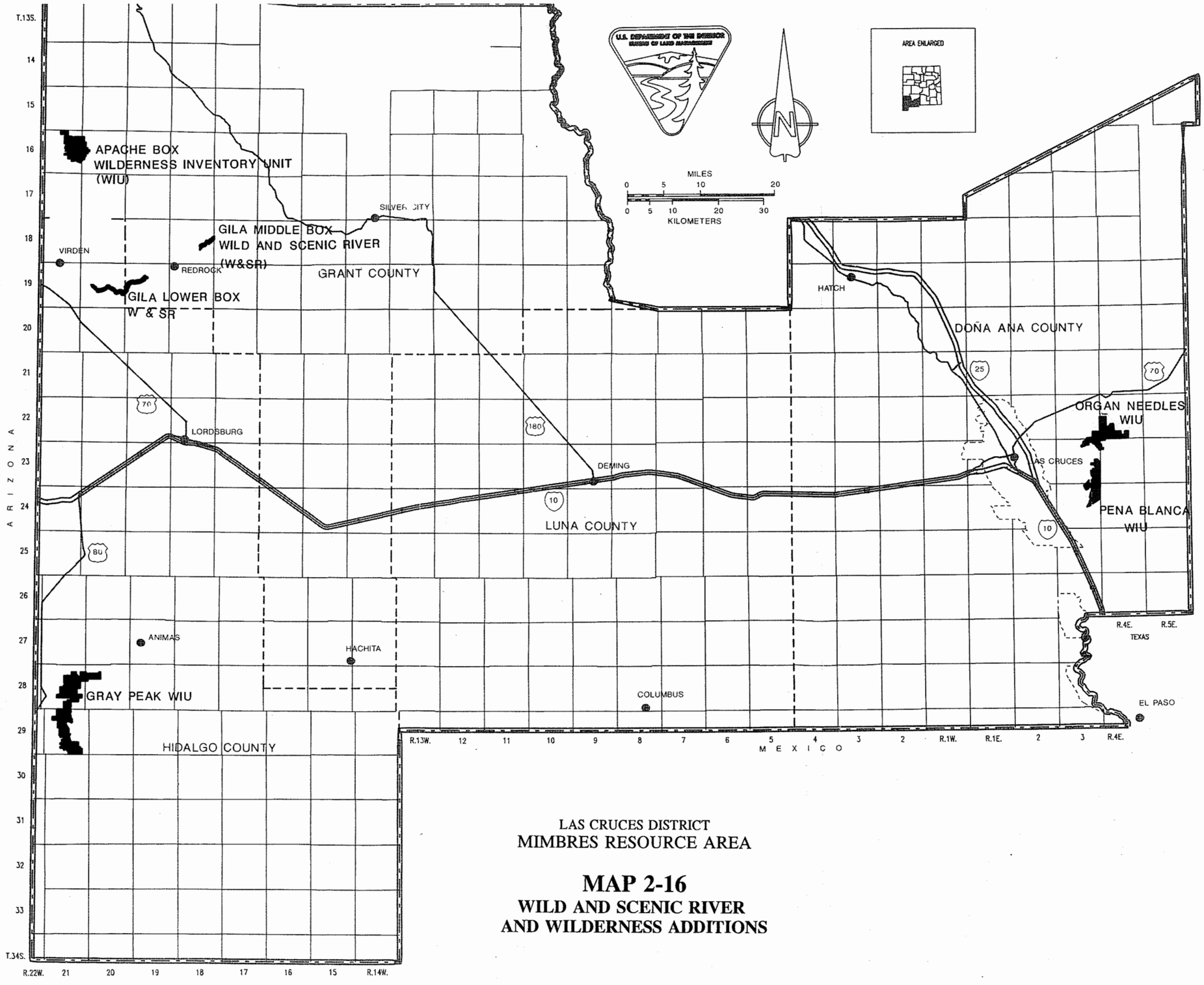
LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-14
VRM CLASSES



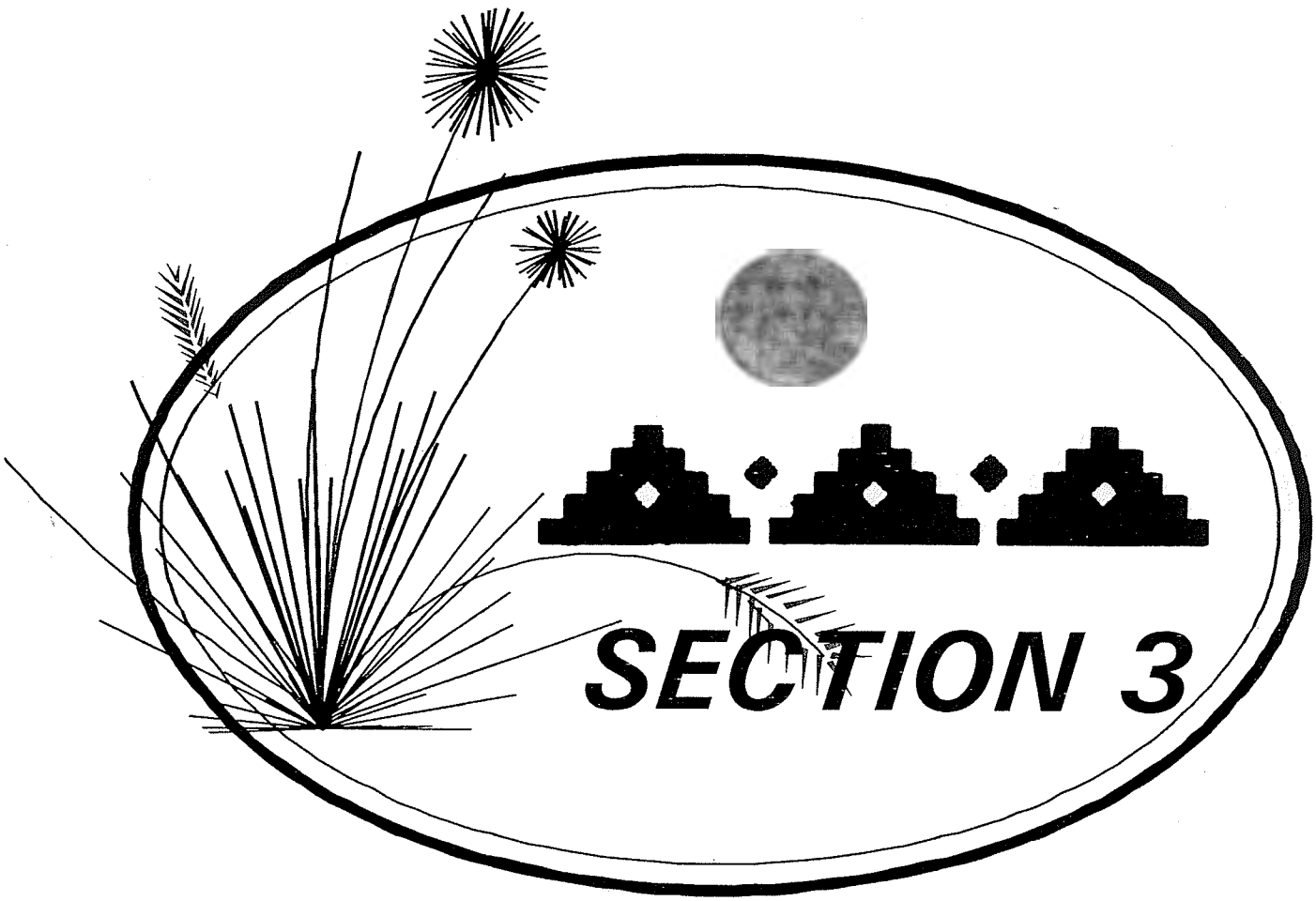
LAS CRUCES DISTRICT
MIMBRES RESOURCE DISTRICT

MAP 2-15
EXISTING WILDERNESS STUDY AREAS



LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 2-16
WILD AND SCENIC RIVER AND WILDERNESS ADDITIONS


SECTION 3

SECTION 3
PLAN IMPLEMENTATION AND MONITORING

PLAN IMPLEMENTATION

Now that the ROD has been approved by BLM, implementation of the decisions can now take place. All future resource management authorizations and actions, including budget proposals, will conform or, at a minimum, not conflict with the RMP. Implementation priorities will be established for the planning decisions to guide the order in which decisions are implemented. Decisions in this RMP will be implemented over a period of 20 years. In some cases, more detailed and site-specific planning and environmental analysis may be required before an action will be taken. Progress in implementation of the RMP will be published each year in a RMP Annual Update.

IMPLEMENTATION PROCEDURES

After midyear, prior to establishing program packages, the Implementation Priorities Summary worksheet (BLM Form NM-1617-1, Figure 3-1) is completed. The output is a list of decisions to be implemented or that have been implemented and their associated target or completion dates. The implementation worksheet (BLM Form NM-1617-2, Figure 3-2) is then completed with an outcome of management actions or a sequence of events with estimated cost targets and dates. For decisions to be implemented, the action steps and estimated costs are worked into the budget cycle process for the next fiscal year. Forms NM-1617-1 and NM-1617-2 are collected and input in the computerized system created by the BLM New Mexico State Office for Statewide RMP tracking.

PLAN MONITORING

Monitoring provides a record of progress made in implementing the RMP. The record contains information for use in routing plan evaluations and provides information needed for the Annual RMP Update. While implementation of the plan is the ultimate responsibility of the Resource Area Manager, the overall tracking of specific decisions will require a commitment from the Area Manager, Staff Chiefs, and Resource Specialists to ensure plan implementations are documented.

MONITORING PROCEDURES

As the decisions are implemented, the Resource Specialist responsible for the action will complete Form NM-1617-3 (Figure 3-3) to provide a transition for implementation to tracking the decisions. The Staff Chiefs will compile each section's worksheets and file them with the Planning Coordinator. Form NM-1617-3 will be placed in the "Master RMP" in a section labeled Decision Evaluation. This section will form the basis for plan evaluation in the Annual RMP Update.

FIGURE 3-1
NM 1617-1
(July 1991)

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW MEXICO STATE OFFICE
_____ RESOURCE MANAGEMENT PLAN
IMPLEMENTATION PRIORITIES SUMMARY WORKSHEET
REPORT NO. 1

District:_____

Date Prepared:_____

DECISION NAME	PAGE NO. IN RMP	PRIORITY A = Comp B = High C = Mod D = Low O = Ongo	SUBACTIVITY	TARGET IMPLEMENT GOAL DATE	DATE IMPLEMENT INITIATED	DATE IMPLEMENT COMPLETED	% COMP	REMARKS	REMARKS DATE

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW MEXICO STATE OFFICE
_____RESOURCE MANAGEMENT PLAN
IMPLEMENTATION WORKSHEET
REPORT NO. 2

_____RESOURCE AREA
DATE PREPARED _____

DECISION _____

DECISION KEY:_____ DECISION NO.: _____ PRIORITY: _____ SPECIALIST:_____

PAGE: _____ COLUMN: _____ PARAGRAPH: _____
APPROVED IN ACTIVITY PLAN/EA:_____
NAME OF ACTIVITY PLAN/EA:_____

RMP RESTRICTIONS:

SEQUENCE OF EVENTS OR ACTION STEPS	FY NEEDED	ACTUAL OR ESTIMATED COSTS	WMS	COSTS	PROCURE-MENT	FUNDING SUBACT ELEM	PLANNED	COMPLETED	DATE COMPLETED	REMARKS

FIGURE 3-3
NM 1617-3
(July 1991)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW MEXICO STATE OFFICE
PLAN MANAGEMENT WORKSHEET

PLAN NAME:	
DECISION:	
ACTION TAKEN:	
MONITORING EXPECTATIONS/ OBJECTIVES:	
MONITORING RESULTS:	
EVALUATION:	

SUMMARY:
Objective met: Yes ____ No ____
Require further monitoring: Yes ____ No ____
Plan needs revision: Yes ____ No ____
Plan needs amendment: Yes ____ No ____
Plan maintained: Yes ____ No ____

Prepared by:_____ Date: _____
Reviewed by Area Manager: _____ Date: _____

SECTION 4

SECTION 4
PLAN MAINTENANCE AND EVALUATION

PLAN MAINTENANCE

The RMP for the Mimbres Resource Area provides general guidance for managing public land in the Mimbres Resource Area. The useful life-expectancy of the RMP is 20 years. To ensure the document maintains viability and usefulness for the extended life-expectancy, maintenance of the RMP must be accomplished. Plain maintenance includes correcting the text, updating data bases, and updating maps.

Plan maintenance is different from the two other methods of modifying land use plans (plan amendment and revision). The following three definitions are provided to clarify the differences of these types of plan modifications and to provide a better understanding of what constitutes plan maintenance.

MAINTENANCE

Plan maintenance is a minor change in data or plan material; will not change a land-use decision; no National Environmental Policy Act (NEPA) document is required; no public involvement is needed; and documentation is informal. For example, a change in a word or correction of a typographical error would come under this category.

AMENDMENT

Plan amendments are usually major changes in plan material; will change one or more decisions; will need NEPA compliance; will need public involvement; must be formally documented; and need to be signed off by the approving authority (State Director).

REVISIONS

Plan revisions are a total review and possible rewrite of the plan material accomplished after the useful life of the RMP has expired; many decisions could change; NEPA compliance and public involvement are required; formal documentation is required; and basically the same steps used in the preparation of an RMP are required.

MAINTENANCE PROCEDURES

The performance of proper plan maintenance requires a commitment from the Area Manager, Staff Chiefs, and Resource Specialists. To encourage staff commitment, plan maintenance procedures should be uncomplicated and easily performed. The RMP for the Mimbres Resource Area will use a "forms-by-number" system to provide a simple structure of maintenance including documentation procedures of land-use plans. To implement this "forms-by-number" system, the entire RMP will be placed in a binder entitled "Mimbres RMP" to allow insertion of the forms. A Plan Maintenance Log, NM 3-1617-4 (see Figure 4-1), will also be added to the beginning of the RMP. The Plan Maintenance Log Sheet will contain the change numbers, including the page number and the change sequence for that page.

To use the system, the individual identifying the need for change completes Form NM 3-1617-3 (see Figure 4-2). When an individual initiates a change, From NM 3-1617-3 is given to the Staff Chief for review. After review and concurrence of the Area Manager, the Staff Chief will incorporate the change into the RMP. The change number is recorded on the Plan Maintenance Log (Form NM-3-1617-4) at the front of the RMP. The original RMP material to be changed will be lined through neatly on the hard copy. The change number will be plainly written in the margin on each original page and Form NM 3-1617-3 will be placed in the RMP at the end of the section.

The plan maintenance section should assist the Area Manager and staff in keeping the plan usable until it is amended or revised. If the plan is not kept up-to-date, a very valuable planning data source will be lost. When implemented, the "forms-by-number" system will assist in meeting the planning regulations

covering plan maintenance. In addition, the system will ensure that the Area Manager has a usable plan for day-to-day program direction and annual work plan development.

PLAN EVALUATION

A formal evaluation of overall plan adequacy must be accomplished at a minimum at the end of every fifth year after plan completion. To assist in this process, a yearly evaluation will be completed in the Annual RMP Update. The purpose of the yearly evaluation is to measure "what is" versus "what should be."

Thus, the effectiveness of plan implementation will be measured by the level achieved in accomplishing plan decisions, program objectives, and completing the land allocation decisions identified in Section 2.

EVALUATION PROCEDURES

The yearly evaluation will be documented in the annual RMP Update along with the Rangeland Program Summary updates and other pertinent information. The evaluation will focus on implementation of plan decisions listed in Section 2.

FIGURE 4-1

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LAS CRUCES DISTRICT

PLAN MAINTENANCE LOG

Plan Name _____

CHANGE NUMBER	DATE	AREA MANAGER	PAGE NUMBER	CHANGE (Briefly)	REASON (Briefly)

Form NM-030-1617-4 (June 1988)

FIGURE 4-2

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LAS CRUCES DISTRICT

RMP/MFP CHANGE SHEET

CHANGE # _____

Plan Name: _____

Area of Change _____
(i.e., Rationale, Analysis, etc.)

RMP Document and Page No. _____

_____

Change:

Reason:

_____

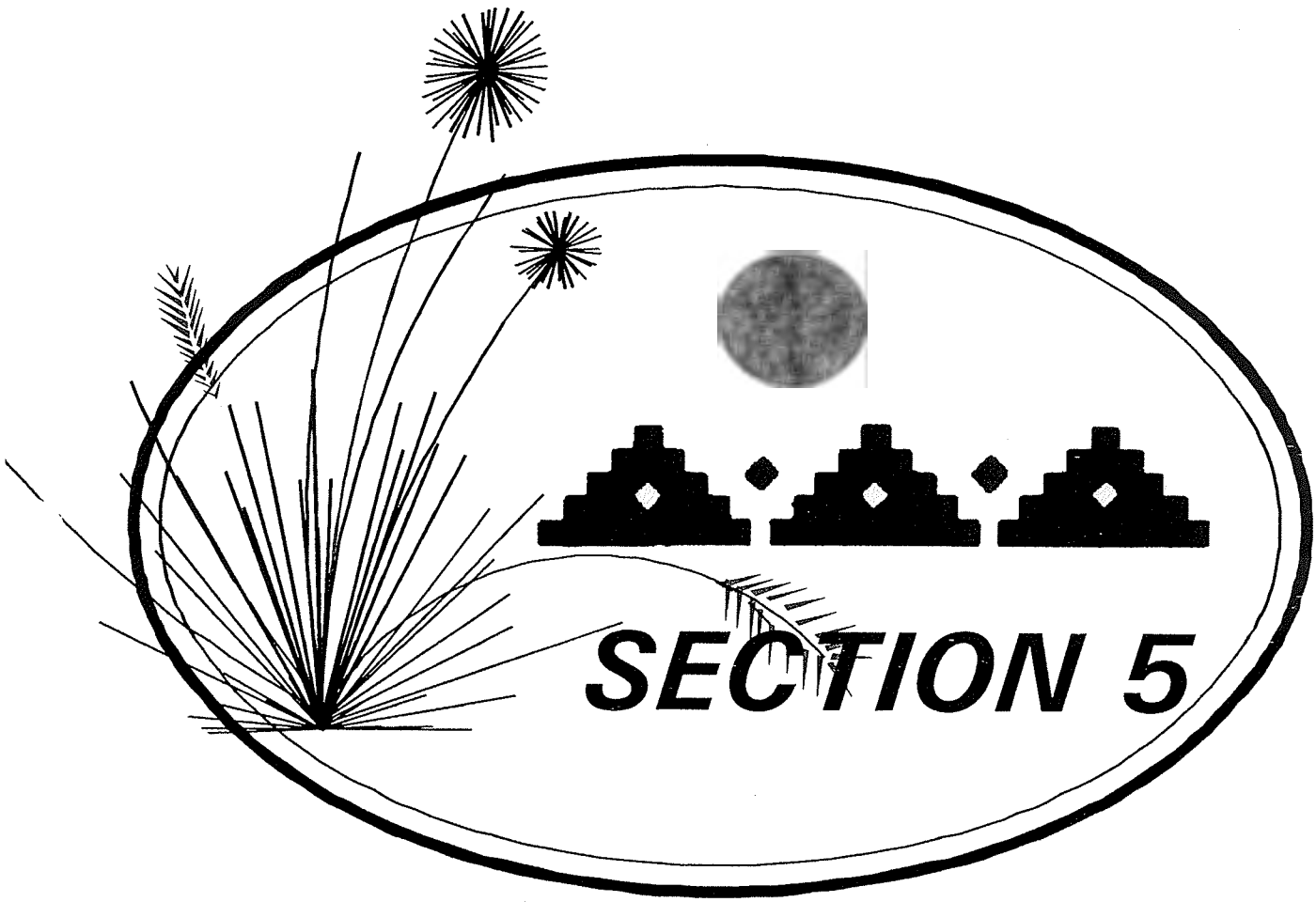
SIGN & APPROVE AS APPROPRIATE

Program Leader: _____ **Date:** _____

Area Manager: _____ **Date:** _____

District Manager: _____ **Date:** _____

Form NM-030-1617-3 (June 1988)



SECTION 5

SECTION 5
ACECs/SMAs

INTRODUCTION

This section contains general descriptions of the Areas of Critical Environmental Concern (ACECs), Special Management Areas (SMAs)--Trails, Research Natural Areas (RNAs) and National Natural Landmarks (NNLs).

The narratives for each ACEC, SMA, RNA and NNL include a general description, the management goals, the management prescriptions (planned actions) and individual land status and location maps. No maps are included for the cultural resources ACECs and RNAs because these sites are sensitive and could be subject to increased vandalism.

The descriptive narratives of the ACECs, SMAs, RNAs and NNLs vary due to the management attention each area needs to receive. Management prescriptions are developed that are as detailed as possible to avoid the time and expense of preparing activity plans for each ACEC, SMA, RNA, and NNL following completion of the RMP.

Dominant values are identified for ACECs and SMAs. These are the principal values for which the area will be managed. Discretionary management actions may be approved if they are shown to aid in the maintenance or enhancement of the identified values.

In some cases, the need to develop site-specific grazing plans for individual ACECs or RNAs has been identified. It should also be noted that regulations require a Plan of Operations for all mining activities that take place within an ACEC, if that ACEC is open to mining. Therefore, this requirement is not listed separately in the management prescriptions for each ACEC.

The ACECs, SMAs, RNAs, and NNLs for the Mimbres Resource Area are shown in Table 5-1. Also see Map 5-1 for the general location of each ACEC, SMA, RNA, and NNL.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

ACECs are defined in the Federal Land Policy and Management Act (FLPMA) as ". . . areas within the public land where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural system or processes, or to protect life and safety from natural hazards." The regulations require that potential ACECs must meet both of the following criteria:

RELEVANCE An area meets the "relevance" criteria if it contains one or more of the following:

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archaeological resources and religious or cultural resources important to Native Americans).

2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).

3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relict plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).

4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.

IMPORTANCE The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:

1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.

2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.

3. Has been recognized as warranting protection in order to satisfy National priority concerns or to carry out the mandates of FLPMA.

4. Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.

5. Poses a significant threat to human life and safety or to property.

Biological ACECs were identified with the assistance of a report prepared by The Nature Conservancy (TNC) in January 1990 titled "Potential Biological Special Management Areas in the Mimbres Resource Area." This report was prepared by The Nature Conservancy New Mexico Field Office for the BLM under the BLM's Challenge Cost-Share Program.

The report evaluated and identified potential biological ACECs based upon the relevance and importance criteria outlined above. Biological ACECs include riparian, special status animal or plant species, or plant communities.

Cultural ACECs were identified with the assistance of the "1990 Ropes Review: Identification of Research and Funding Priorities in the Mimbres Resource Area." This report was prepared under the Challenge Cost-Share Program with New Mexico State University.

SPECIAL MANAGEMENT AREAS

TRAILS

Two SMAs for trails are designated in this RMP--Butterfield Trail and Continental Divide National Scenic Trail. The narratives for each SMA include a general description, management goals, and management prescriptions (planned actions). Also a detailed description of the Continental Divide Trail is included along with a description of the Florida Mountains side trail. See Map 5-18 for locations of these trails.

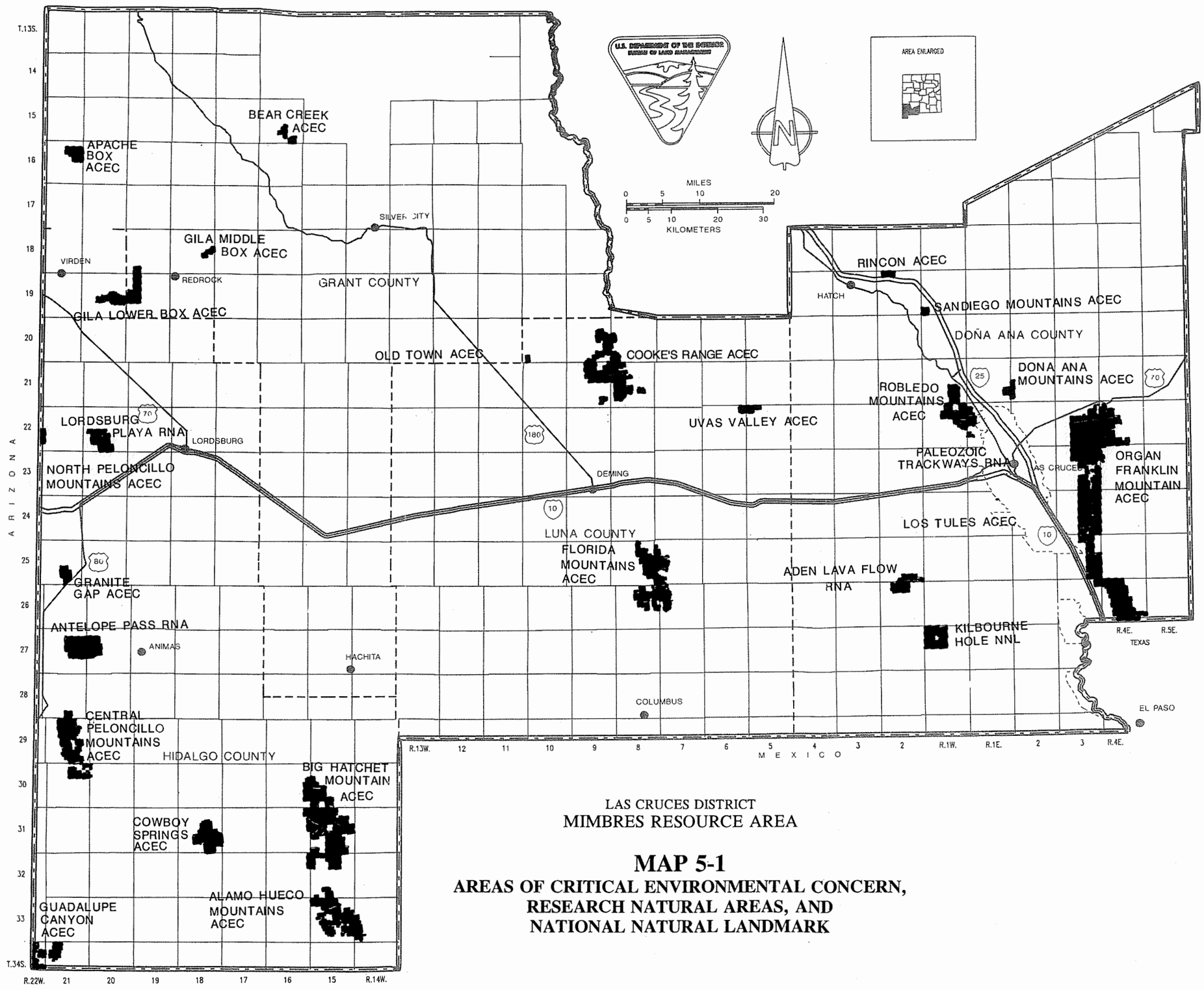
RESEARCH NATURAL AREAS (RNAs) AND NATIONAL NATURAL LANDMARK (NNL)

Four RNAs and one NNL are designated in this RMP. RNA designations will focus on encouraging and facilitating active research in those areas. The narratives for each RNA and NNL contain a general description, management goals, and management prescriptions (planned actions).

TABLE 5-1
AREAS OF CRITICAL ENVIRONMENTAL CONCERN(ACECs)/
SPECIAL MANAGEMENT AREAS (SMAs)

PAGE NO.	AREA	ACRES	VALUES
	ACECs		
5-5	Alamo Hueco Mountains	13,020	B, S, C, P, SS
5-7	Apache Box	2,630	B, S, C, SS, RIP
5-9	Bear Creek	1,480	RIP
5-11	Big Hatchet Mountains	29,180	B, S, SS, REC
5-13	Central Peloncillo Mountains	12,750	B, S, RES, SS
5-15	Cooke's Range	17,160	B, S, C, H, REC
5-19	Cowboy Spring	6,740	B, SS
5-21	Dona Ana Mountains	1,490	B, S, C, REC
5-23	Florida Mountains	15,660	S, B
5-25	Gila Lower Box	6,490	SS, RIP, REC
5-27	Gila Middle Box	840	SS, RIP
5-29	Granite Gap	1,750	B, S, SS, REC
5-31	Guadalupe Canyon	4,170	B, SS, RIP
5-33	Los Tules	20	C
5-35	Northern Peloncillo Mountains	760	B, SS
5-37	Old Town	320	C, REC
5-38	Organ/Franklin Mountains	56,480	B, S, C, SS, RIP, REC
5-41	Rincon	840	C
5-43	Robledo Mountains	9,190	B, S, REC
5-45	San Diego Mountain	640	C
5-46	Uvas Valley	1,570	B
	SMAs		
5-47	Butterfield Trail	15,690	H, C, REC
5-49	Continental Divide National Scenic Trail	48,450	S, REC
5-53	Aden Lava Flow RNA	3,930	B, S, G, RES
5-55	Antelope Pass RNA	8,710	B, RES
5-56	Kilbourne Hole NNL	5,480	G, REC
5-57	Paleozoic Trackways RNA	720	P, RES, REC
5-59	Lordsburg Playa RNA	4,510	P, RES

Source: BLM Files, 1990.
Notes: B=Biological; S=Scenic; G=Geological; RES=Research; C=Cultural; P=Paleontological; SS=Special Status Species; RIP=Riparian; H=Historical; REC=Recreation

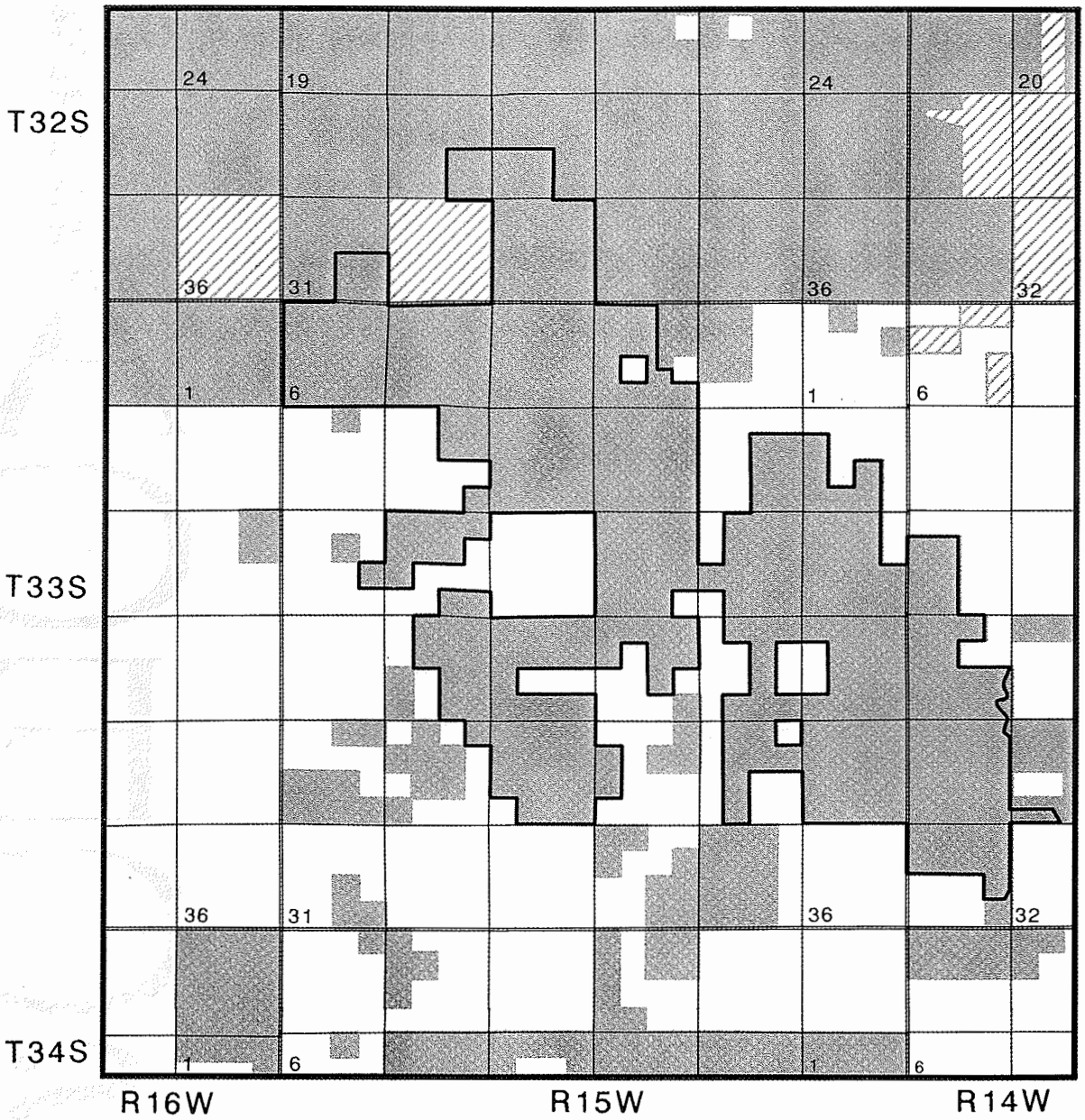


LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 5-1

AREAS OF CRITICAL ENVIRONMENTAL CONCERN, RESEARCH NATURAL AREAS, AND NATIONAL NATURAL LANDMARK

ACECS



ALAMO HUECO MOUNTAINS - ACEC

MAP 5-2

SCALE 1: 75000

N

3.1 0 MILE 3.1

3.1 0 3.1 KILOMETER

Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS

ALAMO HUECO MOUNTAINS ACEC

GENERAL DESCRIPTION

The Alamo Hueco Mountains ACEC is located in southeast Hidalgo County approximately 80 miles southeast of Lordsburg, New Mexico. The size of the ACEC is 13,020 acres. The Alamo Huecos are volcanic mountains featuring open grasslands or shrub/grasslands on the foothills and lower slopes leading to shrub/grass communities higher up, with distinct riparian communities in the more pronounced drainages. The area features diverse plant and animal communities, cultural and paleontological resources, and scenic qualities.

The Alamo Hueco Mountains ACEC meets the BLM's ACEC relevance criteria because the site contains numerous State-listed and Federal candidate plant and animal species, desert bighorn sheep habitat, cultural and paleontological values, and scenic values. The area meets the BLM's ACEC importance criteria because its values are of more than local significance, vulnerable to adverse change and require special management and protection.

MANAGEMENT GOALS

Manage to protect biological (especially bighorn sheep and riparian), scenic, cultural, and paleontological values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access to boundary, with parking areas (½ acre) and trailheads.
- Set carrying capacity for all lands within the Section 15 portion of the grazing allotment and develop grazing activity plan.
- Consider chemical brush control in some portions where necessary to meet desired plant community objectives.
- Manage as Class II for air quality.
- Exclude heavy equipment for fire suppression.
- Carry forward all provisions of existing HMP.
- Conduct/encourage archaeological and paleontological surveys.
- Manage as VRM Class I.
- Upon acquisition of private land, consult and coordinate with the grazing permittee to develop and implement projects for the protection and enhancement of springs and riparian areas. Projects may consist of small exclosures (10 acres or less), spring developments, pasture fencing, construction of livestock water sources away from riparian areas, relocation of existing water troughs away from riparian areas, and revegetation of riparian areas. Up to a total of 10 miles of fence could be constructed.
- Manage for ROS primitive and semi-primitive nonmotorized classes.

APACHE BOX ACEC

GENERAL DESCRIPTION

The Apache Box ACEC is located in northwest Grant County approximately 18 miles south of Mule Creek. The size of the ACEC is 2,630 acres. Apache Box is a sheer-walled narrow canyon with cliffs over 500 feet high and a nearly pristine riparian area found in the bottom of the box. Also within the ACEC are found several Federal and State-listed and Federal candidate plant and animal species, numerous cultural resources, a globally rare plant community, and high scenic values.

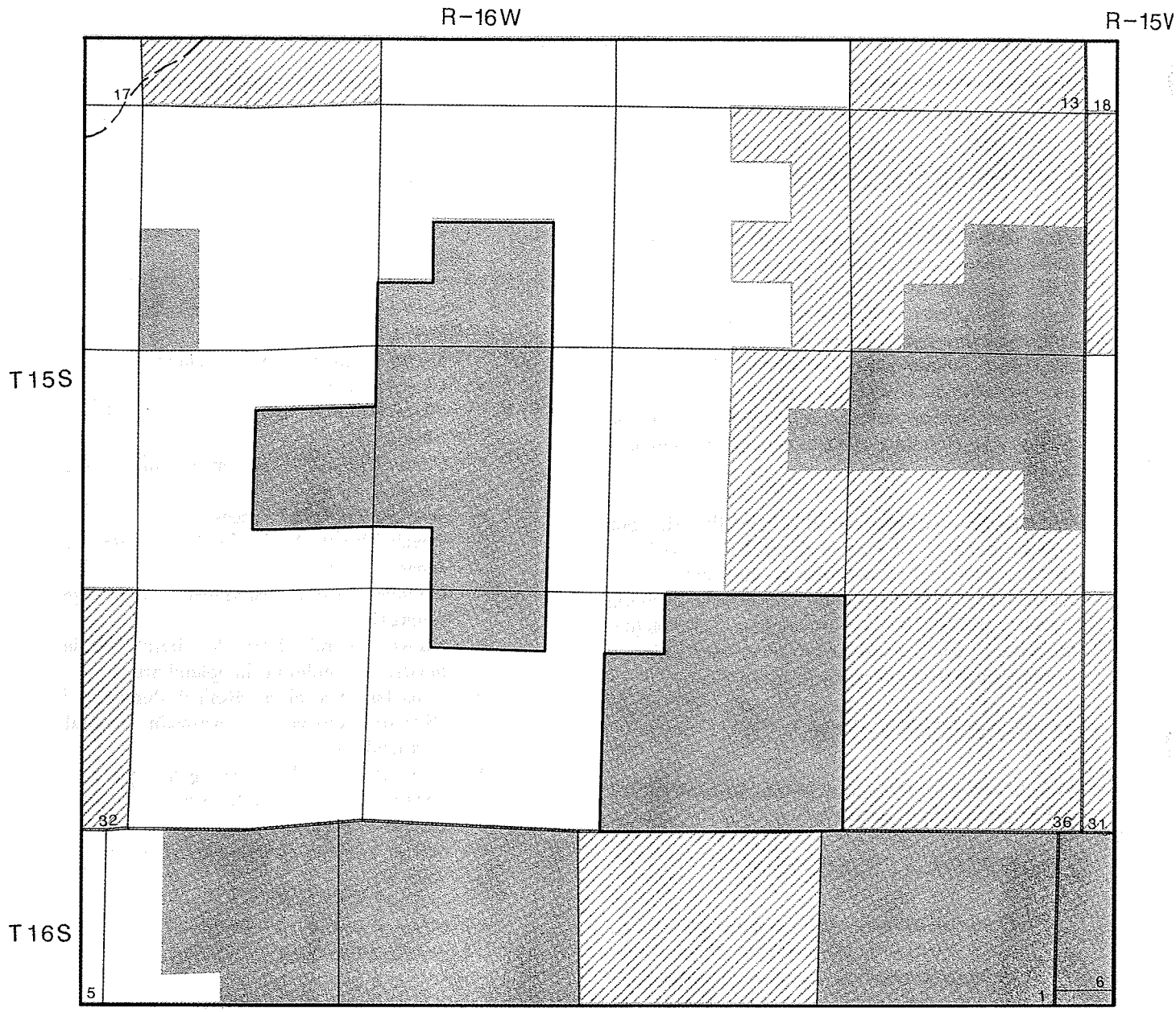
The Apache Box meets the BLM's ACEC relevance criteria because of the Federal and State-listed species, rare plant communities, and cultural and scenic values. The area meets the importance criteria because it has qualities that make it unique, threatened and vulnerable to adverse change warranting special management protection.

MANAGEMENT GOALS

Manage to protect biological, scenic, cultural, special status species, and riparian values.

PLANNED ACTIONS

- Retain all public land; acquire all adjacent State trust and private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Close to vehicle use (except for administrative use).
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Withdraw from locatable mineral entry.
- Close to mineral material sales.
- Close to fluid and non-energy mineral leasing.
- Conduct validity exam on existing mining claims.
- Acquire legal public access.
- Develop livestock grazing plan to protect or enhance riparian values.
- Exclude heavy equipment for fire suppression.
- Allow natural fires to burn within prescribed conditions in upland areas.
- Consider selected mechanical thinning of alligator juniper to maintain natural grassland areas.
- Conduct Class III archaeological survey.
- Install protective grates in three rock shelters to exclude pothunters.
- Safety/"no shooting" restriction February 1-August 15.
- Manage as VRM Class I.
- Manage for ROS primitive and semi-primitive nonmotorized classes.



BEAR CREEK - ACEC

MAP 5-3

N

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

Legend

ACEC BOUNDARY

PUBLIC LAND

STATE LAND

OTHER LANDS

COUNTY ROAD

BEAR CREEK ACEC

GENERAL DESCRIPTION

The Bear Creek ACEC is located in central Grant County approximately 15 miles northwest of Silver City, New Mexico. The size of the area is 1,480 acres. Bear Creek is a riparian area about a mile and a half long. The uplands above the riparian area are comprised of a pinyon/juniper woodland which give way to the riparian area which includes small cliffs and a box canyon. The riparian area contains a perennial stream with an Arizona sycamore/Fremont cottonwood plant community.

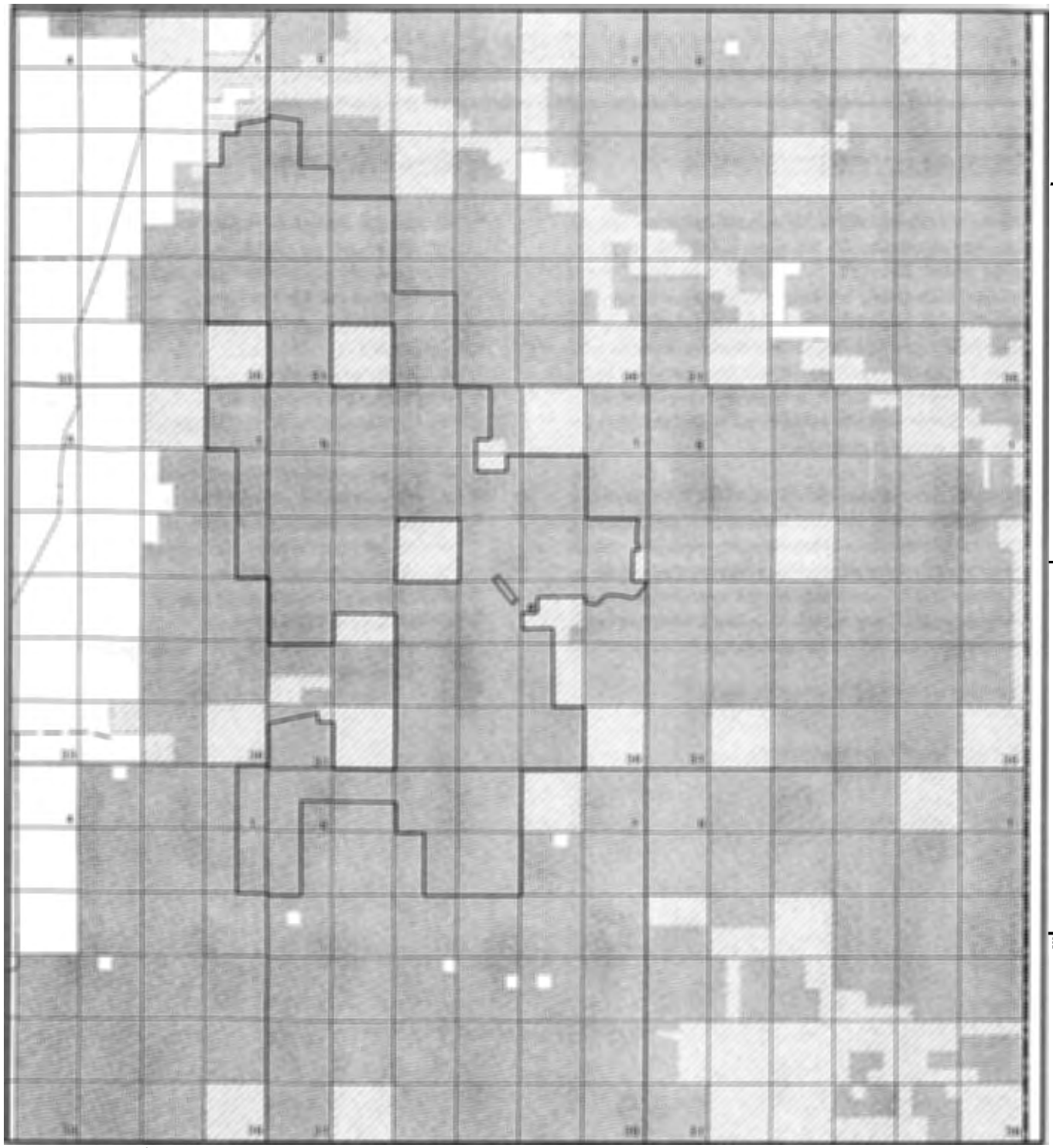
Bear Creek meets the BLM's ACEC relevance criteria because of the scarcity of the Arizona sycamore/Fremont cottonwood riparian plant community. Few examples of this system remain in New Mexico. The area meets the importance criteria because it has qualities which warrant highlighting in order to satisfy public or management concerns.

MANAGEMENT GOALS

Manage to protect riparian values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private lands between the two parts of the ACEC through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Close to vehicle use.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire administrative access.
- Install gap fences to exclude livestock grazing (½ mile of fence).
- Conduct archaeological survey.
- Manage as VRM Class II.
- Manage for ROS semi-primitive nonmotorized class.



BIG HATCHETS MOUNTAINS - ACEC

MAP 5-4

Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS

N

SCALE 1: 75000

3.1 0 MILE 3.1

3.1 0 3.1 KILOMETER

BIG HATCHET MOUNTAINS ACEC

GENERAL DESCRIPTION

The Big Hatchet Mountains ACEC is located in southeast Hidalgo County approximately 15 miles south of Hatchita, New Mexico. The size of the ACEC is 29,180 acres. The Big Hatchets are comprised of limestone and reach an elevation of 8,860 feet at Big Hatchet Peak. The mountain range runs northwest to southeast with diverse vegetation types at different elevations and aspects. There are several Federal and State-listed plants and animals found in the mountain range.

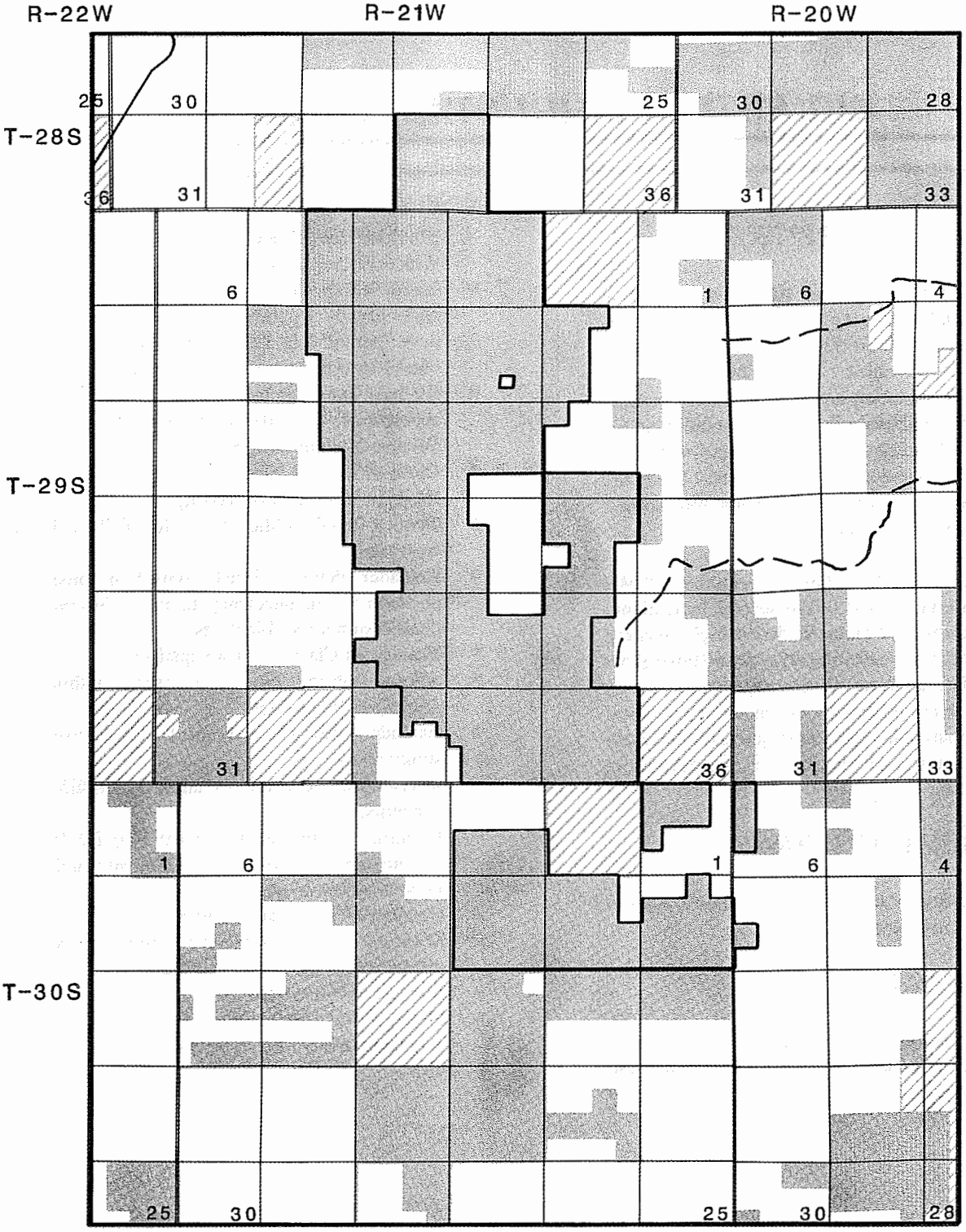
The Big Hatchet Mountains meet the BLM's relevance criteria because of the several Federal and State-listed plants and animals, desert bighorn sheep habitat, and diverse vegetation types found throughout the area. The area meets the importance criteria because it has qualities of more than local significance that make it rare, unique and vulnerable to adverse change and require special management and protection.

MANAGEMENT GOALS

Manage to protect biological (especially bighorn sheep) and scenic values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails except for the central portion of the area (around Big Hatchet Peak) which is closed to vehicle use (4,160 acres).
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access to north and west sides.
- Consider chemical brush control in some portions where necessary to meet desired plant community objectives.
- Manage as Class II for air quality.
- Allow natural fires to burn within prescribed conditions.
- Exclude heavy equipment for fire suppression.
- Revise present AMP to address wildlife concerns.
- Continue all provisions of existing HMP (maintenance of water developments and prescribed burning).
- Conduct archaeological survey.
- Manage for primitive recreation opportunities (no developed facilities).
- Manage as VRM Class I.
- Manage for ROS primitive and semi-primitive nonmotorized classes.



CENTRAL PELONCILLO MOUNTAINS

MAP 5-5

SCALE 1: 75000

N

3.1 0 MILE 3.1

3.1 0 3.1 KILOMETER

Legend

ACEC BOUNDARY

PUBLIC LAND

STATE LAND

OTHER LANDS

CENTRAL PELONCILLO MOUNTAINS ACEC

GENERAL DESCRIPTION

The Central Peloncillo Mountain ACEC is located in southwest Hidalgo County approximately 25 miles southwest of Animas, New Mexico. The size of the area is 12,750 acres. This area consists of the most rugged and remote portion of the Peloncillo Mountains. The area is dominated by a major ridge which runs north/south with peaks, smaller hills and ridges, all separated by canyons of various sizes. The location and orientation of these mountains provide a natural passage for unique wildlife from Mexico into the U.S.

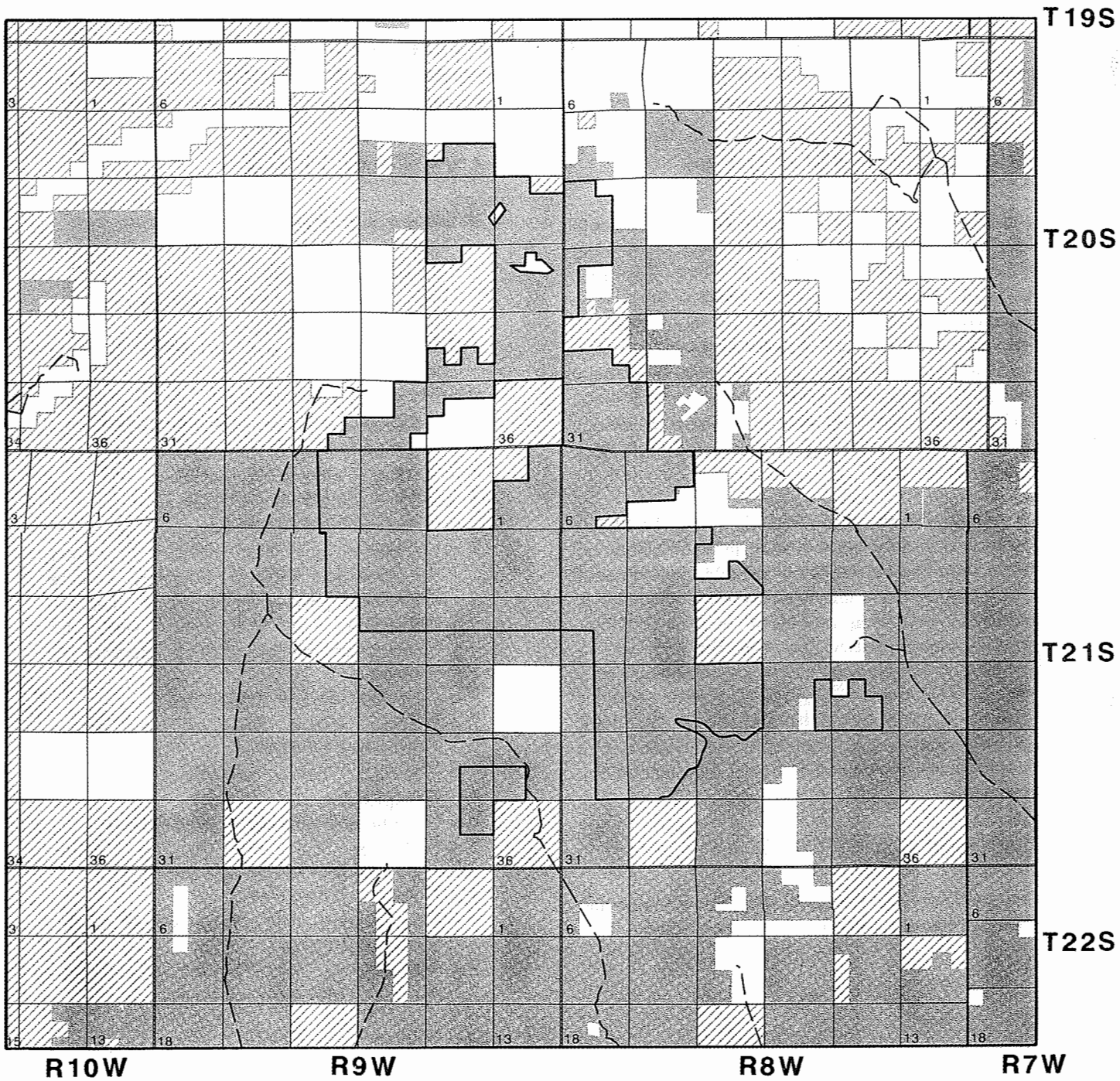
The Central Peloncillo Mountains meet the BLM's relevance criteria because they provide habitat for several State-listed plants and animals, support one of the most extensive and well-developed examples of Madrean evergreen woodland in New Mexico, provide opportunities for scientific research of vegetation and wildlife, and have outstanding scenic values. The area meets the importance criteria because it has qualities that are of more than local significance, unique, exemplary, and vulnerable to adverse change warranting special management and protection.

MANAGEMENT GOALS

Manage to protect biological (bighorn sheep and habitat diversity), research, and scenic values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access.
- Continue to exclude livestock from Owl Canyon and Scholes Allotments, develop livestock grazing management plan for remainder in conjunction with the permittees, and change all allotments to "I" category.
- Develop prescribed burn plan.
- Allow natural fires to burn within prescribed conditions.
- Exclude heavy equipment for fire suppression.
- Continue provisions of existing HMP.
- Manage for primitive recreation opportunities (no developed facilities).
- Manage as VRM Class I.
- Revise existing ACEC management plan for Scholes Allotment.
- Manage for ROS primitive and semi-primitive nonmotorized classes.



COOKE'S RANGE - ACEC

MAP 5-6

Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS
- COUNTY ROAD

N

SCALE 1: 75000

3.1 MILE

3.1 3.1 KILOMETER

COOKE'S RANGE ACEC

GENERAL DESCRIPTION

The Cooke's Range ACEC is located in north central Luna County approximately 15 miles northeast of Deming, New Mexico. The size of the ACEC is 17,160 acres, including Fort Cummings, and the Pony Hills and Massacre Peak Petroglyph sites. The Cooke's Range is dominated by Cooke's Peak which rises to 8,408 feet. The range spreads out from the peak to the north and south and consists of lower peaks and numerous steep ridges.

Fort Cummings is located on the east side of the Cooke's Range and was established in 1863 to protect travellers on the emigrant trail from Apache depredations. It was occupied intermittently from 1863 to the 1890's. The original post was rectangular in shape and surrounded by a 10 foot high adobe wall. Fort Cummings could well be the primary New Mexico Apache wars military installation during the late 1860's and again in the early 1880's. The fort is considered to have local and regional significance. A cultural resource management plan was recently prepared and approved for the fort. Although much of the fort is on privately-owned land, other structures associated with the army post are on public land managed by BLM. Approximately 40 acres are privately-owned.

The Massacre Peak and Pony Hills petroglyph sites are located west of Fort Cummings on the south end of the Cooke's Range. Both are representative of the Mimbres culture and consist of numerous petroglyphs pecked onto sandstone outcrops. The petroglyphs include zoomorphic, anthropomorphic, and geometric figures. These sites are subject to vandalism and removal of panels with chisels. Both sites have high educational and interpretive potential.

Cooke's Range meets the BLM's relevance criteria because it provides habitat for several State-listed and State-sensitive plants. The area is also rich in cultural resources, has the only population of Arizona cypress in New Mexico, and has excellent scenic values. The area meets the importance criteria because it has qualities that are of more than local significance, rare, sensitive, and vulnerable to adverse change warranting special management and protection.

MANAGEMENT GOALS

Manage to protect biological, scenic, and cultural values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings through exchange or purchase at Fair Market Value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access.
- Develop livestock grazing activity plan.
- Consider chemical brush control in some portions where necessary to meet desired plant community objectives.
- Develop prescribed burn plans.
- Exclude heavy equipment for fire suppression.
- Allow natural fires to burn within prescribed conditions.
- Incorporate provisions of existing Cultural Resource Management Plan for Fort Cummings.
- Conduct archaeological surveys.
- Develop stabilization plans for historic mining towns.
- Interpret the petroglyphs through signs and tours.
- Manage for primitive recreation opportunities.
- Manage as VRM Class I.

COOKE'S RANGE ACEC (concluded)

- Consult and coordinate with the livestock permittee to develop and implement projects for the protection and enhancement of springs and riparian areas. Projects may consist of small exclosures (10 acres or less), spring developments, construction of livestock water sources away from riparian areas, relocation of existing water troughs away from riparian areas, and revegetation of riparian areas. Up to a total of 1 mile of fence could be constructed.
- Manage for ROS primitive and semi-primitive nonmotorized classes.
- Close to fuelwood sale or collection.

COWBOY SPRINGS - ACEC

MAP 5-7

N

SCALE 1: 25000

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS

COWBOY SPRING ACEC

GENERAL DESCRIPTION

The Cowboy Spring ACEC is located in south-central Hidalgo County, approximately 50 miles south of Lordsburg, New Mexico. The ACEC is 6,740 acres. It is characterized by mid-elevation hills interspersed with long shallow canyons that support seasonal flows. The hills and canyons support dense grass stands, sacahuista, and Madrean evergreen woodland communities dominated by Emory oak. The canyon bottoms support riparian wildlife species including frog and turtle populations despite the lack of perennial surface water. Several State endangered species also occur in the proposed ACEC including the white-eared hummingbird and the thick-billed kingbird.

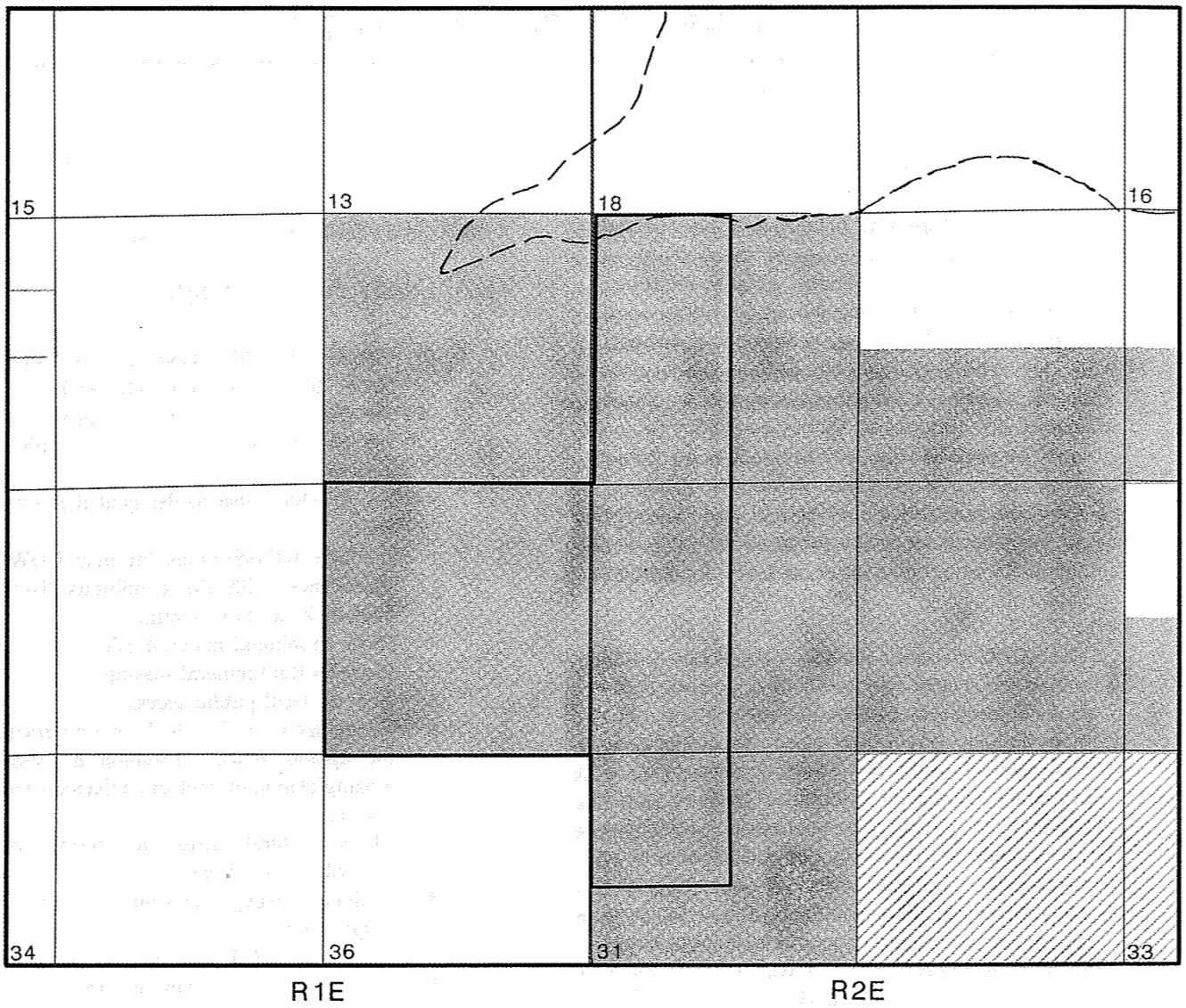
The ACEC meets the relevance criteria by providing habitat for a diverse fauna and flora typical of the Mexican highlands and unusual for public land. The biota includes endangered plant and animal species, and protection of the Cowboy Springs area is important for maintaining species diversity on public land in New Mexico. The area meets the importance criteria because the diverse and unusual biota is more than locally significant since this habitat type is very poorly represented on public land, and it has been recognized as warranting protection in order to satisfy a National priority when it was recommended as suitable for wilderness designation by the BLM Director.

MANAGEMENT GOALS

Manage for protection of biological values.

PLANNED ACTIONS

- Retain all public land; acquire adjacent State trust land through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access.
- Maintain current livestock grazing practices for upland areas. Develop a livestock grazing plan to protect and enhance riparian values.
- Allow natural fires to burn within prescribed conditions.
- Exclude heavy equipment for fire suppression.
- Manage as VRM Class II.
- Manage for ROS primitive class.



DONA ANA MOUNTAINS - ACEC

MAP 5-8

N

SCALE 1: 25000

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

Legend

ACEC BOUNDARY

PUBLIC LAND

STATE LAND

OTHER LANDS

COUNTY ROAD

DONA ANA MOUNTAINS ACEC

GENERAL DESCRIPTION

The Dona Ana Mountains ACEC is located in central Dona Ana County approximately 5 miles north of Las Cruces. The ACEC is 1,490 acres. They are characterized by steep jagged peaks rising abruptly from the desert floor. Vegetation is mostly grasses and shrubs, with some scattered juniper trees. The peaks are highly scenic, and are within the view of most of the northern Mesilla Valley and the northeast portion of Las Cruces. The ACEC features a high diversity of cacti in addition to the scenic qualities. The State endangered Dona Ana Mountains *sonorella* (a land snail) occurs only in these mountains.

The Dona Ana Mountains ACEC meets the relevance criteria because of both the scenic quality and the significant wildlife resources including the sonorella and its habitat. The area meets the importance criteria because the proximity to Las Cruces and the high recreation use levels of the area make the relevant resources vulnerable to adverse change.

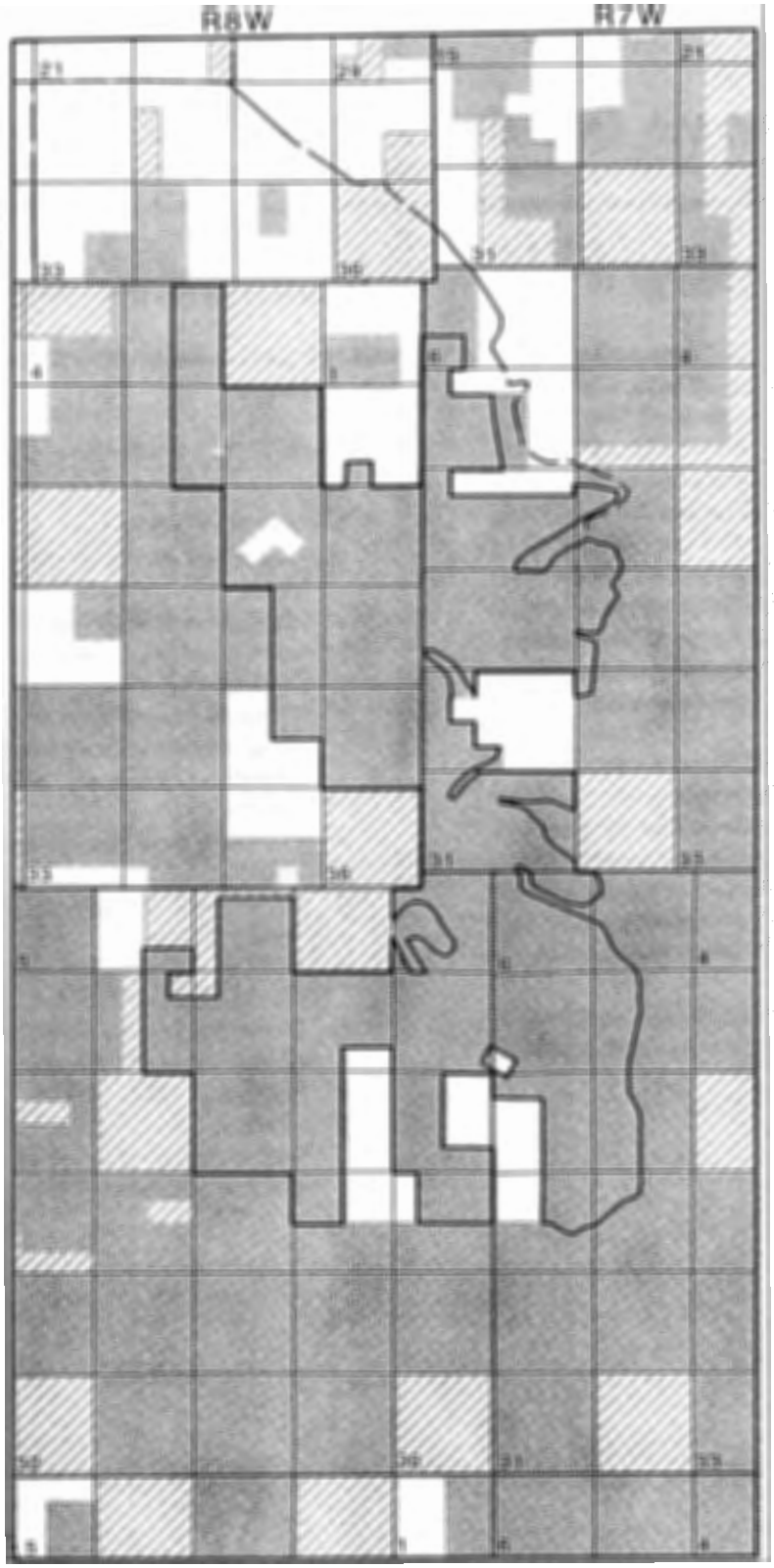
Scenic quality is also of more than local significance and is enjoyed by hundreds of thousands of motorists on I-25 annually.

MANAGEMENT GOALS

Manage for protection of biological, scenic, and cultural values.

PLANNED ACTIONS

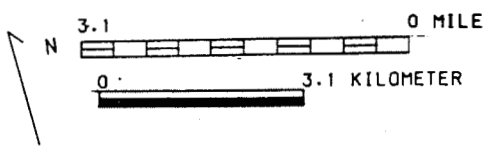
- Retain all public land.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Maintain current livestock grazing practices.
- Exclude feral goats and other exotic animals.
- Close roads that provide access for illegal plant collecting.
- Manage for primitive and semi-primitive recreational opportunities.
- Develop primitive campsites in the "bowl" on north side (10 acres).
- Manage as VRM Class I.
- Manage for ROS semi-primitive nonmotorized, semi-primitive motorized, and roaded natural classes.



FLORIDA MOUNTAINS - ACEC

MAP 5-9

SCALE 1: 75000



Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS
- COUNTY ROAD

FLORIDA MOUNTAINS ACEC

GENERAL DESCRIPTION

The Florida Mountains ACEC is located in central Luna County approximately 8 miles southeast of Deming. The ACEC is 15,660 acres. The Floridas are characterized by spectacular jagged spires and multi-colored cliffs of Precambrian granite overlain in places by Ordovician limestone. The mountains support vegetation types ranging from lower Sonoran to Upper Sonoran life zones, with tremendous diversity created by the myriad aspects within the steep cliffs. The area features spectacular scenery as well as State-listed endangered plant and animal species. Several springs in the mountain range form small riparian zones that increase the values of surrounding wildlife habitat and enhance biodiversity within the mountain range.

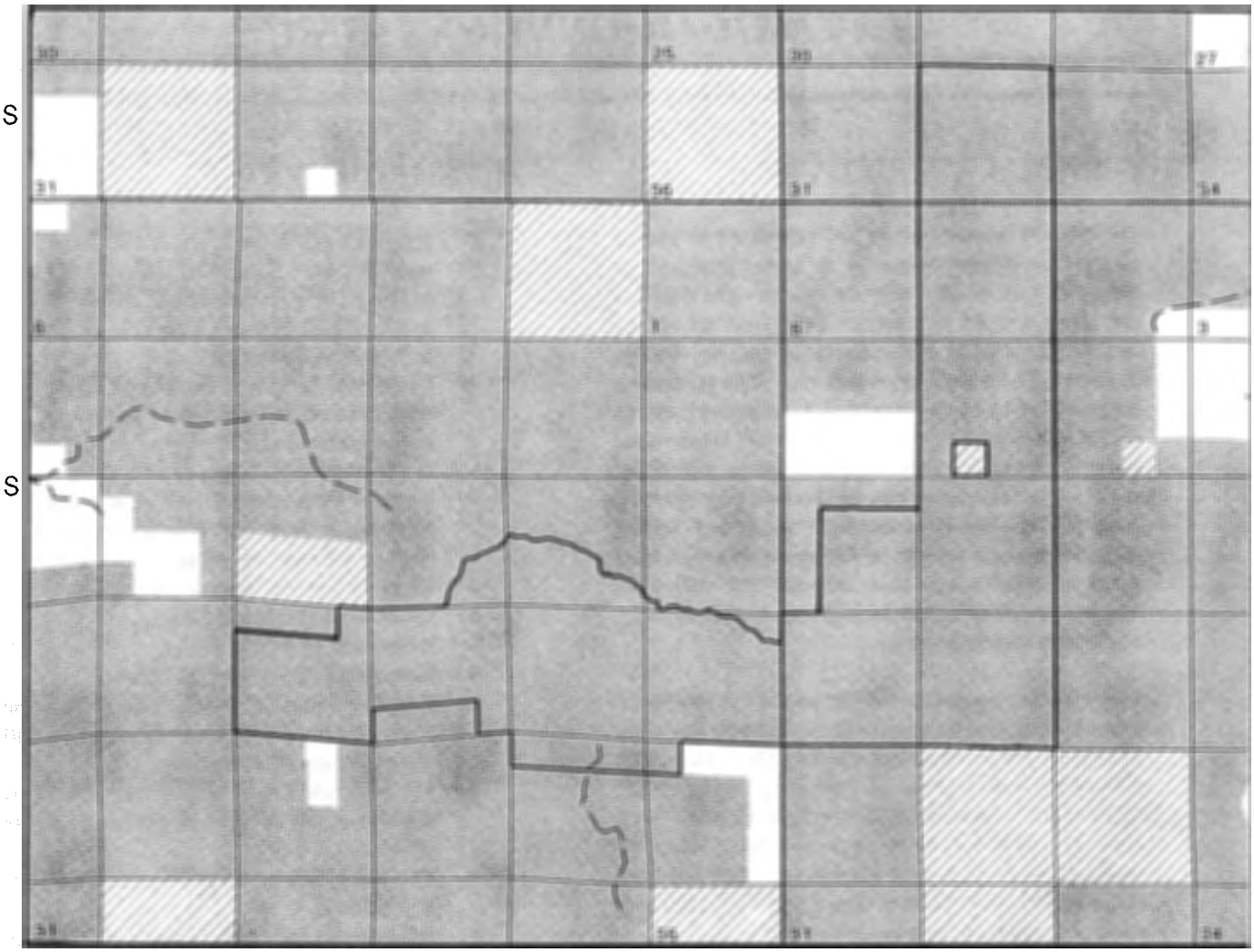
The Florida Mountains ACEC meets the relevance criteria of significant scenic values, wildlife resources including the State-listed Florida Mountains *oreohelix,* natural systems including endemic and relict plant communities, and natural hazards. The Floridas meet the importance criteria because of significant values of more than local significance and endangered species both of which could be vulnerable to adverse change from mining or ibex use.

MANAGEMENT GOALS

Manage for protection of scenic and biological values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails, except for the central portion of the area (encompassing the higher peaks) which is closed to vehicle use (5,900 acres).
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access.
- Manage as Class II for air quality.
- Consider chemical brush control in some portions where necessary to meet desired plant community objectives.
- Allow natural fire to burn within prescribed conditions where private property is not affected.
- Exclude heavy equipment for fire suppression.
- Incorporate all provisions of Florida Mountains HMP.
- Manage for primitive and semi-primitive recreational opportunities.
- Develop parking areas/signing (1 acre).
- Develop trails and primitive hunter camps (2 acres).
- Manage as VRM Class I.
- Manage for ROS primitive, semi-primitive nonmotorized, and semi-primitive motorized classes.



GILA LOWER BOX - ACEC

MAP 5-10

N

SCALE 1: 50000

2.1 0 MILE 2.1

2.1 0 2.1 KILOMETER

Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS
- STATE HIGHWAY
- COUNTY ROAD

GILA LOWER BOX ACEC

GENERAL DESCRIPTION

The Gila Lower Box ACEC is located in northwest Hidalgo County approximately 30 miles north of Lordsburg, New Mexico. The size of the area is 6,490 acres. The site is characterized by cliffs and steep canyon sides rising above a significant riparian area. The riparian area itself has stands of Arizona sycamore, Fremont cottonwoods, willows, and associated riparian vegetation. There are several State-listed and Federal candidate animal species which occur or have habitat within the area. The area also provides seasonal habitat for numerous species of raptors.

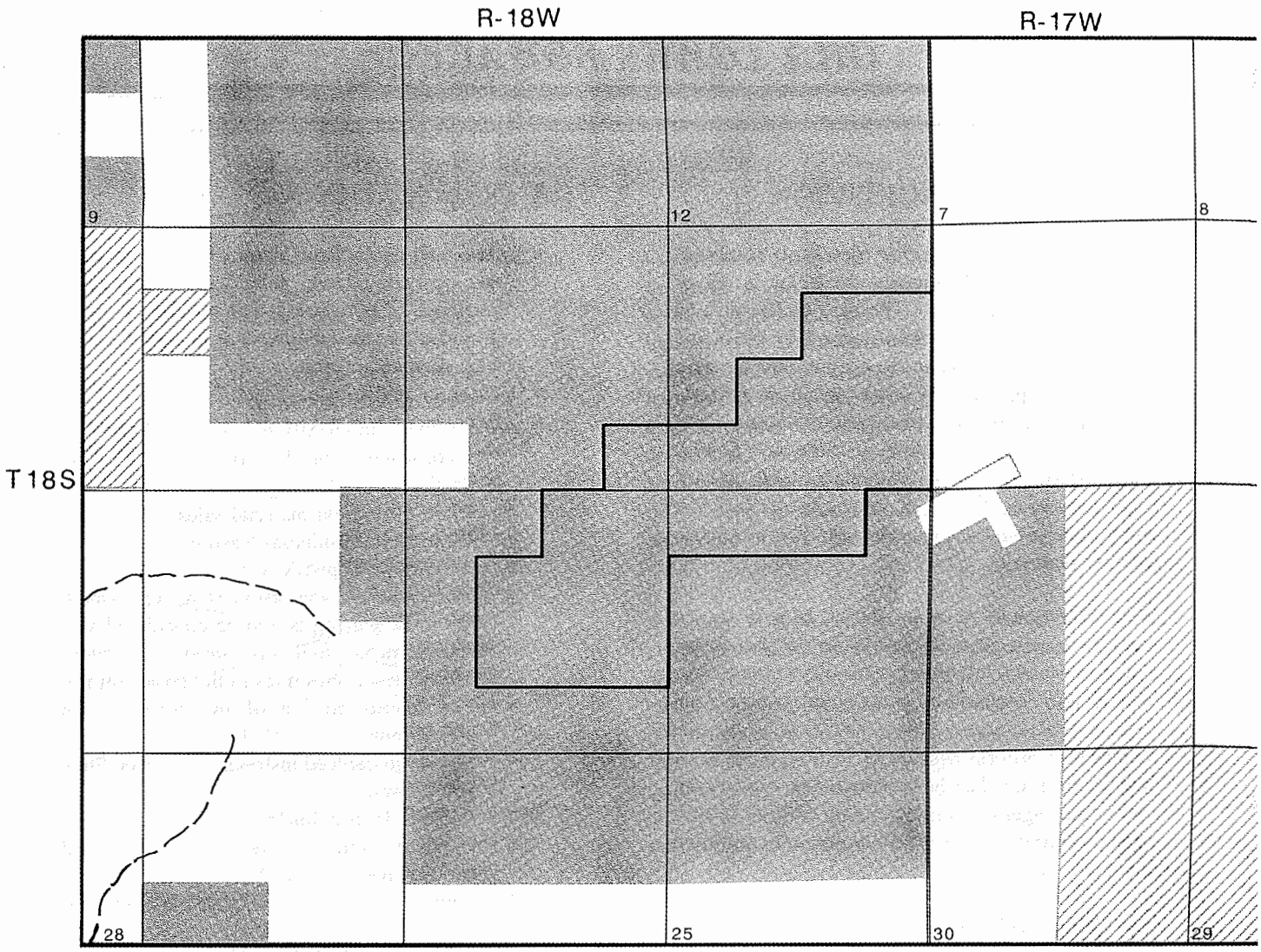
The Gila Lower Box meets the BLM's relevance criteria because it provides habitat for several State-listed and Federal candidate species. The Gila Lower Box is also the largest and most significant riparian area in the Resource Area. The area meets the importance criteria because it is of more than local significance and has been recognized as warranting special management and protection in order to restore and rehabilitate the degraded condition of the riparian area.

MANAGEMENT GOALS

Manage to protect riparian values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Close to vehicle use.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access.
- Once riparian vegetation is re-established, livestock grazing would be considered as a management tool to meet vegetation management objectives in the river bottom.
- The fenced portion of the river bottom would remain unallotted.
- Secure guaranteed instream flow when State law allows.
- Exclude feral animals.
- Develop primitive recreation site and parking areas (5 acres).
- Sign main entrances and provide maps and brochures.
- Manage as VRM Class II.
- Continue annual monitoring program.
- Manage for ROS primitive and semi-primitive nonmotorized classes.



GILA MIDDLE BOX ACEC

MAP 5-11

N

SCALE 1: 25000

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

Legend

ACEC BOUNDARY

PUBLIC LAND

STATE LAND

OTHER LANDS

COUNTY ROAD

GILA MIDDLE BOX ACEC

GENERAL DESCRIPTION

The Gila Middle Box ACEC is located in southwestern Grant County about 27 miles north of Lordsburg and 20 miles west of Silver City. The size of the area is 840 acres. It was designated as an ACEC in 1984. The middle box is a narrow, rugged canyon with steep walls. The canyon bottom supports a rich riparian community that includes extremely high species diversity including the most specious bird community in New Mexico. The canyon provides habitat for State endangered mammals and reptiles, and State and Federal endangered fish and birds. The river is the longest free-flowing river in the United States.

The Gila Middle Box ACEC meets the relevance criteria by having significant fish and wildlife resources including endangered species, and by supporting a sensitive riparian ecosystem. It meets the importance criteria by having a distinctive and regionally significant biotic assemblage which is vulnerable to adverse change. Any alteration of the river or riparian community could have an adverse impact on the endangered species in the area.

MANAGEMENT GOALS

Manage to protect riparian values.

PLANNED ACTIONS

- Retain all public land.
- Close to vehicle use.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access.
- Secure guaranteed instream flow when State law allows.
- Manage as VRM Class II.
- Incorporate provisions of existing ACEC management plan.
- Manage for ROS semi-primitive nonmotorized class.

GRANITE GAP - ACEC

MAP 5-12

SCALE 1: 25000

N

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS
- COUNTY ROAD

GRANITE GAP ACEC

GENERAL DESCRIPTION

The Granite Gap ACEC is located in west central Hidalgo County approximately 24 miles southwest of Lordsburg, New Mexico. The size of the area is 1,750 acres. Granite Gap is a low saddle in the Peloncillo Mountains. To the northwest, Granite Peak rises above the gap while the Peloncillo Mountain range continues south. The Gap itself is in an area of rocky limestone ridges which exhibit diverse vegetation communities. The area has several State-listed animal species including a small herd of desert bighorn sheep. Authorities also feel that this area has a higher cactus diversity than any other area in New Mexico.

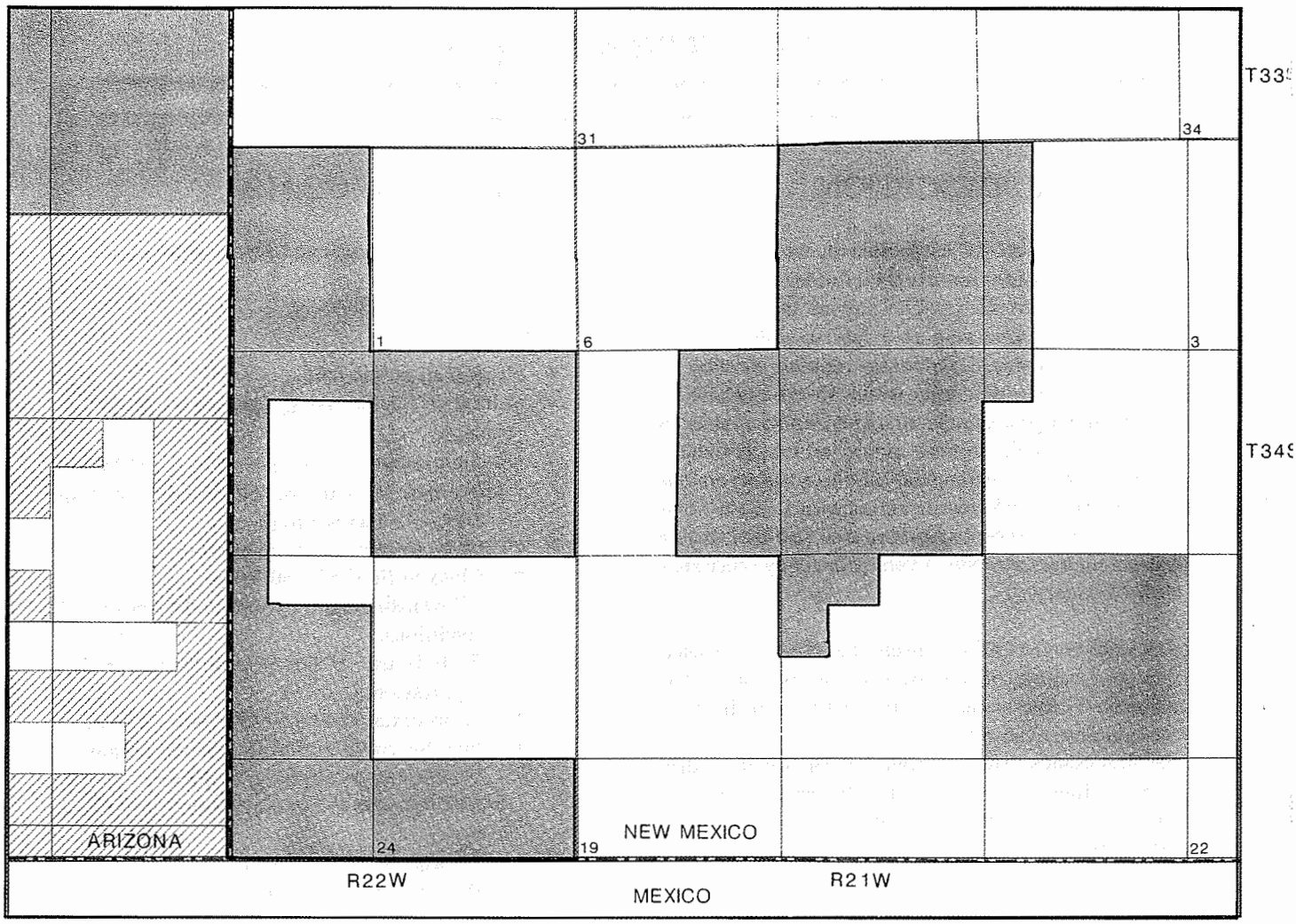
The Granite Gap ACEC meets the BLM's relevance criteria because of the occurrence of State-listed animals, its diverse cactus community, desert bighorn sheep habitat, and its scenic values. The area meets the importance criteria because it has qualities that make it fragile, unique, and vulnerable to adverse changes warranting special management and protection.

MANAGEMENT GOALS

Manage to protect biological and scenic values.

PLANNED ACTIONS

- Retain all public land.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Allow natural fires to burn under prescribed conditions.
- Exclude use of heavy equipment for fire suppression.
- Incorporate provisions of existing HMP.
- Monitor camping during javelina season.
- If resource conflicts appear to be developing, consider establishing designated sites.
- Manage as VRM Class I.
- Manage for ROS semi-primitive class.



GUADALUPE CANYON - ACEC

MAP 5-13

N

SCALE 1: 25000

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS

GUADALUPE CANYON ACEC

GENERAL DESCRIPTION

The Guadalupe Canyon ACEC is located in the southwestern corner of Hidalgo County. The size of the area is 4,170 acres. The canyon begins in the Guadalupe Mountains of southwest New Mexico, runs southwest into Arizona and continues into Mexico. The canyon bottom has a riparian zone which is characterized by stands of Arizona sycamore, Fremont cottonwood, and associated riparian vegetation. The area is well known for its high number of State-listed and State-sensitive plant and animal species, the National significance of its avifauna diversity, and the unique riparian area and associated vegetation. This area adjoins a proposed ACEC in Arizona.

The Guadalupe Canyon ACEC meets the BLM's relevance criteria because it has significant and diverse wildlife and vegetation resources, special status species occurrence, and valuable riparian resources. The area meets the importance criteria because it has qualities of more than local significance that make it rare, unique, exemplary, and vulnerable to adverse changes warranting special management and attention.

MANAGEMENT GOALS

Manage to protect biological and riparian values. Management will also be coordinated with the adjacent Guadalupe Canyon ACEC in the Safford District, Arizona.

PLANNED ACTIONS

- Retain all public land; acquire all private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Withdraw from locatable mineral entry.
- Maintain existing C&MU classification for minerals until protective withdrawal established.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Investigate relocating the road out of the bottom.
- Comply with the revised AMP (and riparian management objectives).
- Allow natural fires to burn under prescribed conditions.
- Exclude use of heavy equipment for fire suppression.
- Manage for primitive or semi-primitive recreation opportunities.
- Manage as VRM Class II.
- Manage for ROS semi-primitive nonmotorized and semi-primitive motorized classes.
- Close to fuelwood sale or collection.

LOS TULES ACEC

GENERAL DESCRIPTION

The Los Tules ACEC is a large pithouse village situated on the western edge of Las Cruces. The ACEC is 20 acres. Los Tules got its name from the abundant cattails (tules) which once grew along the Rio Grande. Los Tules was partially excavated in 1940 by Donald Lehmer of the University of Arizona. Los Tules became the type site for defining the Jornada Branch of the Mogollon culture (A.D. 200 - A.D. 1400). Lehmer excavated several pithouses at the site and the results were published in 1948. Today the site is half on BLM-administered land and half on private land. Private subdivisions are beginning to encroach on the site (Raasaf Hills). The site covers approximately 40 acres.

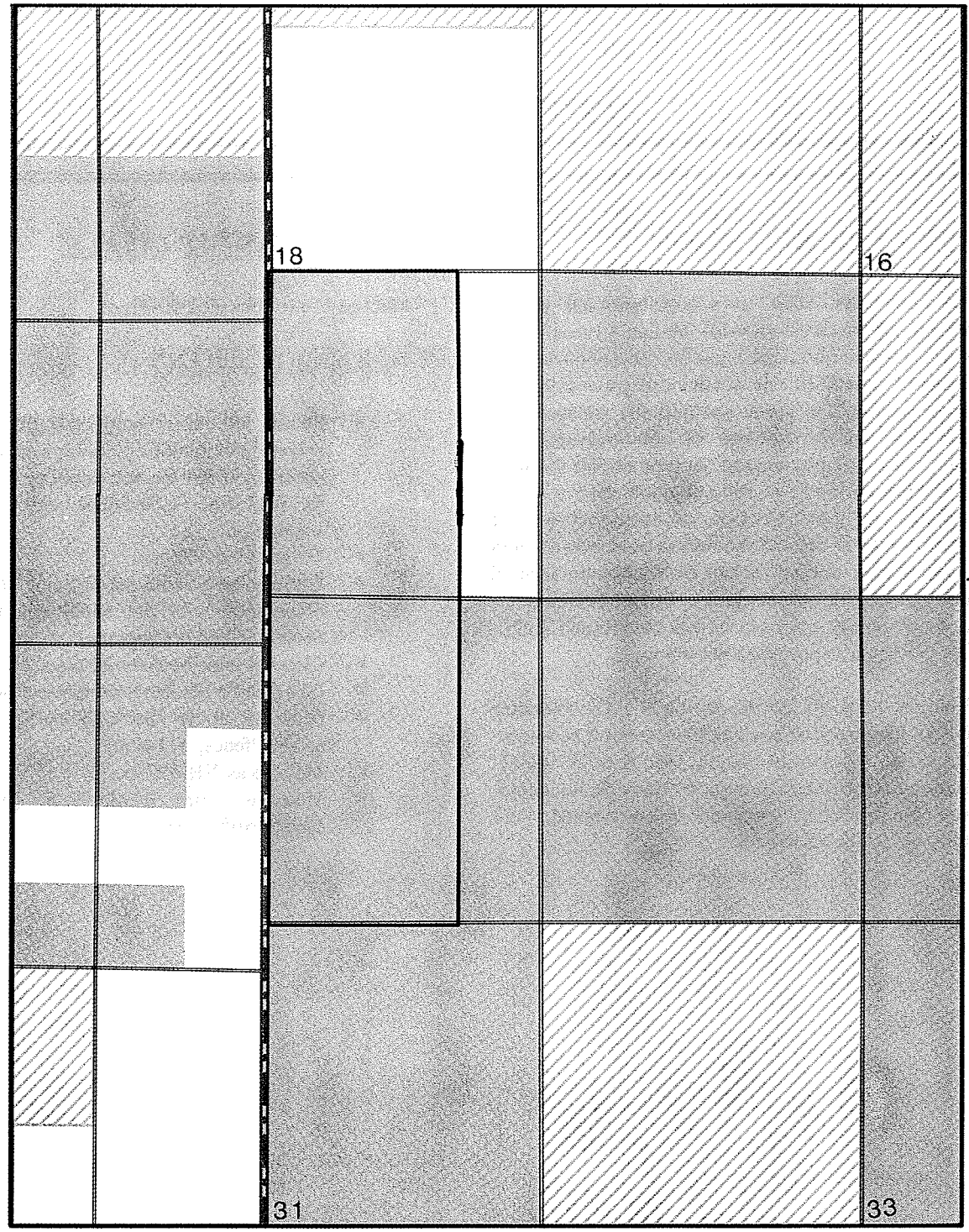
The Los Tules ACEC meets the BLM's relevance criteria because it is a significant cultural resource. The Los Tules Site meets the BLM's ACEC importance criteria because it is a fragile, sensitive, rare, irreplaceable, endangered, threatened, and vulnerable cultural resource.

MANAGEMENT GOALS

Manage to protect cultural values.

PLANNED ACTIONS

- Retain all public land; acquire adjacent private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Close to vehicle use.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Designate NSO for fluid mineral leasing.
- Fence or cover site with sterile fill (3/4 mile of fence; 1/4 acre).
- Manage as VRM Class II.
- Manage for ROS semi-primitive nonmotorized class.



NORTHERN PELONCILLO MOUNTAINS - ACEC

MAP 5-14

Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS

SCALE 1: 25000

N

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

NORTHERN PELONCILLO MOUNTAINS ACEC

GENERAL DESCRIPTION

The Northern Peloncillo Mountain ACEC is located in west central Hidalgo County approximately 20 miles west of Lordsburg, New Mexico. The size of the area is 760 acres. This area is the northern extension of the Peloncillo Mountains which occur in New Mexico. The area is comprised of narrow canyons, cliffs, and a few minor peaks. This area is considered as habitat for desert bighorn sheep.

The Northern Peloncillo Mountains ACEC meets the BLM's relevance criteria because it has significant wildlife values. The area meets the importance criteria because it has qualities that are sensitive and vulnerable to adverse change warranting special management and protection.

MANAGEMENT GOALS

Manage to protect biological values.

PLANNED ACTIONS

- Retain all public land.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Allow natural fires to burn within prescribed conditions.
- Exclude use of heavy equipment for fire suppression.
- Manage as VRM Class II.
- If designated wilderness, ACEC designation would terminate and ACEC management prescriptions would be incorporated into WMP.
- Manage for ROS semi-primitive nonmotorized class.

OLD TOWN ACEC

GENERAL DESCRIPTION

The Old Town ACEC is a Mimbres village site situated on a high bluff overlooking the Mimbres River valley. The site is 15 miles northwest of Deming, New Mexico. The size of the area is 320 acres. The site is well known to the general public in the Deming area, and the site has been extensively shovel pothunted for the past 100 years. It has been estimated that 1,000 whole Mimbres vessels have been stolen from the site. Little professional archaeological excavation had occurred until the summer of 1989 when the BLM sponsored an archaeological field school from Texas A&M University. The field school is now affiliated with the University of Texas at Austin. The field school determined the site to have been a two story cobble masonry pueblo with an underlying pithouse village. The main site area is approximately 5 acres in size, but the outlying associated site features cover a much larger area.

Old Town is one of several very large Classic Mimbres villages spaced fairly evenly along the main branch of the Mimbres River. Many smaller Mimbres sites are found between these very large compounds. It is estimated that over 90 percent of Mimbres villages have been destroyed by pothunters utilizing heavy machinery. Old Town suffers primarily from shovel pothunting although an avocational archaeologist once cross-sectioned a portion of the site with a bulldozer. Old Town is mentioned as a possible driving tour site in the recent Mimbres Culture National Monument National legislation. Old Town is still vulnerable to shovel and machine pothunting.

The Old Town ACEC meets the BLM's relevance criteria because it is a significant historic and cultural resource. The Old Town ACEC meets the BLM's ACEC importance criteria because it is a fragile, sensitive, rare, irreplaceable, endangered, threatened, and vulnerable cultural resource.

MANAGEMENT GOALS

Manage to protect cultural values.

PLANNED ACTIONS

- Retain all public land.
- Close to vehicle use.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Cooperate with National Park Service (through Mimbres Culture National Monument legislation) to manage and interpret the site.
- Enlarge existing exclosure to include all features and living areas (1 mile of fence).
- Continue research (extract information from site and document status and location of excavated materials).
- Manage as VRM Class II.
- Manage for ROS semi-primitive nonmotorized class.

ORGAN/FRANKLIN MOUNTAINS ACEC

GENERAL DESCRIPTION

The Organ and Franklin Mountains ACEC has been proposed for designation as a National Conservation Area (NCA). The ACEC is 56,480 acres. These mountains run north and south through southeastern Dona Ana County. The Organs are characterized by jagged gray spires of quartz monzonite in the northern portion of the range, and massive blocks of red rhyolite interspersed with volcanic tuffs in the southern portion. Springs occur in major canyon bottoms and support valuable riparian ecosystems including rare endemic plants. significant riparian areas include Ice Canyon, Fillmore Canyon, Indian Hollow, and Achenback Canyon. The ACEC also includes Bishop's Cap and the northern Franklin Mountains, which are composed of diverse limestones. Each limestone type supports a unique cactus community, and several cactus communities contain Federal or State endangered species. The two mountain ranges comprise some of the most spectacular scenery in southern New Mexico, with extensive viewsheds containing both interstate highways and large metropolitan populations.

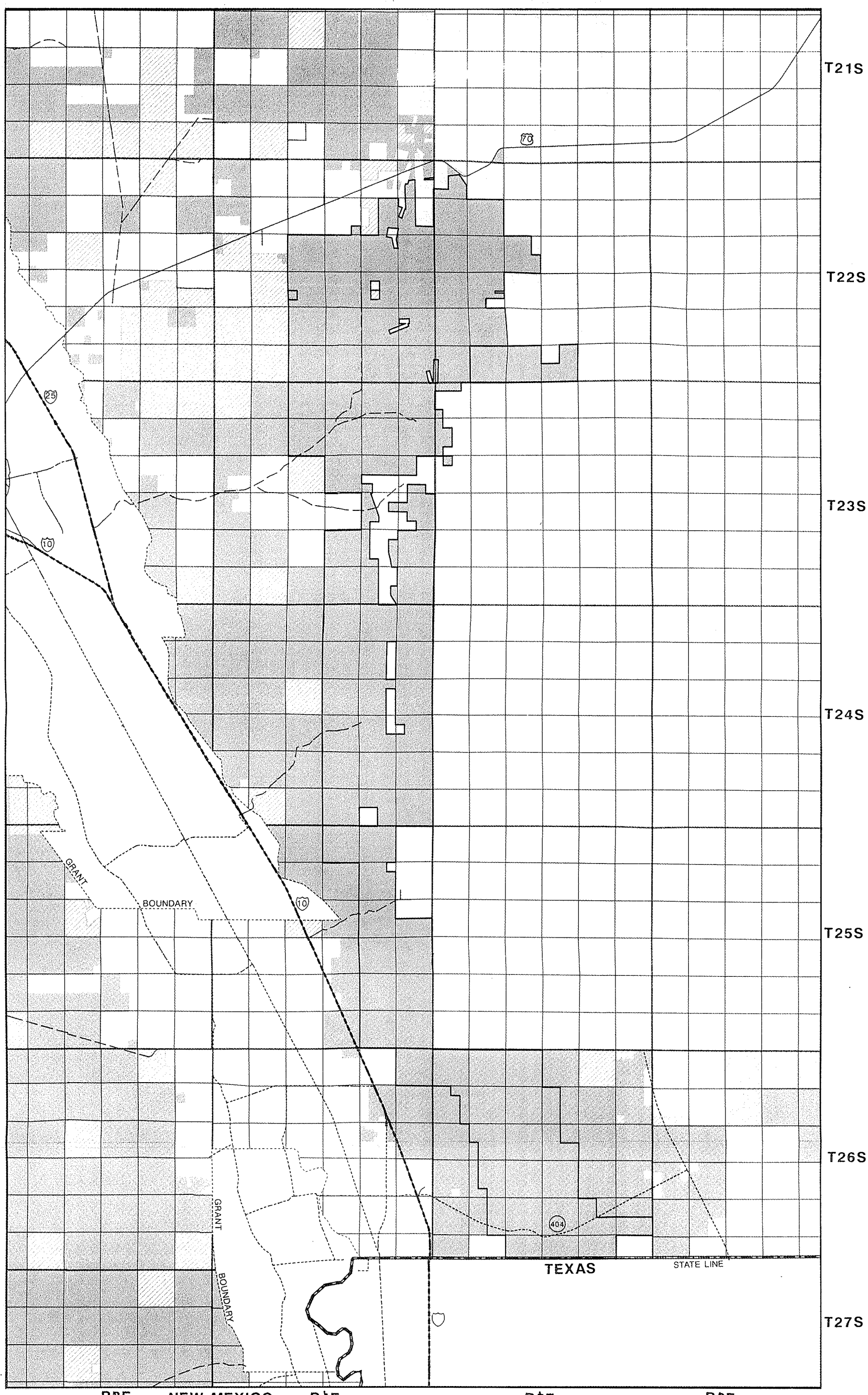
The ACEC meets the relevance criteria because of the significant scenic values, endangered wildlife species including the Organ Mountain chipmunk and the desert bighorn sheep, numerous endangered plant species including the Organ Mountain evening primrose and Sneed's pincushion, national register eligible prehistoric and historic sites such as La Cueva and Dripping Springs and natural hazards including cliffs. The proposed ACEC meets the importance criteria because of the national significance of the resources and the fragility and sensitivity of these resources and their vulnerability to adverse change, particularly from mining, recreation uses, and illegal plant collecting.

MANAGEMENT GOALS

Manage to protect biological, scenic, riparian, special status species, and cultural values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails except for the scenic ACEC portion which is closed to vehicle use (8,840 acres).
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program except within existing utility corridors. The east-west corridor near Vado and the ones running north and south will be confined to a width of ¼ mile. The corridor in the Anthony Gap area will be confined to a width of ½ mile.
- Withdraw from locatable mineral entry.
- Maintain existing C&MU classification for minerals until protective withdrawal established.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access.
- Manage as Class II for air quality.
- Manage mountainous portions (generally above 5,000 feet) as VRM Class I; manage other portions as VRM Class III or IV.
- Manage in accordance with Organ Mountains Coordinated Resource Management Plan.
- Prohibit dogs and pets and require hiking on designated trails only in upper Ice Canyon above the drift fence.
- Manage for ROS primitive, semi-primitive nonmotorized, semi-primitive, and roaded natural classes.
- Monitor the area in accordance with the concepts of limits of acceptable change with emphasis on the most biologically or culturally sensitive areas.



ORGAN/FRANKLIN MOUNTAINS - ACEC

MAP 5-15

RINCON ACEC

GENERAL DESCRIPTION

The Rincon Petroglyph ACEC consists of numerous petroglyphs pecked onto large boulders on the south side of an unnamed mountain 1 mile north of Rincon, New Mexico. The size of the area is 840 acres. The petroglyphs are scattered over an extremely large area approximately 1.0 mile x 0.75 mile in size. The petroglyphs are occasionally clustered in steep sided canyon areas and on the top of the mountain. Some of the petroglyphs have been damaged by the construction of communication sites on top of the mountain. Most of this damage has occurred on the State trust land portion of the site. Mining prospects and treasure hunting have damaged other portions of the rock art. The petroglyphs are believed to be representative of the Jornada Mogollon culture (A.D. 200 - A.D. 1400). Because of the proximity of the site to I-25 and the communities of Hatch and Rincon, it is believed to have interpretive potential.

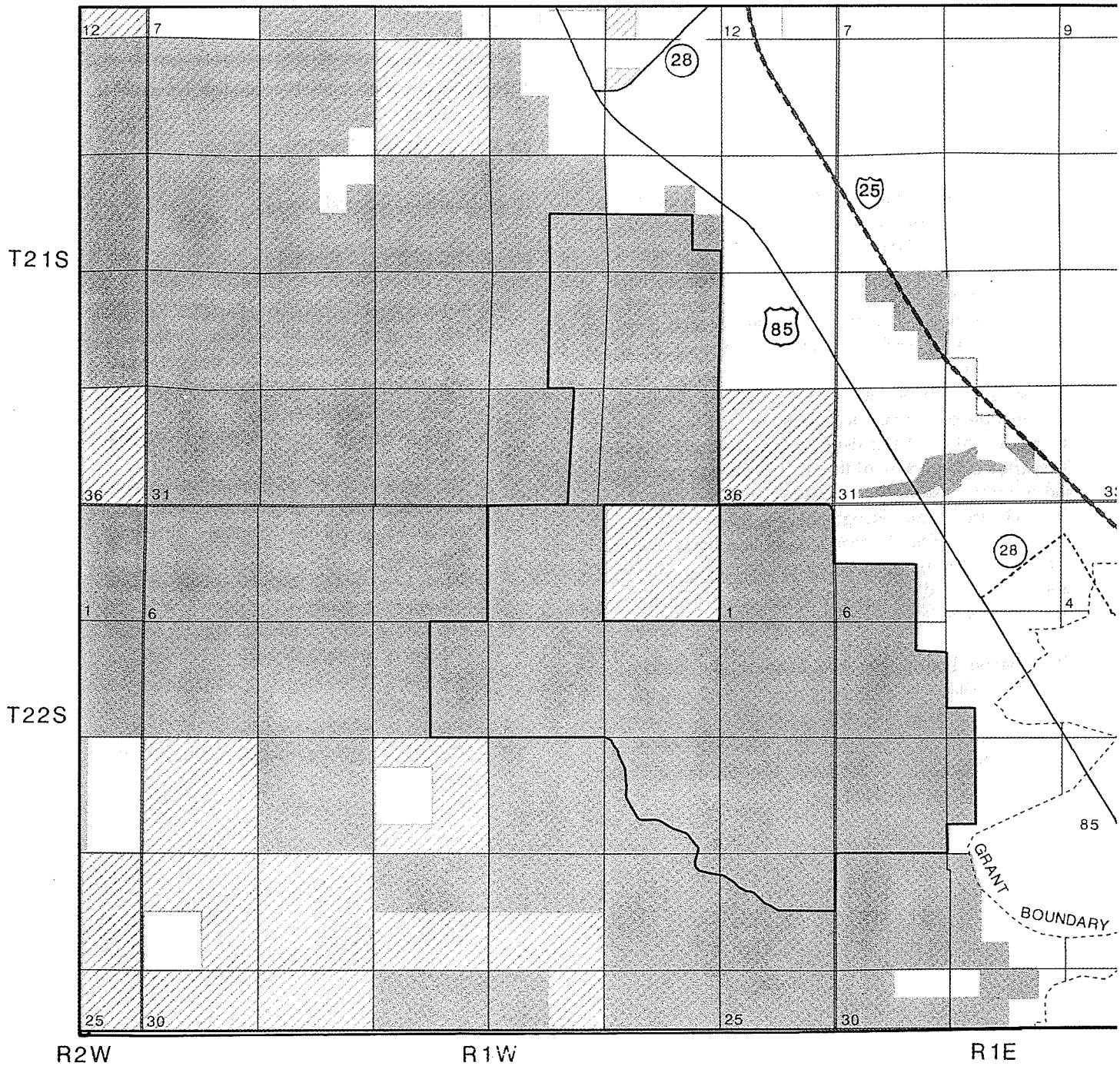
The Rincon Petroglyph ACEC meets the BLM's relevance criteria because it is a significant cultural resource. The ACEC meets the BLM's ACEC importance criteria because it is a fragile, sensitive, rare, irreplaceable, endangered, threatened, and vulnerable cultural resource.

MANAGEMENT GOALS

Manage to protect cultural values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust land in south half of Section 32 through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Exclude new ROW authorizations outside existing sites in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales outside existing rock quarry.
- Designate NSO for mineral leasing within 100 feet of petroglyph site.
- Evaluate potential to interpret the petroglyphs.
- Manage as VRM Class II.
- Manage for semi-primitive nonmotorized class.



ROBLEDO MOUNTAINS - ACEC

MAP 5-16

N

SCALE 1: 50000

2.1 0 MILE 2.1

2.1 0 2.1 KILOMETER

Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS
- GRANT BOUNDARY

ROBLEDO MOUNTAINS ACEC

GENERAL DESCRIPTION

The Robledo Mountains ACEC is located 8 miles northwest of Las Cruces in central Dona Ana County. The ACEC is 9,190 acres. The Robledos are composed of a massive block of Paleozoic sedimentary rocks and Cenozoic igneous rock. The Robledos also provide a spectacular scenic quality to the inhabitants of the northern Mesilla Valley. The Robledos support a high diversity of cacti including the State endangered button cactus and Scheer's pincushion cactus, and provide important habitat for uncommon reptiles. The Madrean alligator lizard occurs in a relict population here that represents the easternmost limit of the species' range. Other reptiles reach the northern or western limits of their range here, such as the Trans-Pecos rat snake. Recent genetic research has shown that peripheral populations of animals along the edge of a species' range often contain very different genotypes from most of the populations of that species, making those peripheral populations very important for allowing adaptability to environmental change that is crucial for species survival. Finally, some of the earliest known prehistoric habitation sites in southern New Mexico are in the Robledo Mountains.

The Robledo Mountains ACEC meets the relevance criteria of having significant paleontological, cultural, and scenic values and endangered plant species. They meet the importance criteria of more than locally significant resources in terms of scenic quality which is enjoyed by hundreds of thousands of travelers on I-25 annually, and for preservation of biodiversity which is distinctive.

MANAGEMENT GOALS

Manage to protect biological and scenic values and to protect, research, and interpret paleontological values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access.
- Maintain current livestock grazing practices.
- Allow natural fires to burn under prescribed conditions.
- Manage for primitive and semi-primitive recreation opportunities (no developed facilities).
- Manage as VRM Class I.
- Manage for ROS primitive and semi-primitive nonmotorized and semi-primitive motorized classes.

SAN DIEGO MOUNTAIN ACEC

GENERAL DESCRIPTION

The San Diego Mountains ACEC consists of several hundred petroglyphs pecked into brown igneous boulders in a large canyon on the north side of San Diego Mountain. San Diego Mountain is located approximately 7 miles north of Radium Springs. The size of the area is 640 acres. These petroglyphs are believed to be representative of the Jornada Mogollon culture (A.D. 200 to A.D. 1400). The petroglyph element forms are animals, humans, fish, and abstract motifs. The rock art and the surrounding canyon are relatively undisturbed. The site can only be accessed by walking, as the canyon bottom is narrow, boulder strewn, and rugged. San Diego Mountain Petroglyph Site is the least disturbed of all rock art sites within the Mimbres Resource Area. Recently, an avocational archeo-astronomer in association with Human Systems Research documented an archeo-astronomical feature at the site. This feature needs further documentation. It is believed that several associated habitation sites are located near the petroglyphs but an intensive archaeological survey has never been conducted.

The San Diego Mountain ACEC meets the BLM's relevance criteria because it is a significant cultural resource. The ACEC meets the BLM's ACEC importance criteria because it is a fragile, sensitive, rare, irreplaceable, endangered, threatened, and vulnerable cultural resource.

MANAGEMENT GOALS

Manage to protect and research cultural values.

PLANNED ACTIONS

- Retain all public land; acquire adjacent private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Manage for research rather than interpretive value.
- Encourage or conduct rock art research.
- Manage as VRM Class II.
- Manage for ROS semi-primitive nonmotorized class.

UVAS VALLEY ACEC

GENERAL DESCRIPTION

The Uvas Valley ACEC is located in northeast Luna County approximately 8 miles southeast of Nutt, New Mexico. The size of the area is 1,570 acres. The area is mostly flat interspersed with swales and rolling hills on the west side of the area. The area has almost pure stands of black grama on the western portion of the area. The grasslands that are in existence today reflect careful stewardship by the grazing permittees.

The Uvas Valley ACEC meets the BLM's relevance criteria because this may well be the best remaining example of black grama grassland other than an existing ACEC on McGregor Range. The area meets the importance criteria because it has more than locally significant qualities and is rare and sensitive to adverse changes warranting special management and protection.

MANAGEMENT GOALS

Manage to protect biological values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Revise existing AMP for livestock grazing to reflect current grazing practices.
- Exclusion of livestock grazing following a wildfire would be in accordance with the revised AMP.
- Manage as VRM Class II.
- Consider chemical brush control in some portions where necessary to meet desired plant community objectives.
- Manage for ROS semi-primitive nonmotorized class.

T21S

T22S

R6W

R5W

UVAS VALLEY - ACEC

MAP 5-17

SCALE 1: 15000

N

0.6 0 MILE 0.6

0.6 0 0.6 KILOMETER

Legend

- ACEC BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS

S
M
A
S

BUTTERFIELD TRAIL

GENERAL DESCRIPTION

In 1857, John Butterfield was awarded a mail contract to establish the Butterfield Overland Mail Company. The Butterfield stage carried mail and passengers from St. Louis, Missouri to San Francisco, California. In New Mexico, the "Butterfield Trail" ran east/west across southern New Mexico from El Paso, Texas to the Doubtful Canyon station north of Steins, New Mexico and then into Arizona. Stage stations of adobe and rock masonry were built at watering points along the trail. The U.S. Government ordered closure of the line in March of 1861 in response to Texas secession from the Union. Before and after 1861, the route of the Butterfield Trail was utilized as the southern emigrant trail to California.

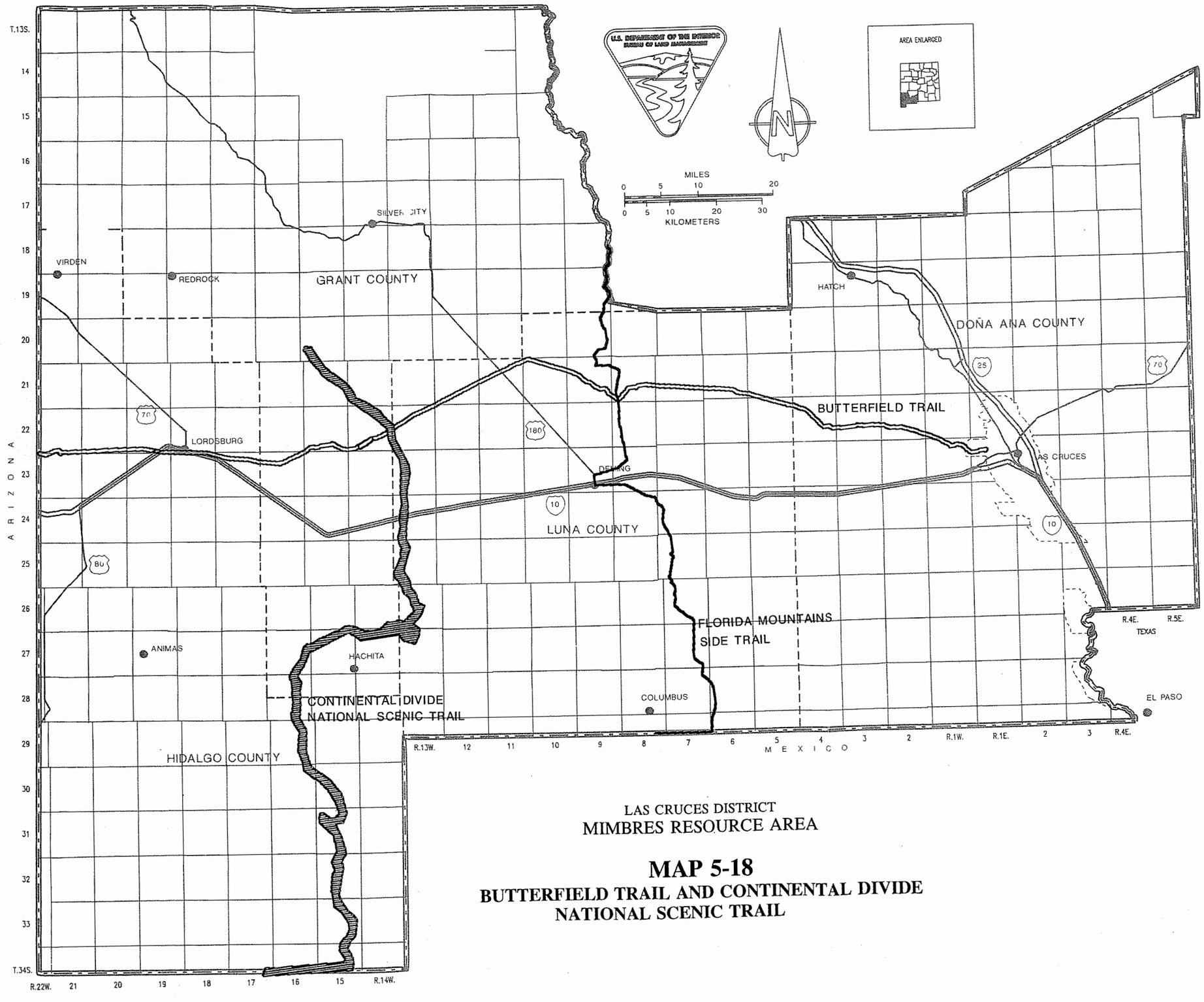
The Butterfield Trail and associated stage station localities are considered to have significant regional, historical, and archaeological significance. The remains of the trail and stations are fragile and nonrenewable cultural resources which are deserving of preservation, research, and interpretation to the general public. The size of the area is 15,690 acres.

MANAGEMENT GOALS

Manage to protect and interpret historical values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings (with emphasis on stage stations) through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Restrict authorizations for ROWs.
- Close to mineral material sales.
- Designate NSO for mineral leasing within ¼ mile of trail.
- Manage in accordance with existing Cultural Resource Management Plan.
- Interpret with emphasis on passive interpretation such as signing.
- Manage as VRM Class II.
- Manage for ROS semi-primitive motorized class.



LAS CRUCES DISTRICT
MIMBRES RESOURCE AREA

MAP 5-18

BUTTERFIELD TRAIL AND CONTINENTAL DIVIDE NATIONAL SCENIC TRAIL

CONTINENTAL DIVIDE NATIONAL SCENIC TRAIL

GENERAL DESCRIPTION

The Continental Divide National Scenic Trail was established as part of the National Scenic Trail System by Public Law 95-625, and the National Parks and Recreation Act of 1978, which amended the National Trails Act of 1968. Congress established a scenic corridor 50 miles on either side of the actual continental divide, with the treadway or corridor for the trail to be proposed through the planning of the respective land managing agencies.

The Continental Divide National Scenic Trail contains significant scenic values along the length of the trail. It has National significance and could soon have International significance if Mexico follows through with plans to continue the trail south of the border. The size of the area is 48,450 acres.

MANAGEMENT GOALS

Manage to maintain scenic and primitive recreation values in accordance with the enabling legislation.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails that cross the Continental Divide National Scenic Trail.
- Restrict authorizations for ROWs.
- Close to mineral material sales.
- Designate NSO for mineral leasing within ½ mile of the trail.
- Designate the trail (Forest Service lead).
- Mark and/or construct the route.
- Develop four trailheads/parking areas (1 acre).
- Manage as VRM Class II.
- Manage for ROS semi-primitive nonmotorized class.

TRAIL ROUTE DESCRIPTION

ZONE OF CONCERN

The zone of concern for the Continental Divide National Scenic Trail includes all public land within 50 airline miles of the Continental Divide. This zone includes most of the public land in Luna, Grant, and Hidalgo Counties with the exception of public land in northeastern Luna County.

The route identified would be adhered to as much as possible in the development of the trail, but trail development would not necessarily be limited to the corridor. If deviation from the identified corridor is necessary because of water needs or to facilitate easement acquisition, this would be addressed through the plan amendment process.

RIGHTS-OF-WAY

For easements across non-Federal lands, a 30-foot width will be pursued.

TREADWAY

Because of the open nature of the public land and the low level of use along the Continental Divide National Scenic Trail in the Resource Area, no tread construction is anticipated. The route will be marked at irregular intervals frequently enough to allow easy orientation if this approach is formally approved by the Chief of the Forest Service upon designation.

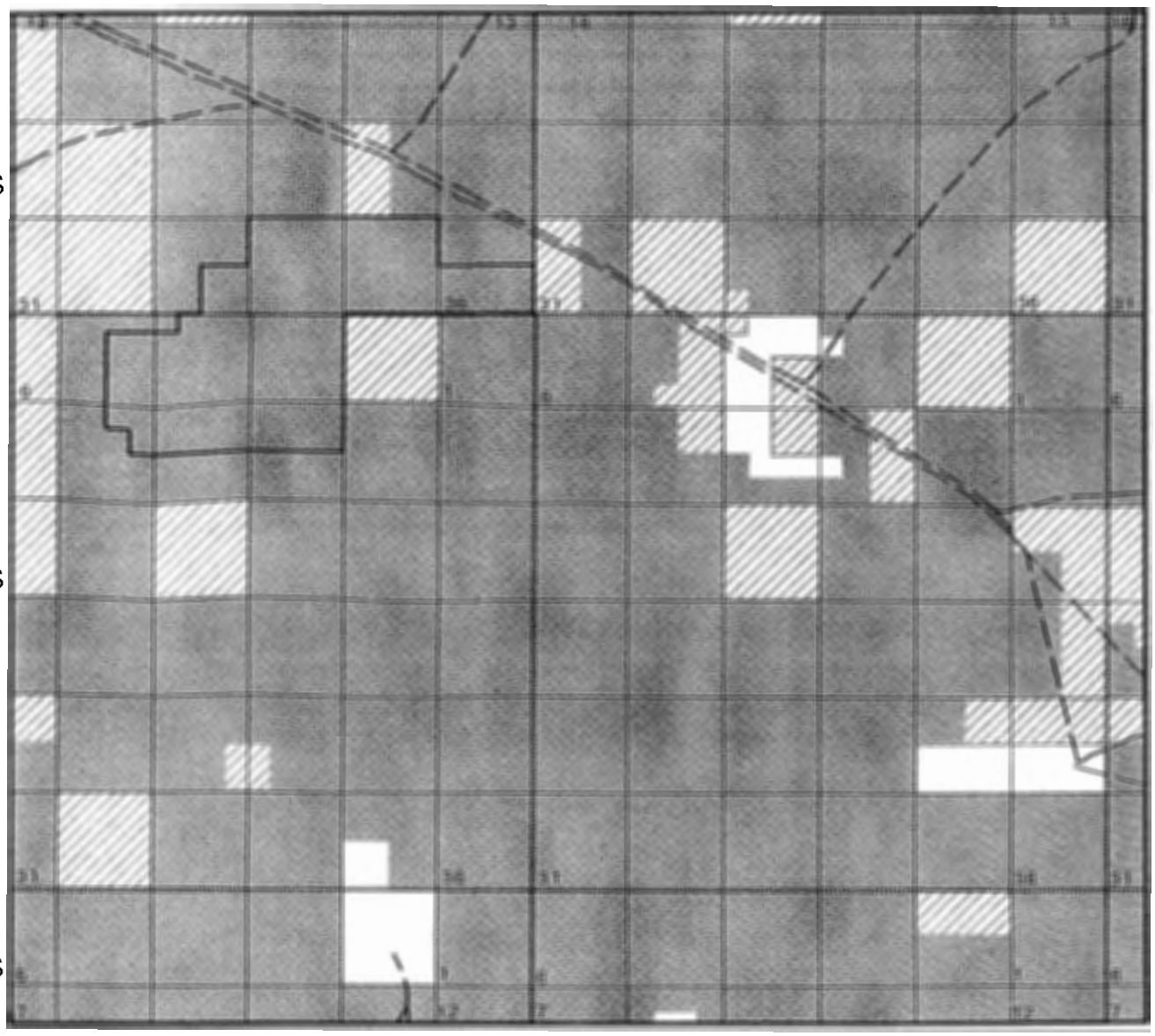
CONTINENTAL DIVIDE NATIONAL SCENIC TRAIL

The route is from the designated Continental Divide National Scenic Trail on the Gila National Forest south of the Burro Mountains along the Divide to the Little Hatchet Mountains, south along the ridgeline of the Little Hatchet Mountains, up Thompson Canyon to Big Hatchet Peak and then south along the east

side of U-Bar Ridge and the west side of the Alamo Hueco Mountains to the Antelope Wells Port of Entry following public land as much as possible. This route is 130 miles long, with 93 miles on public land. The BLM would need to acquire easements for the trail across 16 miles of State trust land and 21 miles of private land. This route provides views of the Burro, Florida, Big Hatchet, Pyramid, Animas, and Alamo Hueco Mountains. This route averages approximately 10 miles deviation from the Continental Divide, with the northern half of the route very close to the Divide, and the southern half approximately 18 miles from the Divide on the average. This route provides gentle grades over much of the route with steep mountaintop hiking in the Cedar, Little Hatchet, and Big Hatchet Mountains. This route also provides spectacular views of the Sierra Madre Occidental in Mexico, with the best views from the top of Big Hatchet Peak.

FLORIDA MOUNTAINS (SIDE TRAIL)

The Florida Mountains route will be considered as a potential official side trail to the Continental Divide National Scenic Trail based on the final decision of the Gila National Forest to leave open the option of designating the Mimbres Mountain Route as a side trail, which could be connected to the Florida Mountain route. This route was selected to follow public land as much as possible, and runs down the length of the Cooke's Range, through Deming, southeast along the ridgeline of the Little Florida Mountains, and south along the east side of the Florida Mountains to the port of entry at Columbus. The route is 93 miles long, with 57 miles on public land. The BLM would need to acquire trail easements across 14 miles of State trust land and 22 miles of private land. It would connect the southern end of the Black Range to the Columbus port of entry. This route would provide views of the Black Range, the Cooke's Range, and the Florida Mountains. This route averages over 40 miles deviation from the Continental Divide, with over 50 miles deviation in the southern portion. It would pass close to Fort Cummings and prehistoric sites associated with the proposed Cooke's Range ACEC. This route provides gentle, steep, and precipitous grades including some cliffs.



ADEN LAVA FLOW

RESEARCH NATURAL AREA

MAP 5-19

N

SCALE 1: 75000

3.1 0 MILE 3.1

3.1 0 3.1 KILOMETER

Legend

- RNA BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS
- COUNTY ROAD

ADEN LAVA FLOW RNA

GENERAL DESCRIPTION

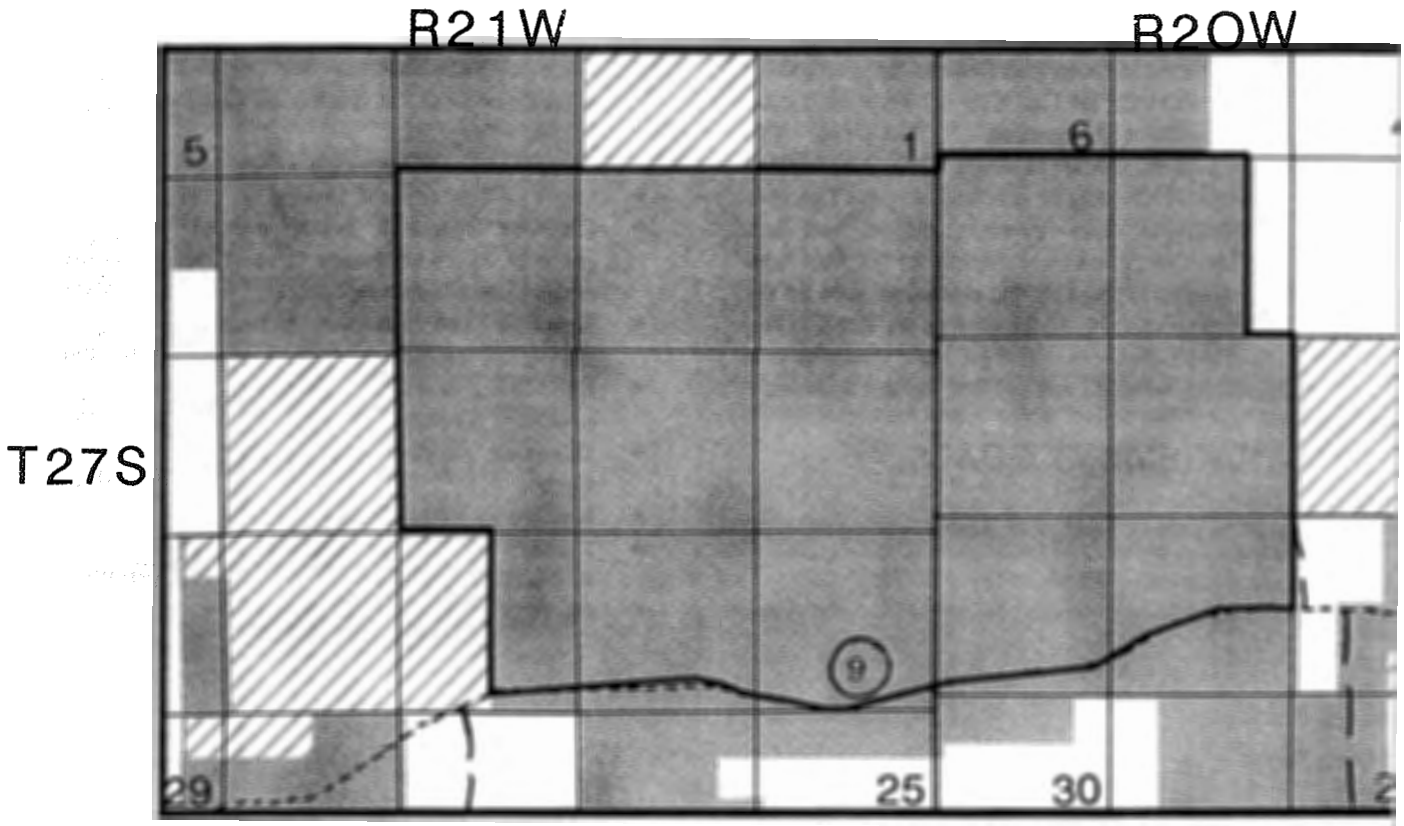
The Aden Lava Flow Research Natural Area (RNA) is located in central Dona Ana County, approximately 20 miles southwest of Las Cruces, New Mexico. The existing RNA designation is 3,930 acres. The lava flow is a nearly flat landform with steep walled depressions which vary in size and shape. The area also contains crevices, pressure ridges, and lava tubes. The most prominent feature of the lava flow is Aden Crater located in the northwest part of the area and is currently designated as an RNA. The area has significant scenic and geologic values as well as interesting wildlife and wildlife habitat features.

MANAGEMENT GOALS

Manage to protect biological, scenic, geological, and research values.

PLANNED ACTIONS

- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral materials sales.
- Close to fluid mineral leasing
- Consider chemical brush control in some portions where necessary to meet desired plant community objectives.
- Research and interpret paleontological and geological features.
- Establish research permitting/information exchange process.
- Designate parking area (¼ acre) and trail to Crater.
- Manage as VRM Class II.
- Manage for ROS primitive and semi-primitive nonmotorized classes.
- Develop grazing activity plan.



ANTELOPE PASS

RESEARCH NATURAL AREA

MAP 5-20

Legend

- **RNA** BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS
- STATE HIGHWAY
- COUNTY ROAD

3.1 0 MILE 3.1

3.1 0 3.1 KILOMETER

ANTELOPE PASS RNA

GENERAL DESCRIPTION

The Antelope Pass RNA is located in west central Hidalgo County approximately 35 miles south of Lordsburg, New Mexico and 6 miles west of Animas, New Mexico. The size of the RNA is 8,710 acres. Antelope Pass is a low east-west gap across the Peloncillo Mountains and features several State-listed and Federal candidate plant and animal species as well as a great diversity of lizard species (19 known species, 2 of which are State-listed or Federal candidate species).

MANAGEMENT GOALS

Manage to protect biological and research values, especially lizard diversity and Dixon's whiptail habitat.

PLANNED ACTIONS

- Retain all public land.
- Allow natural fires to burn within prescribed conditions.
- Herpetological collecting would be in accordance with NMDGF regulations.
- Close to vehicle use north of the El Paso Natural Gas ROW road and west of the road connecting Hidalgo county roads C065 and C079. Limit vehicle use to designated roads and trails in the remainder of the area.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program except within the existing utility corridor. The corridor will be confined to a width of ¼ mile.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Consider chemical brush control in some portions where necessary to meet desired plant community objectives.
- Manage as VRM Class II.
- Manage for ROS semi-primitive nonmotorized and semi-primitive motorized classes.

KILBOURNE HOLE NNL

GENERAL DESCRIPTION

Kilbourne Hole is a volcanic maar in southwestern Dona Ana County, approximately 20 miles southwest of Las Cruces. The NNL designation encompasses 5,480 acres. The hole is a crater that formed when a volcanic bubble burst on the surface of the earth. Kilbourne Hole has been designated as a National Natural Landmark by the BLM and the National Park Service because it is the best known example of a maar in the Chihuahuan desert region.

MANAGEMENT GOALS

Manage to protect geological values.

PLANNED ACTIONS

- Retain all public land; acquire all State trust and private land inholdings through exchange or purchase at fair market value, provided that the landowner is in agreement with such acquisition.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Consider chemical brush control in some portions where necessary to meet desired plant community objectives.
- Establish safety/"no shooting" restriction within the rim.
- Interpret geological features by signing.
- Establish primitive facilities (parking area, tables, toilets)(2 acres).
- Manage as VRM Class II.
- Manage for ROS semi-primitive motorized class.

T26S

T27S

T28S

R2W

R1W

KILBOURNE HOLE
NATIONAL NATURAL LANDMARK

MAP 5-21

SCALE 1: 25000

N

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

Legend

NNL BOUNDARY

PUBLIC LAND

STATE LAND

OTHER LANDS

COUNTY ROAD

PALEOZOIC TRACKWAYS RNA

GENERAL DESCRIPTION

The Paleozoic Trackways site is located on public land in the Robledo Mountains in central Dona Ana County in south-central New Mexico, approximately 5 miles northwest of Las Cruces. The RNA is 720 acres. The Robledos are composed of Paleozoic sedimentary rocks (lower Ordovician to lower Permian) and Cenozoic (younger) clastic, volcanic and intrusive rocks. The southern and central part of the range exposes the upper part of the Hueco formation and the interfingering Abo Tongue of Wolfcampian age (approximately 280 million years old). These exposures are known as the Abo-Hueco transitional zone made up of primarily cyclic deposits of nonmarine fine sandstone, siltstone, and mudstone alternating with marine calcareous shale and limestone. Analysis of this transitional zone indicates a tidal flat, shoreline environment.

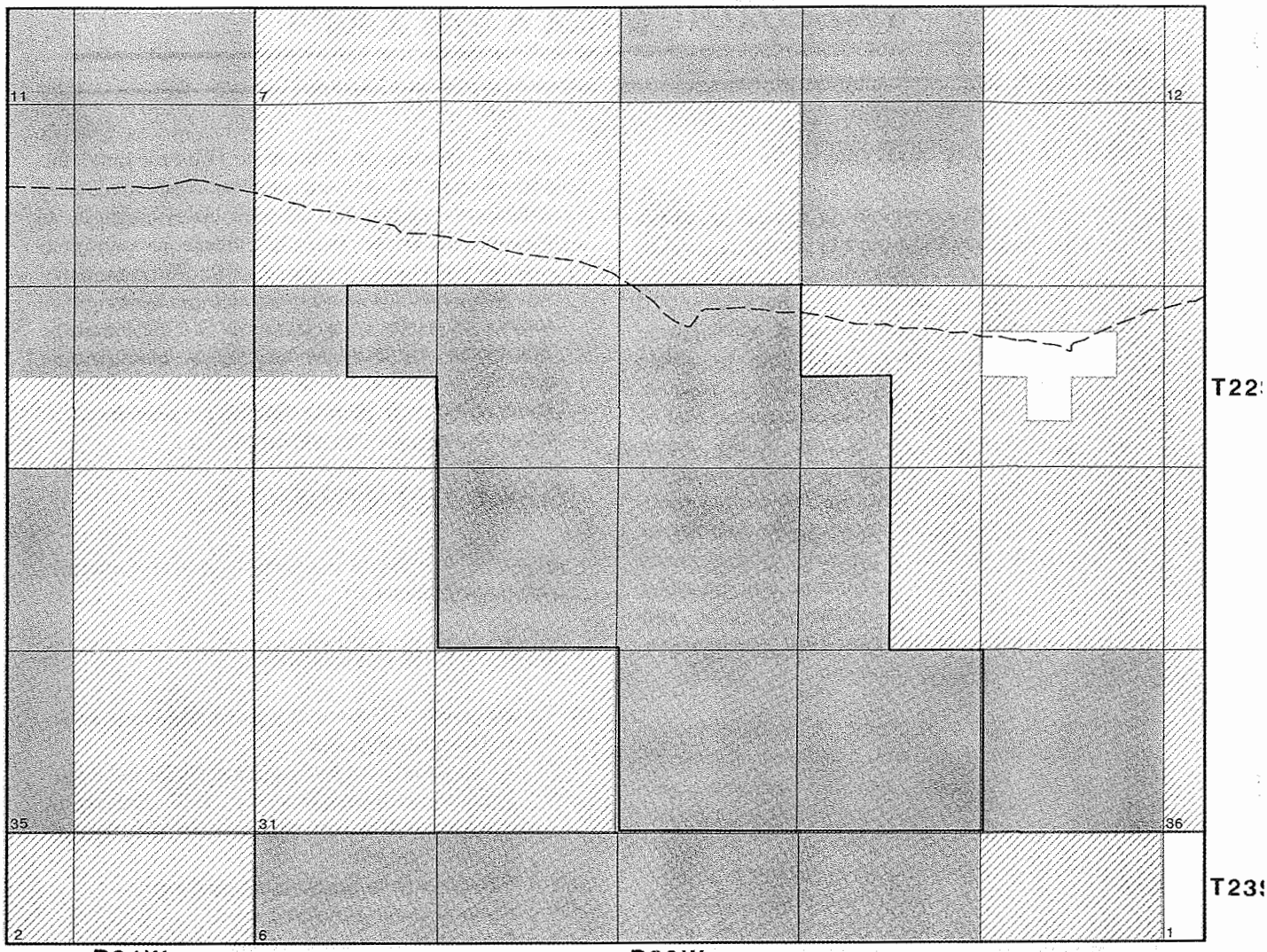
Preserved in these deposits of seaward-facing fossiliferous limestone and laminated layers of siltstone and mudstone, are the footprints and trackways of vertebrate and invertebrate animals that lived 240 to 280 million years ago. They are considered by scientists who have examined them to be the largest, and scientifically, the most important Paleozoic fossil footprint discovery ever made in the western united states, and possibly the world. The trackways are extremely diverse and varied, and appear to represent a very broad spectrum of ancient animal life, ranging from large (11 foot long) fin-backed reptiles through medium and small-sized amphibians to insects and other invertebrates. In addition, there are perfectly preserved rain drop impressions and water ripple marks. The potential of this site to produce information and specimens new to science is virtually a certainty. The Paleozoic Trackways site exhibits world-class qualities and reflects a critical need for study, protection, preservation, and display for future generations of scientists and members of the public.

MANAGEMENT GOALS

Manage to protect, research, and interpret paleontological values.

PLANNED ACTIONS

- Designate 720 acres as a research natural area.
- Retain all public land.
- Limit vehicle use to designated roads and trails.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Withdraw from locatable mineral entry.
- Close to mineral material sales.
- Close to fluid mineral leasing.
- Acquire legal public access.
- Manage in accordance with recommendations provided in trackways study legislation.
- Interpret in accordance with study legislation.
- Manage as VRM Class II.
- Manage for ROS semi-primitive nonmotorized class.



LORDSBURG PLAYA

RESEARCH NATURAL AREA

MAP 5-22

SCALE 1: 25000

N

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

Legend

- RNA BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS
- COUNTY ROAD

LORDSBURG PLAYA RNA

GENERAL DESCRIPTION

The Lordsburg Playa RNA is actually the central of three playa lakes located 10 miles west of Lordsburg in west-central Hidalgo County. The RNA is 4,510 acres. The playa is a flat, dry lake bed that is devoid of vegetation except around the edges. The playa is a relatively pristine and undisturbed relict of the large Pleistocene lakes that covered many of the intermountain basins of the southwestern United States during the last glacial period. The soil is a very heavy clay that is inundated during periods of high runoff. A State sensitive saltbush occurs here. The historic Butterfield Trail crosses the southern portion of the playa. The playa provides an important stop-off or wintering site for migrating shorebirds and waterfowl in some wet years.

MANAGEMENT GOALS

Manage to protect biological and research values.

PLANNED ACTIONS

- Retain all public land.
- Close to vehicle use or by special permit.
- Exclude authorizations for new ROWs in accordance with the conditions listed in Section 2 Lands Program.
- Close to mineral material sales.
- Close to fluid and nonenergy mineral leasing.
- Manage as VRM Class II.
- Monitor grazing impacts on important ecological criteria, including but not limited to *Atriplex griffithsii*.
- Manage for ROS semi-primitive nonmotorized class.
- Manage grazing and authorize range improvements in accordance with the allotment management plan for the Box M allotment.


APPENDICES

APPENDICES

APPENDIX A
PLANNING ISSUES, CRITERIA AND MANAGEMENT CONCERNS

ISSUE 1: LAND OWNERSHIP ADJUSTMENTS

Needed Decisions

To resolve this issue, answers are needed to the following questions:

- Which lands should BLM acquire (by exchange, purchase, or donation) to consolidate its land pattern and to enhance multiple-use programs?
- Which lands should BLM retain in public ownership?
- Which lands should BLM dispose of and why?

Planning Criteria

To develop answers for the needed questions identified above, BLM will consider:

- Multiple-use values (whether or not significant or unique values exist)
- Land and resource management efficiency
- Service to the public (i.e., meeting community needs, etc.)
- Public interest and attitudes
- Existing land uses
- Surrounding land ownership pattern
- Adjacent land uses
- Need for public and administrative access
- FLPMA, Section 203 sale criteria
  - parcels difficult and uneconomic to manage
  - purpose of a previous acquisition is no longer required
  - disposal of a parcel will serve important public purposes
- Social and economic effects
- Effects on other resources and uses
- The degree to which changes in ownership will promote consolidation of public land without creating a scattered land pattern or split-estate
- Public health and safety

ISSUE 2: AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACECs) AND OTHER SPECIAL MANAGEMENT AREAS (SMAs)

Needed Decisions

To resolve this issue, answers are needed to the following questions:

- Which public land should be designated as biological, cultural, scenic or natural hazard ACECs and how should they be managed (the RMP must clearly identify management objectives for each area and what restrictions if any apply to other uses)?
- Is the Gila River (BLM-administered public land in the Gila Lower Box between Redrock and Virden, New Mexico and the Gila Middle Box upstream from Redrock, New Mexico) suitable for inclusion in the National Wild and Scenic River System? How should these areas be managed?
- Which routes should be considered as possible locations for the Continental Divide National Scenic Trail? Which route should be ultimately designated?
- Is land in the Peloncillo Mountains (between the Coronado National Forest and Antelope Pass) suitable for inclusion in the National Wilderness Preservation System?
- Is land in the Organ Mountains (between Soledad Canyon and Peña Blanca and between the Organ Mountains Wilderness Study Area (WSA) and Squaw Peak) suitable for inclusion in the National Wilderness Preservation System?
- Is land in the Apache Box area suitable for inclusion in the National Wilderness Preservation System?
- Which public land should be identified for other forms of special management (such as scenic or backcountry byways, watchable wildlife areas, and "Adventures in the Past") and how should it be managed?

Planning Criteria

To develop answers for the needed decisions identified above, BLM will consider:

- Resource values
- Manageability of an area to preserve its resource value
- Existing ACEC, wilderness, and wild and scenic river representation
- Current and potential land uses
- Effects of designation on other resources and uses
- Effects of nondesignation on resource values
- Social and economic effects
- Public interest and attitudes
- Consistency of designation with resource plans of other Federal, State, and local governments and the Indian tribes
- Consultation with Federal, State and local agencies, the scientific community, and individuals
- Long-term (more than 20 years) versus short-term (less than 20 years) benefits
- Management concerns along the U.S./Mexican border
- Public health and safety

ISSUE 3: VEHICLE MANAGEMENT

Needed Decisions

To resolve this issue, answers are needed to the following questions:

- What public land should be designated as open, limited, or closed to vehicle use?
- What areas should be managed for intensive off-road vehicle (ORV) use?
- Within restricted areas, how should vehicle use for authorized activities (other than recreational) be accommodated?

Planning Criteria

To develop answers for the needed decisions identified above, BLM will consider:

- Level of existing use and location of areas currently being used by ORVs
- Demand for additional ORV opportunities
- Types of ORVs being used
- Effects of ORVs use on other resources and uses
- Effects of ORV restrictions or closures on other resources
- Effects of ORV designations on other uses such as livestock management, law enforcement, and mineral exploration and development
- BLM administrative needs
- Public interest and attitudes
- Manageability of an area to accomplish the objectives of a designation
- Management concerns along the U.S./Mexican border
- Public health and safety
- Social and economic effects

ISSUE 4: ACCESS

Needed Decisions

To resolve this issue, answers are needed to the following questions:

- Where should BLM provide access to or across public land and what type of access is needed?
- What actions should BLM take to provide access to or across public land?
- How should BLM coordinate with other land and resource management agencies to ensure access to State trust, National Forest, and public lands?

Planning Criteria

To develop answers for the needed decisions identified above, BLM will consider:

- Extent of public land and the size of public land parcels
- Resource values
- Availability and type of existing access
- Public needs and preferences for access
- Agency administrative needs for access
- Coordination with State and local governments and other Federal agencies
- Effects of the availability of access on existing resources and uses
- Compatibility with adjoining land uses
- How the public land is being used and managed
- Management concerns along the U.S./Mexico border
- Public health and safety
- Social and economic effects
- Effects on adjacent private landowners
- Potential for development of access through consolidation of public land or development of alternative routes, followed by negotiated easement acquisition, and as a last resort, condemnation

MANAGEMENT CONCERN 1: RIGHTS-OF-WAY

Needed Decisions

To resolve this management concern, answers are needed to the following questions:

- Which public land should be designated for rights-of-way corridors, avoidance areas, and exclusion areas?
- What terms and conditions should be applied to rights-of-way grants for corridors and sites and for use outside corridors and sites?
- Which existing public land transportation and utility corridors should not be designated as a rights-of-way corridor upon plan approval?

Planning Criteria

To develop answers for the needed questions identified above, BLM will consider:

- Service to the public
- Resource values and uses
- Adjacent land uses
- Compatibility with other utility rights-of-way
- Presence of existing corridors and rights-of-way (and confining new rights-of-ways to existing corridors and sites to the extent possible)
- Social and economic effects
- Effects on the resources and uses

MANAGEMENT CONCERN 2: MINERALS

Needed Decisions

To resolve this management concern, answers are needed to the following questions:

- Which public land should be open to the operation of the mining laws? Which should be closed?
- What terms or conditions should be applied to public land open to the operation of the mining laws?
- Which public land should be open to mineral material (sand and gravel, for instance) disposal? Which should be closed?
- What terms, conditions, or special stipulations should be applied to public land open to mineral material disposal activities?
- Which public land should be considered for competitive mineral material sales?
- Which public land should be open to energy and nonenergy leasable mineral 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 land should be closed to energy and nonenergy mineral leasing?

Planning Criteria

To develop answers for the needed decisions identified above, BLM will consider:

- Effects of mineral exploration and development on other resources and uses
- Mineral potential and the probability of a discovery
- Demand for mineral resources
- Lands available for mineral production
- Effects of environmental protection stipulations on claimants, lessees, and permittees
- Success of protective stipulations in accomplishing objectives
- Effects on the mineral industry of closing lands
- Public health and safety
- Social and economic effects

MANAGEMENT CONCERN 3: RECREATION

Needed Decisions

- Which public land should be managed with emphasis on outdoor recreation opportunities?
- What recreation setting should be maintained and what activities should BLM provide for?
- What recreation management strategies should be developed and what actions should BLM take to maintain established recreation settings?
- What activity planning priorities should BLM establish for the Resource Area?
- Which public land should be identified and managed for interpretation of natural and cultural resources and public education (such as backcountry byways, watchable wildlife areas)?

Planning Criteria

To develop answers for the needed decisions identified above, BLM will consider:

- Existing recreation uses, use areas, and facilities
- Public demand for additional recreation activities, settings, and experiences
- Compatibility with adjacent land uses and resources
- Effects of recreation uses on other resources and uses
- Public health and safety
- Planned or projected recreation developments
- Public interest and attitudes
- Potential for interpretation of resource management objectives
- Social and economic effects

MANAGEMENT CONCERN 4: CULTURAL AND PALEONTOLOGICAL RESOURCES

Needed Decisions

To resolve this management concern, answers are needed to the following questions:

- What management objectives should BLM establish for cultural and paleontological resources in the Resource Area?
- What actions should BLM take to achieve these objectives (such as preparation and implementation of cultural resource management plans and designation of ACECs or other SMAs)?

Planning Criteria

To develop answers for the needed decisions identified above, BLM will consider:

- Relative importance and sensitivity of known and anticipated cultural and paleontological resources
- Geographic distribution and density of cultural and paleontological resources
- Feasibility of attaining cultural and paleontological resource management objectives
- Need or desirability of cultural and paleontological resource management objectives
- Threats to cultural and paleontological resources
- Public interest and attitudes
- Effects of cultural and paleontological resource management on other resources and uses
- Compatibility with adjacent land uses
- Social and economic effects

MANAGEMENT CONCERN 5: WILDLIFE HABITAT

Needed Decisions

To resolve this management concern, answers are needed to the following questions:

- What wildlife species and habitats should receive management priority? What maintenance, improvement, and expansion objectives should BLM establish for these species and habitats?
- Which priority areas need Habitat Management Plans (HMPs)?
- What actions should BLM take to achieve the objectives for priority species and habitats?
- What wildlife population goals should be established, considering existing and anticipated habitat capacity?
- What monitoring objectives should BLM establish for priority habitat?
- Where, with what methods, and at what times of the year should animal damage (predator) control activities be authorized?

Planning Criteria

To develop answers for the needed decisions identified above, BLM will consider:

- Existing HMPs
- Input from Federal and State wildlife agencies and the scientific community
- Species and habitats of high public or scientific interest
- Extent of species and habitats including current range, key areas, and potential habitat
- Species population goals
- Forage allocation
- Species habitat requirements
- Vegetation communities and habitat condition
- Effects of other resource uses
- Social and economic effects
- Presence of exotic species and conflicts between exotic and native species
- Maintenance or enhancement of biological diversity

MANAGEMENT CONCERN 6: SOIL, AIR AND WATER

Needed Decisions

To resolve this management concern, answers are needed to the following questions:

- What objectives should BLM establish for watershed management and control of soil erosion?
- What management objectives should BLM establish for maintenance of air quality in the Resource Area?
- What actions should BLM take to achieve these objectives (such as preparation and implementation of watershed management plans)?
- What water quality objectives should BLM establish for the Resource Area and what actions should be taken to achieve those objectives?
- Where should BLM focus its efforts to secure instream flows for riparian, wildlife, and recreation purposes (if such a provision ever exists under New Mexico State law)?

Planning Criteria

To develop answers for the needed decisions identified above, BLM will consider:

- Soil type
- Effectiveness of existing erosion control structures and the need for additional structures
- Extent of saline/alkali soils
- Watershed condition in areas of saline/alkali soils
- Methods to reduce runoff and erosion
- Current and potential land uses
- Air quality standards of the Clean Air Act (as amended, 1977)
- Air quality standards of the State of New Mexico
- Current and future land uses that may affect air quality
- Values and uses of water resources
- Demand for additional use of water resources
- Water quality and trend
- Watershed condition and trend
- Watershed productivity potential
- Manageability of the water resources
- Other resource uses of water resources
- State of New Mexico and Federal water quality standards
- Social and economic effects

MANAGEMENT CONCERN 7: VEGETATION

Needed Decisions

To resolve this management concern, answers are needed to the following questions:

- On which public land should BLM establish vegetation sale areas for native plants and firewood?
- What vegetation management objectives should BLM develop for maintenance or re-establishment of desired plant communities and what actions should be taken to achieve those objectives?
- On which public land 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)?

Planning Criteria

To develop answers for the needed decisions identified above, BLM will consider:

- Available access and demand
- Effects on other resources
- Social and economic effects
- Areas that require increased vegetation cover to reduce soil erosion, increase livestock forage, and improve wildlife habitat
- Suitability of natural vs. artificial revegetation techniques
- Use of land treatments to maintain or improve plant communities
- Current and potential land uses
- Presence of special status plants
- Input from the scientific community
- Potential for location of vegetation sale areas in land disposal areas and mineral material sale areas
- Condition and trend of native plant communities
- Maintenance or enhancement of biological diversity
- Presence of exotic species and conflicts between exotic species and native species

MANAGEMENT CONCERN 8: RIPARIAN AND ARROYO HABITAT

Needed Decisions

To resolve this management concern, answers are needed to the following questions:

- Which riparian and arroyo habitat areas should be designated as ACECs or receive other special management designations?
- What management prescriptions are needed to protect or restore riparian and arroyo habitat areas in the Mimbres Resource Area?
- Where should BLM focus its efforts to secure instream flows for maintenance of riparian habitat (should this become a possibility)?

Planning Criteria

- Condition and trend of riparian vegetation
- Condition and trend of arroyo habitat vegetation
- Resource values
- Current and potential land uses
- Effects on other resources and uses
- Social and economic effects
- Potential for improvement
- Watershed condition and trend

MANAGEMENT CONCERN 9: SPECIAL STATUS SPECIES

Needed Decisions

To resolve this management concern, answers are needed to the following questions:

- What management objectives should BLM establish for protection and enhancement of plant or animal special status species?
- What actions should BLM take to improve habitat conditions, aid in recovery efforts, and resolve resource conflicts for listed, proposed and candidate special status species?

Planning Criteria

To develop answers for the needed decisions identified above, BLM will consider:

- Input from Federal and State agencies and the scientific community
- Extent of species habitat, including current range, key areas, and potential habitat
- Species population goals and habitat requirements
- Effects of other resource uses
- Social and economic effects
- Conflicts with other uses
- Recovery plan goals and objectives and the potential to aid in recovery efforts

APPENDIX B-1
BLM MINERAL RESOURCES POLICY

INTRODUCTION

This statement sets forth BLM policy for management of mineral and energy resources on public land. It reflects the provisions of three important Acts of Congress: the Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act (FLPMA) of 1976, and the National Materials and Minerals Policy, Research and Development Act of 1980. This policy statement represents a commitment by BLM to implement the policies of these statutes consistent with BLM's other statutory obligations.

The Mining and Minerals Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources.

FLPMA reiterates that the 1970 Mining and Minerals Policy Act be implemented and directs that public land be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources. FLPMA also provides for improved inventory, planning, and decision processes.

The 1980 National Materials and Minerals Policy, Research and Development Act restates the need to implement the 1970 Act and requires the Secretary of the Interior to improve the quality of minerals data in Federal land use decision making. In April 1982, the President delivered to Congress the first annual report required by the 1980 Act, which provided specific guidance to implement these acts.

The BLM recognizes that public land is an important source of the Nation's mineral and energy resources, some of which are critical and strategic. BLM is responsible for making public land available for orderly and efficient development of these resources under principles of balanced multiple-use management.

The following principles will guide BLM in managing mineral resources on public land:

1. Except for Congressional withdrawals, public land shall remain open and available for mineral exploration and development unless withdrawal or other administrative action is clearly justified in the National interest.

2. BLM actively encourages and facilitates the development by private industry of public land mineral resources in a manner that satisfies National and local needs and provides for economically and environmentally sound exploration, extraction, and reclamation practices.

3. BLM will process mineral patent applications, permits, operating plans, mineral exchanges, leases, and other use authorizations for public land in a timely and efficient manner.

4. BLM's land use plans and multiple-use management decisions will recognize that mineral exploration and development can occur concurrently or sequentially with other resource uses. The Bureau further recognizes that land use planning is a dynamic process and decisions will be updated as new data are evaluated.

5. Land use plans will reflect geological, energy and mineral values on public land through more effective geology, energy and mineral resource data assessment.

6. BLM will supervise salable and leasable mineral operations to ensure proper resource recovery and evaluation, production verification, diligence and inspection and enforcement of the lease, sale or permit terms. BLM will receive Fair Market Value for mineral commodities where the laws provide.

7. The Bureau will maintain effective professional, technical, and managerial personnel knowledgeable in mineral exploration and development.

These principles will be implemented immediately and further clarified where necessary through specific guidance to the field.

APPENDIX B-2
MINERAL LEASING PROPOSALS

INTRODUCTION

Prior to offering lands for leasing, the New Mexico State Office Adjudication Staff reviews the records to determine if the minerals are available for leasing and if stipulations need to be attached to the lease form.

LEASE TERMS AND CONDITIONS

A BLM oil and gas and geothermal lease form includes the lease terms and conditions which cover subjects such as bonding, rentals and royalties, inspections, and safety. Also covered are protection of the environment, surface resources, and improvements.

The "conduct of operations" section of the lease form establishes the general requirements for the protection of surface resources and is referred to herein as "standard" lease terms. This section provides authority for the modification to sighting, design of facilities, timing of operations, and specification for interim and final reclamation measures to minimize adverse environmental impacts. The standard lease terms specifically require that the lessee contact the lessor prior to disturbing the surface and specify that the lessee may be required to complete minor inventories or short-term special studies.

STIPULATIONS

Stipulations are conditions of lease issuance which the local office of the BLM or other agency provide for additional and more stringent environmental protection within the terms of the lease contract. Without stipulations, proposed operations can be modified but not denied (except under certain specific, nondiscretionary statutes).
Stipulations will be used whenever mitigating measures deprive a lessee of basic lease rights. Because of this effect on lease rights, lessees must be aware of all stipulations prior to acceptance of a lease offer by BLM.

BLM policy is that the use of stipulations should be considered appropriate only when they are both necessary and justifiable. The contractual controls existing in the lease (the standard terms, regulations, and formal operational orders) provide substantial latitude within which the BLM may require modification of the sighting, design and timing of operations on leaseholds, and interim and final reclamation measures. They do not, however, allow the BLM to require modifications to proposed operations that would prevent economic extraction of otherwise commercial deposits of oil and gas. Therefore, if a lessee may be prevented from economically extracting fluid minerals, then stipulations are necessary and are to be used. A stipulation is justifiable if there are resources, values, uses, or users present that (1) cannot coexist with fluid minerals operations, or (2) cannot be adequately managed or accommodated on other lands for the duration of the operation, and (3) would provide greater benefits to the public than those of fluid minerals operations.

The content and accurate wording of stipulations are very important since stipulations become part of the lease contract. If the stipulations are ambiguous, potential lessees will be uncertain as to the value of the lease. Also, if poorly written, the BLM may fail to retain, within the terms of the lease, the right to deny operations. Therefore, to the extent feasible, stipulations are to specify the reason for the stipulation, the lands involved, and the probable effect of the stipulations on lease activities.

The existing and proposed fluid leasing stipulations to be used follow in this Appendix. Also shown are the standard formats for the No Surface Occupancy, Timing Limitation, and Controlled Surface Use stipulations.

The process through which the Special Management Areas (SMAs) were identified included stipulations to protect their values from fluid minerals leasing and development.

The analysis of potential impacts on fluid leasing was done on an interdisciplinary basis. The rationale

through which stipulations were assigned consisted of consideration of the resource value, consideration of the fluid mineral potential, and a determination as to which constraints could afford maximum protection while allowing for fluid mineral development. In those areas where resource values and fluid mineral exploration and development were found to be mutually exclusive, where protection of resource values was clearly in the public interest and where it was shown that a less restrictive stipulation could not adequately protect the resource value, the No Surface Occupancy stipulation was assigned.

Public land may be affected by discretionary and nondiscretionary closures which are presented in a lease as stipulations. A discretionary closure includes those lands where the BLM has determined that oil, gas, or geothermal leasing, even with the most restrictive stipulations (including No Surface Occupancy for the entire leasehold), would not adequately protect other resources, values, or land uses. Nondiscretionary closures include those lands that must be closed to oil, gas, or geothermal leasing for reasons beyond the discretion of the BLM. These are lands specifically precluded from fluid mineral leasing by law, regulations, Secretarial or Executive Order, or that have been otherwise formally closed by decisions reached beyond the scope of the BLM. The White Sands Missile Range (WSMR) and Doña Ana Range portion of Fort Bliss military areas are excluded from leasing by nondiscretionary closures.

Lands which are currently under lease will not be affected by stipulations. New leases for lands which are contained in SMAs will contain the stipulation or stipulations designated in the selected alternative. Activities normally deferred to activity planning, or other planning completed subsequent to the Resource Management Plan (RMP), include drill site location; field development and facility layout plans; utilization and communitization plans; transportation, power or pipeline routing plans (other than for major designated corridors); and others. Many of these activities are addressed after an Application for Permit to Drill (APD) is received. One APD every 3 years is expected for the life of this RMP.

All future geophysical exploration, leasing, and development proposals are to be reviewed for conformance with the RMP to ensure the availability of land for these activities and to ensure compliance with applicable mitigating measures as identified in the RMP. In certain cases, geophysical exploration may be restricted or excluded. Any site-specific reviews required by operating orders, regulations, or to ensure National Environmental Policy Act (NEPA) compliance will also need to be performed at appropriate times.

WAIVERS, EXCEPTIONS, AND MODIFICATIONS TO LEASE STIPULATIONS

Waivers, exceptions, and modifications to existing lease stipulations can be granted if circumstances or relative resource values change or if the lessee demonstrates that operations can be conducted without causing unacceptable impacts. A waiver is a permanent exemption to a lease stipulation. An exception is one-time, case-by-case exemption to a stipulation. A modification is a change to the provisions of a stipulation, either temporarily or for the term of the lease.

Any requests for waivers, exceptions, or modifications in the Resource Area will involve an analysis of associated impacts. Depending on the severity of these impacts, the request may be (1) granted by the Area Manager, (2) publicly posted for 30 days as required by the Leasing Reform Act of 1987, or (3) analyzed through an amendment to the RMP.

MINERAL LEASING PROPOSALS

The following are existing leasing stipulations and areas closed to leasing.

Not Open to Leasing (WSAs):

Aden Lava Flow WSA
Alamo Hueco Mountains WSA
Apache Box WSA
Big Hatchet Mountains WSA
Blue Creek WSA
Cedar Mountains WSA
Cooke's Range WSA
Cowboy Spring WSA
Florida Mountains WSA
Gila Lower Box WSA
Guadalupe Canyon WSA
Las Uvas Mountains WSA

Not Open to Leasing (WSAs):

Organ Mountains WSA
Peloncillo Mountains WSA
Robledo Mountains WSA
West Potrillo Mountains/Mt. Riley WSA

Not Open to Leasing (SMAs):

Aden Lava Flow RNA
Alamo Hueco Mountains ACEC
Antelope Pass RNA
Apache Box ACEC
Bear Creek ACEC
Big Hatchet Mountains ACEC
Central Peloncillo Mountains ACEC
Cooke's Range ACEC
Cowboy Spring ACEC
Doña Ana Mountains ACEC
Florida Mountains ACEC
Gila Lower Box ACEC
Gila Middle Box ACEC
Granite Gap ACEC
Guadalupe Canyon ACEC
Kilbourne Hole NNL
Lordsburg Playa RNA
Northern Peloncillo Mountains ACEC
Old Town ACEC
Organ/Franklin Mountains ACEC
Paleozoic Trackways RNA
Robledo Mountains ACEC
San Diego Mountain ACEC
Uvas Valley ACEC

Open to Leasing with Stipulations:

Recreation and Public Purpose (> than 40 acres)

Airports
City of Las Cruces Sludge Site
Doña Ana Prison Site
Las Cruces Shooting Range
Lord's Ranch
NMSU Observatory Site
Northwestern University Observatory Site
School Sites
Spring Canyon Park

Other Areas

Jornada Experimental Range
NMSU College Ranch
White Sands Missile Range Safety Evacuation Area

Open to Leasing with No Surface Occupancy:

Butterfield Trail (within ¼ mile of trail)
Continental Divide National Scenic Trail (within ½ mile of trail)
Los Tules ACEC
Rincon ACEC (within 100 feet of petroglyphs)

Serial No._____

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

Serial No._____

TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

On the lands described below:

For the purpose of (reasons):

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

Serial No._____

CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints.

On the lands described below:

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

APPENDIX C-1
LANDS AND MINERALS DISPOSAL POLICY

SURFACE ESTATE DISPOSAL POLICY

All surface estate disposal actions require the preparation of a mineral report to assess the mineral potential of the property prior to disposal.

Any potential interference with mineral development will be considered through the disposal process. The creation of a split surface mineral estate causing surface interference with Federal mineral development will be avoided to the extent possible. Any surface disposal action within the Rio Grande Valley will be analyzed for potential impacts to Federal mineral material development.

The following procedures will be followed for the various types of surface estate land disposal actions in the Mimbres Resource Area.

EXCHANGES

Disposal by exchange must meet the criteria outlined in the Federal Land Policy and Management Act (FLPMA) Sec. 206, whereby it is determined that the public interest will be well served by making the proposed exchange. Exchanges outside of disposal areas may be possible if it is clearly determined that it is in the best interest of the public. Exchanges that would result in the acquisition of non-public lands in disposal areas will not be considered. The following principles will guide the Mimbres Resource Area in its land exchange program.

1. The Mimbres Resource Area will continue to strive to process mutually benefitting, public interest land exchanges in a timely and efficient manner.

2. The preferred method of acquisition is through exchanges rather than purchase. This will reduce the expansion of Federal real estate holdings and help to ensure the integrity of State and local tax bases.

3. Comments from the State, local governments, and the general public shall be sought and considered before completion of each exchange.

4. Patent and deed reservations and conditions will be kept to the absolute minimum necessary to complete the transaction. Rights of third parties holding rights-of-way and other legal interests in the exchanged lands will be protected.

5. The generally preferred rule is for both surface and subsurface (mineral) estates to be traded in an exchange. However, due to third party encumbrances, or difficulties in the valuation process, it may be preferable to complete certain exchanges with reservations. Such exceptions to the generally preferred rule are to be made on a case-by-case basis.

6. Exchanges shall be utilized to consolidate or unite the surface and subsurface estates for both the Federal Government and non-Federal owners in split or mixed-estate situations.

7. Exchanges may be utilized to effect ownership and management area boundary changes and to form more logical and efficient land and resource management areas for both the BLM and non-Federal owners.

8. Whenever the law permits, expenses incurred by BLM on exchange actions for the benefit of other Federal agencies shall be recovered from the benefitting agency. The BLM shall not attempt to recover nominal costs.

9. When an exchange involves the cancellation of a grazing permit or lease, the compensation for rangeland improvements and 2-year notification requirements of Section 402(g) of FLPMA and 43 Code of Federal Regulations (CFR) 4110 will be met.

10. The acquisition of non-public lands in Special Management Areas or lands containing unique or unusual historic, cultural, mineral, recreational, scientific, scenic or wildlife habitat values will be

pursued as a first priority. Likewise, proposals that would convey lands out of Federal ownership that possess special values will not be considered when formulating any exchange proposals.

SALES

Property selected for sale must be identified as being potentially suitable for disposal in an approved land-use plan and must meet one or more of the criteria outlined in FLPMA Sec. 203. Proposals that would convey non-public lands within disposal areas will not be considered. In addition, if the tract is 2,500 acres or more, procedures outlined in Sec. 203(c) must also be followed. The disposal criteria is as follows:

- Such tract because of its location or other characteristics is difficult and uneconomic to manage as part of public land, and is not suitable for management by another Federal department or agency; or

- Such tract was acquired for a specific purpose, and the tract is no longer needed for that or any other Federal purpose; or

- Disposal of such tract will serve important public objectives, including but not limited to expansion of communities and economic development, which cannot be achieved prudently or feasibly on land other than public land and which outweighs other public objectives and values, including but not limited to recreation and scenic values, which would be served by maintaining such tract in Federal ownership.

Conformity with one or more of these criteria must be determined during the preparation of an environmental assessment (EA). Anticipated environmental impacts to existing resources such as minerals, wildlife, recreation, range, cultural resources, wilderness values, floodplains, paleontological values, visual resources, areas of critical environmental concern (ACEC), wetlands, special status (T&E) species and habitats, wild and scenic rivers, prime or unique farmlands, and social and economic conditions, will be considered during the preparation of each EA. The EA will be used to determine whether or not the subject parcel is truly suitable to be offered for sale. Once this determination has been made, a fair market appraisal of the property will be completed to set the minimum acceptable bid.

Also, assessed is a determination as to what method of sale will be used if the tract is in fact deemed suitable for sale. Several factors are considered in determining the method of sale which include, but are not limited to: the needs of State or local governments, adjoining landowners' interests and concerns, public policies, historical uses, and equitable distribution of the land. The Mimbres Resource Area policy for determining the sale method is as follows:

1. Competitive Bidding is the preferred method of sale and will be used where clearly there would be a number of interested parties bidding for the land and they could make practicable use of the land regardless of adjoining landownership. Competitive bidding will also be used where the land is clearly within a developing or urbanizing area and land values are increasing due to their location and interest on the competitive market. If there are no overriding bases for modifying competition or direct sale, the land will be offered through competitive bidding. Normal practice for competitive sales is to first offer the land for sale by sealed bid; if unsold, offer for sale over-the-counter.

2. Modified Competitive Bidding may be used to permit the existing grazing user or adjoining landowner to meet the high bid or to limit the number of persons permitted to bid on the land. These sales would normally be for lands not located near urban expansion areas or with rapidly increasing land values, when there is a need to avoid jeopardizing existing use of adjacent land, to assure compatibility of the possible uses with adjacent lands, and avoid dislocation of existing users. This procedure will allow for limited competitive bidding to protect ongoing use.

3. Direct (without competition) Sales may be used when, in the opinion of the authorized officer, the public interest would be served. Examples include but are not limited to:

- A tract identified for transfer to State or local governments or nonprofit organizations; or

- A tract identified for sale that is an integral part of a project of public importance and speculative bidding would jeopardize the timely completion and economic viability of the project; or

- There is a need to recognize authorized use such as an existing business which would be threatened if the tract were purchased by other than the authorized user; or

- A tract is surrounded by land in non-Federal ownership and does not have public access; or

- The lands support inadvertent unauthorized use or occupancy.

4. When lands have been offered for sale under direct or modified bidding procedures and they remain unsold, then the land will be re-offered by the competitive bidding procedure. In no case will the land be sold for less than fair market value.

Public participation and intergovernmental coordination will be sought and encouraged during the development of each sale schedule. Where a decision is made to dispose of land within a grazing allotment, permittees and lessees will be given a 2-year notice of the planned disposal in accordance with 43 CFR 4110. 4-2. If the 2-year notification period is not waived, the parcel may not be offered for sale until the end of the notification period. Grazing permittees/lessees will receive fair market value (less salvage value) for their interest in authorized permanent rangeland improvements located on public land in accordance with 43 CFR 4120.6-6. If floodplain tracts are designated for disposal, the patent will contain language indemnifying the United States against any claims for loss or injury due to flooding.

RECREATION AND PUBLIC PURPOSES (R&PP) PATENTS

The Mimbres Resource Area will continue to issue patents to qualified governmental and nonprofit entities for public parks, recreational sites, and historical sites under the Recreation and Public Purposes (R&PP) Act throughout the life of the Resource Management Plan (RMP). These patents may be issued at less than fair market value as outlined in 43 CFR 2740. Applications for patent of public land under the R&PP Act will be processed as a Mimbres Resource Area priority under the requirements of the National Environmental Policy Act (NEPA) and will always be subject to public review. No sanitary landfill sites will be patented in the Mimbres Resource Area pursuant to the R&PP Act until regulations implementing the 1988 amendment to the R&PP Act are completed. R&PP applications may be entertained, in either retention or disposal zones; yet, a determination must always be made that the disposal action is in the public's best interest.

MINERAL ESTATE DISPOSAL POLICY

Disposal of the mineral estate is possible under Sections 206 and 209 of FLPMA. It is the policy of the BLM to avoid disposing of the surface estate while retaining the mineral estate unless there are areas of "known mineral value", as defined in 43 CFR 2720.0.5. In areas of "known mineral value", the mineral estate (and the surface estate if substantial interference to development would result) should be retained except as described below.

Prior to any land disposal a "mineral value" determination must be made following a field reconnaissance by a BLM mineral examiner. A mineral report must be written to evaluate the leasable, locatable, and saleable mineral potential of each proposed sale or exchange. Under FLPMA, the conclusion of the mineral examiner will include an opinion as to whether the lands have "known mineral values". If professional judgment concludes that the land does not contain "known mineral values," the surface and subsurface estate may be conveyed, subject to any existing mining claims(s) or mineral leases.

A mining claim of record under Section 314 of FLPMA generally prevents an exchange or sale. If the land is under mining claim, the surface should be retained under Federal ownership or the claim examined for validity. However, a validity examination may be waived and the BLM may proceed with the sale or exchange of both the surface and the mineral estate, subject to the existing mining claim(s) if:

- The land meets the criteria for disposal as determined through land-use planning, and

- The land has no "known mineral value" as determined by a BLM geologist or mining engineer, and

- The prospective patentee is willing to accept defeasible title, preserving whatever rights the mining claimant may have. Conveyance of the surface and mineral estate would be subject to "existing mining claim(s)," allowing the mining claimant to apply for and receive full fee patent if a valid discovery was made prior to the date of transfer under Sections 206 or 209, or alternatively, receive patent to the mineral estate only if discovery were made after the original conveyance.

The BLM will proceed with a sale or exchange only after reasonable efforts have been made to secure relinquishment of the mining claim(s). If the mining claimant opposes the action, the Notice of Realty Action (NORA) protest procedures would apply.

For a direct sale or an exchange, the proponent must be informed early and fully of the potential title conflicts and rights of the mining claimant under the law. The BLM should then proceed only if these conditions are acceptable to the proponent. For a proposed competitive sale, the field office must carefully consider the effect on sale price, likelihood of success, and interests to be served if the sale is made subject to the rights of the mining claimant. If it is clearly in the public interest to proceed, the BLM must secure purchaser waiver of any liability against the United States in the event of subsequent title litigation.

In cases where lands are patented without a reservation of locatable minerals, a FLPMA patentee is believed to have standing to bring private contest (43 CFR 4.450) against the mining claim(s). Should he or she do so, the burden is upon the patentee to prove lack of discovery. If the patentee is successful, or if the claims are abandoned or relinquished, the land would not be open to further location, and the patentee would receive full title to the involved locatable minerals.

Mining claim location and mineral leases for lands in which the surface title has passed under FLPMA disposal authority may be made only after regulations providing for such locations or leasing have been made. Because these regulations have not as yet been issued, lands disposed of under FLPMA are subject to de facto withdrawal. Lands disposed of under FLPMA are not withdrawn from mineral material sales or free-use permits.

All minerals must be reserved if the Federal lands are conveyed out of Federal ownership pursuant to FLPMA disposal authority, except in the limited instances that follow:

1. Sales

a. If the public land proposed for sale is determined to have "known mineral values" for locatable, leasable, or saleable minerals, one of the following courses of action may be taken:

(1) Reject the offer to purchase or cancel the offer of sale.

(2) Dispose of the surface estate and reserve all of the mineral interests to the United States.

(3) Dispose of the surface and convey all or part of the mineral interests under terms set forth in Section 209(b) of FLPMA.

b. If the lands have no "known mineral values," the mineral interests may be simultaneously disposed of with the surface estate under authority of Section 209(b) FLPMA.

2. Exchanges

a. Public land which does not have "known mineral values" may be offered in exchange without any mineral reservation. This will apply whether or not the non-Federal party in an exchange controls the minerals under his or her land.

b. If the public land has some potential for mineral development, reserving the mineral interests is not mandatory as long as the values can be equalized by the payment of money and so long as the payment does not exceed 25 percent of the total value of the land.

In any case, normally it is desirable to keep surface and mineral ownership together in an exchange, whenever possible, to eliminate future problems associated with split-estate ownership.

c. If public land in an exchange is determined to have "known mineral values" for locatable, leasable, or saleable minerals, it may be in the public interest to cancel the offer, depending upon the significance of the deposits. The leasable minerals along can be reserved if significant.

APPENDIX C-2
SET-ASIDES

The following is a list of existing set-aside under Memorandums of Understanding (MOUs) with the Las Cruces School District No. 2 and City of Las Cruces as a result of the Elena Gallegos Grant Exchange Amendment (1982) and Southern Rio Grande MFP Amendment (1986):

LAS CRUCES SCHOOL DISTRICT NO. 2

SITE	LEGAL DESCRIPTIONS			
Elementary School No. 1 (21.15 Acres)	Lot 10	Sec. 4	T. 23 S.	R. 2 E.
Elementary School No. 2 (16.40 Acres)	Lot 12	Sec. 10	T. 23 S.	R. 2 E.
Elementary School No. 3	S½NE¼NE¼NE¼	Sec. 28	T. 23 S.	R. 2 E.
(15 Acres)	SE¼NE¼NE¼	Sec. 28	T. 23 S.	R. 2 E.
Elementary School No. 4	SW¼SW¼SW¼	Sec. 17	T. 22 S.	R. 2 E.
(15 Acres)	W½SE¼SW¼SW¼	Sec. 17	T. 22 S.	R. 2 E.
Junior High School No. 1	W½SW¼SE¼	Sec. 28	T. 22 S.	R. 2 E.
(30 Acres)	W½SE¼SW¼SE¼	Sec. 28	T. 22 S.	R. 2 E.
	W½NE¼SW¼SE¼	Sec. 28	T. 22 S.	R. 2 E.
Elementary or Mid-School Site (41.89 Acres)	Lot 7	Sec. 9	T. 23 S.	R. 2 E.
Senior High	SE¼NE¼	Sec. 33	T. 22 S.	R. 2 E.
(60 Acres)	E½SW¼NE¼	Sec. 33	T. 22 S.	R. 2 E.
Highland Elementary School (18 Acres)	E½NW¼	Sec. 28	T. 22 S.	R. 2 E.
Onate High School	SW¼NW¼	Sec. 23	T. 22 S.	R. 2 E.
(50 Acres)	N½N½NW¼SW¼	Sec. 23	T. 22 S.	R. 2 E.
School Site No. 2	S½N½NW¼NW¼	Sec. 18	T. 22 S.	R. 3 E.
(50 Acres)	S½NW¼NW¼	Sec. 18	T. 22 S.	R. 3 E.
	SW¼NW¼	(PORTION NORTH OF U.S. 70)		
School Site No. 3	S½SW¼NW¼	Sec. 13	T. 24 S.	R. 2 E.
(75 Acres)	S½N½SW¼NW¼	Sec. 13	T. 24 S.	R. 2 E.
	N½NW¼SW¼	Sec. 13	T. 24 S.	R. 2 E.
	E½NE¼NE¼SE¼	(ADJACENT TO FRONTAGE ROAD		
	E½SE¼NE¼	Sec. 14	T. 24 S.	R. 2 E.)
School Site No. 4	SE¼S½NE¼NE¼	Sec. 12	T. 24 S.	R. 2 E.

APPENDIX C-2 (Concluded)

CITY OF LAS CRUCES

SITE	DESCRIPTION	ACREAGE
Joint Facilities		
Fire and Police Departments	T. 22 S., R. 2 E.,	25
Wastewater Treatment Plant	Sec. 28, W½NW¼	20
Animal Shelter		20
Southwest Mental Health		10
South Fire Station and City Library Annex	T. 22 S., R. 2 E., Sec. 4, Lot 11	13.23
Parks		
South Park	T. 22 S., R. 2 E., Sec. 33, Lot 2	25.64
North Park	T. 22 S., R. 2 E., Sec. 20, NE¼NW¼, E½NW¼NW¼, S½NW¼NW¼NW¼, SW¼NW¼NW¼, N½N½SE¼NW¼	85
North Fire Substation	T. 22 S., R. 2 E., Sec. 20, N½NW¼NW¼NW¼	5
Park on West Park	T. 23 S., R. 1 W., Sec. 27, W½SE¼SE¼	20

APPENDIX C-3
MEMORANDUMS OF UNDERSTANDING AND COOPERATIVE AGREEMENTS

NM-030-10 The Soil Conservation Service and BLM (Cooperative agreement for study sites for the Desert Soil-Geomorphology Project. These sites are 2½ acres each, with the primary purpose of gathering basic information on soils and soil-geomorphic relationships.)

NM-030-11 The NMSU College Ranch and BLM (Cooperative agreement for procedures for management of leasable materials within College Ranch.)

NM-030-13 National Aeronautic and Space Administration and the Corps of Engineers (A cooperative agreement on lands in the northeast portion of the County for low profile management. No new roads, large concentrations of people, or conflicting new uses will be allowed.)

NM-030-14 Southern Rio Grande Council of Governments (COG) and BLM (Involvement by COG in development and revision of land use plans in Dona Ana County.)

NM-030-15 Southern Rio Grande Council of Governments (COG) and BLM (Involvement by COG in development and revision of land use plans in Grant, Hidalgo and Luna Counties.)

NM-030-21 Dona Ana County and BLM (Cooperative agreement to preserve the County's option to expand the Southern Dona Ana County Airport.)

NM-030-23 Las Cruces School District No. 2 and BLM (Memorandum of Understanding to set aside certain parcels for future school sites.)

NM-030-24 City of Las Cruces and BLM (Memorandum of Understanding that identified certain Federal lands for future development needs of the City of Las Cruces.)

NM-030-26 Grant County Commissioners and BLM (Memorandum of Understanding establishing procedures for coordinating the planning and program operations at local level, ensuring that local viewpoints are taken into account in land use decision-making.)

NM-030-27 Luna County Commissioners and BLM (Same as NM-030-26.)

NM-030-28 Hidalgo County Commissioners and BLM (Same as NM-030-26.)

NM-030-31 Dona Ana County Commissioners and BLM (Same as NM-030-26.)

NM-030-37 Dona Ana County and BLM (Memorandum of Understanding closing La Union Landfill to liquid waste, installing a locked gate, posting signs and enforcing.)

NM-030-45 National Aeronautics and Space Administration and BLM (Memorandum of Understanding to recognize land use needs of NASA (4,707.13 acres). Multiple use management to be handled by BLM-hazardous situations handled by NASA. Prohibits installation of domestic or agricultural water wells until groundwater contamination is eliminated.)

APPENDIX C-4
LAND TENURE ADJUSTMENT DECISIONS-
SOUTHERN RIO GRANDE PLAN AMENDMENT (1986)

The following section contains land tenure adjustment decisions carried forward from the Southern Rio Grande Plan Amendment (1986).

DONA ANA COUNTY

DISPOSAL (75,304 acres)

Dispose of public land on the East Mesa except for areas with critical resources and areas where retention is required by laws, regulations, or policies (65,931 acres). Public land in the Hueco Bolson will be retained until a final decision is made on the right-of-way (ROW) applications of the City of El Paso Water Utilities Public Service Board. Public land in T. 26 S., R. 5 E., Section 31 (359.07 acres) will be retained until its potential as an ACEC can be evaluated in an RMP scheduled to begin in 1988.

Dispose of selected public land on the West Mesa that has been identified by the City of Las Cruces and the State of New Mexico (3,936 acres).

Dispose of public land that is difficult and uneconomical to manage or where interest has been shown (5,437 acres).

RETENTION (1,031,383 acres)

Retain the balance of the public land that is managed for multiple-use values and selected special management areas (1,014,012 acres). On the East Mesa, the Organ Mountain Recreation Lands (OMRLs), the Organ Mountains Wilderness Study Area (WSA), and the Organ Mountains ACEC will be retained.

Retain areas with critical resources (17,371 acres). On the East Mesa, the Dona Ana Recreation Area (2,865 acres) will be retained for recreation resources; the Franklin Mountains (9,831 acres) will be retained for endangered plant, recreation, and visual resources; and the Organ/Franklin Mountains Corridor (4,675 acres) will be retained for recreation and wildlife resources. The Franklin Mountains and the Organ/Franklin Mountains Corridor might have ACEC potential, so those areas will be managed under temporary special management until a decision is made in an RMP, scheduled to begin in 1988. The temporary special management will include (a) preserving the public availability of recreation opportunities on the land, (b) protecting the natural systems on the land to prevent degradation of wildlife values, and (c) ensuring that the land remains under management control by the BLM and is not appropriated for any other use.

ACQUISITION (45,258 acres)

Pursue acquisition of lands in and immediately adjacent to special management areas: the six WSAs, the OMRLs, the Organ Mountains ACEC, and the Kilbourne Hole National Natural Landmark (40,493 acres). This includes possible relinquishment of 9,794 acres of Ft. Bliss withdrawn land north of Soledad Canyon in the Organ Mountains.

Pursue acquisition of lands identified by BLM and by the public for BLM management programs (4,765 acres). These lands are located in the Rio Grande Riparian Area (2,310 acres), the Old Refuge Area (483 acres), the Franklin Mountains (1,292 acres), and the Organ/Franklin Mountains Corridor (680 acres). As the State and private lands in the Franklin Mountains and the Organ/Franklin Mountains Corridor are acquired, those lands will be managed under temporary special management as described under the Retention heading.

STATE LAND EXCHANGE AREA

DISPOSAL (10,000 ACRES)

Dispose of up to 10,000 acres of public land identified by the State of New Mexico on the East Mesa as part of the proposed State Land Exchange. Within the 10,000 acres, a total of 175 acres will continue to be set aside for existing sand and gravel claims and existing Recreation and Public Purposes (R&PP) leases. In addition, the following 340 acres will be set aside for future R&PP leases: T. 22 S, R. 2 E., Section 23, SW¼NW¼N½N½NW¼SW¼, Section 25, NW¼N¼, Section 26, E½NE¼; T. 22 S., R. 3 E., Section 18, S½N½NW¼NW¼, S½NW¼NW¼, SW¼SW¼ (North of Highway 70).

ACQUISITION (5,000 acres)

Acquire 5,000 acres of State land in the Organ Mountains as part of the proposed State Land Exchange.

SUMMARY

A summary of the Proposed Plan components and acreage is presented below:

Dona Ana County

Disposal	75,304
East Mesa	65,931
West Mesa	3,936
Land Difficult and Uneconomical to Manage or Where Interest Shown	5,437
Retention	1,031,383
West Mesa, Organ Mountains	1,014,012
Dona Ana Recreation Area	2,865
Franklin Mountains	9,831
Organ/Franklin Mountains Corridor	4,675
Acquisition	45,258[a/]
Lands in WSAs, Organ Mountains, and Kilbourne Hole	40,493[a/]
Rio Grande Riparian Area	2,310
Old Refuge Area	483
Franklin Mountains	1,292
Organ/Franklin Mountains Corridor	680

State Land Exchange Area

Disposal	10,000
Retention	0
Acquisition	5,000

Note: [a/]Includes 2,080 acres of non-Federal subsurface (mineral) estate within and immediately adjacent to the West Potrillo Mountains and Mount Riley WSAs.

APPENDIX D-1
MIMBRES RESOURCE AREA
ALLOTMENT CATEGORIES

	CATEGORY M (Maintain)	CATEGORY I (Improve)	CATEGORY C (Custodial)
NAGEMENT OBJECTIVES	--Maintain or improve existing situation.	--Improve existing resource conditions.	--Prevent deterioration and manage in a custodial manner.
ŀERAL ŀRACTERISTICS	--Present ecological range condition is satisfactory. --Present management is satisfactory. --Moderate to high potential for vegetation production and is producing at or near potential. --Limited or no resource conflicts exist with livestock grazing. --Land status may or may not be considered (includes low percentage of public land, scattered tracts, or checkerboard land patterns within allotments). --Positive return on investment exists.	--Present ecological range condition is unsatisfactory. --Trend in range condition is apparently downward. --Present management practices are inadequate to meet long-term objectives. --Moderate to high potential for vegetation production and is producing at low to medium fair levels. --Resource conflicts are evident with livestock grazing. --Land status may or may not be considered (similar to Category M). --Positive economic return on public investment exists.	--Present ecological range condition is variable. --Vegetative production is relatively low. --Limited potential for improvement. --Limited or no resource conflicts exist with livestock grazing. --No positive economic return on public investment is likely.
'EGORY CRITERIA	--An allotment must meet all of the following conditions: 1. Has no significant resource conflicts. 2. Has only a moderate potential for improvement in forage production. 3. Has a satisfactory range condition rating and a static or improving range trend. OTHER CONSIDERATIONS Contains 30 percent or more public land or more than 1,920 acres of public land.	--An allotment must meet any one of the following 3 conditions: 1. Has a potentially significant resource conflict. 2. Has a high to medium potential for improvement in vegetation. 3. Has an unsatisfactory range condition rating of 50 or less and a static or declining trend in range condition. OTHER CONSIDERATIONS Contains 30 percent or more public land or more than 1,920 acres public land.	--An allotment must meet all of the following conditions: 1. Has a low potential for improvement in forage production. 2. Has no significant resource conflicts. OTHER CONSIDERATIONS Contains less than 30 percent public land or less than 1,920 acres public land.
ŀAGEMENT ACTIONS	--Livestock use would remain the same or may be increased. --High degree of management flexibility through consultation. --Moderate to low intensity supervision and monitoring. --Range improvements by private investment and range betterment funds. --Development of management plans primarily by other agencies or institutions.	--Livestock use may increase or could be decreased to meet allotment objectives. --Proposals for resolving identified issues and conflicts include: 1. Season of use management. 2. Change in class or kind of livestock. 3. Adjust numbers of livestock. 4. Distribution management, through range improvements or use of salt/supplement. 5. Development of management plans. --High intensity supervision and monitoring.	--Livestock use would remain the same, be excluded or authorized on a seasonal basis. --High degree of management flexibility. --Low intensity supervision and monitoring. --Range improvements by private investment or limited use of range betterment funds. --Development of management plans primarily by other agencies or institutions.

: BLM Files 1990.

: Any parcel of public land within an allotment, regardless of size, with an identified significant resource conflict, will qualify for the "I" category.

APPENDIX D-2
ALLOTMENT STATUS AND CATEGORY

Allotment Number	Allotment Name	Total Preference	Management Category
01001	Beacon Hill	459	I
01002	Animas	459	C
01003	Bull Creek	458	C
01004	Maverick Flat	649	M
01005	Mount Baldy	264	M
* 01006	South Pyramid	3,336	I
01007	Blue Creek	3,360	M
01008	Whitmire Pass	1,161	I
* 01009	San Simon Cienega	2,492	I
01010	Steins Mountain	1,480	I
* 01011	Copper Canyon	478	I
01012	Continental Divide	1,132	I
01013	Willow Creek	600	C
01014	Lordsburg Mesa	1,080	C
01015	Thompson Canyon	2,772	I
01016	Sunset Dam	288	I
01017	Rough Creek	531	I
01018	Pratt	684	M
01019	Pratt Peak	588	I
* 01020	Big Cat Ranch	1,909	M
01021	Lightning Dock	540	M
01022	Cottonwood Springs	584	I
01023	Truesdale Canyon	468	I
01024	Shakespeare Ranch	689	M
01025	Rainbow Wash	1,344	I
01026	Gold Hill Canyon	1,380	I
* 01027	Wood Canyon	972	I
01028	Johns Canyon	288	C
01029	Riley Springs	193	M
01030	Animas Mountains	1,152	I
01031	Tank Mountain Community	60	M
01032	Four Mile Hill	628	I
01033	Elderberry Canyon	24	M
** 01034-1	Box M Ranch	1,852	I
01035	Junction	120	C
01036	Steeple Rock	552	I
* 01037	Carisle	2,699	I
01038	Jose P. Canyon	276	C
01039	Martin Place	1,848	M
* 01040	Bass Draw	4,084	I
01041	L. B. Pasture	632	M
01042	Bobcat Hill	192	C
01043	Goat Canyon	36	C
* 01044	Granite Gap	1,218	I
01045	Canador Peak	961	I

APPENDIX D-2 (Continued)
ALLOTMENT STATUS AND CATEGORY

Allotment Number	Allotment Name	Total Preference	Management Category
01046	Croom	468	M
01047	Brushy Mountain	4,158	I
01048	Cedar Mountain	1,750	I
01049	NM Department Game & Fish	60	C
01050	Rockhouse Canyon	2,232	I
01051	Redrock Canyon	720	I
01052	Antelope Pass	612	M
01055	Lordsburg Draw	996	I
01057	Swallow Fork Peak	894	I
01058	Clinton E. Dunagan	156	M
01059	Mud Springs Ranch	6,240	I
01060	Road Forks	738	I
01061	Steeple Rock	324	M
* 01063	Antelope Crossing	1,674	I
01064	Cotton City	84	M
01065	Hot Wells	96	C
01066	Pacific Western	1,056	I
01068	Playa	533	C
01069	Three Mile Hills	946	I
01070	Lava Flow	1,260	I
01071	Weatherby Ranch	692	I
01072	Gage Siding	298	C
01073	Gillespie Mountain	2,760	I
01074	Table Top Mtn.	216	C
01075	Redrock	180	C
01076	Hugh's Canyon	288	I
01077	Brockman Homestead	348	M
01078	Caprock Mountain	3,950	I
01079	Mondel Flats	182	M
01080	Young Place	12	M
01081	Raccoon Place	1,464	I
01082	China Pond	648	M
01083	East Divide	480	M
01085	Curry Place	360	M
01086	Burro Springs	3,276	I
01501	Mountain Place	528	M
01502	Croom Mrs. Joe Lease	24	M
01504	Croom Lease	120	M
01505	Clinton Dunagan	192	M
01506	Dunagan L. & C. Co. Lease	816	M
01507	Rand Lease	24	M
01508	Willy Wright Canyon	346	M
01509	Gray Ranch Leases	600	M
01510	Alamo Hueco	4,548	I
01512	Dupree Canyon	1,140	I
01513	Cottonwood Lease	108	M

APPENDIX D-2 (Continued)
ALLOTMENT STATUS AND CATEGORY

Allotment Number	Allotment Name	Total Preference	Management Category
01514	Burro Pass	876	I
01515	Kambitch Lease	132	M
01516	Kimble Lease	324	M
01517	Klump Lease	576	M
01518	McCants Lease	36	M
01519	Cascabel Lease	192	M
01520	Post Office Canyon	336	M
01521	Roos Lease	108	M
01522	Richards Lease	180	M
01523	Rodeo Lease	144	M
01524	Roark Lease	12	M
01525	Black Canyon	576	I
01526	Owl Canyon	2,511	M
01527	Winkler Lease	504	M
01528	Klump Lease II	312	M
01533	Woodard Place	36	M
01534	Big Creek	324	M
01536	Darnell Lease	324	M
01537	Davis Lease	24	M
01538	Walker Pasture	204	M
01539	Darnell Billy Lease	156	M
01540	Dunagan's Lease	204	M
01541	Hidalgo Land Lease	60	M
01542	Walter Jr. Lease	312	M
01544	Johnson Muriel Lease	372	M
01545	Kerr Lease	24	M
01546	Dunagan C. E. Lease	24	M
01547	Reynolds Lease	12	M
01548	Hadley Lease	12	M
01549	Timberlake Lease	948	M
01550	Hughes Lease	120	M
01551	Mahan Lease	24	M
01553	Stewart Trust	36	M
01554	Wamel Lease	42	M
01556	Keeler Lease	540	M
01557	Maverick Spring	156	C
01560	Muir Exit Lease	288	M
02001	Akela West	156	M
02002	Akela South	432	I
02003	Columbus Community	1,116	C
* 02004	7 Spear Ranch	3,612	I
02005	Florida Ranch	828	M
02006	Victorio Ranch	7,788	M
02007	S. Spear Ranch	444	I
02008	Florida Foothills	516	I
02009	Hidden Valley Ranch	564	I

APPENDIX D-2 (Continued)
ALLOTMENT STATUS AND CATEGORY

Allotment Number	Allotment Name	Total Preference	Management Category
* 02010	Hachita	876	I
* 02011	Apache Hills	1,796	I
02012	Butterfield	504	M
* 02013	Burdick Hills	17,856	I
* 02014	Cedar Grove	3,264	I
02015	Hoppy Place	1,032	I
02016	Mountain Ranch	1,248	M
02017	Flying W Ranch	3,612	I
* 02018	Hermanas Ranch	1,772	I
02019	Kil Ranch	1,200	I
02020	T Bar Ranch	432	M
02021	Blacktop	538	M
02022	U Bar Ranch	7,608	I
02023	Playas Ranch	4,066	M
02024	Heard Ranch	1,340	I
02025	Florida Mtn. Ranch	1,983	I
02026	Sam Teague, et al	288	M
* 02027	Hatchet Ranch	13,869	I
02028	Joe Hervol	276	C
02030	Mimbres Mtn. Rush	1,872	I
02031	Akela North	420	C
02032	W. R. Johnson & Son	9,820	I
02033	San Juan Ranch	2,424	I
02035	Spanish Stirrup	1,500	I
02036	Rainbow Ranch	1,848	I
02037	Rascon	516	I
02038	Flying Y	3,975	M
02039	Joe B. Nunn	96	I
** 02040	Goat Mountain	1,613	I
02041	Seventy-Six Draw	552	I
02042	Bisbee Hills	372	I
02043	Phillips Ranch	1,702	I
02044	Playas Peak	3,008	I
02045	J. E. and Billie Smith	1,920	I
* 02046	Smyer Ranch	2,362	I
02047	Fred MacKenzie	84	C
02048	Sam Teague	120	C
02049	Seventeen Well	204	I
02050	Nadine E. Moore	264	M
02051	Steeple A	2,628	M
02052	Willow Draw	1,192	I
02053	Pol West	1,032	I
02054	Southwell Ranch	2,518	I
02055	Suckerville	492	I
02501	Akela West Lease	108	M
02502	Benedict Lease	144	M

APPENDIX D-2 (Continued)
ALLOTMENT STATUS AND CATEGORY

Allotment Number	Allotment Name	Total Preference	Management Category
02503	Red Mountain Ranch	240	M
02504	Cerro Mesa Ranch	1,056	M
02505	Black Mountain Ranch	420	M
02506	Hatcher East Lease	12	M
02508	Hurt Lease	708	M
02509	Hatcher John Lease	60	M
02510	Guaderrama Lease	24	M
02511	Hervol Lease	12	M
02512	Irwin Lease	24	M
02513	Sweetwater Pasture	84	M
02514	Jones Lease	24	M
02515	Kretek Corp. Lease	24	M
02516	Mauer Lease	96	M
02517	McCauley J.L. Lease	288	C
02518	Nunn Joe Bill Lease	144	M
02519	Simpson Lease	528	M
02520	Seventy-Six Draw Lease	528	M
02521	Bassett Lease	12	M
02522	Salopek Lease	48	M
02523	Smyer Frank Lease	60	M
02524	Speir Lease	612	M
02525	Cerro Mesa Lease	120	M
02526	Chino Lease	336	M
02527	Black Mountain West	300	M
02528	Butterfield	180	M
02529	POL Lease	12	M
02530	Butterfield Trail	324	M
02531	Baker Lease	84	M
02532	Cienega Lease	432	M
02533	T Bar Ranch Lease	24	M
02534	Foster Lease	12	M
02535	Burdick Hills West	24	M
02536	Koenig Lease	36	M
02537	Phillips Lease	136	M
02538	Border Ranch Lease	156	M
02539	May Lease	252	M
02540	Flat Ranch Lease	36	M
02541	Acosta Lease	24	M
02542	Southwell Lease	132	M
03001	Aden Hills	1,311	C
03002	Home Ranch	1,501	C
03003	Black Mesa	1,584	C
03004	Radium Springs	96	M
03005	High Lonesome	1,543	I
03006	Foster Canyon	12	M
03007	Charles Brewster	192	M

APPENDIX D-2 (Continued)
ALLOTMENT STATUS AND CATEGORY

Allotment Number	Allotment Name	Total Preference	Management Category
03008	Picacho Peak	985	I
03009	Lazy E Ranch	3,891	I
03010	Juan Bustamante	252	M
03011	Loco	372	C
03012	Sierra Alta Ranch	1,386	M
* 03013	Corralitos Ranch	13,860	I
03014	W. F. Hayner	252	M
* 03015	Alamo Basin	4,436	I
03016	Pol East	5,688	I
03018	Spring Canyon	456	M
03019	Cambray	382	M
03020	Beacon	4,104	C
03022	La Union	2,528	C
03023	Kilbourne Hole	5,741	I
* 03024	Goodsight Hills	5,981	I
03025	Broad Canyon	360	M
* 03026	Horse Canyon	288	I
03027	Bignell Arroyo	444	I
03028	Hyatt and Hyatt	10,428	I
03029	West Potrillo	8,436	I
03031	Las Uvas Ranch	3,089	M
* 03032	Saddle Mountain	2,640	I
03033	Mt. Riley	5,412	I
03034	Vaughn Ranch	121	M
03035	Nutt Ranch	36	M
03036	Vaughn Ranch	1,080	I
03038	La Mesa	2,844	C
* 03039	Border Ranch	5,508	I
03040	Altamira Ranch	636	I
03041	Akela	192	C
03042	Frank J. Konyn	12	M
03043	Bill R. Ward	300	M
03044	Western Oil Company	408	C
03045	Chamberino	185	C
03047	Indian Springs	1,700	M
03048	Little Black Mountain	312	C
03056	Afton	1,284	I
* 03058	Palma Park	2,340	I
**03059	Beck Land & Cattle Co.	516	M
03060	China Draw	216	M
03061	Garfield	444	C
03063	Reserve	1,308	I
* 03064	Placita Arroyo	504	I
03065	Hille	3,168	I
03066	Rancho Paradiso	192	C
03067	Rincon	960	C

APPENDIX D-2 (Continued)
ALLOTMENT STATUS AND CATEGORY

Allotment Number	Allotment Name	Total Preference	Management Category
03068	South Well	2,688	I
** 03097	Beck Lease	408	M
03098	China Draw	384	M
04501	Keith Lease	204	M
04502	McCauley F.L. Lease	984	M
04503	Pine Canyon Lease	1,140	M
04504	Onda Lease	504	M
04505	Hatcher West Lease	48	M
04506	Hollimon Lease	1,332	M
04507	Brown Lease	12	M
04508	Faywood Lease	12	M
04509	96 Creek Lease	48	M
04510	Crumbley Lease	12	M
04511	De La O Lease	60	M
04512	Delancey Lease	60	M
04513	Upton Mountain Lease	348	M
04514	Delk Lease	888	M
04515	Upton Lease	60	M
04516	Dickerson Lease	1,020	M
04517	2C Ranch Lease	1,068	M
04518	McDonald Lease	168	M
04519	Whiskey Creek	120	M
04520	Foster Lease	60	M
04521	Foy Partnership Lease	132	M
04522	Franks Ranch Lease	1,500	M
04523	White Rock Canyon	708	M
04524	Glenn Lease	48	M
04525	Gunter G. Lease	1,620	M
04526	Harrington Ranch	120	M
04527	Hinton Lease	180	M
04528	Hooker Joe Lease	780	I
04529	Pitchfork Ranch	1,104	M
04530	Casas Grandes Lease	499	M
04531	Solvesky Lease	24	M
04532	McCauley Harry Lease	48	M
04533	McCauley Marie Lease	720	M
04534	McCauley J.A. Lease	36	M
04535	Ogilvie Ranch Lease	120	M
04536	Niblett Lease	72	M
04537	Greenwood Ranch	1,008	M
04538	Three Sisters Lease	12	M
04539	Rice and Son Lease	156	M
04540	Richardson Lease	12	M
04541	Spires Cattle Lease	648	M
04542	Strain Lease	12	M
04543	Pugmire Lease	132	M

APPENDIX D-2 (Concluded)
ALLOTMENT STATUS AND CATEGORY

Allotment Number	Allotment Name	Total Preference	Management Category
04544	Boston Hill Lease	12	M
04545	Brockman Lease	24	M
04546	Wesley Brown Lease	156	M
04547	Eby Ranch Lease	1,224	M
04548	Norris Lease	528	M
04549	Moore Nadine Lease	960	M
04550	Hooker Lease	12	M
04551	Johnson Clint Lease	12	M
04552	Moon Ranch	24	M
04553	Gunter Lease	12	M
04554	Capulin Cattle Lease	432	M
04555	Jarrell Ranch Lease	1,136	M
04556	Shefke Ranch Lease	24	M
04557	Fierro Lease	24	M
04558	Stone Corral Spring	24	M
04559	Tioga-Marion	12	M
04561	Rafter S	372	M
04598	7XV Ranch Lease	60	M
05013	Baylor Canyon	1,716	I
15001	Chaparral	1,024	I
15002	Dripping Springs	1,759	I
15003	San Augustine Spring	624	I
15004	Anthony Gap	492	I
15006	Rosewell	275	I
15007	Dona Ana Mountains	1,905	M
15008	Hawkeye Canyon	396	C
15009	Bishop's Cap	1,593	I
15010	Tex-Line	180	C
15012	Organ	168	M

Source: BLM Files, 1993.

Notes: * Indicates allotments with an Allotment Management Plan.
** Indicates allotments with an Holistic Resource Management Plan.

APPENDIX D-3
GRAZING MANAGEMENT CONSIDERATIONS FOR THE MIMBRES RESOURCE AREA

PRECIPITATION INFLUENCE AND IMPORTANCE

In the Mimbres Resource Area, precipitation during the growing season is the single most important variable in a plant's growth process. In short, effective soil moisture is the supreme limiting factor for plant growth and development. The variability of precipitation, its amount and timing from year-to-year, is a major factor responsible for many grazing management problems. Plant response is almost totally determined upon the timing of the precipitation and subsequent soil moisture.

The major perennial grass species in the Resource Area are warm season plants. About 90 percent of their growth is during the summer growing season of July through September and about 10 percent during late fall and early spring. Occasionally, growth may begin in May or June depending on the advent of rain; but normally this period is dry and the perennial grass species are dormant. On the other hand, plant growth may be retarded or delayed until mid or late August, again depending on rainfall. Ordinarily, growth continues into October before it is stopped by frost. Visible growth often temporarily ceases during the usual 3-month growing season unless rainfall is adequate and well-timed (Paulsen and Ares 1962). Jameson (1965) reports also that the warm-season grasses experience little, if any, growth from late spring through mid-July; and that there is little difference in the effect on these plants whether grazing begins in the period of semi-dormancy or late in the period.

Paulsen and Ares (1962) reported that black grama growth is completed within a relatively short time in the summer, often within 30 days. Flower stalks ordinarily head out and mature within 5 to 7 weeks after growth starts. Hence, in most years, flowering begins early in August, the caryopses are set by late September, and seed dissemination begins in October (Nelson 1934).

Drought is a serious consideration for management on the semi-desert grass-shrub rangelands. Herbel and Gould (1973) emphasized that drought periods are frequent and expected, and that the arid rangelands are very fragile. During 53 years of record on the Jornada Experimental Range, 45 percent or 24 years were classified as drought years. Stands of perennial grasses are often severely reduced by drought. Herbel and Gould further report that any overuse of the key perennial grasses followed by a prolonged drought can result in high mortality.

Results of several studies and reviews of various range literature reports show that the impacts of weather on short-term vegetational changes is often greater than the influence of management (Martin 1973).

Norton (1981) reported that: "In a realistic rangeland situation in the western U.S., the influence of grazing on vegetation production is insignificant in comparison with the effect of climate on production . . .

Paulsen and Ares (1962) reported that the basal area of perennial grasses in the fall correlated best with precipitation for the 15-month period ending September 30 of the year of measurement. Cable and Martin (1975) found in southern Arizona that herbage production in a given summer is related not only to current summer rainfall but to rainfall during the previous growing period. The fact that rainfall in two successive summers is involved in the current summer's perennial grass production means that low rainfall in one summer not only reduces production during the current summer, but it reduces the prospects for the next summer as well. They (Cable and Martin 1975) found the reason for this is that the culms that produce herbage during the current summer originated as basal buds that broke dormancy either during the preceding spring, or more commonly, the preceding fall. Consequently, a dry summer and a dry spring preceding a high-rainfall summer will result in relatively low herbage production because the number of herbage-producing culms is low (Martin 1975). Thus, it takes 2 years to produce a grass crop, and it takes at least 2 years to recover from a 1-year drought. Hence, management decisions should be made with these thoughts in mind.

UTILIZATION

The key indicator of proper stocking is the intensity of use. Martin (1975) notes that on semi-desert grass-shrubs rangelands, the number of cattle grazed should be sufficient to utilize about 40 percent of the perennial grass herbage produced in an average year. This level of grazing will maintain good grass composition over the rangeland. Herbel et al. (1974) points out that grazing limited to no more than 40 percent utilization of the weight of the current year's forage will provide for maintenance or improvement of the desired vegetation. Valentine (1970) suggested grazing less than 40 percent as a desirable management for improving deteriorated black grama rangeland. Paulsen and Ares (1962) found that black grama cannot maintain itself and remain in good productive condition under the impact of repeated droughts by grazing 50-55 percent. They recommended that black grama rangeland be grazed at no more than 30-35 percent use level, and that 50 percent use be applied only to good-condition rangeland.

Clipping studies (Miller 1976 and Gadzia 1979 as reflected by Donart 1980) indicated that just prior to or during seed production is a common phenological stage of growth when a single, severe removal of herbage is detrimental to plant vigor. Grazing or defoliating black grama during or after flowering was most detrimental to the plant. On the other hand, defoliation during the early vegetative growth stage (3 to 4 leaf stage) was not harmful if use was restricted to 65 percent or less (65 percent during this time only results in a 16-30 percent use of total annual production). Jameson (1965) also reported that warm-season perennial grasses should be protected from grazing during the summer growing season if they are to be favored.

Ogden (1980) summarized that the phenological stage of plant growth in combination with an opportunity for regrowth following herbage removal are major considerations in providing for the welfare of the individual plant. Trlica and Cook (1971) found that clipping Utah desert shrubs and grasses late in the growing season so that limited regrowth occurred after defoliation resulted in low carbohydrate reserved in the fall. Menke (1973) found four-wing saltbush was most sensitive to damage by severe defoliation in late summer or early fall at or near seed maturing. Hence, if close herbage removal occurs during the early reproductive stage of growth when opportunity for regrowth is limited, reduced plant vigor is the normal consequence.

FLEXIBILITY OF HERD NUMBERS

Paulsen and Ares (1962), Herbel and Nelson (1969), and Herbel et al. (1974) emphasized that flexibility in livestock numbers is recommended to adjust to the inevitable fluctuating forage crop. Forage production is so variable in the semi-desert region that the year-to-year production may vary from a few pounds to several hundred pounds. In fact, Herbel et al. (1969) noted that a fluctuating forage crop is a fact-of-life in this area. He further states that a rangeland unit stocked at a constant level, based on average years, is to invite destruction of the rangeland resource. Herbel and Nelson (1973) recommend a flexible stocking plan whereas the base herd would be comprised of not more than 55 to 60 percent breeding animals, and the remainder of the herd would be yearlings and replacement heifers. For despite the application of the best known techniques of rangeland management, periods of low forage production often occur when stocking must be reduced (Paulsen and Ares 1962). Norton (1981) also recognizes that while stocking rates remain static, grazing pressure increases in years of low forage production. Of course under these conditions, forage utilization would approach maximum use, which would likely depress subsequent production. Conservative stocking levels set for years of average production would naturally reduce grazing pressure during years of low forage production.

UTILIZATION CRITERIA FOR IMPORTANT FORAGE SPECIES[a/]

PLANT PHENOLOGY Growth Stages	LATE DORMANCY January thru Sustained Green up	VEGETATIVE Early (3-4 leaf) (Late 5-6 leaf)	FLOWERING Early Boot Late Boot Seed Shatter	EARLY DORMANCY November-Janu
Grasses Black grama *Bouteloua eriopoda* Warm-season	Graze to desirable residue or use level-generally not more than 50-55% on good condition rangeland (leave 3" stubble height). Graze only 30-35% of total annual forage production on deteriorated rangeland (leave a 4" stubble height).	Grazing during 3-4 leaf stage is not detrimental to plant as later in the growing season. By grazing only up through this stage allows the plant ample regrowth time to complete its physiological needs. Early use of the species has less impact on plant vigor than late season or continuous defoliation. Rest whenever possible Defoliation at 65% use during this period removes only 30% of total plant production for year. However, this degree of use significantly reduces the number of stolons produced during the previous growing season, but does not remove following year's stolon production. Black grama is not highly preferred by cattle during the summer growing season when other more palatable species are available. On ranges below 5,000 feet, black grama may not comprise 10% of the diet during the summer except under drought conditions or unfavorable rangeland conditions.	Rest-------resting throughout the growing season, especially during and after flowering, is critically important to the improvement of black grama. Defoliation during this period of growth is most detrimental to plant vigor and vegetative reproduction potential. Plants clipped during or after flowering or continuously through the growing season produced less herbage the following year than plants defoliated during the vegetative growth stage. Herbage production is highly variable from year to year. Current year's herbage is dependent on effective precipitation from July-September and also on the previous growing seasons rainfall and production. When the species is properly managed, associated plants will grow well. Thus grazing no more than 40% of current year's herbage production by weight; deferring from grazing during the growing season; and given consideration to drought stress and the fact that it takes at least 2 years to recover from a 1-year drought are management strategies that will contribute to improving the stand. Ninety percent of its growth is produced during the rainy season (July-August-September). Reproduction is almost entirely by stolons and tillering. Minimal viable seed is produced, and unfavorable climatic conditions inhibit germination. Canfield (1939) noted that the period of growth varied from 64 to 176 days, but approximated 98 days in most years. Physiologically, most height growth is completed within a relatively short time in the summer, often within 30 days. Flower stalks ordinarily head out and mature within 5 to 7 weeks after growth starts. In most years, flowering begins early in August, the caryopses are set by late September, and seed dissemination begins in October.	Grazing 30% of total annual production at this time is a highly desirable management practice for improving deteriorated black grama rangeland (leave about 4" stubble height). Use during this period and on through late dormancy allows utilization of the plant when it is least susceptible to grazing injury. The plant is highly nutritious at all seasons of the year; growth activity of plant in winter increases its palatability. Black grama may comprise as high as 62% of cattle diet during this time.

UTILIZATION CRITERIA FOR IMPORTANT FORAGE SPECIES[a/]

oats grama ***outeloua curtipendula*** /arm-season	Graze or utilization up to 50% of total annual production of plant.	Rest---------- Resting during the growing season (July, August, September) is critical for replenishing root reserves and providing for new root growth. The plant is highly palatable and nutritious. Greens up somewhat earlier in the spring than other gramas.	Rest---------- Resting during the growing season (July, August, September) is critical for replenishing root reserves and providing for new root growth. The plant is highly palatable and nutritious. Greens up somewhat earlier in the spring than other gramas.	Use from early through late dormancy is a preferred management strategy if improvement of the species is desired.
lue grama *outeloua gracilis* /arm-season	Graze or utilization up to 50% of total annual forage production of plant.	Rest---------- Rest during the growing season, mainly July and August, depending on effective soil moisture or precipitation timing. Highly palatable to all livestock. It is a fast summer-growing species and matures in about 60-70 days after summer rains start. Produces abundant forage under favorable conditions.	Rest---------- Rest during the growing season, mainly July and August, depending on effective soil moisture or precipitation timing. Highly palatable to all livestock. It is a fast summer-growing species and matures in about 60-70 days after summer rains start. Produces abundant forage under favorable conditions.	Graze through late dormancy.
lesa dropseed *porobolus flexuosus* /arm-season	Graze--Moderate use of 40-50% is desirable.	Grazing 60% up to or during this time, which will remove about 20% of the total annual forage production, allows recovery of plants before growing season ends. Grazing is less detrimental to the plant at this time than later in the growing season. Can withstand heavier use prior to flowering than during the remainder of the growing season.	Rest---------- Defoliation during flowering or continuously throughout the growing season significantly reduces production the following growing season. However, the species is very opportunistic related to effective soil moisture thereby responding rapidly to favorable conditions. (Likely if adequate growth and moisture conditions are present, it probably cannot seriously hurt the plant.) Therefore, the plant should be used when favorable climatic and growth conditions are present. It is a prolific seed producer. Best used for beef production during the growing season as plant becomes unpalatable and low in nutrients at maturity.	Graze--Moderate use of 40-50% is desirable.
ush muhly *luhlenbergia porteri* /arm-season	Graze at moderate rate of 40-50% available forage.	Rest---------- or if grazed during this growth period, defoliation prior to flowering is superior to continuous or late defoliation for maintaining plant vigor. Graze no more than 35% of total annual production at this time. Grazing during the growing season is more likely beneficial for beef production, as the plant decreases in palatability and nutrition when it matures.	Rest---------- or if grazed during this growth period, defoliation prior to flowering is superior to continuous or late defoliation for maintaining plant vigor. Graze no more than 35% of total annual production at this time. Grazing during the growing season is more likely beneficial for beef production, as the plant decreases in palatability and nutrition when it matures.	Graze at 35-40% is allowable.

APPENDIX D-3 (CONTINUED)
UTILIZATION CRITERIA FOR IMPORTANT FORAGE SPECIES[a/]

Tobosa *Hilaria mutica* Warm-season	Rest or graze lightly, as mature plants are rank, coarse, and unpalatable. Grazing to 50-55% during dormancy not harmful to species, over-utilization would occur on other favored management species.	Graze---------- The species is best used during the summer growing season while the plant is most palatable. (Period of active growth is similar to black grama.) Utilization of 40-55% is desirable to maintain a vigorous stand. Tobosa pastures can be used to round out required rest on other favored management species.	Graze---------- The species is best used during the summer growing season while the plant is most palatable. (Period of active growth is similar to black grama.) Utilization of 40-55% is desirable to maintain a vigorous stand. Tobosa pastures can be used to round out required rest on other favored management species.	Rest or graze, but mature plants are rank, coarse, and unpalatable, so best use will be made when grazed during periods of active growth.
Alkali sacaton ***Sporobolus airoides*** Warm-season	Graze or rest.	Graze---------- Best used during summer growing season when palatability and nutrition of plant is at highest level. However, if improvement of stand is desired, periodic summer growing season rest is required.	Graze---------- Best used during summer growing season when palatability and nutrition of plant is at highest level. However, if improvement of stand is desired, periodic summer growing season rest is required.	Plant can withstand 60-65% use during dormancy. The species matures coarse and rank, but cattle are found to do well anyway.
Shrubs Fourwing saltbush *Atriplex canescens* Cool-season	Graze-species best used during dormant period.	Rest or very light use[b/]	Most sensitive to defoliation in late summer or early fall at or near seed maturity. Grazing should be held to about 40% use of total annual forage production.	The species is best grazed during the dormancy periods. Palatability and nutrition remain high during nongrowth period.
Winterfat *Ceratoides lanata* Cool-season	Graze--species best used during dormancy.	Rest or very light use[b/]	Graze no more than 35% of total annual forage production to maintain vigor and production. Cannot tolerate overuse during the growth period, especially during flowering. Most desirable management is to rest in the late growing season if moisture is available.	Grazing during dormancy is prefer management when possible. Can be grazed heavier during dormancy.
Mountain mahogany *Cercocarpus montanus* Cool-season	Graze	Rest or light use[b/]	Rest or light use	Can withstand heavy use during dormancy, however, should not consistently be grazed at heavy intensity.
Desert ceanothus *Ceanothus greggii* Cool-season	Graze	Rest or light use[b/]	Rest or light use	Graze--utilization should be no more than 40%.

ources: Donart, 1980; Martin, 1975; Herbel, Steger, and Gould, 1974; Valentine, 1970; Paulsen and Ares, 1962; Miller and Donart, 1979; Cable and Martin, 1975; and Miller, 1976.

otes: a/ To be used as a guide only in establishing rangeland grazing practices--is not a grazing system. Desert rangeland plants respond, physiologically, more to precipitation time and subsequent effective soil moisture than to any calendar month or date. Therefore, management of any forage species must be flexible enough to allow for such variation of year to year precipitation patterns. Thus grazing systems or treatments following a set calendar schedule in the Planning Area will meet with little or no success.

b/ Vegetation leaf stages (3-4 and 5-6) not applicable.

APPENDIX E
DESIRED PLANT COMMUNITY

The desired plant community concept used in the Las Cruces District, Mimbres Resource Area is defined as a plant community that produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan goals and activity plan objectives established for the site. The desired plant community becomes the vegetation management objective for the site. The desired plant community must be consistent with the site's capability to produce the identified community through land treatments such as fire and chemical brush control and grazing management.

Through the soils mapping done on all Federal land within the Resource Area during the 1977 to 1981 range surveys, there were 26 range sites identified using the Soil Conservation Service range site guidelines. These 26 range sites were then grouped into like sites using the vegetation potential described for the range site, soil types and occurrence within the Resource Area. An interdisciplinary team, using the above information decided on the optimal mix of perennial grasses, forbs and shrubs for each of the 12 groupings of range sites. A range of desired plant mixtures (desired vegetation) were developed and applied to the three categories of vegetation growth forms (grass, forb, shrub) consistent with the overall goals that were developed during the planning process. Species composition for desired plant communities would be developed during the activity planning stage taking into account all the needs and uses of that particular site.

Using Geographic Information System (GIS) capabilities, a printout of all 26 range sites with the existing 46 possible aspect vegetation subtypes was produced. The range site/vegetation combinations were refined into 16 possible combinations. Brush species response to chemical control played a major role in the shrub species groupings. These chemical treatment areas were delineated using soils types, percent slope and distance from perennial streams as parameters. Each of the 16 types were given a desired vegetation prescription for that site. Several types, such as riparian, arroyo areas, and pinyon-juniper/oak woodland/conifer remain the same through all Alternatives. The existing baseline data on the vegetation types and range sites are on file in the Mimbres Resource Area, Las Cruces District as are the GIS maps which were developed for each Alternative showing the possible differences in desired plant community by Alternative.

APPENDIX F
CULTURAL RESOURCES

HISTORY AND INVENTORY

The objective of the cultural resource program is to manage cultural resources on public land in a manner that protects and provides for their proper use. Cultural resources include archaeological, historic, and socio-cultural properties. Archaeological evidence indicates that portions of the Mimbres Resource Area have been occupied continuously for the past 10,000 years.

A total of 3,100 archaeological sites are recorded from Luna, Dona Ana, Grant, and Hidalgo counties. Only approximately 2 percent of public land has been subjected to Class III cultural inventories.

PALEOINDIAN (10,000-5,000 B.C.)

The Paleoindian period is generally divided into three cultural traditions: Clovis, Folsom, and Plano, with Clovis the earliest. Paleoindian occupations within the Mimbres Resource Area are known primarily from numerous reports of isolated Paleoindian projectile point surface finds. The Paleoindian period is traditionally characterized as an adaptation to the hunting of large animals or "big game hunting." Paleoindian period sites are rare within the Resource Area. The Mockingbird Gap site, which was excavated in 1968, is a Clovis period site located approximately 30 miles southeast of Socorro, New Mexico and is outside of the Mimbres Resource Area. Paleoindian material remains outside the Mimbres Resource Area have been associated with numerous faunal remains including horse, tapir, camel, cervids, canids, antelope, jackrabbit, bison, and mammoth. Most Folsom and Plano period artifacts are reported from coppice dune deflated areas within the Mimbres Resource Area (LeBlanc and Whalen 1980). One Paleoindian projectile point, a Midland point, was recently recovered from New Mexico State University (NMSU) archaeological field school excavations at Cooke's Spring near Fort Cummings within the Mimbres Resource Area. The Cloverdale Creek site in Hidalgo County is believed to contain a Folsom component. It has been suggested that Folsom period sites will occur most commonly in association with playas within the Mimbres Resource Area. Additional research into Paleoindian period settlement patterns, subsistence strategies, and social organization within the Mimbres Resource Area is needed.

ARCHAIC (5,000 B. C. - A.D. 0.)

Climatic change in the form of decreasing moisture is generally believed to have been responsible for the change from the Paleoindian to an Archaic adaptation. Much of what is known about the Archaic period in the region is from the analysis of perishable artifactual material from Tularosa and Cordova Caves in the Gila National Forest and from Bat Cave in the Socorro Resource Area. In addition, numerous excavations have been conducted at Archaic period open sites within the Mimbres Resource Area. Traditionally, the Archaic period has been characterized as small extended family groups or bands utilizing hunting and gathering subsistence strategies based on small game and intensive seasonal gathering of a wide variety of plant resources. Recovered Archaic remains include basketry, cordage, sandals, and a wide variety of artifacts manufactured from fur, feather, hide, wood, stone, and bone. Archaic groups are believed to have been highly mobile and essentially nonagricultural. Archaic remains are often represented by lithic concentrations, occasional ground stone artifacts, and small hearth features (LeBlanc and Whalen 1980). Thousands of Archaic period campsites and specialized activity areas are believed to occur within the Mimbres Resource Area.

DEVELOPMENTAL PUEBLO AND PUEBLO (A.D. 0-1540)

Mogollon-Mimbres Sequence

The Mogollon sequence contains three relatively distinct subdivisions, the Early Pithouse, Late Pithouse, and Classic period. Archaeological sites which are representative of all three of these time periods occur in relatively large numbers within the Mimbres Resource Area.

The Early Pithouse period is characterized by the beginnings of sedentary, horticulture based villages. The pithouse structures are round and the associated pottery is generally plainware. Extremely large "ceremonial" structures also occur during this period. Village size varies widely from 1 to 80 pithouse structures. Villages in this period are usually located on knolls, ridges, or mesa tops which are relatively inaccessible.

The Late Pithouse period is marked by a change in pithouse shape from round to rectangular. Villages are horticulture-based and situated on river terraces, low ridges, and relatively accessible areas. Population increases are indicated by increased village size.

In the Classic Mimbres or Surface Pueblo period, population size again increases. Structures are constructed above ground. Irrigation agriculture was probably employed. Decorated and painted pottery is common during this period. This period ends suddenly at approximately A.D. 1150 (LeBlanc and Whalen 1980).

Animas/Black Mountain Phase

In the archaeological record, the post-Mimbres period reflects changes in settlement pattern, trade relations, and social organization. The post-Mimbres period is characterized as a large population living in large sites leaving large areas uninhabited. Village sites consist of room blocks constructed around central plazas. Room size increases from the previous Mimbres period. The construction technique is puddled adobe with occasional small cobbles. Floors and walls are plastered adobe. Some of the Animas/Black Mountain Phase cultural traits are similar to those found in the Casa Grandes region of Mexico but the exact nature of the relationship is unclear (LeBlanc and Whalen 1980).

Salado Period

Animas and Salado period sites are characterized by similar construction techniques, but with the Salado sites having generally larger room blocks. In many of the Salado sites which have been tested, the villages appear to have been rapidly abandoned. Dates from Salado sites range from AD 1375 to 1450. Irrigation agriculture may have been practiced in the Salado period (LeBlanc and Whalen 1980).

The post-Mimbres periods are not well defined in the Mimbres Resource Area, and further research is needed.

Jornada Mogollon

The extreme eastern edge of the Mimbres Resource Area, east of the Rio Grande is within the range of the Jornada Branch of the Mogollon. The Jornada Mogollon is also divided into the Pithouse and Pueblo periods. In the Jornada and Mimbres areas, population size increased from the early to the late Pithouse period. Very large ceremonial or communal structures are rare in the Jornada area. In both areas, the Pueblo cultures arise from in the pithouse cultures. Pueblos replaced pithouses in the Mimbres area by AD 1000 but not until AD 1200 in the Jornada area. In general, Pueblo development began sooner and reached greater heights in the Mimbres region than in the Jornada. In the Jornada area, Pueblo societies continued without significant change until their abandonment around AD 1400 (LeBlanc and Whalen 1980).

Developmental Pueblo and Pueblo Jornada Mogollon

Student archaeologists from NMSU, under the direction of Dr. Steadman Upham, excavated several small rock shelters in the Organ Mountains from 1982 through 1985. The field excavations demonstrated an occupation of the shelters beginning approximately A.D. 250 and lasting for 1,000 years. These sites would be representative of the Jornada Mogollon culture period.

THE HISTORIC PERIOD (A.D. 1540 TO PRESENT)

The first European conquest of New Mexico was initiated by Francisco Vasquez de Coronado in 1540-1542. Coronado arrived in New Mexico with 230 Spanish soldiers, 800 Indians, and 3 women. In the Rio Grande Valley, Coronado found pueblos and Indians who were weavers, potters, and farmers (Athearn 1989). These historic period pueblo groups are generally believed to have been associated with Mansos, Suma Jocome, and Jano culture groups. In 1581, the Rodriquez-Chamuscado expedition entered New Mexico and observed what are believed to be various Apachean groups.

In 1598, Juan de Onate lead a large expedition along the Rio Grande and across the dreaded and almost

waterless 70-mile long stretch of the Camino Real known as the Jornada del Muerto. A system of Spanish caravans maintained a route which passed through the Mimbres Resource Area between Chihuahua City and Santa Fe. In 1610, a Spanish capital was established in Santa Fe. In 1680, the northern pueblos led a successful revolt and the Spanish were forced to retreat down the Camino Real to El Paso del Norte. In 1692, Diego de Vargas Zapata initiated a successful reconquest of New Mexico. An El Paso del Norte census in that same year (1692) documented a population of 382 contained in 50 households. France, Spain, and Mexico administered New Mexico as a province until the war with the United States in 1846.

The Spanish administered New Mexico as a colony until the war with the United States in 1846. After the signing of the treaty of Guadalupe Hidalgo in 1848, numerous permanent settlers located in Mesilla. Fort Filmore was established near Mesilla in 1851 and Fort Cummings near Deming in 1863 to protect the region from Apache depredations. A boundary dispute was settled with Mexico by the Gadsden Purchase of 1854 which made much of what is now the Mimbres Resource Area a part of the United States. The Butterfield Overland Mail and Stage Line was established in 1858 and allowed passengers to ride from St. Louis, Missouri to San Diego, California. The entire route from El Paso to Arizona lies within the Mimbres Resource Area. In 1861, Confederate Colonel John R. Baylor captured Fort Filmore for the Confederacy. In 1862, the confederates fled the area when 1,400 troops of the California Column, Union Army, began arriving in New Mexico. Emigrants heading west to California followed the Southern Emigrant Trail through the Mimbres Resource Area until 1881 when the railroad was completed across the Mimbres Resource Area. The coming of the railroad opened up the Mimbres Resource Area to additional settlement and fairly large scale mining development.

CULTURAL RESOURCE MANAGEMENT GOAL SYSTEM

The major cultural resources program input into the Resource Management Plan (RMP) process is to form management objectives for specific cultural resource special management areas (SMAs). These management goals are general in nature and normally do not call for specific on-the-ground actions. The three goal categories that have been incorporated into this planning effort include (1) Management for Public Values, (2) Management for Conservation, and (3) Management for Research Potential.

1. MANAGEMENT FOR PUBLIC VALUES

The goal of this category is the management of sites, locations, features, and objects identified as having attributes which contribute to maintaining the heritage, belief systems, folkways, and existence of a social or cultural group. Considerations for management in this category also include access to and maintenance of locations, sites, features, and objects of traditional religious or spiritual value; use and possession of sacred objects; and the freedom to worship through ceremonials and other traditional rites.

2. MANAGEMENT FOR CONSERVATION

The goal of this category is the management of areas, sites, locations, districts, or features by removing them from consideration for scientific or historic study which would result in their physical alteration.

Properties managed under this goal could also possess one or more of these attributes: uniqueness or relative scarcity of type, class, condition, affiliation; research potential that surpasses current state of the art; or singular historic importance or architectural interest. Such cultural resource properties would remain in this category until specified provisions are met in the future.

3. MANAGEMENT FOR INFORMATION POTENTIAL

The goal of this category is the management of cultural properties so that they would remain suitable for consideration as the subject of scientific or historical study utilizing research techniques currently available. Such study could, if warranted by an approved research design, result in the controlled physical alteration of that property. A cultural property in this category need not necessarily be conserved in consideration of an approved research or data recovery (mitigation) proposal.

Management under this category could allow controlled experimental study which could also result in physical alteration to the property. This work could be performed by the BLM or other entities concerned with the management of cultural properties for purposes of obtaining specific information leading to a better understanding of kinds and rates of natural

or human-caused deterioration, effectiveness of protection measures, and similar lines of inquiry which would ultimately aid in the management of cultural resources.

CULTURAL RESOURCE USE CATEGORY SYSTEM

In addition to the use allocation recommendations made through management goal category assignment during the land-use planning (RMP) stages, another vital step occurs during the next, more specific planning state, the Cultural Resource Management Plan or activity plan. This step or allocation commitment comes after the completion of the RMP which establishes the general management goals for a particular site or combination of sites. The activity plan commits specific actions and generally assigns (as part of the activity planning process) each site to one or more of the following use categories.

1. "Current scientific use" means that a cultural property is the subject of an ongoing scientific or historical study or project, under permit, at the time of evaluation. Upon completion of that study or project, the cultural property will be assigned to one of the other use categories.

2. "Potential scientific use" means that a cultural property is presently eligible for consideration as the subject of scientific or historical study utilizing research techniques currently available, including study which would result in its physical alteration. It need not be conserved in the face of an appropriate research or data recovery (mitigation) proposal.

3. "Conservation for future use" means that a cultural property is not presently eligible for consideration as the subject of scientific or historical study which would result in its physical alteration. Reasons may include a scarcity of similar cultural properties, research potential that surpasses the current state of the art, singular historic importance or architectural interest. It is worthy of segregation from other land or resource uses which would threaten the maintenance of its present condition, and that it will remain in this use category until specified provisions are met in the future.

4. "Management use" means that a cultural property is eligible for controlled experimental study which would result in its physical alteration. Such studies could be conducted by the BLM or other entities concerned with the management of cultural properties to obtain specific information which would ultimately aid in the management of cultural properties.

5. "Socio-cultural use" means that a cultural resource is perceived by a specified social or cultural group as having attributes which contribute to maintaining the heritage or existence of that group, and is to be managed in a way that takes those attributes into account, as applicable.

6. "Public use" means that a cultural property is eligible for consideration as an interpretive exhibit-in-place, a subject of supervised participation in scientific or historical study, a subject of unsupervised collecting under permit, or related educational and recreation uses by members of the general public.

7. "Discharged use" means that a cultural property (previously qualified for assignment to any of the first six categories) no longer possesses the qualifying characteristics for that use (or for assignment to an alternative use), that records pertaining to it represent its only remaining importance, and that its location no longer presents a management constraint for competing land uses.

APPENDIX G-1
RECREATION OPPORTUNITY SPECTRUM

The Recreation Opportunity Spectrum (ROS) (BLM Manual 8320) provides a framework for stratifying and defining classes of outdoor recreation opportunities spanning the entire spectrum. The spectrum ranges essentially natural, low-use areas (resource-dependent recreation opportunities) to highly developed, intensive use areas (facility/vehicle-dependent recreation opportunities).

Recreation opportunities are expressed in terms of three principal components: the types of environmental settings available, the variety of activities possible, and the types of experiences that can be achieved through participation.

The primary determinant of ROS Classes is the setting opportunity. It describes the overall outdoor recreation environment where activity occurs, influences the types of recreation activity that can occur, and ultimately determines the resulting types of experience that can be achieved.

Activities are not bound to opportunity classes and most activities can take place in some shape or form throughout the spectrum. However, general activity opportunities can be described per ROS class.

A particular type of experience is related to the environmental setting and activity engaged in and also in individual differences based on a number of extraneous variables (such as background, education, sex, age, place of residence). The opportunity for a particular experience can be described in a general way.

DELINEATION OF ROS CLASSES

After determining the setting, activity, and experience opportunities, areas are assigned to one of six ROS Inventory Classes. Each class is delineated to identify the available outdoor recreation opportunity that exists. The six ROS classes are described in the following section.

PRIMITIVE CLASS

The setting opportunity consists of contiguous areas of about 5,000 acres, lying more than 3 miles from the nearest point of motor vehicle access. These areas are essentially unmodified natural landscapes, where there is little evidence of other people and almost completely free of management controls. Activity opportunities include overnight backpack camping, nature photography, backcountry hunting, canoeing, and snowshoeing. The experience opportunity consists of the chance to achieve a strong sense of solitude and isolation from human civilization, to feel as one with nature, and to encounter a great degree of personal risk and challenge.

SEMI-PRIMITIVE NONMOTORIZED CLASS

The setting opportunity consists of contiguous areas of about 2,500 acres, lying at least ½ mile from the nearest point of motor vehicle access. The areas possess a predominantly natural landscape, where there are some evidences of other people, and where there are very few management controls. Activity opportunities include backpack camping, nature viewing, backcountry hunting, canoeing, and cross-country skiing. The experience opportunity consists of the possibility to avoid the sights and sounds of people, achieve a high degree of interaction with nature and to experience a great deal of personal risk and challenge.

SEMI-PRIMITIVE MOTORIZED CLASS

The setting opportunity consists of contiguous areas of about 2,500 acres, sometimes along unmaintained two-track routes. The areas have a mostly natural landscape where there are some evidences of other people (but numbers and frequency of contact seem to remain low) and where there are few management

controls. Activity opportunities include day hunting, climbing, vehicle trail riding, mountain biking, hiking, and snowmobiling. The experience opportunity consists of the chance to enjoy isolation from human civilization and technology (the lack of contacting other people), achieving a high degree of interaction with the natural environment, and feeling a moderate degree of personal risk and challenge.

ROADED NATURAL CLASS

The setting opportunity consists of areas alongside or near improved and maintained roads, with naturally appearing but human modified landscapes where there are often evidences and moderate numbers of people, and were there are visible management controls and developments. Activity opportunities consist of a mixture of resource and facility/vehicle-dependent recreation and generally include wood gathering, downhill skiing, fishing, off-highway vehicle driving, interpretative uses, motorboating, and vehicle camping. The experience opportunity consists of the chance to perceive a sense of security in the moderate number of visitor encounters and intermittent human developments available and the chance for some personal risk taking and challenges.

RURAL CLASS

The setting opportunity consists of areas alongside or near paved highways, with heavily modified landscapes where there are considerable evidences or numbers of other people, and where management controls and developments are often seen. Activity opportunities consist of mostly facility/vehicle-department recreation and generally include vehicle sightseeing, horseback riding, on road bicycling, golf, swimming, walking, picnicking, and outdoor competitive games. The experience opportunity consists of the chance to enjoy modern visitor conveniences, moderate to high levels of interactions with other people and a feeling of security from personal risk.

URBAN CLASS

The setting opportunity consists of areas near paved highways, where the natural landscape is dominated or replaced by human made developments, where there are great numbers and evidences of other people, and where management controls are numerous and dominant. Activity opportunities are facility/vehicle-dependent and generally include concerts, wave pools, amusement parks, zoo/fair visits, vehicle racing facilities, spectator sports, and indoor competitive games. The experience opportunity consists of the availability of numerous modern conveniences, being entertained, encountering large numbers of people, interacting with an exotic and manicured environment, and a feeling of being very secure with personal risk subdued.

MANAGEMENT OBJECTIVES FOR ROS CLASSES

PRIMITIVE CLASS OBJECTIVE

The primitive class is managed to be essentially free from evidence of humans, human-induced restrictions, and on-site controls. Motorized vehicle use within the area is not permitted. The area is managed to maintain an extremely high probability of experiencing isolation from the sights and sounds of others (not more than three to six group encounters per day), independence, closeness to nature, self-reliance through the application of backcountry skills, and an environment that offers a high degree of challenge and risk.

Backcountry use levels and management of renewable resources is subject to the protection of backcountry recreational values. Frequency of managerial contact with users is very low.

SEMI-PRIMITIVE NONMOTORIZED CLASS OBJECTIVE

Semi-primitive nonmotorized areas are managed to be largely free form the evidence of humans, human-induced restrictions, and on-site controls. Motorized vehicle use is prohibited (except by permit). Limited facilities for the administration of livestock and visitor use are allowed, but off-site administration is encouraged. Project designs should stress protection of natural values and maintenance of the integrity of a predominantly natural environment. Areas are managed to maintain a good probability of experiencing minimum contact with others, self-reliance through the application of backcountry skills, and an environment that offers a high degree of risk and challenge.

Backcountry use levels and management of renewable resources are dependent on maintaining ecosystems comparable to naturally occurring ecosystems. The consumption of renewable resources is subject to the

protection of backcountry recreational values. Grazing is allowed, subject to restrictions placed on use of motorized vehicles. Facilities associated with grazing are limited to those necessary for maintaining existing numbers, adequate distribution, and seasons of use, consistency with allotment management plans. Mineral development is subject to valid existing rights. Frequency of managerial contact with users is low.

SEMI-PRIMITIVE MOTORIZED CLASS OBJECTIVE

Semi-primitive motorized areas are managed to provide a naturally appearing environment. Evidence of humans, restrictions, and management controls are present but subtle.

Motorized vehicle use is permitted. Concentration of users should be low. On-site interpretative facilities, low standard roads and trails, trailheads, and signing should stress the natural environment in their design and be the minimum necessary to achieve resource objectives.

The consumption of natural resources is allowed. In the review of plans of operations, utility corridors, rights-of-way, and other surface-disturbing projects, effort is taken to reduce their impacts on the natural environment. Frequency of managerial contact with visitors is low to moderate on trails and primitive roads.

ROADED NATURAL CLASS OBJECTIVE

Roaded natural areas are managed to provide a natural-appearing environment with moderate evidences of the sights and sounds of humans. Motorized use is permitted. Concentration of users is moderate with evidence of other users prevalent. Resource modification an utilization practices are evident, but harmonize with the natural environment. Development of facilities for motorized use is provided for in any proposed construction standards and designs of facilities.

Placement of rights-of-way, utility corridors, management facilities, and other surface-disturbing activities would be favored over placement in semi-primitive nonmotorized or semi-primitive motorized areas when applicable. The consumption of natural resources is allowed except at proposed of developed trailheads, developed recreation areas, and where geological, cultural, or natural features are interpreted as major themes. Frequency of managerial contact with visitors is moderate.

RURAL CLASS OBJECTIVE

Rural areas are managed to provide a setting that is substantially modified in foreground and background views with moderate to high evidences of the sights and sounds of civilization. Motorized use is permitted. Concentration of users is sometimes high with the evidences of other users being substantial. Resource modification and utilization practices are sometime dominant in a somewhat manicured environment. Standards for road, highway, and facility development are high for the purposes of user convenience. Frequency of managerial contact with visitors is moderate to high.

URBAN CLASS OBJECTIVE

The Mimbres Resource Area does not manage for urban types of recreation opportunities.

APPENDIX G-2
IMPLEMENTATION OF ORV DESIGNATIONS

OVERVIEW

The purpose of this appendix is to provide general information about Bureau of Land Management (BLM) policy and procedures for off-road vehicle (ORV) designations. BLM Manuals 8341 contain a more complete discussion. ORV designations are administrative, not Congressional, which allow management flexibility in order to be responsive to changes in the environment.

OBJECTIVES

All public land must be designated as "open," "limited," or "closed" to motorized vehicle use to meet public demand or needs, to protect resources and the safety of public land users, and to minimize conflicts among the various public land users and adjacent landowners. Additionally, existing ORV designations are evaluated and revised, if necessary, whenever existing Management Framework Plans (MFPs) are amended or when Resource Management Plans (RMPs) are prepared, revised, or amended.

POLICY

ORV designations are completed as an integral part of the normal BLM planning system unless problems or conflicts preclude adhering to the planning schedules.

ORV designation allocations are not contingent on the BLM land-use planning system.

Notices of ORV designations are published in the Federal Register within 1 year after completion of decisions allocating ORV use.

Designations apply to all motorized vehicles as defined by 43 Code of Federal Regulations (CFR) 8340.0-5(a) regardless of how the vehicles are being used. Only those vehicles excluded from that definition are allowed in closed areas or limited areas where use is prohibited by designation order.

Necessary nonemergency use associated with BLM licenses, leases, permits, or sales may be authorized as an exclusion from that definition [see 43 CFR 8340.0-5(a)(3)] only if feasible alternatives have been exhausted and the use is compatible with established resource management objectives. Reasonable restrictions on the types of vehicles, time of use, routes, or amount of use may be required in the authorization. Request for mineral exploration or development access under the 1872 mining law are allowed but are subject to 43 CFR 3802 and 3809.

"Open" designations are used for intensive ORV use areas where there are no special restrictions or areas where no compelling resource protection needs, user conflicts, or public safety issues exist that warrant limiting cross-country travel.

The "limited" designation is used where vehicular use must be restricted to meet specific resource management objectives. Examples of limitations include: number or types of vehicles, time or season of use, permitted or licensed use only, use limited to existing roads and trails, use limited to designated roads and trails, or other limitations necessary to meet resource management objectives (including certain competitive or intensive use areas which have special limitations).

Areas or trails are designated "closed" if it is necessary to protect resources, promote visitor safety, or reduce user conflicts. Motorized access will be allowed in closed areas by administrative personnel and permittees who have specifically requested an entrance permit consistent with other privileges.

Brochures (with maps) and other public information and educational tools (such as news releases, articles, talks to groups, environmental and resource education, etc.) inform users of opportunities and restrictions; on-site placement of signs is used to supplement these tools. Signs should be restricted to marking specific problem areas and major entry points.

DESIGNATION METHODOLOGY

Needs and concerns for resource protection, promoting public safety, and reducing conflicts associated with motorized vehicle use on public land are identified by BLM personnel and through public involvement efforts. RMP criteria guide policy and manual direction fulfillment. The BLM assembles the appropriate data to justify ORV designations and completes new inventories when existing information is insufficient to resolve problems. The ORV designations are allocated in the formulation of RMP alternatives and decided in the selection of the preferred alternative. After approval of the selected RMP, a designation order is published in the Federal Register and entered in the District Designation Order Register. Implementation plans are then developed to define and document a specific course of action necessary to carry out the ORV allocation decision. Implementation plan recommendations are either implemented or included in activity plans for further planning considerations.

IMPLEMENTATION PLAN GUIDELINES

The implementation plan is an internal BLM document providing guidance to District and Resource Area managers on how to implement RMP decisions. If defines and documents a specific course of action necessary to achieve ORV designation decision.

By definition, the implementation plan is brief and more concise than an activity plan. It identifies only those actions that are essential to implement the ORV designation decisions. If activity plans are developed, the information from implementation plans are incorporated into them. However, the ORV implementation plan remains a separate entity to provide continuity for management programming, budgeting, program support and to respond to public requests. A copy is maintained at the District and Resource Area offices.

The plan should contain the following information:

- a map and narrative clearly showing the area's designation(s), the reasons for the designation (s), and any additional information needed to ensure public knowledge and understanding of the reasons for the designation. Design, scale, and format of maps are dependent on the detail needed to ensure adequate interpretation.

- the brochures and maps needed to notify the public of the ORV designations.

- the number, type, and location of physical constraints, such as barriers, fences, gates, ditches, etc.

- public notices needed to inform the public about details of designations (such as announcements on radio or television, newsletters, letters to key interest groups, and public meetings).

- an installation schedule for signs and physical constraints.

- methods and schedules for supervising motorized field procedures and arrangements needed to enforce compliance with ORV designation decisions including cooperative agreements, user group assistance, trespass notices, citations, arrests, or other actions.

- maintenance standards for signs and physical constraints.

- estimates of all costs, work months, and personnel needed to meet implementation requirements.

EMERGENCY LIMITATIONS OR CLOSURES

Limitations of use or closure of areas and trails on public lands to motorized vehicle use under the authority of 43 CFR 84341.2 are not ORV designations.

Whenever the authorized officer determines that motorized vehicle use will cause or is causing considerable adverse effects on resources (soil, vegetation, wildlife habitat, cultural, historic, scenic, recreation, or other resources), the area must be immediately closed to the type of use causing the adverse effects (see 43 CFR 8341.2). Emergency limitations or closures are not used if there is sufficient time to complete standard or interim designations. They must remain in force only until one of those designations can be made or until the

adverse effects are eliminated and measures to prevent their recurrence have been implemented (whichever occurs first). The steps in emergency closure are listed in Table G-1.

A record of the problem identification, analysis, closure order, and action taken to inform the public is maintained in the District office and is available for public review. The closure limitation is entered in the District Designation Order Register.

TABLE G-1
STEPS IN THE EMERGENCY CLOSURE PROCESS

STEP	ACTION	RESPONSIBILITY
Problem Identification	Identify and briefly document the problem that is causing considerable adverse effect.	As assigned
Analysis	Briefly document the adverse effects.	As assigned
Decision	Complete and publish the emergency order in the Federal Register.	District Manager
Implementation	Post the affected areas and notify the affected persons at the earliest date possible, using the most effective means available.	As assigned

Source: 43 Code of Federal Regulations 8342.3 and BLM Policy 1990.

Note: The above actions could be completed in a very short timeframe, a matter of hours, if necessary.

APPENDIX H

VISUAL RESOURCE MANAGEMENT

DETERMINATION OF VRM CLASS RATINGS

Visual resource classes are categories assigned to public land which serve two purposes: (1) an inventory tool that portrays the relative value of the visual resources and (2) a management tool that portrays management objectives.

Ratings from scenic quality classes, visual sensitivity levels, and distance zones are combined to form visual resource management (VRM) classes. A VRM class identifies the suggested degrees of human modification that should be allowed in a certain landscape from a visual resource standpoint.

Scenic quality classes are rated for landform, water, color, vegetation, intrusions, and uniqueness. These elements are combined, and the area is classified as Class A - unique, outstanding features; Class B - outstanding features common to the physiographic region; or Class C - features common to the physiographic region.

Sensitivity levels are determined on the basis of frequency of travel through an area, use of the area, and public knowledge of the area. These elements are rated and the area is assigned a high, medium, or low sensitivity level.

Distance zones are placed in three categories: foreground/middle ground zone, background zone, and seldom seen zone. The foreground/middle ground zone is closest to the view and requires more attention and consideration in management decisions because of the greet detail that can be seen in the landscape. The background and seldom seen zones are viewed in less detail by the observer and most impacts blend with the landscape because of the distance.

CRITERIA FOR VRM CLASSES

After class ratings are completed scenic quality, visual sensitivity, and distance zones areas are assigned to one of four management classes. These classes are designed to maintain visual quality and describe the different degrees of modification to the basic elements of the landscape allowed.

CLASS I: Those areas where a management decision has been made previously to maintain a natural landscape (e.g., wilderness areas, wild sections of National Wild and Scenic Rivers, and other congressionally or administratively designated areas).

CLASS II: Landscapes with Class A scenic quality, or Class B scenic quality in the foreground/middle ground zone with high visual sensitivity. Changes in any of the basic elements (form, line, color, texture) caused by a management activity should not be evident in the characteristic landscape.

CLASS III: Landscapes with Class B scenic quality and high visual sensitivity in the background zone, or with Class B scenic quality and medium visual sensitivity in the foreground/middle ground zone or with Class C scenery of high visual sensitivity in the foreground/middle ground zone. Changes in basic elements (form, line, color, texture) caused by management activity may be evident in the characteristic landscape; however, the changes should remain subordinate to the visual strength of the existing character.

CLASS IV: Landscapes with Class B scenic quality and high visual sensitivity in the seldom seen visual zone, or with Class B scenic quality and medium or low visual sensitivity in the background

or seldom seen zones, or with Class C scenery quality (except with high sensitivity in the foreground/middle ground zone). Changes may subordinate the original composition and character must be reflect what could be a natural occurrence within the characteristic landscape.

MANAGEMENT AND CONTRAST RATING OBJECTIVES FOR VRM CLASSES

For activities proposed on public land, impacts are evaluated with the visual resource contrast rating system, a method of evaluating the visual contrast of a proposed activity with the existing landscape character.

The amount of contrast is measured by separating the landscape into major features (land and water surface, vegetation, and structures) and then predicting the magnitude of change in contrast of each of the basic elements (form, line, color, and texture) to each of the features. Assessing the amount of contrast for a proposed activity in this manner which indicates the severity of impact and serves as a guide in determining what is required to reduce the contrast so it will meet the visual management class requirements for the area.

Objectives for the VRM classes is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

CLASS II: The objectives 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 not 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 change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

CLASS IV: The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities through careful location, minimal disturbance, and repeating the basic elements.

APPENDIX I-1
WILDERNESS INVENTORY REPORT
PEÑA BLANCA

INTRODUCTION

The Bureau of Land Management (BLM) exchanged lands to the State of New Mexico for lands in the Organ Mountains in 1986 and 1988. The land acquired by the BLM plus adjacent public land had not all been included in the initial inventory for wilderness suitability that was conducted in the Las Cruces District during 1979. Sections 201 and 202 of the Federal Land Policy and Management Act (FLPMA) provide for ongoing inventories of public land resources and identification of significant areas through the Resource Management Planning (RMP) process.

Acquisition of State trust land in the Organ Mountains has created a block of 4,441 acres of public land in the vicinity of Peña Blanca, a prominent geologic feature near the south end of the Organ Mountains. This report evaluates the wilderness study potential of the area.

SIZE

The Peña Blanca WSA contains 4,441 acres of public land. The area meets the size requirements of the Wilderness Act of 1964 by having "...at least 5,000 acres of land or is of sufficient size as to make practicable it's preservation and use in an unimpaired condition." Although the area is less than 5,000 acres, it is large enough to be effectively preserved in a natural condition. Furthermore, 1,080 acres of adjacent private land that has been identified for acquisition in the Southern Rio Grande Plan Amendment and the Organ Mountains Coordinated Resource Management Plan would add sufficient acreage to bring the roadless area to 5,521 acres. Acquisition efforts for this private land are ongoing. The WSA is bounded on the east by the Fort Bliss Military Reservation, on the south and west by a road, and on the north end and on the northwest and southwest corners by private land.

NATURALNESS

Human imprints are substantially unnoticeable throughout the WSA, with the imprints consisting of livestock developments such as fences, dirt tanks, and a rock dam. Vehicle ways lead to most of the dirt tanks and rock dams. A summary of the imprints of man's work in the WSA is shown in Table I-1.

The interior fences are old, barbed wire and wood post fences that are not visible except from nearby. These fences are non-functional in their current condition. The boundary fence is built with steel posts and barbed wire, and is also not visible except from nearby.

The dirt tanks are all nestled in low spots in the drainages and so are not easily discernable. All are old and overgrown with native vegetation, and none appear to be functional for long-term storage of runoff. Achenback Tank is located in the upper part of Achenback Canyon and only visible from a 40-acre area of the canyon and adjacent hills. The dam is breached and the pond is silted in. It would require reconstruction with hand tools or with outdated tools and draft horses as there is no access for motor vehicles or heavy equipment into the upper canyon. The remaining dirt tanks are all small, with the two in Section 25 being less than 1/4 acre each, and the tank in Section 36 being less than 1/2 acre. The small tanks in Section 25 are not on a main drainage channel, and have only about a 40-acre watershed slope above them. They probably hold a small amount of water for a few weeks during the rainy season. The tank in Section 36 is in need of maintenance as the dike is breaching and the pit is silting in. The rock tank used to feed a concrete trough through a steel pipe, but the tank is completely silted in and the pipe is gone.

Approximately 1.1 miles of the vehicle ways provide vehicular access to the dirt tanks, while the remaining 1.5 miles provide a means for recreational users to get closer to the mountains than the road allows.

The entire WSA appears to have been affected primarily by the forces of nature. The few developments are not substantially noticeable in the area as a whole.

OPPORTUNITIES FOR SOLITUDE

The entire WSA is dissected by a series of small, narrow, rocky canyons interspersed by high, steep, rocky ridges. Woody vegetation in the canyon bottoms and rock outcrops on the hillsides compliment the topographic screening of the canyons and ridges, creating a multitude of possibilities for isolating individuals and groups from one another. Visitation to the area is slight, and despite the proximity of major population centers, the area seems very remote. The topography and location of the area allow it to provide outstanding opportunities for solitude.

OPPORTUNITIES FOR PRIMITIVE AND UNCONFINED RECREATION

The WSA provides opportunities for primitive and unconfined types of recreation including hiking, camping, backpacking, hunting, sightseeing, photography, and wildlife observation. The area provides some of the best quail and rabbit hunting in Dona Ana County, and when deer-entry hunts are held by the New Mexico Department of Game and Fish, some of the biggest mule deer in southern New Mexico are taken from this area. The diversity and quality of these primitive and unconfined types of recreation are outstanding.

SUPPLEMENTAL VALUES

The WSA contains both ecological and cultural features of scientific, educational, scenic, and historic value. Many of the canyons contain seasonal springs, some of which provide water nearly yearlong. These springs create habitat for plants and animals that is extremely important in a desert environment. Several plants listed as endangered by the State of New Mexico occur in the area, some of which are under review for Federal listing as threatened or endangered species.

Archaeological sites in the WSA include midden rings and the famous Peña Blanca rockshelters. The Peña Blanca rock shelters were professionally excavated by New Mexico State University in the 1980's and have provided the earliest known cultivated corn in the United States, a primitive variety with eight rows of kernels. Other significant information has been gathered from this site, but other sites in the inventory unit have not been inventoried, recorded, or excavated.

The scenic values of this portion of the Organ Mountains are also outstanding. While the red rhyolitic rocks do not equal the quartz monzonite spires of the Organ Needles, the scenery is spectacular. The inventory unit contains canyons of angular blocky rock outcrops arranged in pyramidal patterns, with other canyons containing ribbons of green oak trees between red rhyolite cliffs, or bands of mountain mahogany nestled deep in vertical crevices between white ridges of volcanic tuff. During the summer growing season, the hills are washed in a bright green hue from the thick carpet of grasses.

POSSIBILITY OF RECLAIMING HUMAN IMPACTS

The vehicle ways could all be revegetated through successful vehicle closure. The dirt tanks are currently not functional, and unless they are rebuilt, will not require vehicular access by the grazing permittee. They are currently revegetated and will continue to assume a more natural appearance over time.

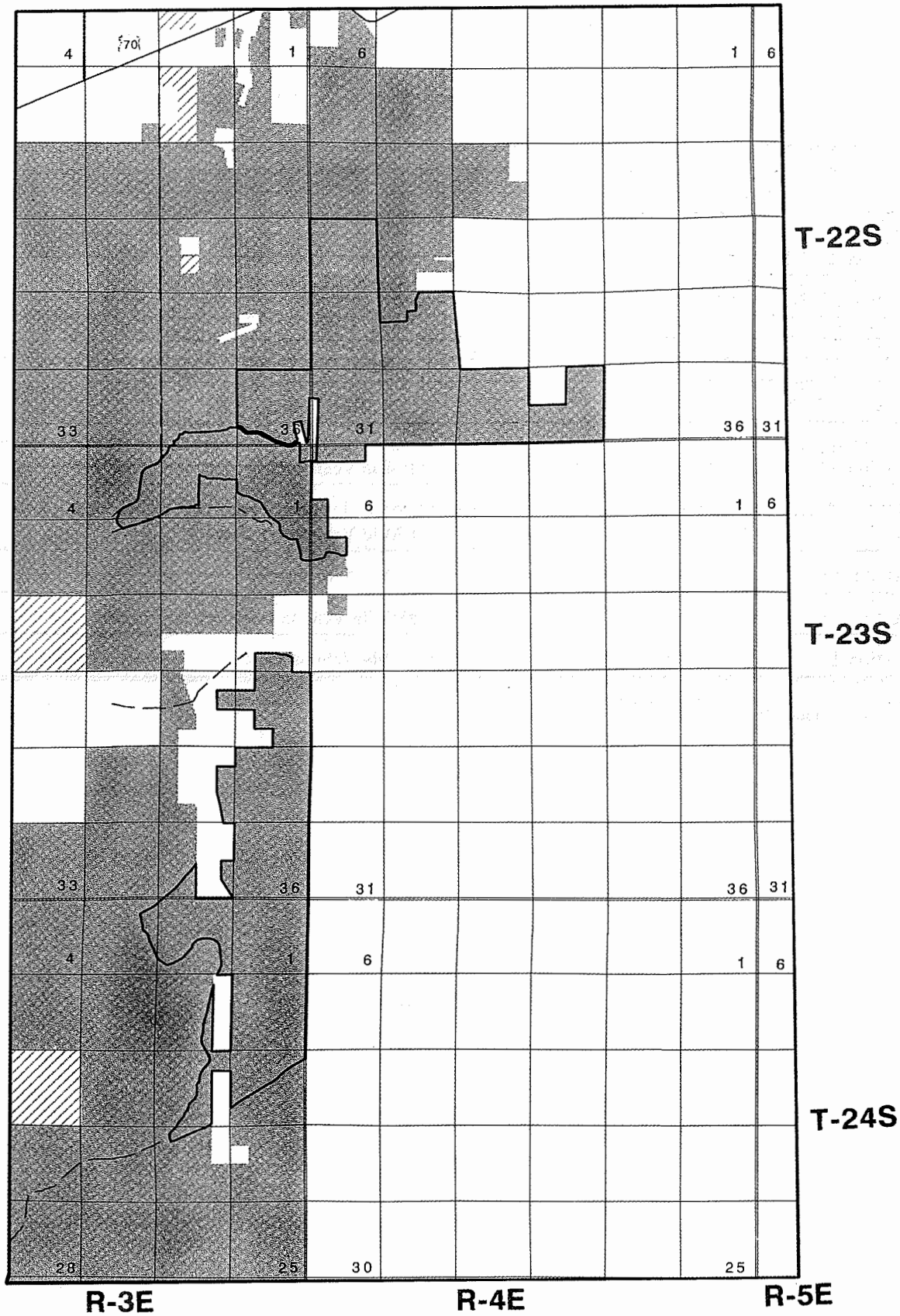
CONCLUSION

The Peña Blanca WSA is of sufficient size to allow its preservation in a natural condition. A 4,441-acre block of public land appears to be natural, with approximately 1,080 acres of adjacent private land also appearing to be natural. The private land has been identified for acquisition through the Southern Rio Grande Plan Amendment and the Organ Mountains Coordinated Resource Management Plan. Acquisition of this private land would result in a 5,521-acre unit. There are no private or State trust inholdings. The area offers outstanding opportunities for primitive and unconfined types of recreation and also has supplemental ecological, cultural, and scenic values. The Peña Blanca WSA will be studied to determine suitability for designation as wilderness in a subsequent legislative EIS.

TABLE I-1
HUMAN IMPRINTS IN THE PEÑA BLANCA WSA

LEGAL DESCRIPTION	IMPRINTS
T. 22 S., R. 3 E., Sections 13 and 24	.5 Mile Interior Fences
Section 25, NE¼NW¼NE¼	Achenback Tank (Dirt)
Section 25, NW¼NE¼SW¼	Rock Tank
Section 25, SE¼SW¼NW¼	2 Small Dirt Tanks
Section 25 and 26	1.4 Miles Vehicle Ways
Section 36, SW¼NW¼NW¼	Dirt Tank
Section 36	.1 Mile Vehicle Way
T. 23 S, R. 3 E., Sections 1 and 2	2 Miles Boundary Fence .4 Mile Vehicle Way
Section 11	.2 Mile Vehicle Way
Section 13	.05 Mile Vehicle Way
Section 14	.5 Mile Vehicle Way

Source: Las Cruces District Files, 1992.



ORGAN NEEDLES and PENA BLANCA

WILDERNESS STUDY AREAS

SCALE 1: 75000

N

3.1 0 MILE 3.1

3.1 0 3.1 KILOMETER

Legend

- WSA BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS
- COUNTY ROAD

APPENDIX I-2
WILDERNESS INVENTORY REPORT
—ORGAN NEEDLES

INTRODUCTION

The Bureau of Land Management (BLM) exchanged lands to the State of New Mexico for lands in the Organ Mountains in 1986 and 1988. An additional exchange with The Nature Conservancy (TNC) in 1988 added land to the contiguous public land in the Organ Mountains. Additional acreage was acquired in an exchange with New Mexico State University in 1991. The land acquired by the BLM plus adjacent public land had not all been included in the initial inventory for wilderness suitability that was conducted in the Las Cruces District during 1979. Sections 201 and 202 of the Federal Land Policy and Management Act (FLPMA) provide for ongoing inventories of public land resources and identification of significant areas through the Resource Management Plan (RMP) process.

Acquisition of State trust and private lands in the Organ Mountains has created a block of 7,604 acres of public land in the vicinity of the Organ Needles in the central portion of the Organ Mountains. This report evaluates the wilderness values of the area.

SIZE

The Organ Needles WSA contains 7,604 acres of public land. The area meets the size requirements of the Wilderness Act of 1964 by having "...at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition." The WSA is bounded on the east by the Fort Bliss Military Reservation and the White Sands Missile Range, on the south by Fort Bliss and private land, on the west by roads, and on the north end by private land and the 7,283-acre Organ Mountains WSA.

NATURALNESS

Human imprints are substantially unnoticeable throughout the WSA, with the imprints consisting of livestock developments such as fences and developed springs. A summary of the imprints of man's work in the area is shown in Table I-2.

The trails listed in Table I-2 include a portion of the Baylor Pass National Recreation Trail, most of the Pine Tree National Recreation Trail, and the Crawford Trail. These trails do not significantly detract from the naturalness of the area and would be in conformance with wilderness management guidelines. The road/trail is the Dripping Springs Trail which is maintained as a service road.

The fences are constructed of barbed wire and wood posts that are not visible except from nearby. One of the fences is in need of repair and is nonfunctional in its current condition.

The developed spring and the rock dam are both nestled in small, steep canyons that effectively screen them from view except for the immediate vicinities. Riparian vegetation further hides them from view.

The entire WSA appears to have been affected primarily by the forces of nature. The few developments are not substantially noticeable in the area as a whole.

OPPORTUNITIES FOR SOLITUDE

The WSA contains the rugged, scenic, high spires of the mountains and is dissected by a series of small, narrow, rocky canyons interspersed by high, steep, rocky ridges. Woody vegetation in the canyon bottoms and rock outcrops on the hillsides compliment the topographic screening of the peaks, canyons, and ridges creating a multitude of possibilities for isolating individuals and groups from one another. Visitation to the area is heavy, particularly in the spring and fall, but is concentrated on the developed trails and despite the proximity of major population centers, users in the area feel very isolated. The topography and location of the area allow it to provide outstanding opportunities for solitude.

OPPORTUNITIES FOR PRIMITIVE AND UNCONFINED RECREATION

The WSA provides opportunities for primitive and unconfined types of recreation including hiking, rock climbing, camping, backpacking, hunting, sightseeing, photography, and wildlife observation. The Organ Needles are world renowned for their technical rock climbing opportunities, which have hundreds of mapped routes to the tops. Sugarloaf Peak is also well known by climbers. The quartz monzonite of the Needles and the Sugarloaf area is an extremely stable rock that provides excellent support desired for anchoring technical equipment. The area provides some of the best quail and rabbit hunting in Dona Ana County, and when deer-entry hunts are held by the New Mexico Department of Game and Fish, some of the biggest mule deer in southern New Mexico are taken from this area. The diversity and quality of these primitive and unconfined types of recreation are outstanding. Several plants and animals occur in the area that are found nowhere else, and are easy to observe and photograph.

SUPPLEMENTAL VALUES

The WSA contains ecological and cultural features of scientific, educational, scenic, and historic value. Many of the canyons contain seasonal springs, some of which provide water nearly yearlong. These springs create habitat for plants and animals that is extremely important in a desert environment. Several plants listed as endangered by the State of New Mexico occur in the area, some of which are under review for Federal listing as threatened or endangered species. The State-listed Organ Mountains chipmunk occurs through most of the area.

Archeological sites in the WSA include the famous La Cueva rockshelter and the historic Modoc mine millsite and Van Patten Mountain Camp. La Cueva rockshelter was professionally excavated by the University of Texas at El Paso in the 1970's and has provided a significant number of artifacts and data on prehistoric cultures that have inhabited the cave for over 7,000 years. Other sites in the WSA have not been inventoried recorded or excavated.

The scenic values of this portion of the Organ Mountains are also outstanding. The quartz monzonite spires of the Organ Needles provide the most spectacular scenery in southern New Mexico, a view that the 60,000 inhabitants of Las Cruces relish daily, and local merchants constantly capitalize on in advertising. A 9,000-acre portion of the Organs including much of this unit has been designated as a Scenic Area of Critical Environmental Concern. The inventory unit contains massive spires of almost barren rock cleft with narrow chasms containing ribbons of green oak trees, with huge boulders along the flanks and alluvial fans. During the summer growing season, the hills are washed in a bright green hue from the thick carpet of grasses.

POSSIBILITY OF RECLAIMING HUMAN IMPACTS

There are no human impacts in the WSA that would need reclamation to enable management as wilderness, and in fact it would violate the Antiquities Act and Archeological Resources Protection Act to disturb most of the human imprints in the area.

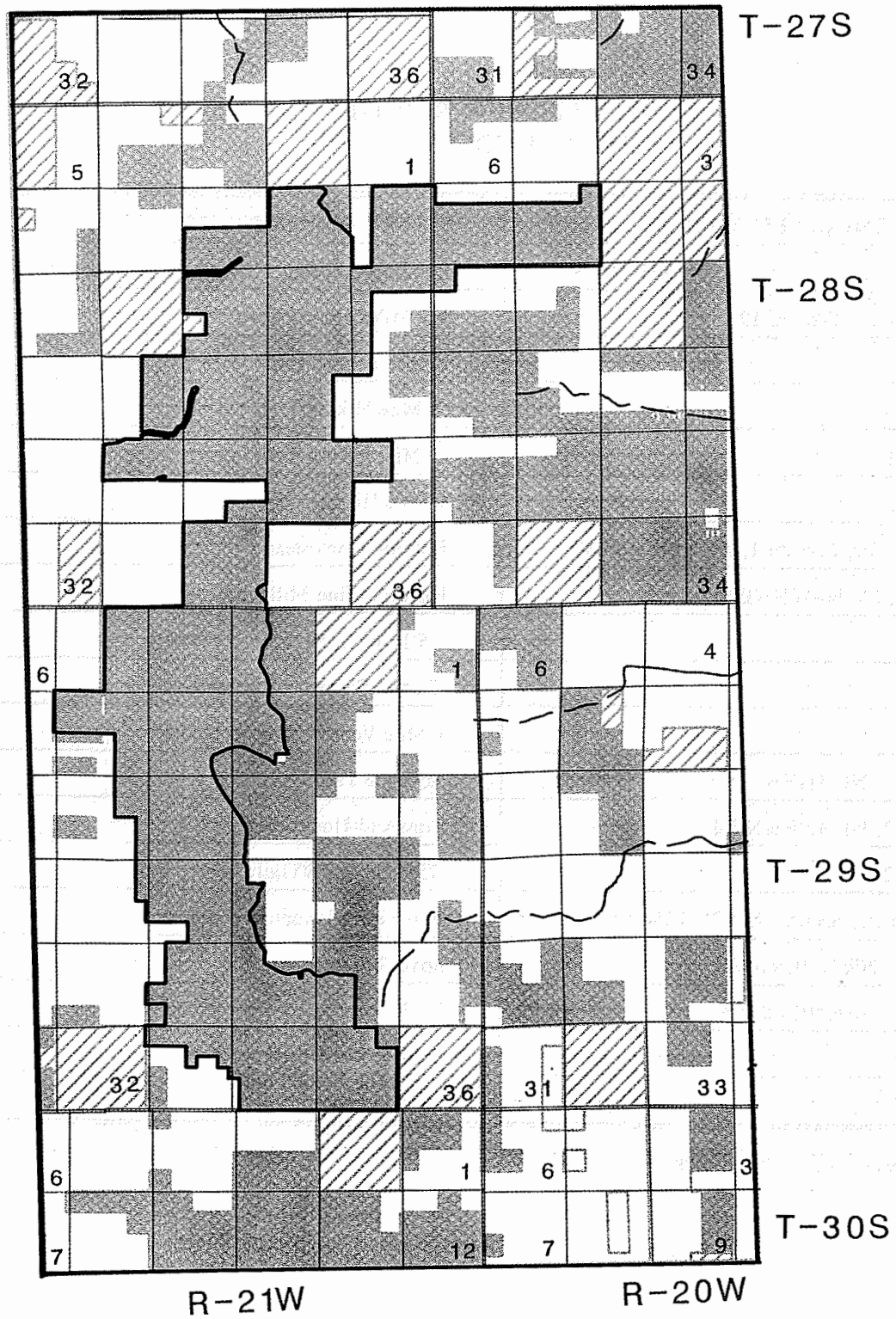
CONCLUSION

The Organ Needles WSA is of sufficient size to allow its preservation in a natural condition. A 7,604-acre block of public land was inventoried, which appears to be natural. There are no private or State trust inholdings, although a patented mining claim and the access road to it have been excluded from the unit. The area offers outstanding opportunities for primitive and unconfined types of recreation and also has supplemental ecological, cultural, and scenic values. The Organ Needles WSA will be studied to determine suitability for designation as wilderness in a subsequent legislative EIS.

TABLE I-2
HUMAN IMPRINTS IN THE
ORGAN NEEDLES WSA

LEGAL DESCRIPTION	IMPRINTS
T. 22 S., R. 3 E., Section 36, SE¼SE¼NW¼	Developed Spring
T. 22 S., R. 4 E., Section 19	1.5 Miles Hiking Trail
Section 29	1 Mile Hiking Trail
Section 30	.5 Mile Hiking Trail
Section 31	.5 Mile Hiking Trail
Section 32	1 Mile Hiking Trail
T. 23 S., R. 3 E., Section 1, NE¼SW¼NE¼	Historic Homestead
Section 1, SW¼SW¼NE¼	Historic Mine Millsite
Section 1	1.5 Miles Trail
Section 1	.5 Mile Fence
Section 2	1 Mile Vehicle Way
Section 12, NE¼NE¼	.25 Mile Trail
Section 12, NE¼NE¼NE¼	Crawford Homestead
Section 12	.75 Mile Road/Trail
T. 23 S, R. 4 E., Section 7, SE¼SE¼NW¼	Van Patten Mountain Camp
Section 7, NW¼NE¼SW¼	Boyd Sanatorium
Section 7, NE¼NE¼SW¼	Rock Tank
Section 7	.5 Mile Road/Trail
Section 7	.3 Mile Fence

Source Las Cruces District Files, 1992.



GRAY PEAK WILDERNESS STUDY AREA

Legend

- WSA BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS

N

SCALE 1: 100000

4.2 0 MILE 4.2

4.2 0 4.2 KILOMETER

APPENDIX I-3
WILDERNESS INVENTORY REPORT
GRAY PEAK

INTRODUCTION

The Bureau of Land Management (BLM) exchanged lands to Joe Jackson in 1989 and to The Nature Conservancy (TNC) in 1990 for lands in the Peloncillo Mountains in southern Hidalgo County. The lands acquired by the BLM were not included in the 1979 initial inventory for wilderness suitability, and contiguous land did not make the initial inventory cut because the land was in isolated parcels of less than 5,000 acres. Sections 201 and 202 of the Federal Land Policy and Management Act (FLPMA) direct the BLM to conduct ongoing inventories of public land resources and identification of significant areas through the Resource Management Plan (RMP) process.

Acquisition of private land in the Peloncillo Mountains between Antelope Pass and Post Office Canyon has created a block of 17,400 acres of public land. This report evaluates the wilderness values of the area.

SIZE

The Gray Peak WSA contained 17,400 acres of public land. Roads running north and south through the eastern portion of the area leave a 14,678-acre contiguous WSA. The area meets the size requirements of the Wilderness Act of 1964 by having at least 5,000 acres of land. The area is large enough to be effectively preserved in a natural condition. The WSA is bounded on the north, west, and south by private and State trust lands, and on the east by roads and private and State trust lands. Acreage changes from the Draft RMP/EIS were to delete private land that was inadvertently included in the initial inventory.

NATURALNESS

Human imprints are substantially unnoticeable throughout the WSA. Imprints are primarily livestock developments, with roads leading to some of the developments. Roads leading to some of these developments have excluded 2,722 acres of the contiguous public land from the I-3 lists imprints of man's work within the WSA.

Most of the livestock fences are old wood and barbed wire fences that are not visible except from nearby. Some of the fences are abandoned and consist only of scattered wood posts with occasional strands of barbed wire. The BLM has recently constructed approximately 3 miles of new fence in the vicinity of Owl Canyon to benefit desert bighorn sheep.

The dirt tanks and concrete dams are all set in vegetated drainage bottoms where brush or trees obscure visibility of the structures from most directions. The concrete dams support seasonal to perennial ponds and adjacent riparian vegetation that makes these structures blend extremely well with the natural environment. The roads lead to livestock developments such as a well, a developed spring, storage tanks, and dirt tanks. The roads that are listed in the table have actually been excluded from the unit by drawing the boundary around them (cherry-stemmed), but they are listed to show that human developments in the unit do not dominate the landscape. None of the man-made structures cover more than a quarter acre, and the cumulative total of these developments is less than .1 percent of the WSA.

The entire WSA appears to have been affected primarily by the forces of nature, and the developments are not substantially noticeable in the area as a whole. The unit exhibits an extremely high degree of naturalness, and the landscape and biota reflect a lack of human manipulation.

OPPORTUNITIES FOR SOLITUDE

The WSA consists of the most rugged and remote portion of the Peloncillo Mountains. The WSA includes a major mountain ridgeline that is 11 miles

long with five major peaks along it and dozens of smaller hills and ridges, all separated by canyons ranging from a few hundred yards to almost a mile across. Oak, pinyon pine, and juniper trees on the higher hills provide an excellent opportunity for vegetation screening that compliments the topographic screening of the area, providing innumerable possibilities for isolating groups and individuals from each other. Visitation to the area is extremely low because of the distance from major population centers and the closure of the area to deer and javelina hunting, which are the two dominant uses of public land in the area. All these factors combine to provide outstanding opportunities for solitude.

OPPORTUNITIES FOR PRIMITIVE AND UNCONFINED RECREATION

The WSA provides opportunities for primitive and unconfined types of recreation including hiking, camping, backpacking, hunting, photography, and wildlife observation. The area supports several species of animals and plants that are not found in other parts of New Mexico, and so provides opportunities for viewing wildlife that are otherwise unavailable. The area provides some of the best hunting in New Mexico for feral pigs. The area is currently closed to deer and javelina hunting, but if it is opened some day could provide excellent opportunities for hunting both of these species. The area also supports a small herd of desert bighorn sheep, which could provide a unique hunting opportunity.

SUPPLEMENTAL VALUES

The WSA contains ecological and cultural features of scientific, educational, scenic, and historic values. Many of the canyons contain seasonal springs that are important sources of water for wildlife and plants in a desert climate. Rare fauna known from the area includes the Mexican long-tongued bat, the coati, desert bighorn, and the State endangered green rat snake. TNC lists over 30 State sensitive plant species from this area including the Federal Candidate night-blooming Cereus greggii. This portion of the Peloncillo Mountains supports one of the most extensive and well-developed examples of Madrean evergreen woodland in New Mexico. Vegetation is characterized by many Mexican species of oaks and the Mexican pinyon pine (Pinus cembroides). No formal archaeological surveys have been conducted, but caves in the area show evidence of prehistoric use, and some sites show great potential for significant cultural deposits. The area provides opportunities for scientific study of wildlife that are not found in other mountain ranges in New Mexico including both Sonoran desert and Mexican highlands species.

The scenic values of this portion of the Peloncillo Mountains are outstanding. The western escarpment overlooks Rodeo and the San Simon Valley, and provides a spectacular vista from the Chiricahua Mountains including the Chiricahua Wilderness and U.S. Highway 80. On the eastern side, the WSA is not visible until the hills are entered, but the eastern side including areas like King Mountain, which consists of sculpted volcanic tuffs supporting dense stands of oak trees in crevices, include some of the most scenic mountains in the Mimbres Resource Area. Gray Peak at the north end of the unit is the largest and most spectacular mountain along State Road 9.

POSSIBILITY OF RECLAIMING HUMAN IMPACTS

The existing developments comprise such a miniscule portion of the area as to preclude any need for reclamation. The existing roads to livestock developments have been excluded from the unit by boundary adjustments. Two old roads through the area have been naturally reclaimed by shifting of alluvial material that has reestablished natural topography and vegetation. No roads or vehicle ways requiring reclamation exist within the WSA since the roads were excluded from the WSA.

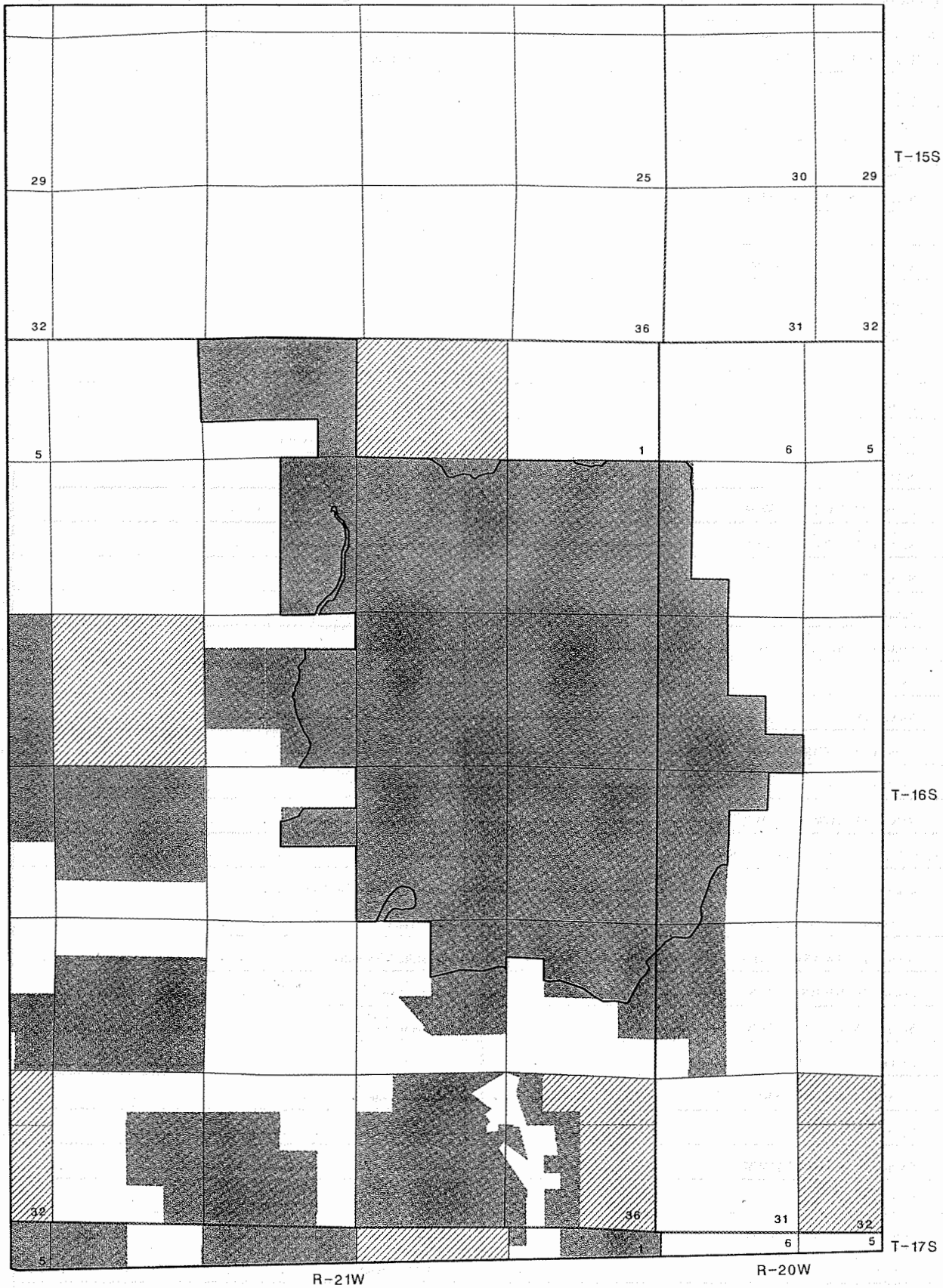
CONCLUSION

The Gray Peak WSA is of sufficient size to allow its preservation in a natural condition. There are no private or State trust inholdings. A 15,878-acre roadless area exists which appears to be natural and offers outstanding opportunities for primitive and unconfined types of recreation including hunting, hiking, backpacking, photography, and wildlife viewing. The area also contains supplemental values including cultural resources, scenic values, and endangered species. The Gray Peak WSA will be studied to determine wilderness suitability in a subsequent legislative EIS.

HUMAN IMPRINTS IN THE GRAY PEAK WSA

LEGAL DESCRIPTION	IMPRINTS
T. 28 S., R. 20 W., Section 7,	2 Miles Fence
Section 8	1 Mile Fence
Section 18, SE¼NW¼NW¼	Wildlife Water Catchment
T. 28 S., R. 21 W., Section 10	.25 Mile Road
Section 10, NW¼SW¼SE¼	Water Tank
Section 11	1.25 Miles Fence
Section 11, NE¼SE¼SW¼	Dirt Tank
Section 11, SE¼NE¼SW¼	Dirt Tank
Section 12	.75 Mile Fence
Section 13, NW¼NW¼NW¼	Wildlife Water Catchment
Section 14	1.2 Miles Fence
Section 15	.5 Mile Road, 1.2 Miles Fence
Section 21	.5 Mile Road
Section 22, NE¼NE¼NW¼	Dirt Tank
Section 22, SW¼SW¼NW¼	Dirt Tank
Section 22, SE¼SW¼NW¼	Well
Section 22	.5 Mile Road
Section 26, SE¼SE¼SE¼	Cement Dam
Section 27	1.7 Miles Fence
Section 28	.75 Mile Road
Section 28, SW¼SE¼NE¼	Developed Spring
Section 33	.25 Mile Road
Section 33, SW¼SW¼NW¼	Storage Tank
T. 29 S., R. 21 W., Section 3, SW¼NW¼SW¼	Dirt Tank
Section 4, NW¼SW¼NW¼	Wildlife Water Catchment
Section 16, NW¼SW¼SE¼	Dirt Tank
Section 16, SW¼SW¼NW¼	Wildlife Water Catchment
Section 16, NW¼SE¼SW¼	Cement Dam
Section 16, NW¼SW¼SE¼	Cement Dam
Section 21, SW¼SE¼NE¼	Cement Dam
Section 21, NE¼NE¼SE¼	Storage Tank
Section 22,	.6 Mile Pipeline
Section 27, NE¼NW¼SW¼	Dirt Tank
Section 27, SW¼SE¼NE¼	Corrals
Section 27, SW¼NE¼SW¼	Cement Dam
Section 35	1.1 Mile Road
T. 30 S., R. 21 W., Section 3, NW¼NE¼NE¼	Dirt Tank
Section 3	.1 Mile Road

Source: Las Cruces District Files, 1992.



APACHE BOX
WILDERNESS STUDY AREA

Legend

- WSA BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS

SCALE 1: 24000

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

APPENDIX I-4
WILDERNESS INVENTORY REPORT
APACHE BOX

INTRODUCTION

The Bureau of Land Management (BLM) studied a 932-acre area in Apache Box Canyon for wilderness suitability in the Arizona Mohave Final Wilderness Environmental Impact Statement (BLM 1989). This document recommended the Apache Box as nonsuitable for wilderness designation based on the nonsuitable recommendation of the contiguous Forest Service Hell's Hole wilderness study area (WSA) and the small size of the Apache Box WSA. In 1990, the BLM exchanged lands with The Nature Conservancy (TNC), acquiring new land up Apache Box Canyon from the existing WSA and connecting the WSA to additional BLM-administered public land that was not previously inventoried or studied for wilderness potential. Sections 201 and 202 of the Federal Land Policy and Management Act (FLPMA) direct the BLM to conduct ongoing inventories of public land resources and identification of significant values through the Resource Management Plan (RMP) process.

Acquisition of private land in Apache Box has created a block of 6,840 acres of public land from Apache Box to south of Crookson Peak. This report evaluates the wilderness values of the area.

SIZE

The Apache Box WSA contained 6,840 acres of public land. A road from Bittercreek to Red Kelly Tank and another in Alexander Canyon cut off approximately 611 acres, leaving a WSA of approximately 6,229 acres. The area meets the size requirements of the Wilderness Act of 1964 by having "..at least 5,000 acres or sufficient size as to make practicable its preservation and use in an unimpaired condition." The WSA is bounded on the east and west by private land, on the south by a road that is mostly on public land, and on the north by private and State trust land and the Gila National Forest. There are no private or State trust inholdings.

NATURALNESS

Human imprints are noticeable within parts of the WSA. Livestock fences are numerous and have been built with wood posts cut from juniper trees. Additional illegal woodcutting has occurred through much of the high country from the Apache Box to the southern end of the unit, to the point where most ridges have numerous stumps where trees once were. The mining road into the Box is a scar that is discernable from the western escarpment for 2 miles south of the Box, and switchbacks of this road leading down into the Box plus drill pads at the saddle south of and within the lower portion of the Box negatively impact the naturalness of 2 acres. Although the total disturbed area including the road and drill pads is approximately 2 acres, these impacts draw the attention of observers over a considerably larger area (160 acres). Approximately 9 miles of livestock fences exist within the area, and are located such that it is difficult to be more than 1 mile from a fence within the area. Eight rock, dirt, or concrete tanks, four developed springs, and a windmill also exist within the area, averaging out to one livestock water development per 482 acres. Table I-4 lists existing human impacts within the WSA.

The high level of development for livestock management detracts from the naturalness of the area. The livestock water developments are not substantially noticeable except from close by. The fences are often conspicuous from up to ½ mile away because of their locations on ridges and the lack of trees that have been cut down to build the fences. The Apache Box Canyon appears to be natural except for the mining development.

OPPORTUNITIES FOR SOLITUDE

The WSA is located in a very remote and little used portion of New Mexico, and the whole area provides opportunities for solitude. The mountainous terrain and numerous small canyons provide excellent

opportunities for solitude. The steep, narrow Apache Box Canyon is strewn with large to immense boulders, making travel through the canyon extremely arduous. The difficulty of traversing the canyon coupled with the roar of the rushing stream make the canyon bottom one of the best places in southwestern New Mexico to experience solitude.

OPPORTUNITIES FOR PRIMITIVE AND UNCONFINED RECREATION

The WSA provides opportunities for primitive and unconfined recreation including hiking, hunting, camping, photography, and wildlife observation. The diversity and quality of these recreation opportunities in the Apache Box Canyon are exceptional, primarily because of the beauty of the riparian area and extremely enriched diversity of plants and animals supported by the stream. Opportunities for primitive and unconfined recreation throughout the remainder of the area are not outstanding compared to the same types of recreation on surrounding public and Forest Service lands.

SUPPLEMENTAL VALUES

The WSA contains both ecological and cultural features of scientific, educational, scenic, and historic values. The perennial water course in Apache Box Canyon supports a nearly pristine riparian area that is home to an extremely diverse flora including eight oak species, one of which (Palmer oak) is considered globally rare (Dunmire 1990). The riparian community further supports both Federally endangered and State endangered species. Several caves show evidence of prehistoric habitation but have not been recorded. A Mogollon rockshelter and an historic house mound, road, and sheep pen have been recorded in the unit. Neither of the recorded sites appear to qualify for listing in the National Register of Historic Places.

POSSIBILITY OF RECLAIMING HUMAN IMPACTS

The livestock developments are fairly noticeable throughout much of the area but will become substantially less noticeable as trees are reestablished on hills and ridges where they have been cut for fence posts and firewood. The road to the drill pads in Apache Box could easily be reclaimed by natural shifting of the talus on the slope in which it was cut. Likewise, the drill pads in Apache Box Canyon could naturally reclaim themselves over time through alluvial and colluvial deposition of soil and rock, and revegetation of the natural plant community. The drill pad at the saddle south of the Box Canyon would require some earthwork to approximate natural contours. The quarry is no longer in use and is being naturally revegetated. Vehicle ways would revegetate substantially with limited use.

CONCLUSION

The Apache Box WSA is of sufficient size to allow its preservation in an unimpaired condition. A 6,227-acre block of public land is roadless, but naturalness is variable throughout the area. The Apache Box Canyon is highly natural except for 2 acres of roads and drill pads. The remainder of the area does not have significant surface disturbance, but livestock developments are numerous and in some instances fairly noticeable because of a long-term trend of wood cutting for fence posts and firewood. Many of the hills and ridges look fairly heavily cut over, with abundant stumps and few live trees. The area provides outstanding opportunities for solitude and for primitive and unconfined types of recreation and also has supplemental ecological, scenic, and cultural values, particularly within the Box Canyon. The Apache Box WSA will be studied to determine suitability for designation as wilderness in a subsequent legislative EIS.

TABLE I-4
HUMAN IMPRINTS IN THE APACHE BOX WILDERNESS STUDY AREA

LEGAL DESCRIPTION	IMPRINTS
T. 16 S., R. 20 W., Section 8, NE¼NW¼SW¼	Dirt Tank
Section 18	.5 Mile Boundary Fence
Section 19	.5 Mile Vehicle Way
T. 16 S., R. 21 W., Section 3	.5 Mile Fence
Section 3, NW¼NW¼NW¼	Smith Well
Section 3, SW¼NW¼SW¼	Dirt Tank
Section 3, NW¼SE¼SE¼	2 Masonry Dams
Section 10, SE¼NE¼NE¼	2.5 Acre Drill Pads
Section 10	1 Mile Road
Section 11, SW¼SW¼SE¼	Dirt Tank
Section 12, NE¼NW¼NW¼	Cabin and Corrals
Section 12, SW¼SE¼SW¼	Masonry Dam
Section 13, SE¼NE¼NE¼	Dirt Tank
Section 13, SE¼SW¼SW¼	Apache Reservoir
Section 13	1.3 Mile Boundary Fences
Section 13	.2 Mile Vehicle Way
Section 14, NW¼SW¼SW¼	Fish Spring (developed)
Section 14, SE¼SW¼SW¼	Indian Spring (developed)
Section 14	2 Miles Boundary Fences
Section 22, SW¼SE¼NE¼	Developed Spring
Section 23, NE¼NW¼NW¼	McNaire Spring (developed)
Section 23, SE¼SW¼	Rock Quarry
Section 23	2 Miles Boundary Fences
Section 23	.5 Mile Road
Section 24, SE¼NW¼SE¼	Cherry Reservoir
Section 24	1.2 Miles Vehicle Way
Section 24	.8 Mile Interior Fence
Section 25	.5 Mile Interior Fence

Source: Las Cruces District Files, 1992.

APPENDIX J
GILA RIVER WILD AND SCENIC RIVER INVENTORY REPORT SUMMARY

USDI HERITAGE CONSERVATION AND RECREATION SERVICE 1980

This inventory covered the Gila River from the San Carlos Indian Reservation in Arizona upstream to the confluence of the east and west forks in New Mexico. The inventory determined that the river is free-flowing but varies from pristine to broad sandy floodplains traversing low rolling terrain with agricultural development.

USDI NATIONAL PARK SERVICE 1982

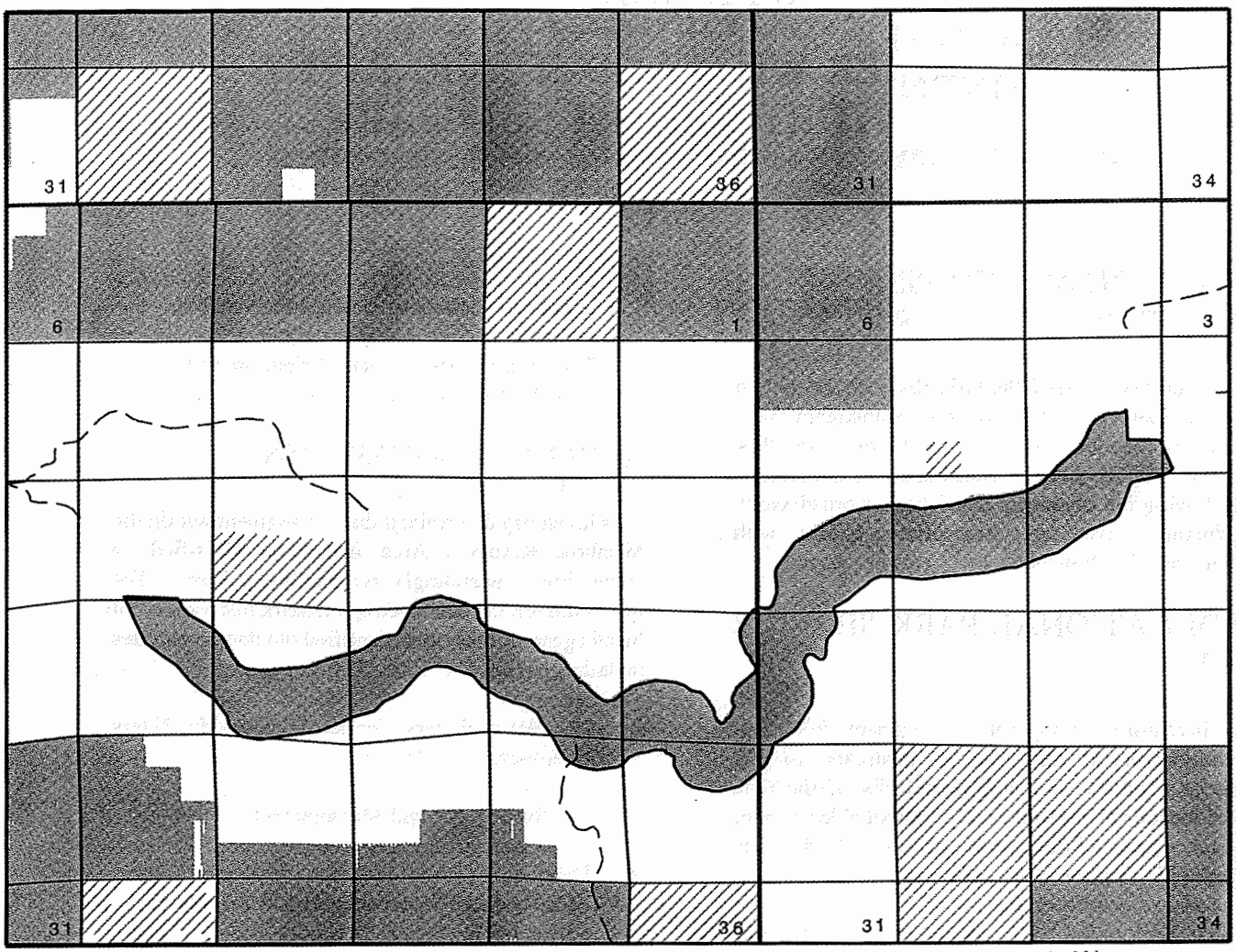
This inventory found that the segment from San Carlos Reservoir in Arizona upstream to the confluence of the east and west forks of the Gila River contained outstandingly remarkable scenic, geologic, fish, wildlife, and cultural values. The narrative description states that:

- Three areas in New Mexico have been identified as important fish habitat by the U.S. Fish and Wildlife Service.
- The Gila is recommended as a component of the New Mexico Rivers System.
- The Redrock Cliffs area has been identified as significant in the New Mexico Natural Areas Inventory.
- The river valley is important habitat for a variety of State-listed endangered species.
- The segment has the richest riparian avifauna in New Mexico.

AMERICAN RIVERS 1988

This inventory determined that the segment within the Mimbres Resource Area has been identified as containing outstandingly remarkable values. The report did not list outstandingly remarkable values but listed agencies that have identified outstanding values including:

- The National Park Service Nationwide Rivers Inventory.
- The Bureau of Land Management.
- The Nature Conservancy list of Priority Aquatic Sites for Biological Diversity Conservation.
- The New Mexico State Parks and Recreation Division.
- The American Whitewater Affiliation's list of outstanding whitewater streams.
- The Bureau of Outdoor Recreation.



GILA LOWER BOX

WILD and SCENIC RIVER STUDY AREA

Legend

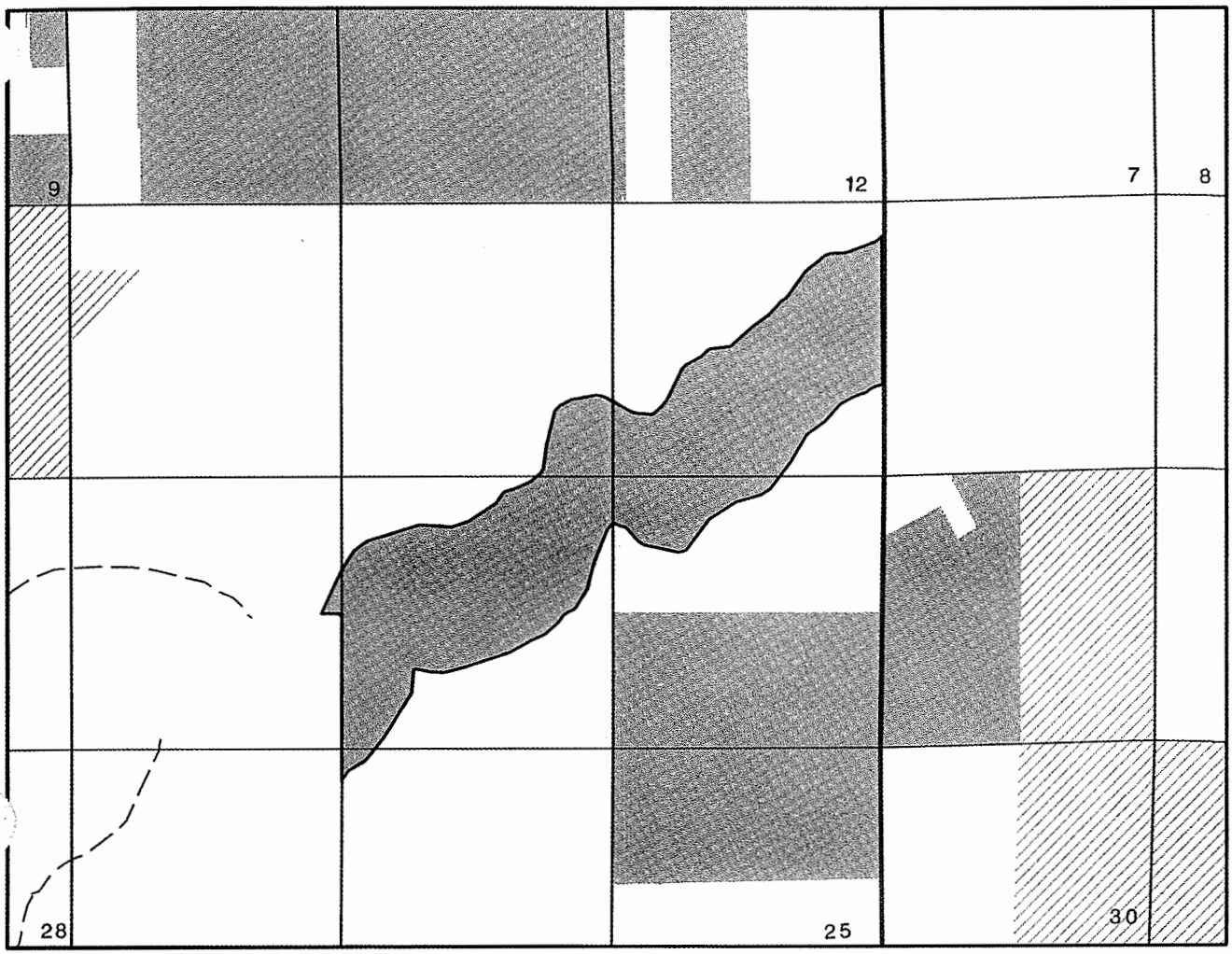
- STUDY AREA BOUNDARY
- PUBLIC LAND
- STATE LAND
- OTHER LANDS
- COUNTY ROAD

N

SCALE 1: 50000

2.1 0 MILE 2.1

2.1 0 2.1 KILOMETER



GILA MIDDLE BOX

WILD and SCENIC RIVER STUDY AREA

N

SCALE 1: 25000

1.0 0 MILE 1.0

1.0 0 1.0 KILOMETER

Legend

STUDY AREA BOUNDARY

PUBLIC LAND

STATE LAND

OTHER LANDS

COUNTY ROAD

APPENDIX K

MAJOR SOIL TYPES IN THE MIMBRES RESOURCE AREA

SOIL TYPE	MAJOR SOIL SERIES	APPROXIMATE PERCENT SURVEY AREA
DONA ANA COUNTY		
Shallow, well drained soils that formed in eolian material and residuum of basalt. These soils are on uplands and slopes. Slopes range from 1-15 percent	Aftaden, Minlith	5.2
Shallow, well drained soils that formed in residuum of basalt. The soils are on lava flows and ridges. Slopes are 3-25 percent.	Akela, Lozier	4.4
Deep, excessively drained soils that formed in mixed alluvium on valley floors of wide arroyos above the Rio Grande Valley. Slopes are 0-40 percent.	Arizo, Canutio, Bluepoint, Caliza	9.2
Deep, well drained soils that formed in mixed alluvium along mountain fronts on fans and terraces. Slopes range from 2-10 percent.	Berino, Onite, Pinaleno	14.2
Deep, well drained soils that formed in alluvium modified by wind on fans and fan piedmonts. Slopes are 1-5 percent.	Bucklebar	14.2
Moderately deep to shallow, well drained soils that formed in alluvium on level basin floors, fans and terraces. Slopes are 0-3 percent.	Cacique, Cruces, Casito, Terino	3.3
Shallow, well drained soils that formed in gravelly alluvium in old valley fill, ridges and terraces. Slopes are 1-15 percent.	Cave, Tencee, Simona, Upton, Nickel, Harrisburg	6.7
Moderately deep, well drained soils that formed in gravelly alluvium over weathered granitic bedrock. Slopes are 5-15 percent.	Nolam	1.5
Shallow, well drained soils that formed in calcareous alluvium on uplands. Slopes range from 1-15 percent.	Masonfort	2.5
Shallow, well drained soils that formed in alluvium and colluvium that derived from mixed basic igneous bedrock. Slopes range from 13-75 percent.	Motoqua	3.0
Deep, somewhat excessively well drained soils that formed in eolian material on broad fans. Slopes are 1-3 percent.	Pintura, Yturbide	2.8
Deep, well drained soils that formed in alluvium on fans and basin floors. Slopes are 0-1 percent.	Reagan, Mimbres	2.6
Deep, well drained soils that formed in old unconsolidated alluvium that has been modified by wind and are on broad piedmont fans. Slopes are 0-1 percent.	Wink	16.4
Miscellaneous soil types found on non-BLM lands in Dona Ana County.		14
TOTAL		100%

MAJOR SOIL TYPES IN THE MIMBRES RESOURCE AREA (continued)

SOIL TYPE	MAJOR SOIL SERIES	APPROXIMATE PERCENT SURVEY AREA
GRANT COUNTY		
Moderately deep, well drained soils formed in colluvium and residuum derived mainly from acidic igneous rock. They are on mountains, ridges, and hills and the slope is 3 - 45 percent.	Abrazo, Luzena	20.1
Deep, excessively drained soils formed in alluvium derived from mixed sources. They are on floodplains and alluvial fans and the slope is 0 - 5 percent.	Arizo, Mimbres	.8
Deep, well drained soils formed on alluvial fans and plains. Slopes are 1 - 5 percent.	Continental, Bucklebar	6.8
Deep, excessively drained soils formed in alluvium derived from mixed sources. They are found on floodplains, stream channels, and alluvial fans. Slopes are 0-15 percent.	Ellicot, Paymaster	1.9
Deep, well drained soils formed in old alluvium and eolian material derived from conglomerate. They are found on ridges and hills. Slopes are 1 - 35 percent.	Guy, Lonti	11.6
Deep, moderate to well drained soils formed in alluvium derived from mixed sources. They are in bolsons and on flats. Slopes are 0 - 3 percent.	Hondale, Verhalen	.8
Deep, well drained soils formed in residuum and old alluvium. They are found on hills and plains. Slope is 2 - 15 percent.	Judd, Manzano, Tesajo	3.8
Deep, well drained soils formed in alluvium. They are found on alluvial plains and fans. Slope is 1 - 5 percent.	Mojave, Stellar, Verhalen	11.0
Deep, well drained soils formed in calcareous alluvium derived from mixed sources. They are found on alluvial fans, side slopes, and piedmonts. Slope is 2 - 15 percent.	Nickel	3.5
Deep, well drained soils formed in calcareous alluvium. They are found on the sides of piedmonts, terraces, alluvial fans and foot slopes. Slopes are 0 - 8 percent.	Tres Hermanos	7.6
Miscellaneous soils found on non-BLM lands in Grant County.		32.1
TOTAL		100%

MAJOR SOIL TYPES IN THE MIMBRES RESOURCE AREA (continued)

SOIL TYPE	MAJOR SOIL SURVEY	APPROXIMATE PERCENT SURVEY AREA
HIDALGO COUNTY		
Excessively to well drained soils formed in sediment from igneous rock. These soils are on alluvial fans and bottoms. Slopes are 0 - 9 percent.	Arizo, Comoro, Grabe, Glendale, Whitlock	.8
Well drained soils formed in material from igneous rock. These soils are found on alluvial fans on uplands. Slope is 0 - 5 percent.	Berino, Forrest, Mohave, Pintura, Sonoita, Stellar	20.08
Well drained soils formed from material weathered from granite. These soils are found on hills and alluvial fans on uplands. Slope is 1 - 25 percent.	Chiricahua, Hap	1.2
Well drained soils formed from mixed igneous rocks mainly rhyolite. These soils are found on old alluvial fans on uplands. Slope is 0 - 15 percent.	Cloverdale, Eicks	2.4
Well drained soils formed from mixed igneous rocks. These soils are found on foot slopes of mountains, hills and alluvial fans. Slope is 1 - 60 percent.	Eba, Lehmans	18.1
Well drained soils formed from mixed igneous rock. These soils are found on alluvial fans on uplands. Slope is 0 - 5 percent.	Frye, Gila, Mimbres, Pinaleno	3.35
Well drained soil formed from weathered basalt bedrock. These soils are found on hills. Slope is 0 - 45 percent.	Graham	
Well drained soils formed from igneous and sedimentary rock. These soils are found on alluvial fans on uplands. Slope is 0 - 20 percent.	Jal, Karra, Yana	3.35
Well drained soils formed from mixed igneous rock. These soils are found on alluvial fans and bottoms. Slope is 0 - 3 percent.	Hawkeye, Pima	.45
Well drained soils that formed from mixed igneous and sedimentary rock. These soils are found on broad alluvial fans. Slope is 0 - 5 percent.	Hondale, Maricopa, Ubar, Vekol	6.8
Well drained soils that formed in old alluvium from basic igneous rock. These soils are found on alluvial fans on uplands and were deposited on older alluvium. Slope is 1 - 4 percent.	Keno	.3
Well drained soils that formed in gravelly old alluvium from mixed igneous rock. These soils are found on piedmont slopes. Slope is 0 - 60 percent.	Nickel, Tres Hermanas, Upton	14.95
Undrained basins consisting of clay and silty clay sediments that have been deposited by water. Slopes are 0 - 1 percent.	Playas	1.35
Well drained soils formed from mixed igneous and limestone rock. These soils are found on olds alluvial fans on uplands. Slope is 0 - 5 percent.	Terino, Tuney	.15
Moderately well drained soils formed in fine textured alluvium. These soils are found in alluvium bottoms. Slope is 0 - 1 percent.	Verhalen	2.6
Excessively drained soils that formed in coarse textured alluvium. These soils are found on alluvial fans. Slope is 0 - 9 percent.	Yturbide	.95
Miscellaneous soils found on non-BLM lands in Hidalgo County.		23.17
TOTAL		100%

MAJOR SOIL TYPES IN THE MIMBRES RESOURCE AREA (concluded)

SOIL TYPE	MAJOR SOIL SERIES	APPROXIMATE PERCENT SURVEY AREA
LUNA COUNTY		
Deep somewhat excessively drained soils that formed in mixed material deposited on floodplains and alluvial fans. Slope is 0 - 10 percent.	Bluepoint, Onite, Verhalen	5.7
Deep well drained soils formed in mixed igneous or granitic rock. These soils are found on fans, foot slopes or around the base of mountains. Slope is 0 - 10 percent.	Eba, Sonoita	4.0
Deep well drained soils formed in valley fill sediments derived from mixed igneous rock. These soils are found on intermountain valley floors. Slope is 0 - 3 percent.	Hondale	13.8
Shallow well drained soils that are residual soils formed over acid igneous rock. These soils are found on hills and lower mountain slopes. Slope is 0 - 25 percent.	Lehmans, Graham, Ledru, Lozier	8.9
Deep well drained soils formed in mixed alluvium. These soils are found on floodplains, terraces, and alluvial fans. Slope is 0 - 5 percent.	Mimbres Harkey, Jal, Maricopa	12.7
Deep well drained soils formed on old alluvial fans. They are found on alluvial fans. Slope is 0 - 5 percent.	Mojave, Stellar, Berino	18.5
Excessive to well drained soils formed in old alluvium sediments and sandy deposits that have been reworked by wind. Slope is 0 - 5 percent.	Pintura, Berino, Simona, Akela	12
Miscellaneous soils found on non-BLM lands in Luna County.		10.9
TOTAL		100%

Source: Soil Conservation Service Soil Surveys 1973, 1980, 1983.

APPENDIX L-1
THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES POTENTIALLY OCCURRING ON PUBLIC LAND IN THE MIMBRES RESOURCE AREA[a/]

Plant Persistence[b/]	Scientific Name	Common Name (Family)	Status[c/]	Occurrences in the Resource Area	Habitat
S	Acacia millefolia	None (Fabaceae)	SR	Found just north of the Mexican border in Guadalupe Canyon, Guadalupe Mountains.	Plants occur in populations of few individuals.
PF	Agastache verticillata	None (Lamiaceae)	SS	Collected in the Organ Mountains on the military reservations.	Mountainous regions at altitudes over 7,000 feet.
S	Apacheria chiricahuensis	Cliff bitterbrush (Crossosomataceae)	SS	Found in Chiricahua Mountains and Apache Box.	Occurs in cliff crevices of rhyolitic rock between 5,800 to 8,000 feet.
PF	Asclepias uncialis	Milkweed (Asclepiadaceae)	SR	Found near Silver City.	Occurs in pinyon-juniper stands.
AF	Aster blepharophyllus	Aster (Asteraceae)	C-2	Found on Las Playas Springs, Hidalgo County on private land.	Occurs on the margins of playas.
PF	Astragalus castetteri	Castetter's milk-vetch (Leguminosae)	SS	Found in San Andres Mountains on military and public lands.	Occurs among pinyon and juniper, on limestone, between 5,000 to 6,000 feet.
PF	Astragalus cobrensis var. maguirei	None (Fabaceae)	SS	Found in Guadalupe Pass, Guadalupe Mountains.	Occurs on soft powdery, gray soils.
S	Atriplex griffithsii	Griffith's saltbush (Chenopodiaceae)	SS	Found on dry lakebeds.	Found on the edges of dry lakebeds (playas) at 4,200 feet.
PF	Brickellia lemmoni	Wooton's bricklebush (Asteraceae)	SR	Found in Maverick Spring Canyon, Peloncillo Mountains.	Occurs under oaks among grasses.
PF	Brickellia simplex	Plain bricklebush (Asteraceae)	SR	Found in Maverick Spring Canyon and Skull Canyon, Peloncillo Mountains.	Occurs in grassy canyon bottoms under oaks between 5,600 and 5,756 feet.
PF	Castilleja organorum	Organ Mtn. Paintbrush (Scrophulariaceae)	SR	Found in Dripping Springs, Organ Mountains on public land.	Occurs on rocky sides of the Organ Mountains at altitudes of 5,700 feet.

APPENDIX L-1 (Continued)
THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES POTENTIALLY OCCURRING ON PUBLIC LAND

Plant Persistence[b]	Scientific Name	Common Name (Family)	Status[c]	Occurrences in the Resource Area	Habitat
C	Cereus greggii var. greggii	Night-blooming cereus (Cactaceae)	C-2/SE	Found in the Alamo Hueco Mountains Rough & Ready Hills, Las Uvas Mountains, Franklin Mountains, Flourite Ridge, Carrizalillo Hills, Little Hatchet Mountains, Sierra Rica Mountains, Peloncillo Mountains, Organ Mountains, Potrillo Mountains, and Pyramid Mountains.	Populations are widespread with a few individuals in each. Grows on gravelly range sites with bush muhly, Mormon tea, creosotebush, and range ratany; under or near creosotebush and mesquite in rocky areas; common at lower elevations; granite soil (rhyolite) and deep light soils. Altitudes 2,000 to 4,500 feet.
AF	Cleome multicaulis	Slender Spider-flower (Capparaceae)	C-2/SE	Collected in the Mesilla Valley, Dona Ana County and in Grant County.	Occurs on alkaline sinks, old saline lake beds, and cienegas from 3,000 to 7,000 feet.
C	Coryphantha orcuttii var. orcuttii	Pincushion (Cactaceae)	SE	Found in Mahoney Park, Florida Mountains on private land, found in the Big Hatchet Mountains, and collected on Granite Gap, Peloncillo Mountains.	Occurs on black limestone at altitudes of 5,200 feet (koenigii) or solitary to clustered with few individuals at altitudes of 7,000 feet (macraxina) or found on exposed outcrops with sotol, Agave, mesquite, and Acacia (orcuttii).
C	Coryphantha organensis	Organ Mountain pincushion (Cactaceae)	SE	Found on the Needles, in Dripping Springs, and Fillmore Canyon, Organ Mountains on public land and the military reservation.	Occurs on gravelly west-facing mountain slopes at 7,300 ft.
C	Coryphantha scheeri all varieties	Scheer's pincushion (Cactaceae)	SE	Widespread but extremely rare in southern New Mexico.	Occurs on open plains and flats, often in alluvial soils from 3,000 to 5,000 feet.
C	Coryphantha sandbergii	Sandberg's pincushion (Cactaceae)	SE	Found on the east slope of the San Andres Mountains.	Occurs on rocky limestone hillsides between 6,000 and 7,500 feet.
C	Coryphantha sneedii var. sneedii	Sneed's pincushion (Cactaceae)	FL/T/SE	Collected in Anthony Gap, Franklin Mountains on the military reservation.	Occurs on limestone hills on south-, and west-facing slopes with sotol, creosotebush, sumac, and Dalea between 4,300 and 5,400 feet.
PF	Dalea pulchra	None (Fabaceae)	SR	Found in Guadalupe Canyon, Guadalupe Mountains.	Found on rocky knolls.

APPENDIX L-1 (Continued)
THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES
POTENTIALLY OCCURRING ON PUBLIC LAND

Plant Persistence[b/]	Scientific Name	Common Name (Family)	Status[c/]	Occurrences in the Resource Area	Habitat
PF	Delphinium occidentale var. quercicola	Duncecap larkspur (Ranunculaceae)	SR	Found in the Pinos Altos Mountains, Gila National Forest.	Growing in dry soils among scrub oak thickets.
PF	Draba stanleyi	Stanley's Whitlow-grass (Brassicaceae)	SR	Found on Little Mountain, near Las Cruces (Tortugas Mountain) and Organ Peak, Organ Mountains on the military reservation.	Occurs in mountainous regions; igneous crevices and boulders.
C	Echinocereus fasciculatus	Hedgehog cactus (Cactaceae)	SE	Found in the Peloncillo and Big Hatchet Mountains.	Occurs in the foothills and dry desert mountains.
AF	Erigonum densum	Wooly buckwheat (Polygonaceae)	SR	Collected or found near Bayard and Santa Rita on private land, and on Bear Mountain (near Silver City), Gila National Forest.	Seems to occur around disturbed open rocky areas at altitudes of 5,000 to 6,500 feet. May be extinct.
AF	Eustoma exaltatum	Catchfly gentian (Gentianaceae)	SE	Found in the Rio Grande Valley, north of Las Cruces on private land.	Occurs on alkaline, wet meadows in sod saltgrass at 3,500 feet.
PF	Graptopetalum rusbyi	Rusby's stonecrop (Crassulaceae)	SS	Found in Apache Box along Apache Creek.	Occurs along the creek in the shade with ferns and mosses on quartzite and boulders and in open places among rocks in canyons from 2,500 to 5,200 feet.
HS	Haplophyton crooksii	Cockroach plant (Apocynaceae)	SS	Found near Mount Summerford, Dona Ana Mountains, New Mexico State University (College Ranch).	Occurs on south slopes.
PF	Hedoma todensii	Todsen's pennyroyal (Lamiaceae)	FL/E/SE	Found on White Sands Missile Range.	Occurs on north- and east-facing slopes in gravelly gypseous limestone soils at 6,600 feet.
PF	Hexalectsis spicata	Crested coral root (Orchidaceae)	SE	Found in the Animas Mountains.	Found in open oak groves.
*NF	Hymenoxys olivacea	Olivaceous bitterweed (Asteraceae)	SR	Found in the Pinos Altos Mountains on private land.	Occurs in mountainous regions.

APPENDIX L-1 (Continued)
THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES
POTENTIALLY OCCURRING ON PUBLIC LAND

Plant Persistence[b]	Scientific Name	Common Name (Family)	Status[c]	Occurrences in the Resource Area	Habitat
PF	Hymenoxys vasseyi	Vasey's bitterweed (Asteraceae)	SS	Found in the Organ Mountains	Occurs on dry hillsides from 4,500 to 6,500 feet.
PF	Jatropha macrorhiza	None (Euphorbiaceae)	SS	Found in Mahoney Park, Florida Mountains.	Found growing near a sandy arroyo in flat open country with sumac, Indian paintbrush, fourwing saltbush, and creosotebush.
AF	Limosella pubiflora	None (Scrophulariaceae)	SS	Found in the Animas Valley.	Occurs in and around temporary puddles.
C	Mammillaria viridiflora	Green-flowered pincushion cactus (Cactaceae)	SE	Collected or found in the Burro Mountains and Bear Mountain, Gila National Forest, Deadman Canyon on private land, and Skeleton Canyon, Peloncillo Mountains, Coronado National Forest.	Found on north-facing granite slopes and on rhyolite tuff and dry slopes in arid grasslands or along margins of desert from 4,500 to 6,500 feet.
C	Mammillaria wrightii var. wilcoxii	Wilcox pincushion (Cactaceae)	SE	Found in Animas and Peloncillo Mountains.	Occurs on rocky or gravelly slopes and canyons from 3,000 to 5,000 feet.
C	Mammillaria wrightii var. wrightii	Wright's pincushion (Cactaceae)	SE	Found in Dona Ana County and near Silver City.	Occurs on gravelly or sandy hills or plains in desert grassland to pinyon-juniper from 3,000 to 7,000 feet.
PF	Marah gilensis	Gila man-root (Cucurbitaceae)	SR	Found in the Gila River bottom.	Occurs on sandy soils near streams often in shaded areas from 4,000 to 5,000 feet.
PF	Metastelma arizonicum	None (Asclepiadaceae)	SR	Found in Guadalupe Canyon, Guadalupe Mountains.	Occurs on steep southwest-facing slopes.
C	Neolloydia intertexta	Visnagita (Cactaceae)	SE	Found in the Franklin and Tres Hermanas Mountains.	Occurs on the foothills of desert mountains.
PF	Oenothera organensis	Organ Mountain evening primrose (Onagraceae)	C-2/SE	Found in numerous canyons and on various peaks in the Organ Mountains mostly on the military reservation and public land.	Occurs in wet areas forming dense mats and in steep rocky canyons from 6,000 to 7,000 feet.

APPENDIX [illegible] (Continued)
THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES POTENTIALLY OCCURRING ON PUBLIC LAND

Plant Persistence[b]	Scientific Name	Common Name (Family)	Status[c]	Occurrences in the Resource Area	Habitat
C	Opuntia arenaria	Sand prickly pear (Cactaceae)	C-2/SE	Found along the Rio Grande Valley on public and private lands and around the Franklin Mountains.	Grows on dunes and inter-dune sandy areas in small (5-12 plants) patches with creosotebush and mesquite or on sandy floodplains in arroyos at 3,600 feet.
C	Pediocactus papyracanthus	Grama grass cactus (Cactaceae)	C-2/SE	Collected around Pinos Altos near Silver City on private land.	Occurs on sandy soil on open slopes or flats in grassland; often among pinyon and juniper from 3,500 to 7,500 feet.
PF	Pediomelum trinervatum	Three-nerved scurfpea (Fabaceae)	C-2/SR	Found south of Hachita Valley.	Occurs on sand mesas at 5,000 feet.
PF	Penstemon alamosensis	Alamo penstemon (Scrophulariaceae)	C-2/SE	Collected on Black Mountain, San Andres Mountains on the military reservation.	Grows in crevices and ledges in limestone cliffs and along canyon bottoms at 5,000 feet.
PF	Penstemon lanceolatus	Scarlet-tube beard-tongue (Scrophulariaceae)	SR	Found in the Sierra de Las Uvas, Florida Mountains, Cooke's Range, Alamo Hueco Mountains, and Pyramid Mountains.	Found associated with creosotebush, snakeweed, and juniper on rocky soil in draws; on east-facing slopes with ocotillo, Wright silktassel, and Apache plume; scattered on southwest-facing slopes under mountain mahogany and oak and in open areas with various grasses; also on rocky canyons of pinyon-juniper or in pine woodlands.
PF	Penstemon linarioides ssp. maguirei	Maguire's penstemon (Scrophulariaceae)	SR	Found in the Lower Gila River Valley.	Very rare.

APPENDIX L-1 (Continued)
THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES POTENTIALLY OCCURRING ON PUBLIC LAND

Plant Persistence[b]	Scientific Name	Common Name (Family)	Status[c]	Occurrences in the Resource Area	Habitat
PF	Penstemon superbus	Superb penstemon (Scrophulariaceae)	SS	Found northwest of Silver City and in the Peloncillo Mountains; on private land in Guadalupe Canyon, Guadalupe Mountains.	Found in the gravels of canyon bottoms and in talus gravels below some cliffs; also occurred in an open arroyo bottom at 4,770 feet. Plants are commonly grazed.
PF	Perityle cernua	Nodding cliff daisy (Asteraceae)	C-2/SE	Collected in various canyons in the Organ Mountains on the military reservation.	Occurs in crevices and overhangs on northeast-facing and vertical monzonite and granite cliff faces at elevations of 5,800 to 7,200 feet. Areas receive no sunlight or less than 2 hours per day.
PF	Perityle lemmonii	Lemmon's rock daisy (Asteraceae)	SS	Found in the Big Hatchet Mountains.	Occurs on limestone cliffs at elevations of 5,300 to 5,600 feet. Is a peripheral species from Mexico, Texas, and Arizona.
PF	Perityle staurophylla var. homoflora	San Andres rock daisy (Asteraceae)	SS	Collected on Quartzite Mountain in San Andres Mountains on the military reservation.	Found on east-facing limestone cliffs at 5,800 feet and in the pinyon-juniper zone.
FN	Phanerophlebia auriculata	Mexican eared fern (Dryopteridaceae)	SR	Found near Dripping Springs, Organ Mountains on public land.	Occurs in cool, shady, moist areas on north-facing cliffs. Northern most location in the United States.
PF	Plummera ambigens	Pinaleno plummera (Asteraceae)	SS	Found in Maverick Spring Canyon, Peloncillo Mountains on private land.	Occurs on sandy gravels in canyon bottoms.
PF	Polygala rimulicola var. mescalerorum	Mescalero milkwort (Polygalaceae)	C-2/SE	Found in the San Andres Moutnains on the military reservation.	Occurs in cracks of sandy, limestone cliffs at 5,100 feet.
AG	Puccinellia parishii	Parish's alkali grass (Poaceae)	C-1/SE	Found in Grant County near Faywood Hot Springs.	Occurs on moist or marshy ground that is often alkaline.
PF	Salvia summa	Supreme sage (Lamiaceae)	SS	Found on Rattlesnake Ridge, Organ Mountains on the military reservation.	Occurs at the base of limestone outcrops on a ridge at 5,500 feet.
PF	Scrophularia laevis	Organ Mountain figwort (Scrophulariaceae)	SS	Found and collected on the Organ Needle and Organ Peak, Organ Mountains; on public land and the military reservation.	Found on the highest peak in the Organ Mountains and on a moist, shaded slope high on Organ Peak (7,200 feet).

APPENDIX (Continued)
THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES POTENTIALLY OCCURRING ON PUBLIC LAND

Plant Persistence[b/]	Scientific Name	Common Name (Family)	Status[c/]	Occurrences in the Resource Area	Habitat
PF	Scrophularia macrantha	Mimbres figwort (Scrophulariaceae)	C-1/SE	Found on Cooke's Peak, Cooke's Range and on private land in Grant County (San Lorenzo).	Found among rock debris in a cliff area facing northeast among pinyon, juniper, Arizona cypress, and ash, in a wet spot. Few plants present. Also found on a rocky ledge near the summit of a mountain in full or partial shade; from 6,500 to 7,500 feet.
AF	Sicyos glaber	Smooth cucumber (Cucurbitaceae)	SS	Collected in various locations on the west side of the Organ Mountains; on the military reservation and on public land.	Occurs in rocky soils on open slopes and in canyons on the west face of the Organ Mountains from 5,000 to 6,000 feet.
PF	Silene plankii	Campion; Plank's catchfly (Caryophyllaceae)	SS	Collected in the Organ Mountains on the military reservation.	Found on vertical east- and west-facing heavily shaded igneous cliffs in canyons and in niches receiving less than 2 hours sunlight per day between 5,800 and 8,000 feet.
*NF	Silene wrightii	Wright's catchfly (Caryophyllaceae)	SS	Found and collected near Kneeling Nun on private land and in the Cooke's Range.	Occurs in crevices of rocks and on sandstone ledges on north-facing ridges at 7,450 feet.
AF	Sphaeralcea procera	Porter's globemallow (Malvaceae)	SR	Collected in Chandler Draw northeast of Deming, New Mexico.	Occurs in sandy arroyos.
PF	Talinum humile	Pinos Altos flame flower (Portulacaceae)	C-2/SE	Found near the Kneeling Nun vista on Forest Service lands.	Occurs on rocky south-facing slopes in pinyon/juniper and Agave types from 6,000 to 8,000 feet.
PF	Talinum longipes	Long-stemmed flame flower (Portulacaceae)	SS	Collected on Tortugas Mountain, Dona Ana County.	Occurs on dry hills at low elevations.

APPENDIX L-1 (Concluded)
THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES POTENTIALLY OCCURRING ON PUBLIC LAND

Plant Persistence[b/]	Scientific Name	Common Name (Family)	Status[c/]	Occurrences in the Resource Area	Habitat
S	Vauquelinia californica var. pauciflora	Few-flowered rosewood (Rosaceae)	C-2/SE	Found in the Peloncillo Mountains, Coronado National Forest near Guadalupe Canyon.	Occurs on limestone with juniper, sumac, Wright silktassel and fendlerbush from 4,100 to 6,100 feet.
S	Yucca shottii	Yucca (Liliaceae)	SR	Found in the Peloncillo Mountains.	Mountainous regions.

Sources: Spellenburg, 1978; Spellenburg, 1979; New Mexico State Forestry, 1991.

Notes: a/ To ensure complete coverage of all threatened, endangered, or sensitive plant species, consideration was given to all species on public land or within 1 mile of public land.

b/ Plant Persistence:

* - Information pertaining to plant persistence was not available.
AG - Annual Grass
PG - Perennial Grass
AF - Annual Forb
BF - Biannual Forb
PF - Perennial Forb
NF - Native Forb
HS - Half Shrub
S - Shrub
T - Tree
FN - Fern
C - Cactus

c/ Status:

C - Candidate (species designated as "candidate species" by the Fish and Wildlife Service)
1 - Enough information to list
2 - Not enough information to list
FL/E - Federally Listed/Endangered
FL/T - Federally Listed/Threatened
PSE - Proposed for the State Endangered List
SE - State Endangered
SR - State Review List
SS - State Sensitive (species selected by the New Mexico State Forestry as a special concern element)

APPENDIX L-2
SPECIAL STATUS ANIMALS

COMMON NAME	SCIENTIFIC NAME	STATUS	COUNTY*	HABITAT
Amphibians				
Colorado River Toad	Bufo alvarius	FC2 SE2	H	Mesquite, creosote, and other shrubs
Lowland leopard frog	Rana yavapaiensis	FC2	H	Specific habitat association unknown at present
Birds				
Olivaceous cormorant	Phalacrocorax olivacous	SE2	D G H	Generally found on larger bodies of water, rivers, and possibly playas
Mississippi kite	Ictinia mississippiensis	SE2	D	Riparian woodlands
Ferruginous hawk	Buteo reglais	FC2	D G H L	Open grassland or grassland/shrub
Common blackhawk	Buteogallus anthracinus	SE2	G H L	Riparian woodlands
Bald eagle	Haliaeetus leucocephalus	FE SE2	D L G	Habitat associated with water but there are some dry land areas where they occur
Peregrine falcon	Falco peregrinus	FE SE1		Cliffs in woodland/ forest types
Wild turkey (Gould's)	Meleagris gallopavo mexicana	SE2	H	Mountainous areas where large oaks predominate
White faced ibis	Plegaclis chihi	FC2	H	Marsh playas, irrigated land
Whooping crane	Grus americana	FE SE2	D L	Agricultural fields and valley pastures for feeding, roosting near water
Western snowy ploer	Charadrius nivosus	FC2	H	Alkali and salt flats
Long billed curlew	Numenius americanus	FC2	D G H L	Plains, rangelands and shorelines of lakes and marshs
Common ground dove	Columbiana passerina	SE1	D H	Agricultural areas and undeveloped shrubland near these areas
Broad billed hummingbird	Cyanothus latirostris	SE2	H	Riparian woodlands at low elevations
Costas hummingbird	Calypte costae	SE2	H	Arid sites near agricultural areas.
Lucifers hummingbird	Calothorax lucifer	SE2	H	Slopes and canyons in arid montane areas
Violet crowned hummingbird	Amazilia violiceps	SE2	H	Riparian woodlands at moderate elevations
White eared hummingbird	Hylocharis leucotis	SE2	H	Pine/oak woodland and adjacent riparian areas

APPENDIX L-2 (continued)
SPECIAL STATUS ANIMALS

COMMON NAME	SCIENTIFIC NAME	STATUS	COUNTY*	HABITAT
Elegant torgon	Torgon elegans	SE1	H	Broadleaf woodlands
Gila woodpecker	Melanerpes uropygialis	SE2	G H	Low elevation woodlands along stream courses
Thick billed kingbird	Tyrannus crassirostris	SE2	H	Riparian areas
Bells vireo	Vireo belli	SE2	D G H L	Dense shrubland or woodland along lowland streams
Gray vireo	Vireo vicinior	SE2	D G H L	Open woodlands and shrublands
Varied bunting	Passerina versicolor	SE2	H	Dense mesquite stands in canyon bottoms
Baird's sparrow	Ammodramus bairdii	SE2	D H L	Desert grasslands
Yellow eyed junco	Junco phaeonotus	SE2	H	Pine/oak woodland and lower slopes in winter
McCowns longspur	Calcarius mccownii	SE2	D G H L	Habitat associated with desert grassland
Abert's towhee	Pipilo aberti	SE2	G H	Riparian areas
Northern beardless tyrannulet	Camptostoma imberbe	SE1	H	Dense lowland mesquite stands
Buff colored nightjar	Caprimulugus ridgwayi	SE1	H	Arid shrublands and woodlands
Fish				
Loachminnow	Tiaroga cobitis	FT SE2	G	Riffle areas with moderate to rapid water velocities.
Spikedace	Meda fulgida	FT SE2	G H	Cobble bottomed stream margins in winter and areas with sand and gravel in main channel
Mammals				
Colorado chipmonk (Organ Mountains)	Eutamias quadrivuttatus	FC2 SE2	D	Pineoak-juniper woodlands
White sided jackrabbit	Lepus callotis	FC2 SE1	H	Desert grassland
Southern pocket gopher	Thomomys umbrinus	SE2	H	Montane area above 6000 ft. but may occur in canyon bottoms down to 4500 ft.
Desert bighorn sheep	Ovis canadensis mexicana	SE1	D H	Open arid, rocky mountains

APPENDIX L-2 (Concluded)
SPECIAL STATUS ANIMALS

COMMON NAME	SCIENTIFIC NAME	STATUS	COUNTY	HABITAT
Gray wolf (Mexican race)	Canus lupus baileyi	FE SE1		Mountain woodlands
Guadalupe pocket gopher	Thomomys guadlupiensis	FC2 SE2	H	
California leafnosed bat	Macrotus californicus	FC2	H	Caves and old mine shafts
Greater western mastiff bat	Eumops perotis	FC	H	Clifs, trees and abandoned buildings
Mexican longnosed bat	Leptonycteris nivalis	FC2 SE2	H	Caves and old mine tunnels
Occult little brown bat	Myotis lucifugus occulti	FC2	H	Hollow trees, caves, old mines
Sanborns longnosed bat	Leptonycteris sanborni	FE SE2	H	Caves and old mine tunnels
Southern yellow bat	Nycteris ega	SE2	H	Riparian woodlands
Spotted bat	Euderma maculatus	FC	D G H L	Open arid areas
Reptiles				
Mexican garter snake	Thomophis eques	FC2 SE2	G H	Pine/oak woodlands and grasslands with mesquite
Narrowhead gartersnake	Thomphis rufipunctatus	FC2 SE2	G H	Riparian areas along stream courses
Green ratsnake	Elaphe triapsis	SE2	G H	rocky canyon bottoms near streams or intermittent water
Gila monster	Heloderma suspectum	SE1	G H	Lower mountain slopes and outwash plains
Bunchgrass lizard	Sceloprus scularis	SE2	H	Intermountain valley grasslands
Ridgenose rattlesnake	Crotalus willardi	FT SE1	H	Canyon bottoms in montane areas
Mountain skink	Eumeces callicephalus	SE2	H	Riparian areas
Giant spotted whiptails	Cnemidophorus burti	FC SE2	H	Canyons and arroyos in and near mountains mesas
Gray checkered whiptail	Cnemidophorus dixoni	FC2 SE2	H	Desert grassland
Texas horned lizard	Phrynosoma cornutum	FC	D	Desert grass/shrubland

Source: BLM Files 1990.

Notes: *D = Doña Ana; G = Grant; H = Hidalgo; L = Luna

GLOSSARY

ACRONYMS AND ABBREVIATIONS

ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
ADC	Animal Damage Control
AIRFA	American Indian Religious Freedom Act
AMP	Allotment Management Plan
ARPA	Archaeological Resources Protection Act
AUM	Animal Unit Month
CEQ	Council on Environmental Quality
C&MU	Classification and Multiple Use Act
EA	Environmental Assessment
EIS	Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
FWS	U.S. Fish and Wildlife Service
HMP	Habitat Management Plan
IMP	Interim Management Policy
ISA	Instant Study Area
KGRA	Known Geothermal Resource Area
MFP	Management Framework Plan
MLRA	Major Land Resource Area
MOU	Memorandum of Understanding
MSA	Management Situation Analysis
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMDGF	New Mexico Department of Game and Fish
NMSO	New Mexico State Office (BLM)
NMSU	New Mexico State University
NNL	National Natural Landmark
NOI	Notice of Intent
NOL	Not Open to Leasing
NSO	No Surface Occupancy
OMRL	Organ Mountains Recreation Lands
ONA	Outstanding Natural Area
ORV	Off-Road Vehicle
PRIA	Public Rangelands Improvement Act
RNA	Research Natural Area
ROS	Recreation Opportunity Spectrum
ROD	Record of Decision
R&PP	Recreation and Public Purpose
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SCS	Soil Conservation Service
SHPO	State Historic Preservation Office
SHS	Standard Habitat Site
SMA	Special Management Area
SRMA	Special Recreation Management Area
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
VRM	Visual Resource Management
WSA	Wilderness Study Area
WSMR	White Sands Missile Range

GLOSSARY

ADJACENT. Lying near or close to; sometimes, contiguous; neighboring.

ADJUSTMENTS IN NUMBERS. Change (increase or decrease) of livestock numbers to conform to the amount of forage produced in an area considering other multiple uses.

AGGREGATE. A mineral material such as sand, gravel, shells, or broken stone.

ALLOTMENT. An area of land designated and managed for grazing of livestock.

ALLUVIAL. Pertaining to material that is transported and deposited by running water.

ALLUVIAL FAN. A fan-shaped accumulation of disintegrated soil material; water deposited and located in a position where the water departs from a steep course to enter upon a flat plain or open valley bottom.

ALLUVIUM. Material, including clay, silt, sand, gravel, or similar unconsolidated sediments, deposited by a stream or other body of running water.

ANIMAL UNIT (AU). Considered to be one mature cow (1,000 pounds) or its equivalent based upon average daily forage consumption of 26 pounds of dry matter per day.

ANIMAL UNIT MONTH (AUM). The amount of food or forage required by an animal unit for one month.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC). Areas within the public land where special management attention is needed to protect and prevent irreparable damage to important historical, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards.

ARROYO HABITAT. Intermittent drainages (arroyos) supporting a more varied vegetation composition than the surrounding upland areas.

AVIFAUNA. All birds of a given region.

AVOIDANCE AREAS. These are areas where future rights-of-way may be granted only when no feasible alternative route or designated right-of-way corridor is available. Special terms and conditions may be required.

BASALT. A dark to medium dark-colored, commonly extrusive, igneous rock.

BASIN AND RANGE. Topography characterized by a series of tilted fault block mountain ranges and broad intervening basins.

BASIN AND RANGE PHYSIOGRAPHIC PROVINCE. A province in the southwestern United States characterized by a series of tilted fault blocks forming longitudinal ridges or mountains and broad intervening basin.

BOLSON. A flat-floored desert valley that drains toward a playa or central depression.

BROWSE. (noun) That part of leaf and twig growth of shrubs, woody vines, and trees available for animal consumption. (verb) To consume browse.

CALCAREOUS. Having sufficient accumulation of calcium carbonate ($CaCO_3$) to effervesce visibly when treated with cold dilute hydrochloric acid (HCl).

CALDERA. A large, basin-shaped volcanic depression the diameter of which is much greater than the vent.

CALICHE. A layer in the soil more or less cemented by calcium carbonate ($CACO_3$, commonly found in arid and semiarid regions.

CARBONACEOUS. 1. Coaly. 2. Pertaining to, or composed largely of, carbon. 3. The carbonaceous sediments include original organic tissues and subsequently produced derivatives of which the composition is chemically organized.

CLASSIFICATION OF LANDS. The process of determining whether the lands are more valuable or suitable for transfer or use under particular or various public land laws than for retention in Federal ownership for management purposes.

CLOSED BASIN. A basin is considered closed with respect to surface flow if its topography prevents the occurrence of visible outflow. It is closed hydrologically if neither surface nor underground outflow can occur.

COARSE TEXTURED SOIL. A soil consisting of mostly large particles. It includes sands, loamy sands, and sandy loams. (See Soil Texture.)

COLLUVIUM. A deposit of soil material and rock fragments accumulated at the base of steep slopes as a result of gravitational action.

COLORADO PLATEAU PHYSIOGRAPHIC PROVINCE. A province situated between the Basin and Range and the Southern Rocky Mountains provinces. It is characterized by igneous structures, volcanoes, cinder cones, lava-capped plateaus, and extensive areas of nearly horizontal sedimentary rocks.

CONTIGUOUS. In close proximity; neighboring; adjoining; near in succession; in actual close contact; touching at a point or along a boundary; bounded or traversed by.

CONGLOMERATE. Clastic sedimentary rock composed of rounded fragments varying from small pebbles to large boulders in a cement of calcareous material such as iron oxide, silica, or hardened clay.

COW YEARLONG (CYL). The amount of forage necessary to sustain one cow for a 1-year period. One CYL equals 12 animal unit months.

CRITICAL HABITAT. Portions of the habitat of a wildlife population that, if destroyed or adversely modified, would result in a reduction of the population to a greater extent than destruction of other portions of the habitat.

CULTURAL RESOURCES INVENTORY CLASSES.

Class I - Existing Data Inventory: an inventory study of a defined area designed to provide a narrative overview (cultural resource overview) derived from existing cultural resource information and to provide a compilation of existing cultural resource site record data on which to base the development of the BLM's site record system.

Class II - Sampling Field Inventory: a sample-oriented field inventory designed to locate and record, from surface and exposed profile indications, all cultural resource sites within a portion of a defined area in a manner which will allow an objective estimate of the nature and distribution of cultural resources in the entire defined area. The Class II inventory is a tool utilized in management and planning activities as an accurate predictor of cultural resources in the area of consideration. The primary area of consideration for the implementation of a Class II inventory is a planning unit. The secondary area is a specific project in which an intensive field inventory (Class III) is not practical or necessary.

Class III - Intensive Field Inventory: an intensive field inventory designed to locate and record, from surface and exposed profile indications, all cultural resource sites within a specified area. Normally, upon completion of such inventories in an area, no further cultural resource inventory work is needed. A Class III inventory is appropriate on small project areas, all areas to be disturbed, and primary cultural resource areas.

DEFERRED GRAZING. The use of deferment in grazing management of a management unit, but not in a systematic rotation including other units.

DEFERRED ROTATION GRAZING. Discontinuance of grazing on various parts of rangeland in succeeding years, allowing each part of rest successively during the growing season to permit seed production, establishment of seedlings, or restoration of plant vigor. At least two, but usually three or more separate units are required.

DIRT TANK. Usually a permanent earthen structure for holding water temporarily. These are built in high rainfall runoff areas such as an arroyo, canyon, or swale area.

DIVERSITY. The relative degree of abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area.

DISPOSAL OF LAND. Transfer of land from Federal ownership, including sales, exchanges, and Recreation and Public Purposes.

DRAINAGE BASIN. A part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded water.

ENDANGERED SPECIES.

Federally Listed: any species of animal or plant in danger of extinction throughout all or a significant portion of its range.

State (Group I): species whose prospect of survival or recruitment in the State are in jeopardy in the foreseeable future.

State (Group II): species whose prospect of survival or recruitment within the State may become jeopardized in the foreseeable future.

ENVIRONMENTAL ASSESSMENT (EA). A concise public document for which a Federal agency is responsible that serves to: (a) briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact; (b) aid an agency's compliance with the National Environmental Policy Act (NEPA) when no environmental impact statement is necessary; (c) facilitate preparation of a statement when one is necessary. An EA includes brief discussions of the need for the proposal, of alternatives as required by Sec. 102(2) of NEPA, of the environmental impacts of the proposed action and other alternatives, and a listing of agencies and persons consulted.

EROSION CONTROL STRUCTURES. (or EROSION DIKE). Usually one large earthen, rock, wire, or cement structure used to hold large concentrated flows of water and release this water in small noneroding amounts.

EXCHANGE. A trading of public land (surface or subsurface estates) that usually does not have high public value, for land in other ownerships which does have value for public use, management and enjoyment. The exchange may be for the benefit of other Federal agencies as well as BLM.

EXCLUSION AREAS. These are areas where future rights-of-way may be granted only when mandated by law.

EXISTING UTILITY CORRIDORS. A parcel of land without fixed boundaries, limited only by terrain, land ownership, and environmental considerations.

FAIR MARKET VALUE. The amount in case,or on terms reasonably equivalent to cash, for which in all probability the property would be sold by a knowledgeable owner willing but not obligated to sell to a knowledgeable purchaser who desires but is not obligated to buy.

FINE TEXTURED SOIL. A soil consisting of large quantities of the fine fractions. It includes clay loam, sandy clay loam, silty clay loam, sandy clay, silty clay, and clay textured classes. (See Soil Texture.)

FLPMA. Federal Land Policy and Management Act of 1976, which mandated the BLM Wilderness Review. Often referred to and pronounced "FLPMA."

FLUID LEASABLE MINERALS. In this plan oil, gas, and geothermal resources are fluid minerals that are acquired through the mineral leasing process.

FORAGE (COMPETITIVE). Plants which are used as food by large herbivores such as cattle, and by large and small wildlife.

FORB. Any herbaceous nonwoody plant that is not a grass or grass-like plant.

FORMATION. The primary unit of formal geologic mapping or description. Most formations possess certain distinctive or combinations or distinctive lithic features.

GEOTHERMAL ENERGY. Useful energy that can be extracted from naturally occurring steam, hot water, or hot rock in the earth's crust.

GRAVITY SURVEYS. A technique of applied geophysics; a survey using a gravity meter on the ground to measure variations in gravitational intensity.

GRAZING CAPACITY. The maximum livestock stocking rate possible without inducing damage to vegetation or related resources such as watershed. This incorporates factors such as suitability of the rangeland for grazing as well as the proper use which can be made on all of the plants within the area. Normally expressed in terms of acres per animal unit month (Ac/AUM) or sometimes referred to as the total AUMs that are available in any given area, such as an allotment. Areas that are unsuitable for livestock use are not computed in the grazing capacity. Grazing capacity may or may not be the same as the stocking rate.

GRAZING DISTRICT (BOUNDARY). Is the specific area within which the public land is administered under Section 3 of the Taylor Grazing Act. Public land outside grazing district boundaries is administered under Section 15 of the Taylor Grazing Act.

GRAZING LEASE. A document authorizing use of public land outside grazing districts for the purpose of grazing livestock under Section 15 of the Taylor Grazing Act.

GRAZING PREFERENCE. The total number of animal unit months of livestock grazing on public land apportioned and attached to base property owned or controlled by a permittee or lessee.

HABITAT. An area where a plant or animal lives. Sum total of environmental conditions in the area.

HABITAT MANAGEMENT PLAN (HMP). A written and officially approved plan for a specific geographical area of public land which identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives, and outlines procedures for evaluating accomplishments.

HARDENED. Development of recreation sites or areas to prevent or limit the impact of recreation use on soil, vegetation, and other resources. Methods of "hardening" include construction of trails and designated use areas such as campsites and picnic sites.

HERD UNIT. Big game habitat within a defined geographical area designated by the New Mexico Department of Game and Fish for management purposes.

HISTORIC CULTURAL RESOURCES. Historic cultural resources include all mines, ranches, towns, resorts, railroads, trails, and other evidence of human use from the entrance of the Spanish to 1932.

HYDROCARBONS. Any organic compound, gaseous liquid, or solid consisting solely of carbon and hydrogen, such as crude oil.

IGNEOUS ROCKS. Rocks formed by solidification of magma.

INTRUSION. 1. A feature (landform, vegetation, or structure) which is generally considered out of context because of excessive contrast and disharmony with characteristic landscape. 2. Igneous rock formed by the emplacement of magma.

INTRUSIVE ROCK. Igneous rock formed by the emplacement of molten material in pre-existing rock.

KIND OF LIVESTOCK. Kinds of domestic livestock grazing on rangeland including cattle, horse, sheep, goats, or a combination of these. May be broken down to greater detail such as cows with calves, yearlings, steers, ewes, ewes with lambs, etc.

KNOWN GEOTHERMAL RESOURCE AREA. An area in which the geology, nearby discoveries, or competitive interests would indicate that commercial production of geothermal resources is probable.

LITHIC. A stone or rock exhibiting modification by humans. It generally applies to projectile points, scrapers, and chips, rather than ground stone.

LITHIC SCATTER. A prehistoric cultural site type where flakes, cores, and stone tools are located through the manufacture or use of the tools.

LOCATABLE MINERALS. Traditional "hard rock" minerals such as gold, silver, lead, copper, zinc and industrial minerals such as fluorspar, barite, and high-calcium limestone.

MAGMA. Naturally occurring mobile rock material generated within the earth and capable of intrusion and extrusion from which igneous rocks are derived through solidification and related processes.

MAGNETIC PROSPECTING. A technique of applied geophysics; a survey using a magnetometer on the ground or from the air to measure variations in magnetic intensity.

MAJOR LAND RESOURCE AREA (MLRA). Large geographic areas of land characterized by particular patterns of soil, climate, water resources, and land use.

MALPAIS. A Spanish word meaning rough country underlain by dark basaltic lava.

MANAGEMENT FRAMEWORK PLAN (MFP). A planning decision document that establishes for a given planning area land use allocations, coordination guidelines for multiple use, and management objectives to be achieved for each class of land use or protection. A MFP is prepared in three steps: (1) resource recommendations, (2) impact analysis and alternative development, and (3) decisionmaking.

MEDIUM TEXTURED SOIL. Intermediate between fine textured and coarse textured soil. It includes very fine sandy loam, loam, silt loam, and silt. (See Soil Texture.)

MELANISTIC. Any darkness of the skin, hair, or eyes resulting from high pigmentation.

METAMORPHISM. Process by which consolidated rocks are altered in composition, texture, or internal structure.

MINERALIZATION. The process of converting or being converted into a mineral.

MULTIPLE USE. The management of the various surface and subsurface resources so that they are utilized in the combination that will best meet the present and future needs of the American people.

MULTIPLE USE MANAGEMENT. Consists of managing to meet one or more of the following objectives: (a) domestic livestock grazing, (b) fish and wildlife development and utilization, (c) industrial development, (d) mineral production, (e) occupancy, (f) outdoor recreation, (g) timber production, (h) watershed protection, (i) wilderness preservation, and (j) preservation of public values.

NONENERGY LEASABLE MINERALS. In this plan sodium and potassium are nonenergy leasable minerals that are acquired through the mineral leasing process.

OFF-ROAD VEHICLE (ORV). Any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other terrain.

PALEOENVIRONMENTAL STUDIES. Studies using fossilized pollen and other geological and biological remains to determine past climatic conditions.

PERCOLATION. The downward entry of water into the soil.

PERENNIAL STREAM. A stream or portion of a stream which flows continuously.

PETROGLYPH. A form of rock art manufactured by incising, scratching, or pecking designs into rock surfaces.

PLAYA. The usually dry and nearly level lake plain that occupies the lowest part of a closed depression.

POTTERY SCATTER. A Mogollon to Historic cultural site type where pot-sherds are concentrated; usually a small site.

PUBLIC LAND. Any land and interest in land owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership, except:

- lands located on the Outer Continental Shelf
- lands held for the benefit of Indians, Aleuts, and Eskimos
- lands in which the United States retains the minerals, but surface is private.

PUBLIC LAND LAWS. The body of laws which regulates the administration of the public land and the resources thereon.

PUMICE. Glassy lava, generally composed of rhyolite.

RANGE BETTERMENT FUND. The separate account in the National Treasury established by Section 401(b)(1) of the Federal Land Policy and Management Act of 1976, consisting of 50 percentum of all monies received by the United States as fees for grazing livestock on public land.

RANGE SITE. Rangeland that differs in its ability to produce a characteristic natural plant community. A range site is the product of all the environmental factors responsible for its development. It is capable of supporting a native plant community typified by an

association of species that differ from other range sites in the kind or proportion of species or in total production.

RANGELAND. Land used for grazing by livestock and big game animals on which the vegetation is dominated by grasses, grass-like plants, forbs, or shrubs.

RANGELAND CONDITION (ECOLOGICAL). The present state of the vegetation on a range site in relation to the climax (natural potential) plant community for that site. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a plant community resemble that of the climax plant community for the site. Rangeland condition is basically an ecological rating of the plant community.

Four classes are used to express the degree to which the composition of the present plant community reflects that of the climax.

Ecological Condition Class	Percentage of Present Plant Community that is Climax for the Range Site
Excellent	76 - 100
Good	51 - 75
Fair	26 - 50
Poor	0 - 25

RANGELAND CONDITION TREND. The direction of change in rangeland condition.

RANGELAND IMPROVEMENT. Any activity or program on or relating to rangelands which is designed to improve production of forage, change vegetation composition, control patterns of use, provide water, stabilize soil and water conditions, and provide habitat for livestock or wildlife.

RAPTOR. Any predatory bird (such as a falcon, hawk, eagle, or owl) that has feet with sharp talons or claws adapted for seizing prey and a hooked beak for tearing flesh.

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.

REST ROTATION GRAZING SYSTEM. A grazing system providing for systematic and sequential grazing by livestock and resting from livestock use on a rangeland area to provide for the production of livestock while simultaneously maintaining or improving the vegetation and soil fertility.

RIFT. A system of fractures (faults) in the earth's crust and the associated valley or depression.

RIGHT-OF-WAY. Authorization to use public land for a specified purpose. Examples are roads, powerlines, pipelines, water wells, and communication sites.

RIPARIAN VEGETATION. Vegetation which occurs in or adjacent to drainage ways or their floodplains.

ROAD. For the purpose of the BLM's wilderness inventory, the following definition has been adopted from the legislative history of the Federal Land Policy and Management Act:

"The word 'roadless' refers to the absence of roads which have been improved and maintained by mechanical means to ensure relatively regular and continuous use. A trail maintained solely by the passage of vehicles does not constitute a road."

To clarify this definition, the following subdefinitions also apply:

"Improved and maintained" - Actions taken physically by man to keep a road open to vehicular traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

"Mechanical means" - Use of hand or power machinery or tools.

"Relatively regular and continuous use" - Vehicular use which has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources, access roads to

maintained recreation sites or facilities, or access roads to mining claims.

ROCK ART (PETROGLYPH OR PICTOGRAPH). An Archaic to Modern cultural site type consisting of incised figures such as people, animals, plants, or abstracts on a rock surface.

ROCK SHELTER. A cultural site type representative of all periods consisting of an area protected by an overhanging cliff. Often associated with the same materials as a campsite or rock art.

SACRIFICE AREA. A relatively small area of land in a grazing unit that may still be overused after practical measures for securing uniform grazing distribution have been installed.

SALABLE MINERALS. These are common variety mineral materials such as sand, gravel, cinders, and building stone that are sold on a permit basis.

SEDIMENTARY ROCKS. Rocks formed by the consolidation of loose sediment. Sedimentary is one of the three classes of rocks, the other two being igneous and metamorphic.

SOIL SERIES. A group of soils having genetic horizons (layers) that, except for texture of the surface layer, have similar characteristics and arrangement in the profile.

SOIL TEXTURE. The relative proportions of sand, silt, and clay in a soil as described by classes of soil texture. Soil textural classes recognized are:

sand	silt loam	silty clay loam
loamy sand	silt	silty clay
sandy loam	sandy clay loam	clay
loam	clay loam	

Modifiers placed on textural classes when appropriate are:

gravelly	very cobbly
very gravelly	stony
cobbly	very stony

SPLIT ESTATE. Refers to the situation where the mineral estate is owned or controlled by a party other than the owner of the surface of the same land area.

SUSTAINED YIELD. The achievement and maintenance, in perpetuity, of a high level of annual or periodic output of the various renewable resources of the public land consistent with multiple use. Amount of resource harvested normally equals the amount grown since the previous harvest.

THREATENED SPECIES. Any species likely to become endangered within the foreseeable future throughout all or a significant part of its range.

TUFF A compacted deposit of volcanic ash and dust.

UPLIFT. Elevation of any part of the earth's surface relative to some other parts.

VEGETATION TREATMENTS. Methods used to control the growth and spread of undesirable vegetation. Control can be by chemical or mechanical means or by fire.

VILLAGE. A Mogollon to Historic cultural site type consisting of a permanent habitation area containing several types of artifacts, evidence of agriculture, and structures.

VISUAL RESOURCES MANAGEMENT (VRM) CLASSES. VRM Classes are based on relative visual ratings of inventoried lands. Each class describes the different degree of modification allowed to the basic elements of the landscape. The following are the minimum management objective for each class.

Class I: Natural ecological changes and very limited management activity are allowed. Any contrast created within the characteristic landscape must not attract attention. This classification is applied to Visual Areas of Critical Environmental Concern, wilderness areas, wild and scenic rivers, and other similar situations.

Class II: Changes in any of the basic elements (form, line, color, texture) caused by a management activity should not be evident in the landscape. A contrast may be seen but should not attract attention.

Class III: Contrasts to the basic elements caused by a management activity may be evident and begin to attract attention in the landscape. The changes, however, should remain subordinate in the existing landscape.

Class IV: Contrasts may attract attention and be a dominant feature in the landscape in terms of scale. However, the changes should repeat the basic elements of the landscape.

VOLCANIC ROCK. An igneous rock resulting from volcanic action at or near the earth's surface.

WILDERNESS. The definition contained in Section 2(c) of the Wilderness Act of 1964 is as follows: "A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain." Wilderness is an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man'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, geological, or other features or scientific, educational, scenic, or historical value.

WILDERNESS AREA. An area formally designated by Congress as part of the National Wilderness Preservation System.

WILDERNESS CHARACTERISTICS. Those characteristics of wilderness as described in Section 2(c) of the Wilderness Act. These include size, naturalness, solitude, primitive and unconfined type of recreation, and supplemental values.

WILDERNESS INVENTORY. An evaluation of the public land in the form of a written description an a map showing those lands that meet the wilderness criteria as established under Section 603(a) of the Federal Land Policy and Management Act and Section 2(c) of the Wilderness Act. The lands meeting the criteria will be referred to as Wilderness Study Areas (WSAs). Those lands identified as not meeting wilderness criteria will be released from further wilderness consideration.

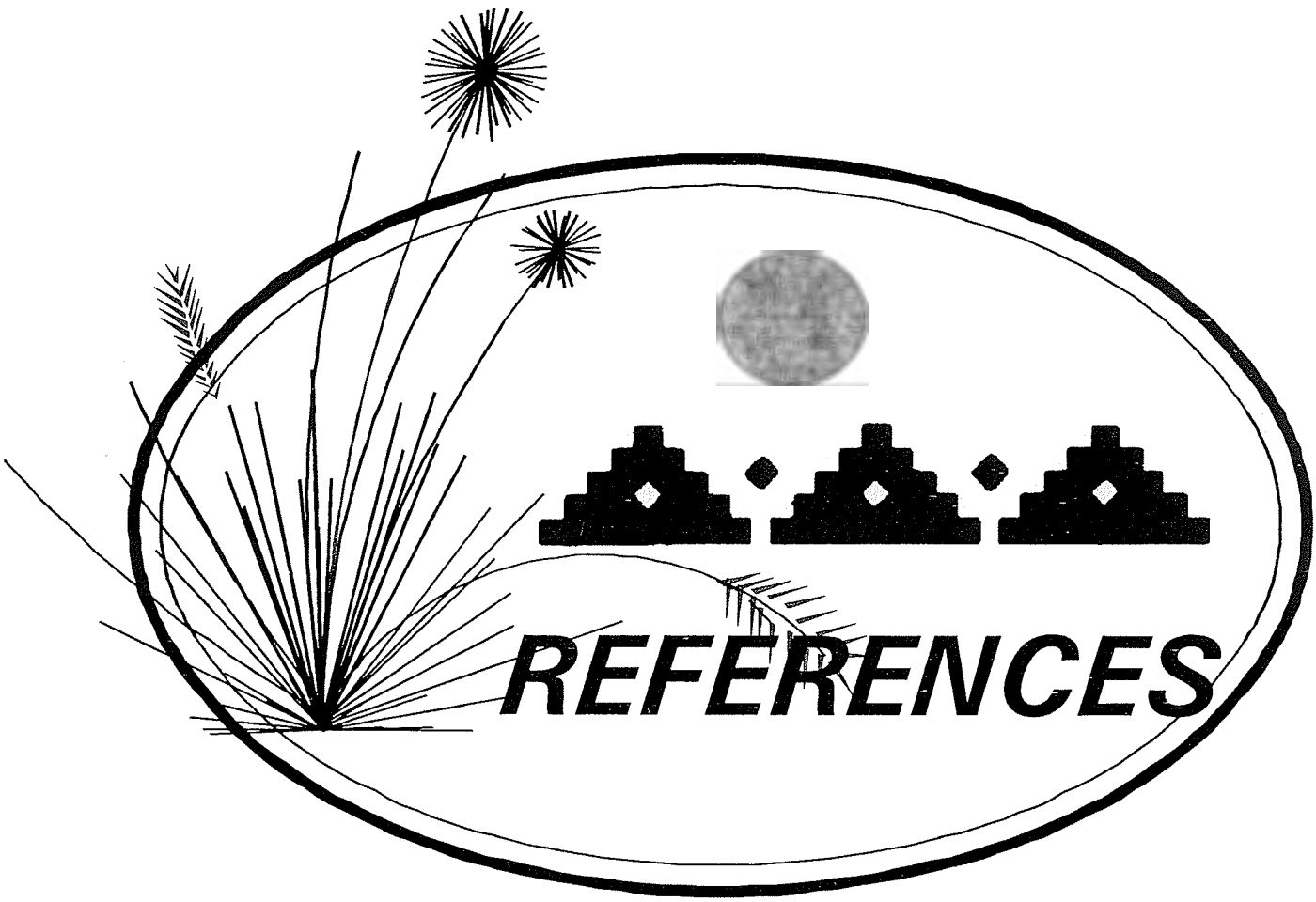
WILDERNESS REVIEW. The term used to cover the entire wilderness inventory, study, and reporting phases of the wilderness program of the BLM.

WILDERNESS STUDY. The process of analyzing and planning wilderness preservation opportunities along with other resource opportunities within the BLM's planning system.

WILDLIFE. Includes all species of mammals, birds, molluscs, crustaceans, amphibians, reptiles, or their progeny or eggs which, whether raised in captivity or not, are normally found in a wild state. Feral horses and burrows are excluded.

WITHDRAWAL. An action that restricts the use of public land and segregates the land from some or all of the public land or mineral laws.

YEARLONG GRAZING. Continuous grazing for a calendar year.



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