

# RESOURCE MANAGEMENT PLAN

U.S. DEPARTMENT OF THE INTERIOR

Bureau of Land Management

Las Cruces District

Socorro Resource Area



August 1989

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# SOCORRO

## Resource Management Plan

PREPARED BY:

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



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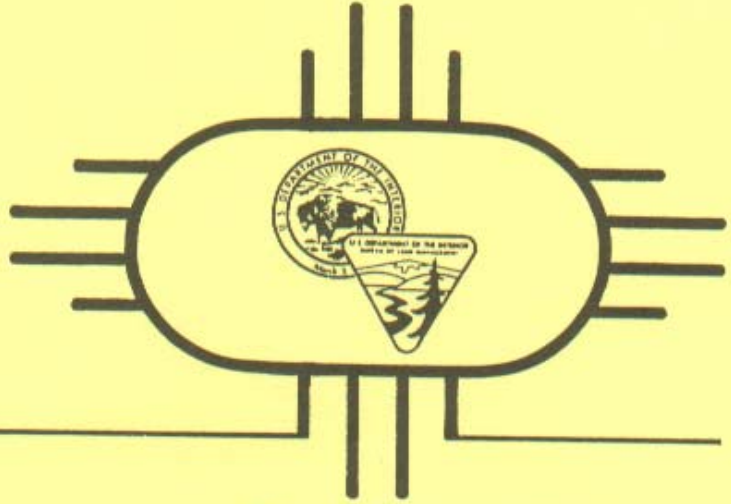
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*Reader's Guide*

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Horse Mountain WSA

The Socorro Resource Management Plan (RMP) represents the work of many Bureau of Land Management (BLM) employees and members of the public over the past three years. The intent is to provide general management direction for public lands in the Socorro Resource Area (SRA) over the next 20 years and guide all land and resource actions to achieve plan decisions. The Record of Decision is available upon request at the Socorro Office of the BLM.

### **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 Program**

Describes the management philosophy for administering public lands in the SRA and identifies the planning decisions. Each resource program is then profiled through a written program objective, description of the program, and land-use allocations, 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. Special Management Areas (SMAs)/Areas of Critical Environmental Concern**

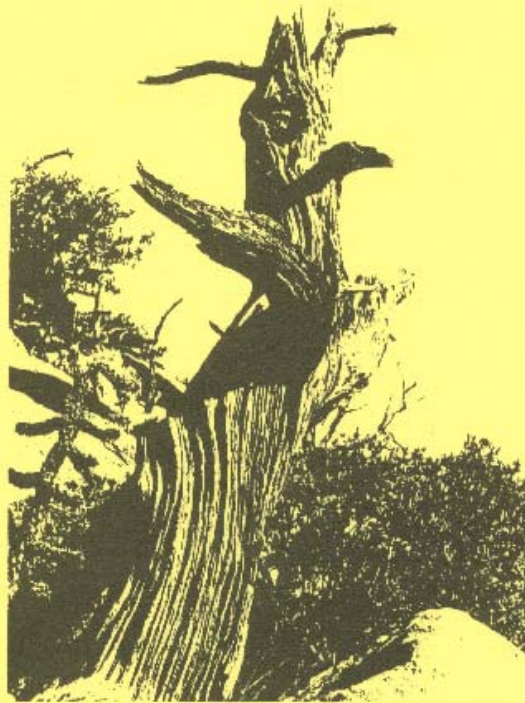
Identifies unique areas designated through planning. Each narrative provides a description of the SMA, primary management goals and management actions as well as a corresponding location map. Some SMAs are specifically not shown due to the sensitive nature of resource values in the area.

## **APPENDICES**

- A - Identifies the steps necessary in order to implement the Socorro RMP.
- B - Denotes the Bureau mineral resources policy and fluid leasing procedures.
- C - Summarizes the allotment categorization process, and identifies preference, wildlife animal unit months (AUMs), and management categories for each allotment.
- D - Outlines the Access Analysis Methodology.
- E - Identifies the visual resource management (VRM) class ratings and the management and contrast rating objectives for the VRM classes.
- F - Outlines the Federal coal lands review process.
- G - Outlines the Lands and Minerals Disposal Policy.

# Section I

## *Introduction*



Sierra Ladron WSA



## BACKGROUND

The Record of Decision for the Socorro Resource Area (SRA) Resource Management Plan (RMP) was signed by Larry Woodard, New Mexico State Director on January 29, 1989. This document sets in motion the decisions and management actions which address the unique resource values found in the SRA.

The SRA RMP has been prepared to provide a comprehensive framework for managing the public lands and for allocating resources during the next 20 years using the principles of multiple use and sustained yield. The RMP establishes areas for limited, restricted, or exclusive uses, levels of production, Allowable resource uses, resource condition objectives, 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 lands in the SRA (see Appendix A). All uses and activities in the SRA must conform with the decisions, terms and conditions as described herein. This RMP was prepared in accordance with the requirements of the Federal Land Policy and Management Act (FLPMA) of 1976 and the National Environmental Policy Act (NEPA) of 1969 for comprehensive land-use planning for public lands. The management objectives and philosophies developed in this plan will be applied only to the public surface and/or mineral estate. Section 3(3a) of the Federal

Coal Leasing Amendments Act of 1976 also requires comprehensive land-use planning prior to coal leasing.

In addition, court-ordered and statutory requirements were met as a result of two of the decisions in this document (see Appendix A). The first is the statutory requirement that public lands be designated as "open," "limited," or "closed," to motorized vehicle use. Second, this RMP lists decisions for livestock grazing on public lands in the SRA as required by the court-ordered settlement of a 1973 lawsuit filed against the Bureau of Land Management (BLM) by the Natural Resources Defense Council (NRDC). Plan amendments, if necessary, will keep the RMP current with resource management needs and policies.

Between 1976 and 1981, the SRA prepared landuse plans, known as Management Framework Plans (MFP), for all public surface and minerals within its area of jurisdiction. Due to changing circumstances and conditions, including new legislation, changing policies, and new land-use conflicts and issues, an RMP was initiated. Writing of the document itself began late in 1986; however, a complex process of data gathering and other preparatory activities began 1985. In This process included resource inventory, public participation, interagency coordination, and then preparation of a Management Situation Analysis (MSA). The MSA is on file in the SRA office along with documentation of the public participation and interagency coordination. Consultation and coordination with agencies, organizations, and individuals occurred in a variety of ways throughout the planning process.

## LOCATION AND SIZE

The SRA is located in the west-central portion of New Mexico. The SRA contains approximately 1.5 million acres of public surface and 2.2 million acres of Federal minerals. The lands are located in Socorro and Catron Counties. Generally, public lands are well blocked in the Quemado, Pelona Mountain, Ladron, and Stallion areas. However, in other large portions of the SRA public lands are isolated and scattered. Private lands are concentrated in the Rio Grande Valley, San Augustine Plains, Datil, and Bingham areas.

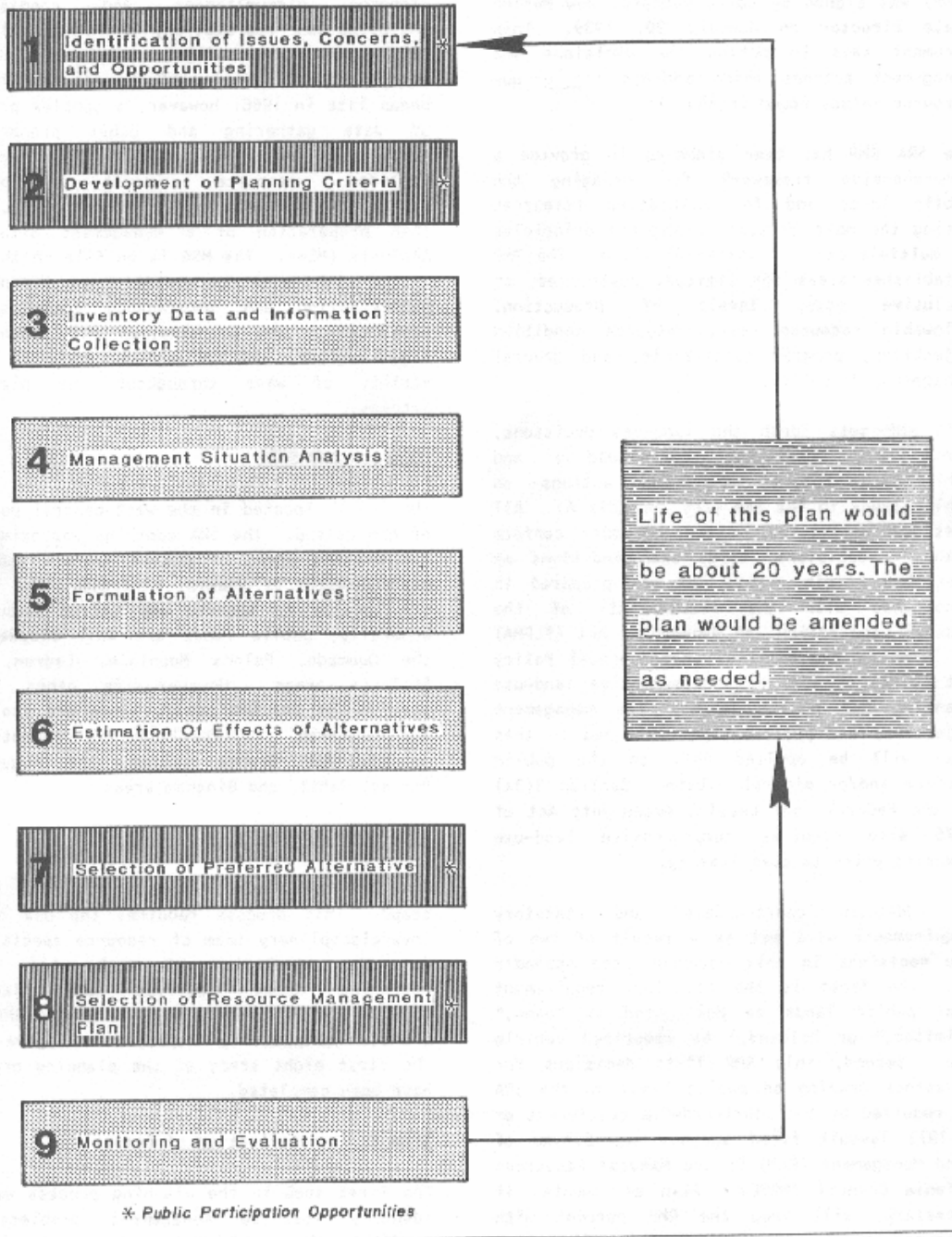
## THE PLANNING PROCESS

The BLM RMP process consists of nine basic steps. This process requires the use of an interdisciplinary team of resource specialists for the completion of each step. The following steps describe the planning regulations followed in preparing this RMP and are also graphically displayed in Figure 1-1. The first eight steps of the planning process have been completed.

### Step 1. Identification of Issues

The first step in the planning process was to identify resource management problems or conflicts that could 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. Seven issues were identified and considered in this document and are discussed in detail.

Figure 1-1  
Steps in the Resource Management Planning Process



## Step 2. Development of Planning Criteria

During this step, preliminary decisions were made regarding the types of information needed to clarify the issues, the types of alternatives to be developed, 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 after each issue.

## Step 3. Inventory Data and Information Collection

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

## Step 4. Management Situation Analysis (MSA)

This step called for deliberate assessment of the current situation. It included 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 was the development of an unpublished companion document known as the MSA. Chapter 2 of that document was used to develop the Continuing Management Guidance and Actions section of the RMP. The MSA was used as a basis for compiling the Affected Environment chapter of the RMP. Copies of the MSA are available for review in the SRA office.

## Step 5. Formulation of Alternatives

During this step, several complete, reasonable resource management alternatives were prepared, including one for no action and others that strived to resolve the issues while placing emphasis either on environmental protection or resource production. This important section was incorporated into Chapter 2 of the RMP.

## Step 6. Estimation of Effects of Alternatives

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

## Step 7. Selection of the Preferred Alternative

Based on the information generated during Step 6, the District Manager identified and recommended a preferred alternative to the State Director. The Draft RMP/EIS document was 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 selected and recommended to the State Director various proposals and/or alternatives to comprise the RMP and publish it along with a final EIS. A final decision was made after a 60—day Governor's Consistency Review and a 30—day protest period on the Final EIS.

## Step 9. Monitoring and Evaluation

This step will involve: 1. The mechanical tracking of the management actions and implementation steps to see that progress is being made to implement the plan decisions, 2. Measuring success of the actions taken in meeting the objectives and goals set forth in the plan, and 3. Evaluating the plan to see if it remains adequate and is still meeting BLM's needs.

PLANNING ISSUES, CRITERIA, AND MANAGEMENT CONCERNS

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

Planning criteria are the standards, rules, and measures used for data collection and alternative formulation, which have led to the final plan selection. Planning criteria are taken from appropriate laws and regulations, BLM Manuals, 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 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.

The following planning issues and their associated planning criteria were identified for resolution in the Socorro RMP.

— **Issue No. 1 — Land Ownership Adjustments**

To resolve this issue, an answer is needed to the following question:

On which lands should ownership be adjusted (retained, disposed, and/or acquired) to facilitate more efficient management?

The planning criteria for this issue are:

- Public lands will not be disposed of if they provide access to large blocks of other Federal lands, unless access rights for the public can be reserved in the patent.
- Public lands identified for sale must be tracts which are not suitable for management by another Federal department or agency, tracts which are difficult and uneconomical for the BLM to manage, or tracts which would best serve important public objectives through their disposal. Public lands may also be sold if they were acquired for a specific purpose and are

no longer required for that or any other Federal purpose.

- Priority will be given to exchanging public lands identified for disposal for non—Federal lands that have been identified for acquisition to enhance BLM programs.
- Public land will be retained under management by the BLM in the following priority:
  - (1) Public land that has unusual or historic, cultural, mineral, recreational, natural hazard, or scenic value; that represents natural systems or processes; and which has significance and special worth, consequence, meaning, distinctiveness, or cause for concern.
    - o Acquire where possible non—Federal located in special management areas (SMA) that have high resource values or unique characteristics that would enhance management of the public land.
  - (2) Public land located in large blocks which does not require special management but should be retained due to the land ownership pattern and for multiple—use values.
    - o Improve land management potential by consolidating land ownership by exchange of public, State, and private lands. Only those parcels which will enhance overall consolidation of public land will be considered for exchange.
    - o In the retention area, public land will be considered for disposal for needed public purposes demonstrated by State and/or local municipalities, or to resolve unintentional unauthorized occupancy.
      - Public land will be considered for disposal in the following priority:
        - 
        - (1) Entertaining State/private applications for land within the SRA.
        - (2) Public land to accommodate the demonstrated needs expressed by local, County, and State governments or individuals.

(3) Public land where size, location, or other physical characteristics make them difficult or uneconomical for BLM to manage.

(4) Public land which will resolve unintentional unauthorized occupancy.

— Public lands will not be disposed of if it would be contrary to State, County, or local land—use plans or zoning ordinances.

— Public lands will not be disposed of if it would significantly interfere with the development of mineral resources

— **Issue No. 2 — Vegetative Uses**

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

What are the correct levels of vegetative use for livestock, wildlife, and watershed production/protection outside of the area covered by the East Socorro Grazing Environmental Statement (ES) and the West Socorro Rangeland Management Program EIS?

What sites are potentially suitable for land or vegetative treatments throughout the SRA?

The planning criteria for this issue are to:

— Determine whether existing management categories need to be updated on allotments within the East Socorro Grazing ES and the West Socorro Rangeland Management Program EIS areas.

— Establish selective management categories [(M) Maintain, (I) Improve, or (C) Custodial] on the Chupadera Mesa Allotments based on the recent range inventory information and other site—specific criteria.

— Ensure that the proper use level of the vegetation is not exceeded.

— Monitor the Rangeland to evaluate the effectiveness of management actions and determine proper stocking levels.

— Improve or maintain ecological condition and vegetative productivity in the long term (10—20 years).

— Provide for the protection of wildlife habitat and the habitat of sensitive, State listed, and Federally listed threatened or endangered (T&E) plant species.

— Reduce runoff and soil erosion on public land by managing Rangeland resources and allocating vegetation to provide for watershed protection needs.

— Identify changes or additional projects and Rangeland management practices necessary to achieve resource management objectives.

— **Issue No. 3 — Off—Road Vehicle Use**

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

What public lands should be designated as “open, limited, or closed” to off—highway vehicles/off—road vehicles (OHV/ORV) use?

What special use areas should be designated for OHV/ORV use to meet specific user group and general public demand?

What OHV/ORV designations would result in minimum conflict between people and resources and in what areas?

The planning criteria to designate public land as “open”, “limited”, or “closed” to OHV/ORV use are to:

— Resolve conflicts between various users of public lands.

— Identify extreme natural or man—made hazards to human life or property.

— Protect significant cultural, historic, or natural features (i.e., visual resources, watersheds) which may be damaged.

— Eliminate harassment of wildlife or damage to significant wildlife habitat.

— Protect T&E species which may be adversely impacted.

— Ensure wilderness suitability of wilderness study areas (WSAs) are not impaired.

— **Issue No. 4 — Access**

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

What access to public lands should be acquired?

What transportation routes should be constructed, maintained, restricted to public use, or closed and rehabilitated?

The planning criteria for this issue are:

- Identify proposed roads needed for better management of public lands (through activity plans).
- Prioritize and provide public access to those areas of public land having significant resource values for which there is a high demand but insufficient legal or physical access.
- Identify those areas which are sensitive to or not suitable for the construction of new roads.
- Identify those roads which are unneeded and should be closed and rehabilitated for resource protection and public safety.

— **Issue No. 5 — Special Management Areas**

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

What areas and resource values should be identified for special management attention?

How should such areas and resource values be managed?

- Identify those areas that have unusual or historic, cultural, paleontological vegetative, fish and wildlife, mineral, recreational, natural hazard, or scenic values that represent natural systems or processes.

These areas could have greater than local significance consequences, or special local worth, meaning, distinctiveness, or cause for concern and should be managed to protect these values.

— **Issue No. 6 — Wild Horse Management**

To resolve this issue, an answer would be needed for the following question:

What is the best course of action for BLM to take to manage the wild horse herd?

The planning criteria for this issue are:

- Provide cost effective management of the wild horse herd.
- Provide for the maintenance of a healthy viable breeding population with a balanced sex ratio and age class structure.

— **Issue No. 7 — Coal Leasing Suitability Assessment**

To resolve this issue, an answer is need to the following question:

After application of the four land—use planning screens for coal, which lands should be carried forward for further consideration for coal leasing?

The planning criteria for this issue consists of the four coal screens listed below:

- Coal development potential will be used to identify areas acceptable for further consideration for leasing.
- The 20 unsuitability criteria specified by Federal regulations will be applied to identified lands to ensure environmental compatibility.
- Multiple land—use decisions may be made which will eliminate additional coal deposits from further consideration for leasing to protect other resource values of a locally important or unique nature not included in the unsuitability criteria.
- Qualified surface owner information will be used to obtain views on leasing Federal coal located under private surface.

— **Management Concern No. 1 — Fluid Leasing**

The fluid leasing concern was a result of management feeling that there were too many existing lease stipulations and that they were redundant or not serving the purpose for which they were intended.

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

Are the existing special oil, gas, and geothermal leasing stipulations accurate?

What are the proper special oil, gas, and geothermal leasing stipulations for public lands?

The planning criteria for this management concern is to apply special fluid leasing stipulations to public lands where resource values and uses cannot coexist with fluid leasing without more stringent environmental protection.

— **Management Concern No. 2 — Right-of-way Exclusion and Avoidance Areas**

The right-of-way concern evolved as a result of management feeling that existing right-of-way corridors were not adequate to meeting planning objectives.

To resolve the concern, answers are needed to the following question:

Which lands should be avoided and/or excluded for development of rights-of-way?

The planning criteria for this management concern is to:

— Identify areas where rights-of-way will be excluded from development.

— Identify areas where rights-of-way will be restricted by size and type to protect resource values on public lands.

**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 SRA.

**PUBLIC INVOLVEMENT AND INTERGOVERNMENTAL/ INTERAGENCY COORDINATION**

Public participation in the Socorro RMP is a dynamic process occurring throughout the development of the plan and beyond. In addition to formal public participation steps, informal contacts have occurred frequently with public land users, grazing allottees, 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 SRA.

A notice was published in the Federal Register on January 28, 1986, announcing the formal start of the, planning process, which was preceded by informal meetings with the Socorro and Catron County Commissions held on November 7, and December 8, 1985, to discuss planning issues and planning criteria that guided the development of the Draft RMP/EIS.

On February 6, 1986, the SRA published the “Socorro RMP Spotlight,” a newsletter/brochure to inform the public of tentative planning issues and criteria and to invite the public to comment on their concerns. Another “Spotlight” was published on May 28, 1986, to keep the public informed as to the progress of the RMP.

In addition to these mailings, the SRA conducted two public meetings to further discuss the formulation of planning issues and criteria. These meetings, one in Socorro on February 19, 1986, and the other in Quemado

the following day, discussed these issues and criteria and outlined procedures for introducing formal comments and how the (SRA) would respond to specific RMP comments.

The Draft RMP/EIS was filed with the Environmental Protection Agency (EPA) on January 15, 1988. The 90—day comment period began on January 22 and ended April 22, 1988. A notice of availability was published in the Federal Register on January 15, 1988. During the comment period three public meetings were held: March 1 at the SRA Office, March 2 in Albuquerque, and March 3 in Quemado. These meetings were held to give the public an opportunity to ask questions or request clarification regarding the RMP/EIS. Public hearings were held in Quemado on March 23 and Socorro on March 24, 1988, to provide an opportunity for the public to present oral comments. The public was notified about the hearings in the Federal Register, local newspaper, and personal letters.

A total of 32 written comment letters were received during the 90—day comment period. Responses to written comments as well as those made at public hearings were published in the Proposed RMP/Final EIS.

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 threatened or endangered (T&E) species or its habitat. Consultation is required by Section 7 of the Endangered Species Act of 1973. This RMP/EIS is considered a major planning effort, and formal consultation has been completed. Letters of formal consultation are on file in the SRA Office.

The N.M. Department of Game and Fish (NMDG&F) and the N.M. Energy, Minerals and Natural Resources Department have been contacted in regard to State listed T&E wildlife and plant species. This plan is consistent with legislation protecting State listed species. Coordination and consultation with the State will be continued 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 Historical 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 (NMSO) 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. Similarly, the Programmatic Memorandum of Agreement for the protection of cultural resources under the Federal coal management program establishes procedures and focuses on measures that protect the types of sites usually found on Federal land. The SHPO was consulted during the development of the Draft RMP/EIS.

In compliance with Section 8 of the Public Rangeland Improvement Act (PRIA) of 1978, all permittees and lessees in the vegetative use issue area have been contacted to initiate the required consultation, coordination, and cooperation process. Allottees were contacted by letter and informed of the selective management category assigned to the allotment and the implication of this designation. Consultation meetings with allottees were scheduled and held at their requests.

Preplanning efforts for the Socorro RMP included correspondence and informal consultation with livestock grazing permittees.

The notice of availability of the Proposed RMP/Final EIS was published in the Federal Register on September 20, 1988. The document was filed with EPA on September 16, 1988. The Federal Register notice specified a protest period ending October 24, 1988. The document was distributed to participating Federal, State, County, city, and tribal governments as well as many special interest groups and individuals.

One protest was received concerning the location of the Proposed Continental Divide National Science Trail (CDNST) in the northern part of the Resource Area. The protest was reconciled by postponing the designation of a trail route north of Pie Town in the Approved Socorro RMP. Through discussions with U.S. Forest Service, BLM Rio Puerco and Socorro



Area Managers, a recommendation was reached that the various routes will be re—evaluated and public input solicited before a final decision is made.

The Record of Decision was signed by Larry Woodard on January 29, 1989. It was mailed to the public on February 28, 1989, and a notice of the Record of Decision’s availability was published in the Federal Register on March 2, 1989. The Record of Decision approved the proposed decisions as described in the Proposed RMP/Final EIS except for a portion of the Continental Divide National Scenic Trail and one specific land disposal area which will be retained in public ownership should the need for these lands be identified in support of management actions in El Malpais General Management Plan.

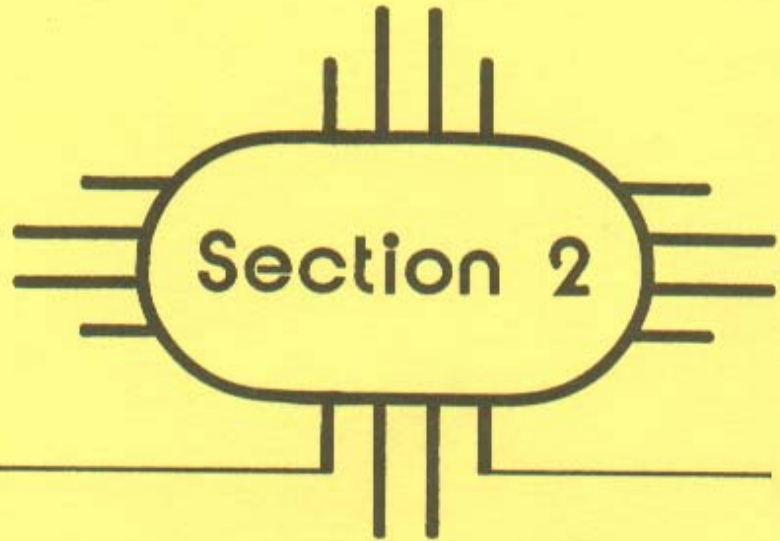
### **CONTINUING PUBLIC PARTICIPATION**

The SRA intends to prepare an RMP summary update each year. The purpose of this summary is to inform the public of the progress made in implementing the RMP. The summary will also describe activity plans to be prepared during the following year so interested members of the public can request copies and comment. The BLM hopes this venture will enable the public to be involved in the specific land management actions resulting from implementation of this RMP.

### **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, policies, 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.

There are no identified inconsistencies between this RMP and officially approved and adopted resource—related plans of other Federal agencies, State and local governments, and Indian tribes.



Section 2

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*Management Program*

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Pen and Ink by Jo Lynn Gutierrez

The outcome of the resource management planning process resulted in decisions and continuing management guidance to resolve the seven planning issues and two management concerns. These decisions and the continuing management guidance direct the land management philosophy for public lands in the Socorro Resource Area (SRA).

### **MANAGEMENT PHILOSOPHY**

The Bureau of Land Management's (BLM) overall management philosophy is to manage under a multiple-use and sustained-yield concept. Special emphasis may be placed on specific requirements for Special Management Areas (SMAs) and Areas of Critical Environmental Concern (ACECs) Land use and rangeland improvements will be thoroughly analyzed to restrict new surface disturbance, reduce resource conflicts and aid in the management of all resources. All proposals will be subject to the National Act (NEPA) process and mitigation of impacts. Environmental Policy especially to the The Land Ownership Adjustment decision is intended to identify public lands to be retained over the long term and pursue consolidation of public lands in the retention areas. Ownership adjustments and acquisitions of nonpublic lands for consolidation purposes may be considered in the retention area. Land acquisition in SMAs and ACECs will be actively pursued. Also, isolated and/or difficult-to-manage parcels of public lands will be disposed of.

The wild horses will be managed to maintain a viable healthy herd. Non local wild horses will occasionally be introduced into the existing herd to maintain an adequate gene pool and to reduce risk of inbreeding.

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 special and sensitive resource values and limit or restrict any development in these areas.

The above land management philosophy led to resolving the seven planning issues and two management concerns. These resolutions are listed as plan decisions for the BLM to implement. These decisions will be the focus of the BLM's accomplishments and effectiveness in resolving the planning issues.

### **PLAN DECISIONS**

The approved BLM decisions to resolve the seven planning issues and the two management concerns are summarized below:

#### **— Issue No. 1 — Land Ownership Adjustments**

Actively pursue consolidated land ownership patterns by acquiring non-BLM lands in acquisition zones, including SMAs, and disposing of isolated, hard-to-manage public lands located throughout the SRA (see Map 2—1).

However, specific public land within the disposal area located in northeast Catron County and northwest Socorro County, described as T. 4 N., R. 9 W. and T. 4 N., R. 8 W. will be retained as needed in support of El Malpais General Management Plan.

#### **— Issue No. 2 — Vegetative Uses**

Implement pertinent management actions on the Chupadera Mesa area to maintain or improve resource conditions. These will be directed toward resolving the minor, isolated problems that exist on some allotments. Vegetative land treatments will also be proposed on the Chupadera Mesa area and East Socorro Environmental Statement (ES) area to benefit livestock, wildlife, and other resources.

#### **— Issue No. 3 — Off-Road Vehicle (ORV) Use**

Complete ORV designation implementation plan (see Map 2—2) according to BLM Manual 8341 by FY 91 and begin monitoring.

The BLM lands in SRA are designated as either "open" or "limited to existing roads and trails", with some closures associated primarily with SMAs and WSAs. Additionally, some "seasonally limited" designations may occur.

Approximately 785,010 acres is designated open, 668,200 acres limited to existing roads and trails, 67,400 acres seasonally limited from November through March, and approximately 36 miles of trails closed to ORV use (see Map 2—2).

An area of approximately 1,170 acres will be managed for intensive ORV use by motorcycles and designated open. These areas have received historical ORV use due to their proximity to Socorro.

Acquire easements as needed.

— **Issue No. 4 — Access**

Actively pursue the acquisition of legal access into presently inaccessible lands and/or areas where only physical access exists and the closure and rehabilitation of existing undesirable vehicle routes (see Map 2—3).

— **Issue No. 5 — Special Management Areas**

Strive to achieve the land allocation management goal stated for each SMA (see Map 2—4) and the management objectives identified in future activity plans.

However, that portion of the Continental Divide National Scenic Trail (CDNST) SMA from Pie Town north to the SPA boundary has been suspended pending future additional analyses.

Implement the management actions for each SMA. Complete ACEC implementation plans by FY 91.

— **Issue No. 6 — Wild Horse Management**

Manage the wild horse herd at an average of 50 horses and introduce outside stock to maintain a viable healthy herd (See Map 2—5). Update the existing Herd Management Plan to reflect changes and management actions needed to meet the above objective.

— **Issue No. 7 — Coal Leasing —Suitability Assessment**

Carry forward 31,640 acres for further consideration for leasing (See Map 2—6).

—**Management Concern No. 1 — Fluid Leasing**

Implement the revised fluid leasing stipulations on all future fluid mineral leases (see Map 2—7).

— **Management Concern No. 2 — Right—of—Way Exclusion and Avoidance Areas**

Commence implementation of the 15,000 acres of exclusion and 383,752 acres of avoidance areas for all future rights—of—way (see Map 2—8).

**RESOURCE PROGRAMS**

This section discusses the objectives, descriptions, and applicable land-use allocations by resource. The program objective describes the mission and direction for program management. The program description identifies the major laws, regulations and policies, the existing resource, and general program decisions and stipulations. Land—use allocation decisions are listed by program as needed for resolution.

MINERALS

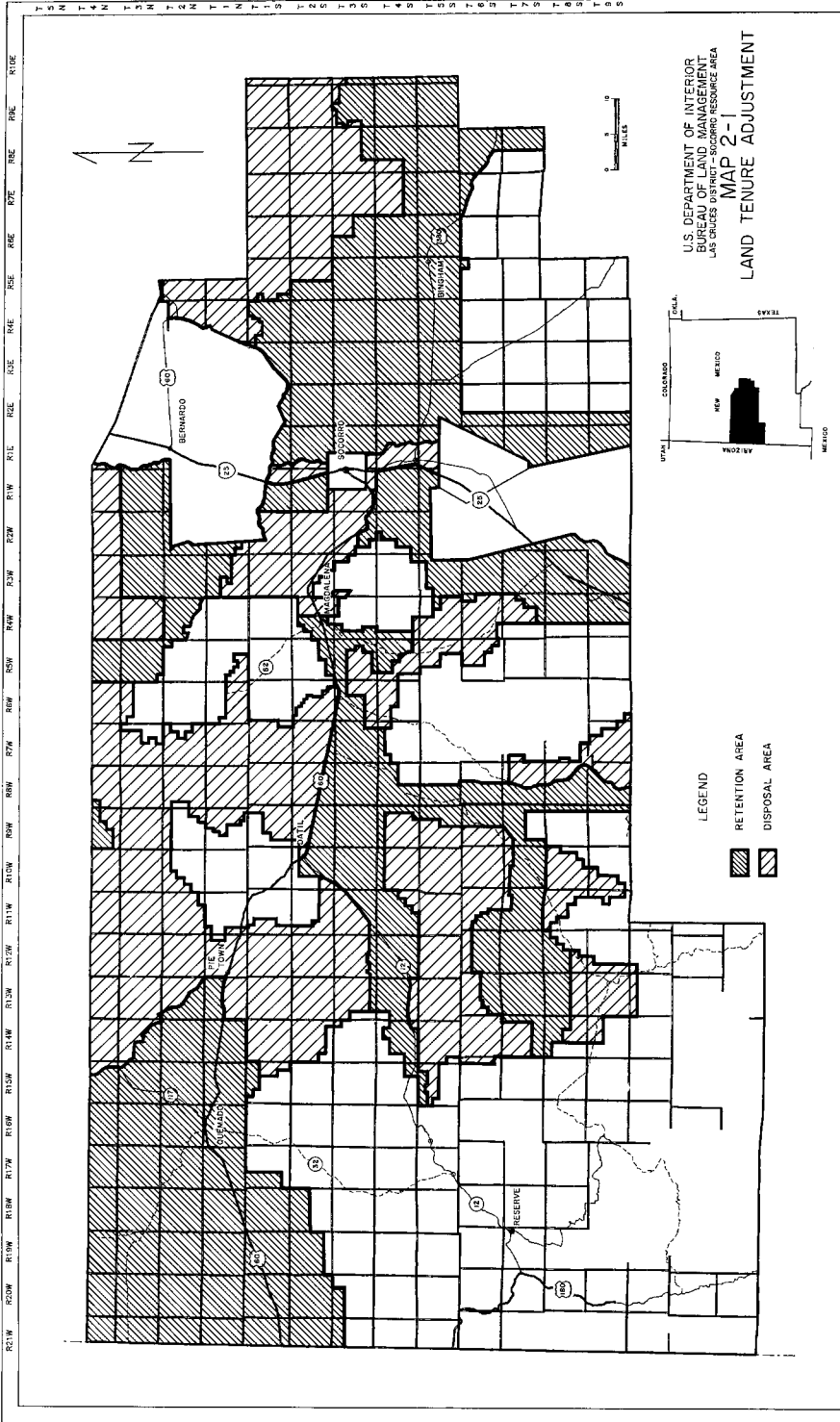
Objective

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

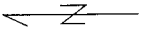
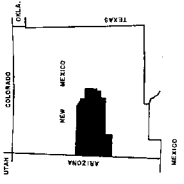
Minerals management in the SRA involves a varied assemblage of mineral resources. Existing activities include oil and gas exploration, coal exploration, development and extraction of sand, gravel, decorative stone (flagstone) and riprap material, perlite mining, and some precious metals production. Additionally, an area in the vicinity of Socorro Peak has been designated as a Known Geothermal Resource Area (KGPA).

The policy of the BLM is to make mineral resources available in accordance with the objectives of the Mining and Minerals Policy



U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA  
**MAP 2-1**  
**LAND TENURE ADJUSTMENT**

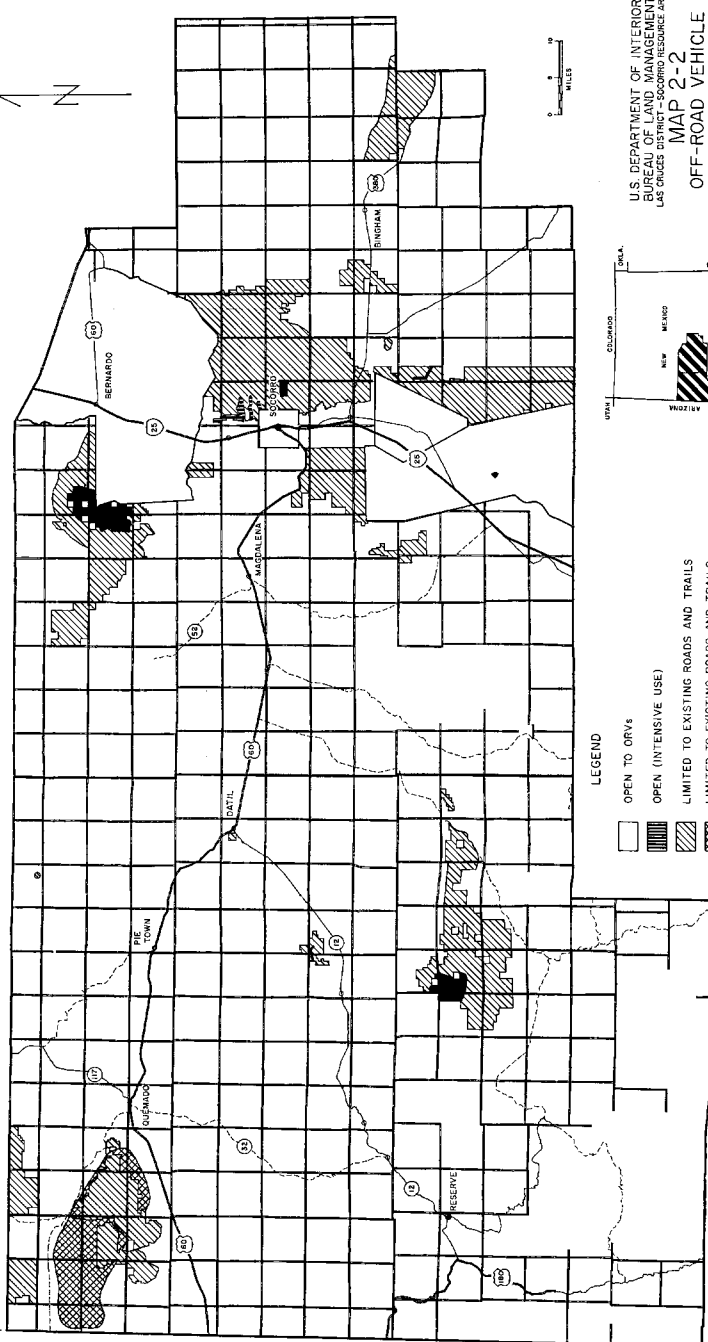
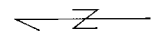
LEGEND  
 RETENTION AREA  
 DISPOSAL AREA








R100W R99W R98W R97W R96W R95W R94W R93W R92W R91W R90W R89W R88W R87W R86W R85W R84W R83W R82W R81W R80W R79W R78W R77W R76W R75W R74W R73W R72W R71W R70W R69W R68W R67W R66W R65W R64W R63W R62W R61W R60W R59W R58W R57W R56W R55W R54W R53W R52W R51W R50W R49W R48W R47W R46W R45W R44W R43W R42W R41W R40W R39W R38W R37W R36W R35W R34W R33W R32W R31W R30W R29W R28W R27W R26W R25W R24W R23W R22W R21W R20W R19W R18W R17W R16W R15W R14W R13W R12W R11W R10W R9W R8W R7W R6W R5W R4W R3W R2W R1W R0W

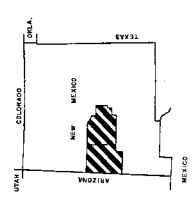
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T1S T2S T3S T4S T5S T6S T7S T8S T9S T10S T11S T12S T13S T14S T15S T16S T17S T18S T19S T20S T21S T22S T23S T24S T25S T26S T27S T28S T29S T30S T31S T32S T33S T34S T35S T36S T37S T38S T39S T40S T41S T42S T43S T44S T45S T46S T47S T48S T49S T50S T51S T52S T53S T54S T55S T56S T57S T58S T59S T60S T61S T62S T63S T64S T65S T66S T67S T68S T69S T70S T71S T72S T73S T74S T75S T76S T77S T78S T79S T80S T81S T82S T83S T84S T85S T86S T87S T88S T89S T90S T91S T92S T93S T94S T95S T96S T97S T98S T99S T100S

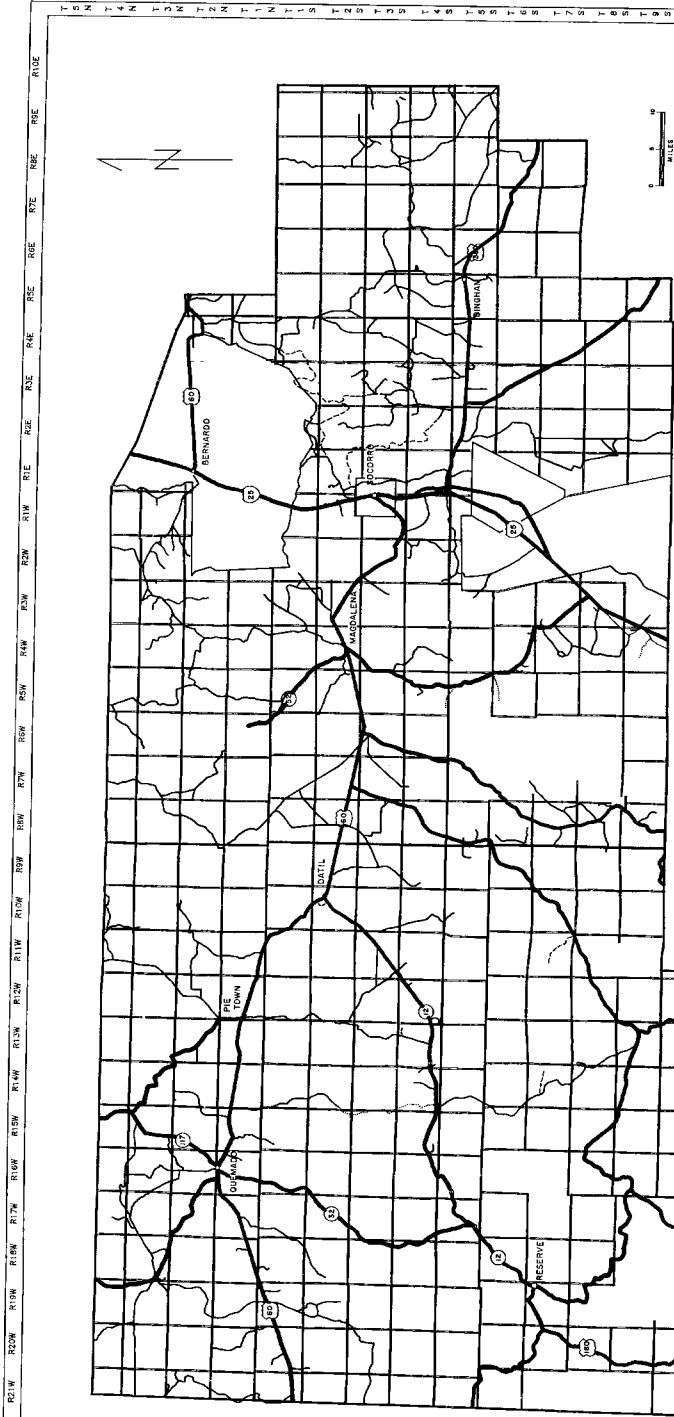


LEGEND

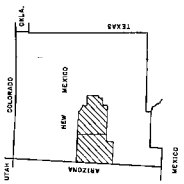
-  OPEN TO ORVs
-  OPEN (INTENSIVE USE)
-  LIMITED TO EXISTING ROADS AND TRAILS
-  LIMITED TO EXISTING ROADS AND TRAILS  
(November 1 - March 31)
-  CLOSED TO ORVs



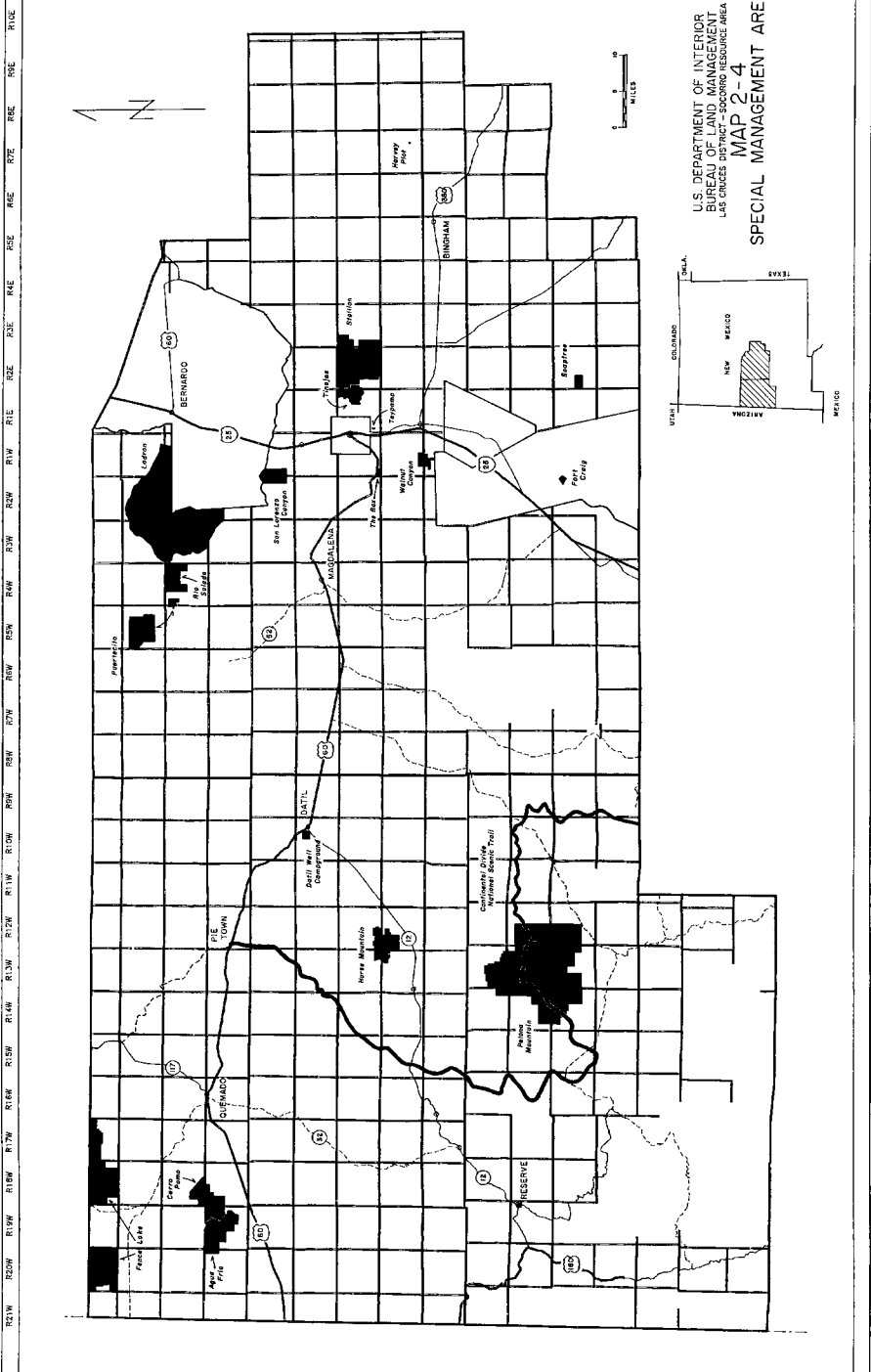
U.S. DEPARTMENT OF INTERIOR  
BUREAU OF LAND MANAGEMENT  
LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA  
**MAP 2-2**  
OFF-ROAD VEHICLE  
DESIGNATIONS



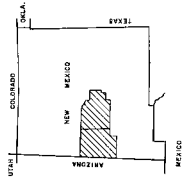
U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT-SCORPION RESOURCE AREA  
**MAP 2-3**  
 EXISTING LEGAL ACCESS



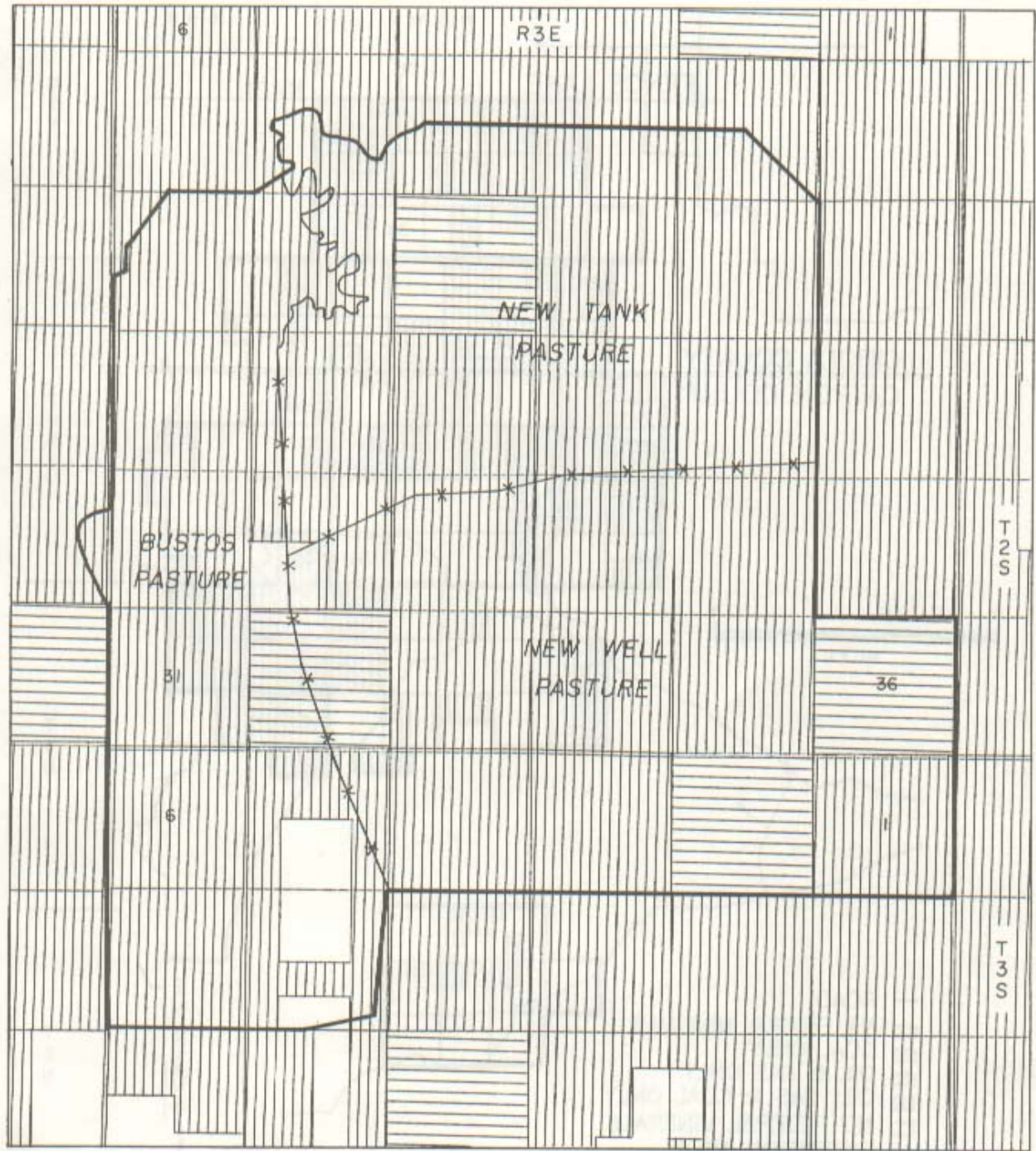
- LEGEND**
- STATE AND FEDERAL HIGHWAYS
  - COUNTY ROADS
  - - - BLM ROADS
  - ..... FOREST SERVICE ROADS



U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA  
**MAP 2-4**  
 SPECIAL MANAGEMENT AREAS







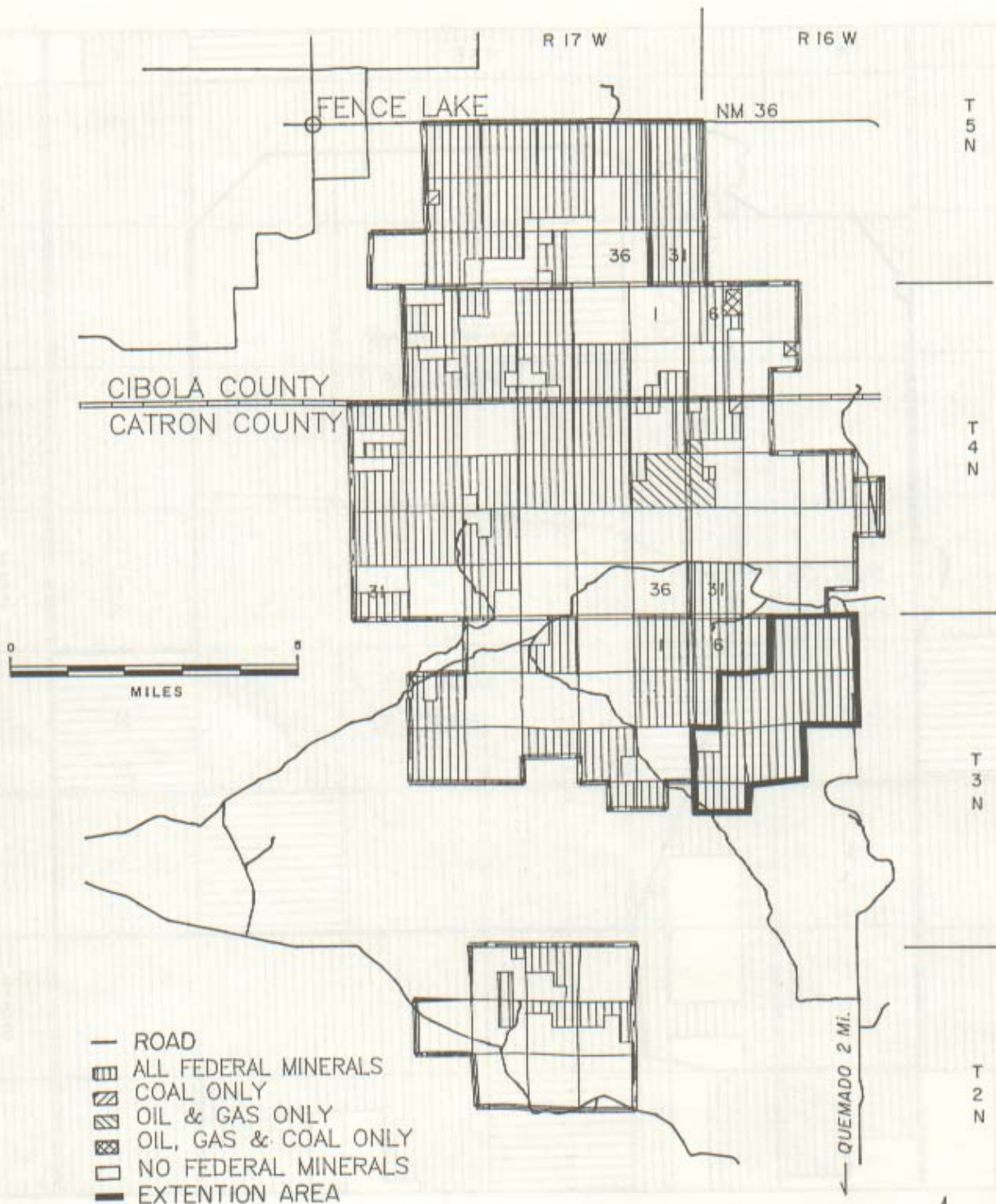
U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

**MAP 2-5**

**BORDO ATRAVESADO  
 WILD HORSE MANAGEMENT AREA**

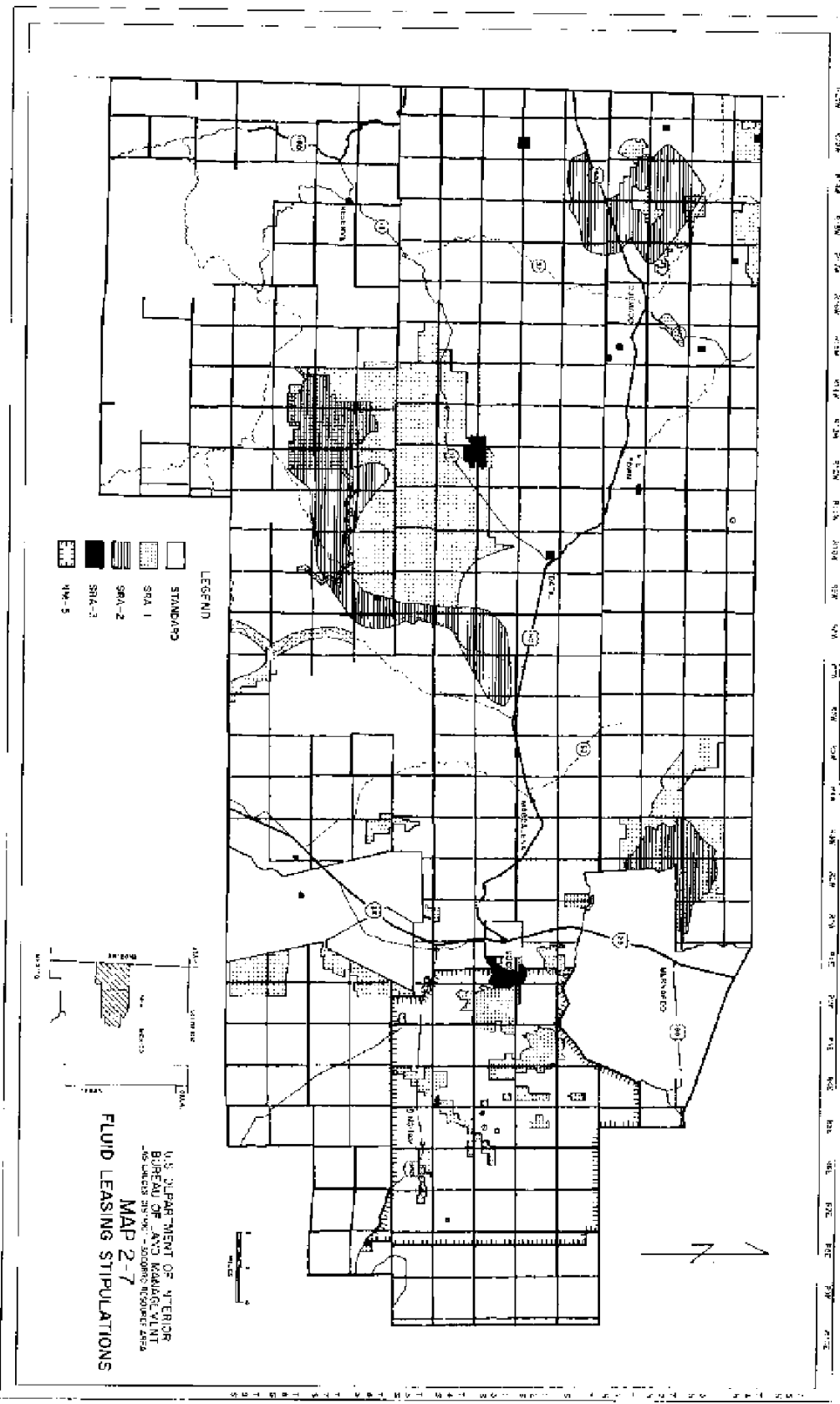
- LEGEND
-  PUBLIC LAND
  -  STATE LAND
  -  PRIVATE LAND

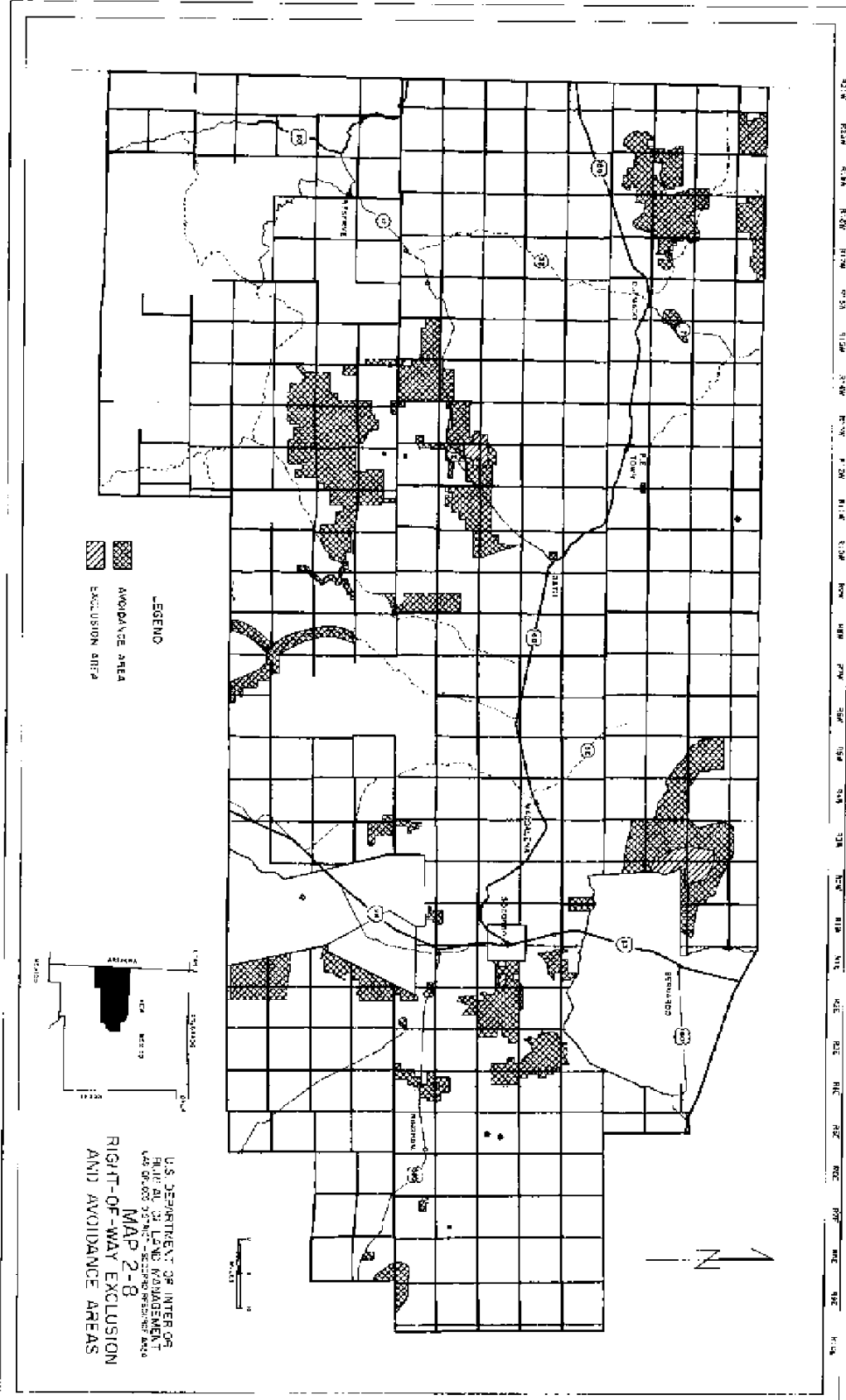




U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

MAP 2-6  
 SAN AUGUSTINE COAL AREA  
 MAXIMUM COAL DEVELOPMENT POTENTIAL AREA  
 FEDERAL MINERAL ESTATE





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 assuring that mineral development is carried out in a manner which minimizes environmental damage and provides for the rehabilitation of affected lands. Most of the public lands in the SRA are available for mineral entry, except where restricted by withdrawals for military, flood control, conservation, or other specific purposes.

#### Leasable Minerals

##### Oil and Gas

The SRA has the responsibility for permitting, inspecting, and enforcing Notices of Intent (NOIs) for geophysical exploration work. The SRA also executes surface management responsibilities associated with permits to drill. The Roswell District is responsible for executing all technical work concerning monitoring “down hole” activities such as protecting aquifers, preventing blowouts, and collecting electrical logs. In the event of petroleum production, the SRA 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.

As a general rule, all public land not managed under the BLM Wilderness Management Policy [United States Department of Interior (USD1), BLM 1982], Interim Management Policy and Guidelines for Lands Under Wilderness Review (USD1, BLM 1983), or where prohibited by other regulations, laws, or stipulations, are available for oil and gas exploration, leasing, and development. In certain areas, oil and gas leases are issued with only standard stipulations attached. In other areas, leases may have special stipulations attached at the time of issuance to protect sensitive resource values. In highly sensitive areas, the “no surface occupancy” stipulation is attached to leases. Site—specific decisions regarding lease issuance and the attachment of appropriate stipulations will be based on the following special fluid leasing stipulations.

Projections of the intensity of future oil and gas exploration is speculative at best. Size estimates associated with operations and facilities are more reliable. Although no current production exists, it is assumed that production from relatively unexplored basins is possible within the life of the plan.

Geophysical surveys generally precede oil and gas exploration drilling and often necessitate construction of temporary trails or substantial improvements to existing roads. Generally all efforts are made to follow existing roads in the rough country which typifies much of the SRA. Annually it is estimated that there are 5 to 50 miles of linear seismic surveys. New road construction would involve approximately 2 acres of surface per mile of seismic line. Reclamation may be required if activities are not on existing roads and recovery does not occur within 1 year after completion.

On the average, approximately one wildcat oil and gas exploration well has been drilled per year since 1920; approximately half of the wells were located on Federal minerals. Drilling intensity has ranged from only two wells in 10 years during the depression in the 1930’s to 16 wells in 10 years during the oil embargo of the 1970’s. The level of future activity depends primarily on economic stability, foreign supplies, demand, and technologic innovation. It is estimated that one to three wildcat exploration wells will be drilled each year which will involve 3 to 15 acres of surface resources. It is assumed that there will be a higher rate of drilling due to new industry interest in a relatively unexplored basin in central Catron County. It is also assumed that approximately 3 miles of roads will be necessary for each exploration well. These roads will cover approximately 10 to 30 acres of surface estate per year.

If oil and gas production occurs during the life of the plan, it is anticipated that it will be in areas of at least moderate potential and most likely in the relatively untested basins in central Catron County.

Under the most optimistic scenario for development, it is assumed that 30 percent of the low to moderate potential area of Catron County will be developed into an oil and/or gas field. Maximum development will result in one to four gas wells and/or up to 16 oil wells per section. This will disturb 25 to 100 acres of surface resources per section. Assuming that one—third of the development occurs on BLM—administered mineral estate, it is estimated that 12,000 to 50,000 acres of surface resources will be disturbed if a new petroleum province is discovered and maximum development is achieved. Development of this magnitude will assumably result in the production of approximately 10,000,000 barrels of oil and 75,000,000,000 cubic feet of gas annually, once full development is achieved. Production of this level could continue for up to 25 years. This estimate is based on the assumption that Federally—managed producing reservoirs will be similar to that of the southeastern portion of New Mexico and will host approximately one—sixth of the resources.

Fluid Leasing Stipulations  
(Consolidated)

SRA—1: The lessee is given notice that: (a) all or part of the lease area contains special values, (b) is needed for special purposes, or (c) requires special attention to prevent damage to surface resources. Any surface use or occupancy within such areas will be strictly controlled. Use or occupancy will be authorized only when the lessee/operator demonstrates that the area is essential for operations and when the lessee/operator submits a surface use and operations plan which is satisfactory to the BLM for the Protection of these special values and existing or planned uses. Appropriate modifications to the imposed restrictions will be made for the maintenance and operation of producing oil and gas wells.

After the BLM has been advised of the proposed surface use or occupancy of these lands, and on request of the lessee/operator, the BLM will furnish further data on such areas. (insert legal descriptions)

Reason(s) for Restriction: (choose one or more)

- A. Minimize damage to watersheds having critical erosion potential.
- B. Prevent damage to cultural resources.
- C. Class I and II visual resource areas.
- D. Threatened or Endangered (T&E) species habitat.
- E. Riparian Habitat.
- F. Other resource values.

Duration of Restriction: (identify time frame for the restriction)

SRA-2: In order to (choose from A or B below), surface disturbing activities will be allowed only during the period (time period). Exceptions to this limitation in any year may be specifically authorized in writing by the authorized office of the BLM. Lands within the leased area to which this stipulation applies are described as follows: (insert legal descriptions)

- A. Minimize disruption of critical seasonal wildlife habitat (\*Type of Habitat).

\*Type of Habitat

- 1. Antelope fawning ground.
- 2. Bald eagle wintering area.
- 3. Elk calving ground.
- 4. Other habitat as required.

- B. Minimize undue or unnecessary surface degradation due to use under seasonal adverse weather conditions.

SRA-3: No occupancy or other activity on the surface of the following described lands is allowed in order to protect: (see below) (insert legal descriptions)

- A. Ecological study plots.
- B. Demonstrative areas.
- C. Cultural resources.
- D. Other resource values.

NM—5: All or portions of the land contained in this lease are located within the White Sands Missile Range (WSMR) Safety Evacuation Area and shall be evacuated on those days that

missiles are to be fired. Prior to beginning exploration activities, the lessee shall contact the Corps of Engineers in Albuquerque and the Master Planning Branch at WSMR in order to be advised of the terms of the safety evacuation agreement and missile firing schedules.

#### Coal

Although no Federal coal leases exist within the SRA at the present time, two companies (Dorado Energy and Salt River Project (SRP)] and the New Mexico Bureau of Mines and Mineral Resources (NMBMMR) have recently participated in exploring the Federal coal resources under separate exploration licenses. The SRP of Phoenix, Arizona has initiated development of a coal mine on State and private land that could reasonably extend onto Federal land. In October 1988, the SRP submitted a lease application for 52 million tons of Federal coal on 6,802 acres within the 31,640 acres carried forward in the proposed RMP for further lease consideration. The Bureau determined that an EIS would be needed, and Dames and Moore was selected as a third-party contractor to prepare the document. A preparation plan for the Fence Lake Project EIS was developed and approved in January 1989. Scoping meetings were held in the towns of Quemado, Reserve, Zuni, St. Johns, and Albuquerque during January and February of 1989. Work on the preliminary draft of the EIS is currently underway. This is consistent with the RMP coal leasing decisions. Due to the recent expression of interest, exploration activity, and the actions taken by SRP, future coal leasing on Federal lands is highly probable within the time frame of this Resource Management Plan (RMP). The Draft San Augustine Coal Area (SACA) Management Framework Plan Amendment! Environmental Assessment (MFPA/EA), written in 1984, and Appendix F provide a detailed analysis of coal resources and potential impacts of coal leasing.

It is anticipated that two to four coal exploration licenses will be issued over the next 20 years (the anticipated life of this plan). Each exploration license will average about 30 drill holes; each drill hole will involve an estimated one-half to one acre. The total surface area affected is estimated at 15 to 30 acres per year.

#### Geothermal

Geothermal resources are managed in a manner similar to oil and gas. The Socorro Peak area has been designated a KGRA. All lands within KGRAs are open to competitive geothermal leasing. Other areas in the SRA are available for noncompetitive geothermal leasing. All fluid leasing stipulations.

Although there is good evidence of substantial geothermal resources on land managed by the BLM within the SRA, there is a current lack of interest. No shallow high temperature resources (100 degrees i-Centigrade) have been discovered to date. Geophysical information indicates the presence of substantial geothermal resources at depths of 1 to 2 miles and greater. It is not expected that any substantial development of shallow resources will occur during the life of the plan. Deep testing of higher temperature sources may occur if energy supplies are restricted or if there are significant technologic advancements in geothermal development. It is assumed that less than five deep wells will occur in areas of moderate to high geothermal potential during the life of the plan.

It is anticipated that this will involve less than 40 acres of surface estate over the life of the plan. Smaller shallow testing programs may occur, but these exploration efforts will be minimal.

#### Other Leasable Minerals

There is no other leasing activity going on in the SRA other than that previously noted; however, lands are open to other types of leasing subject to site-specific, case-by-case analysis.

#### Locatable Minerals

The primary locatable minerals in the SRA are gold, silver, manganese, perlite, uranium, copper, lead, zinc, iron, tin, barite, fluorite, vanadium, rare earth elements and niobium. All the land in the SRA is open to

mineral entry except where otherwise restricted by law and policy (wilderness study areas, military land withdrawals, etc.). The SRA's primary responsibilities in this program include completing validity examinations for patent or BLM actions, and review and inspection of notices or plans filed under the 43 Code of Federal Regulations (CFR) 3802 or 43 CFR 3809.

#### Saleable Minerals

#### Material Sales

Federal lands are one of the major sources of common variety materials for road repair, Rio Grande flood control projects, and other Federal, State, County, and public projects; therefore, there is an ongoing demand for these variety materials which constitutes a major workload in the SRA. Regulations directing this program are in 43 CFR 3600 and will be followed when dealing with this program.

If current demand remains constant, then based on the last 10—years production figures, the SRA will produce 100,000 to 200,000 finished cubic yards of sand, gravel, and riprap per year. Although not all are active at the same time, the SRA has about 15 to 20 pits on which it issues permits. These pits average about 1/2 to 1 1/2 acres of surface disturbance per entry for a total of 8 to 30 acres per year surface disturbance. Usually five new pits are developed annually to meet shortest haul route requirements and about five pits are abandoned.

#### Indian Land Responsibilities

The BLM works in cooperation, via Memorandum of Understanding (MOU), with the Bureau of Indian Affairs (BIA) and the Indian tribes on Indian—allotted lands and reservation lands. The BLM has responsibility under 25 CFR for inspection of mineral leases and enforcement of mineral lease terms and conditions on Indian lands (on Indian lands all minerals are leasable). Surface protection for the oil and gas program is accomplished with BIA and/or tribal concurrence. No mineral activity has occurred on the Indian lands in the SRA to date.

#### Land—Use Allocations

Specific land—use allocations were not identified for this resource.

#### RANGE LAND

#### Objective

The objective of the SRA Rangeland Management Program is to manage the rangelands in an efficient manner by providing effective management to those allotments where it is needed most to maintain, improve, and monitor the range conditions.

#### Description

The livestock grazing program in the SRA is authorized by the Taylor Grazing Act of 1934, the Federal Land Policy and Management Act (FLPMA), and the Public Rangelands Improvement Act (PRIA) of 1978. These laws direct the BLM in its responsibility to authorize and manage the livestock grazing use under the principles of multiple use and sustained yield and to prevent the degradation of the rangeland resource by providing for orderly use, improvement, and development.

Further guidance is provided by other laws, such as the NEPA of 1969, policy, manuals, regulations, and handbooks. The NEPA directed Federal agencies to assess the impacts of their programs and actions on the human environment. As a result of litigation brought about by the Natural Resources Defense Council (NRDC), the BLM was directed to write site—specific EIS's for livestock grazing.

The SRA has complied with this requirement, completing three scheduled grazing EIS's. These are the East Socorro Grazing ES, finalized in 1979; the West Socorro Rangeland Management Program, finalized in 1980; and the analysis on the Chupadera Mesa area which was incorporated into the Proposed RMP/Final EIS, finalized in 1988.

#### Chupadera Mesa

The program for accomplishing the desired management goals and objectives for Chupadera Mesa area will involve implementing some of



the various management actions and techniques mentioned in the following sections. These management actions and techniques apply in general to the SRA as a whole. However, specific mention is also made under certain sections as it applies to Chupadera Mesa area.

### Livestock Operations

The SRA authorizes livestock grazing on 274 grazing allotments, with a total grazing preference of 231,910 Animal Unit Months (AUMs) of use on approximately 1.5 million acres of public land.

Under Section 3 of the Taylor Grazing Act of 1934, 208 allotments are permitted, and under Section 15 of the Act, 66 are leased. There are 215 permittees and lessees grazing livestock on these allotments.

### Kind of Livestock and Type of Operation

Allotments vary in the amount of public land they contain, ranging from 20 acres with a grazing preference of 6 AUMs, to 79,285 acres with a grazing preference of 8,536 AUMs.

Cattle and horses are authorized to graze on public lands in the SRA. The majority of the allottees run a cow/calf operation. Calving generally occurs in February, with shipping taking place from October to November. At times heifers are held over as replacement stock.

Some allottees run a yearling operation. Yearlings are purchased either locally or out-of-state. The period of use is generally from May 1 to November 1.

### Selective Management Categorization

All allotments have been placed into one of three management categories based upon the categorization criteria shown in Appendix C, Table C—1. The allotments are prioritized within each management category based on similar resource characteristics, management needs, and resource and economic potential. Allotments may be recategorized as additional resource information becomes available. Changes will be documented in the Rangeland Program Summary (RPS) published annually. Present allotment status and category are shown in Appendix C, Table C—2.

The three selective management categories are: Maintain (M), Improve (I), and Custodial (C). Presently there are 48 “I” allotments, 220 “M” allotments, and 6 “C” allotments. The “M” category allotments will be managed to maintain the current satisfactory condition. The “I” category allotments will be managed intensively to improve unsatisfactory condition and resolve resource conflicts. The “C” category allotments will be managed to prevent resource degradation. They have a low potential for improved ecological condition, improvement is not economically feasible, and/or current management is satisfactory, considering the current resource conditions.

### Chupadera Mesa

All twelve allotments within Chupadera Mesa area have been placed in the “M” category. The current range condition and management are satisfactory and there are no known resource conflicts. Isolated problems do occur on some allotments, but are minor and confined to a pasture. The current resource conditions for Chupadera Mesa area are shown in Appendix C, Table C—3.

### Monitoring Studies

Monitoring studies have been established on all allotments in the SRA. Data such as actual livestock use, utilization of forage species, climatic data, and rangeland ecological condition and trend will be collected from these studies. The intensity and frequency of monitoring data collection will vary by management category. Minimum monitoring levels are shown in Appendix C, Table C—1, under the categorization criteria. Allotments in the “I” category are monitored at a greater intensity than the allotments in categories “M” and “C”.

### Allotment Management Plans (AMP)

AMPs will be developed to resolve identified resource problems or conflicts. However, the level of intensity and the suggested

management actions for each AMP will vary depending on the problems encountered and the objectives outlined for the allotment. Management actions may include proper placement of rangeland improvements, distribution of livestock, kind and class of livestock, salting, grazing systems, and vegetative land treatments. These plans will be prepared in accordance with Section 8 of PRIA, in “careful and considered, consultation, cooperation, and coordination” with affected allottees and other interested parties (target group). Involvement of the target group will be at the request of the allottee. The target group consists of landowners, such as the State Land Commissioner or other lessors, New Mexico Department of Agriculture, Las Cruces District Grazing Advisory Board, New Mexico Department of Game and Fish (NMDG&F), Range Improvement Task Force, Soil Conservation Service (SCS), and the U.S. Forest Service (FS).

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

#### Chupadera Mesa

New AMPs may be developed on seven allotments in the Chupadera Mesa area. Specific management actions and the level of intensity will depend on the objectives and problems that are identified. The suggested management actions will be designed to minimize or reduce the existing minor problems of uneven livestock distribution, weed control, and shortage of permanent water. Appendix C, Table C—4 shows the recommended management actions for Chupadera Mesa allotments.

The “I” category allotments will receive first priority for AMP development. AMP development on “M” and Custodial (“C”) category allotments will be considered if additional information indicates problems or potential for improvement. The “I” category allotments identified for AMP development will be prioritized throughout the SRA.

#### Livestock Use Adjustments

Adjustments are made by changing one or more of the following: the kind and class of livestock grazing on an allotment, the season of use, number of livestock, and/or the pattern of grazing. Adjustments in stocking levels or other management practices will be based on monitoring studies and through consultation with the allottee.

Long—term increases in vegetation will be allocated to wildlife, watershed, and livestock. The allocations will usually be 50 percent to wildlife/watershed and 50 percent to livestock. On “I” category allotments that contain crucial wildlife habitat and/or critical watershed, the allocation may be greater than 50 percent for wildlife and watershed. Where forage increases occur on allotments with no resource problems or conflicts, the allocation of forage to livestock may be greater than 50 percent. Each case will be handled individually and be based on site—specific analysis and conform to the multiple—use objectives of the RMP.

#### Rangeland Improvements

All new rangeland improvements and vegetative land treatments will be required to meet current BLM policy and objectives of the RMP. They will be completed in accordance with priorities established through benefit/cost analysis and meet design specifications and standard operating procedures.

First priority for funding new rangeland improvements will be given to those allotments in the “I” category, followed by “M” and “C” categories. Contributions for rangeland improvement work in the form of labor, material, equipment, and/or money will be encouraged, and will be a factor in determining priority ranking for allocating funds.

Vegetative land treatments will be conducted to control the growth and spread of undesirable vegetation or to increase the abundance of desirable vegetation. Areas

which are potentially suitable for treatment have been identified throughout the SRA. These are considered as target figures. Refinement of the areas will occur during site-specific analysis. All projects will be consistent with multiple-use objectives.

Chupadera Mesa

Estimated rangeland improvements needed to implement the program for the Chupadera Mesa area include 23 miles of pipeline, 29 miles of fence, 1 well, 1,400 acres of vegetation manipulation through burning and mechanical treatment, and 2,770 acres of brush control through chemical treatment. These are estimated figures since actual figures will not be available until specific activity plans are developed. Some of the recommended rangeland improvements are shown in Appendix C, Table C-4.

Land—Use Allocations

Sawtooth ACEC (Section 5) — Develop management plan and implement management actions.

San Pedro ACEC (Section 5)—Develop management plan and implement management actions.

Ladron, Pelona, and Horse Mountain SMAs (Section 5) — Close to domestic sheep and goats.

Fort Craig, Teypama, Playa Pueblos, and Mogollon Pueblo SMAs (Section 5) — Close to livestock grazing.

WILD HORSES

Objective

The objective of the Wild Horse Program is to manage the wild horse herd at an average of 50 horses and introduce outside stock to maintain a viable healthy herd. The existing Wild Horse Herd Management Area Plan (HMAP) will be updated to reflect the changes and management actions needed to meet the objectives.

Description

The Bordo Atravesado Wild Horse Management Area (WHMA) is located approximately 15 air miles east of Socorro. The size of the area including land status are shown on Table 2-1 and Map 2-5.

TABLE 2—1  
LAND STATUS/ACRES  
FOR BORDO ATRAVESADO WHMA

<u>Land Status</u>	<u>Acres</u>
Public	16,493
Private	548
<u>State</u>	<u>2,565</u>
<u>Total</u>	<u>19,606</u>

An HMAP was developed in 1980 and revised in 1983 in accordance with the Wild Free—Roaming Horse and Burro Act of 1971. It specified that the population level of the herd would average 32 head. Excess numbers were to be removed for adoption.

Under the RMP, wild horse herd numbers will be allowed to increase to 50 head and managed over the long term at this level. The excess numbers will be rounded up and removed. Selective removal of wild horses will be initiated to leave better breeding stock. Wild horses with good conformation and breeding characteristics will be introduced to the herd. This will decrease the effect from inbreeding by improving the genetic diversity of the herd.

No mention is made in the present HMAP to introduce outside, superior stock to improve the herd.

Approximately every 2 to 3 years, wild horses on the Bordo Atravesado WHMA will be inventoried, then rounded up and captured to remove the excess horses and maintain the average designated stocking level. It will be during these times that the outside stock will be introduced into the WHMA. The outside stock will be transported from nearby wild horse holding facilities.

The existing HMAP will be revised to reflect the changes specified by the plan and determine management actions necessary to meet objectives.

## Monitoring

Studies will be conducted within the WHMA on a 2 to 3 year cycle, depending on the size of the herd, to monitor forage condition, population characteristics of the herd, and vigor of the individuals. The types of studies include: 1) habitat studies—such as utilization, trend, actual use (livestock within the WHMA), and precipitation; and 2) animal studies—such as age, class structure, sex ratio, and disease detection. Periodic counts by aircraft will determine population levels and productivity.

## Capture and Removal

Wild horses will be rounded up and captured to remove excess horses and maintain the stocking level identified in the RMP.

Several capture methods have been used by the BLM—these include roping, round-up and trapping by horseback and helicopter, immobilization, dry trapping, and baiting and water trapping (Wild Horse Trapping Techniques). Two sites are used for the capture and holding of wild horses—the wild horse corrals and the allottees corrals.

The captured excess horses will be transported to the closest distribution center for adoption and examined by a veterinarian to determine age and signs of disease.

### Land—Use Allocations

Specific land—use allocations were not identified for this resource.

## LANDS

### Objective

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

## Description

The BLM SRA administers approximately 1,520,610 acres of public land in Socorro and Catron Counties, located in the west—central portion of New Mexico. Public land within these two counties comprises about 17.41 percent of the total surface acres and about 62.45 percent of the mineral estate (Table 2—2). Existing land ownership patterns within the SRA are shown on the visual in the back map pocket. Catron County, which borders Arizona to the west, has one of the highest percentages of Federal lands of any county in the State. The BLM administers 591,540 acres of public land and the FS administers 2,192,850 acres of forest land, totaling approximately 49 percent of the total surface acres within Catron County. The public land within Catron County is generally located in two well—blocked areas. The land just west of Quemado to the Arizona border comprises the highest density of public land within the county, with the next largest block being located in the Pelona Mountain area contiguous to the Gila National Forest in southwestern Catron County. Public land is in a checker—boarded land pattern in northeastern Catron County, which extends easterly into the northwestern portion of Socorro County. This geographic location, known as the Puertecito area has historically caused the BLM numerous management problems due largely to the fragmented land pattern and inadequate access into the area.

State land within Catron County is well blocked in the Luera Peak area south and east of the Plains of San Augustine and in the northwestern portion of the county near the Zuni Salt Lake. Smaller concentrations of State land exist near the intersection of State roads 78 and 61 just south of Pelona Mountain and again just west of Pelona Mountain south of Old Horse Springs. Major vicinities of private land holdings occur in the Plains of San Augustine, the Allegre Mountain Area, and north of Pie Town to the Cibola County line.

TABLE 2-2  
LAND STATUS (IN ACRES)

	SOCORRO	CATRON	TOTAL	% TOTAL
<b>SURFACE ESTATE</b>				
Landholder/Managers				
BLM	926,070	591,540	1,520,610	17.41
Forest Service	614,010	2,192,850	2,806,860	32.14
Park Service	370	520	890	0.01
Bureau of Reclamation	2,120	-0-	2,120	0.03
U.S. Fish & Wildlife Service	328,260	-0-	328,260	3.76
Military Withdrawal	428,710	-0-	428,710	4.91
Indian	64,300	620	64,920	.74
State	540,110	503,310	1,043,420	11.95
Private	1,385,940	1,150,530	2,536,470	29.05
<b>TOTAL</b>	<b>4,292,890</b>	<b>4,439,370</b>	<b>8,732,260</b>	<b>100.00</b>
<b>MINERAL ESTATE</b>				
BLM Administered*				
All Minerals	1,388,260	846,180	2,234,440	25.59
Coal Only	22,650	730	23,380	.27
Oil, Gas and Coal Only	40	1,650	1,690	.02
Oil and Gas Only	12,540	19,020	31,560	.36
Other	3,060	11,000	14,060	.16
USFS Administered				
All Minerals	612,220	2,178,010	2,790,230	31.95
WSMR Administered (excluded from development)	428,710	-0-	428,710	4.91
No Federal Minerals	1,825,410	1,382,780	3,208,190	36.74
<b>TOTAL</b>	<b>4,292,890</b>	<b>4,439,370</b>	<b>8,732,260</b>	<b>100.00</b>

\* The following categories represent common Federal reservations under various land actions.

Socorro County lies directly to the east and is quite similar to neighboring Catron County in that a large portion of the County's land, 54 percent, is Federally owned. The BLM SRA administers 926,070 acres of public land in Socorro County, which is nearly twice that of Catron County, making the BLM the largest single land manager within Socorro County. Federal land in Socorro County other than that administered by the BLM includes an administrative withdrawal (located in the southeastern portion of the County, for the Department of the Army, WSMR), Cibola National Forest (located in the western half of the County), the Sevilleta National Wildlife Refuge (located in the north—central portion of the County), and the Bosque del Apache National Wildlife Refuge (located in the central part of the County along the Rio Grande). A substantial amount of private land is found in Socorro County with large land grants, which generally include the lowlands of the Rio Grande Valley.

Public lands within Socorro County are fairly well—blocked with only a couple of notable exceptions. Scattered tracts of public land are primarily located in the extreme northwestern and southwestern corners of the County, where management abilities are hampered by the remote and inaccessible nature of these lands. The primary, well— consolidated blocks of public land within Socorro County are the Ladron Mountain area, the lands surrounding the community of Socorro extending east across the Rio Grande to Chupadera Mesa and the lands east and west of the Pedro Armendaris Land Grant. To a lesser extent, consolidated public lands, which are the remnants of the old Magdalena Stock Driveway, extend in a linear pattern from the town of Magdalena west across the Plains of San Augustine into Catron County.

The primary concentrations of State—owned lands within Socorro County occur in the northern portion of Chupadera Mesa and to a lesser extent east of Datil from the Catron County line east where it adjoins the Gallinas Mountains administered by the Cibola National Forest.

Although the SRA is characterized by its rural qualities, with its vast open spaces and sparse population, it is not without some urban and suburban development. The City of Socorro is by far the most densely populated community within the SRA and is expected to continue to grow at a stable rate.

The BLM SRA lands and realty program expends much of its efforts within the vicinity of Socorro

entertaining routine right—of—way requests, Recreation and Public Purpose (R&PP) applications, and various other land—use proposals in conjunction with the continuing growth needs of Socorro and its nearby communities.

In the last decade, the SRA's lands and realty program was primarily involved in the Middle Rio Grande Occupancy Resolution Program (MRGORP), which resolved hundreds of long-standing, unauthorized occupancies of public lands within the Rio Grande Valley. However, numerous scattered parcels of public land remain within the Valley, which are generally bounded by the Sevilleta Land Grant to the north, the Bosque del Apache Wildlife Refuge to the south, Interstate 25 to the west, and the Bosquecito Road to the east. These lands have proven to be difficult to effectively manage, as the exact location of the remaining tracts are difficult to identify and access to them is difficult if not impossible.

Outside of the Rio Grande Valley the primary use of the public lands is livestock grazing. This use is in most cases continuing simultaneously with other land—use authorizations, many of which make up the remainder of the SRA lands and realty program.

Included in these authorizations are a variety of leases and permits, often times in conjunction with research projects through the New Mexico Institute of Mining and Technology (NMIMT), exchanges, communication site rights—of—way, and R&PP leases and patents, issued to the small communities of Pie Town, Quemado, Datil, Horse Springs, San Antonio, and Lemitar for cemeteries, gun clubs, sanitary landfills, and recreational facilities.

Many of the linear facilities authorized under various right—of—way grants have led to the establishment of defacto right—of—way

corridor. Three officially designated corridors are also existent within the SRA as a result of previously completed management framework plans (MFPs) and MFP amendments. The placement of the facilities have in the past been largely due to topographic and land status constraints.

#### Land Ownership Adjustments

The FLPMA (PL 94—579) provides authority for land ownership adjustments by sale, exchange, withdrawal, etc. The Act further requires that adjustments must be in conformance with existing land—use plans.

A significant amount of public land within the SRA is located in small, isolated tracts, which prove to be difficult to effectively manage. Land tenure adjustment of these lands through exchanges, sales, transfers, leases, and cooperative agreements can achieve more efficient management of the public land resources. If however, during specific site examination resources of national, State, or regional significance are found upon these lands and the potential adverse effects of an adjustment action cannot be mitigated at a reasonable cost, then the land will be determined unavailable for disposal.

Since completion of the Divide and Middle Rio Grande (MRG) MFPs, the SRA's concept of specifically identifying disposal tracts has evolved into an identification of disposal areas or blocks where public lands will be disposed of over the long term. Similarly, areas containing large, manageable acreage's of public land to be retained in public ownership and managed under the principles of multiple use and sustained yield, have been referred to as retention blocks. Generally, nonpublic lands within these retention blocks will normally be considered as suitable for acquisition since management of adjacent public resources will be improved by consolidating public lands into contiguous land ownership patterns.

All lands and minerals disposal actions within the SRA will be in conformance with the criteria established in the Lands and Minerals Disposal Policy (see Appendix G). In addition, specific items to be examined while considering the merits of any disposal or acquisition action include:

1. Consistency and conformance with current planning.
2. Mineral resources and report (see Appendix B).
3. T&E Plant/Animal Species and their habitat.
4. Recreation and wilderness values.
5. Prime and unique farmlands.
6. Flood plain/flood hazard evaluation.
7. Cultural and paleontological resource values.
8. Native American religious values.
9. Visual resources.
10. ACECs.
11. Wetlands.
12. Existing rights and uses.
13. Controversy.
14. Health and safety.
15. Adjacent uses and ownership.
16. Air resources.

#### Public Land Exchanges

All exchange proposals are examined in conformance with NEPA requirements, including extensive public review. Any lands which leave Federal ownership as a result of exchange actions must have been previously identified as suitable for such disposal.

On October 3, 1984, the New Mexico BLM State Director and the Commissioner of Public Lands of the State of New Mexico signed an MOU to establish a comprehensive, long—tern, Statewide land exchange program between the BLM and the State of New Mexico (USD1, BLM 1984). The objectives are to improve the land management potential of both State and Federal lands, eliminate unnecessary Federal and State conflicts generated by existing ownership patterns, facilitate the management of State and BLM lands by substantially realigning the scattered State and BLM sections and creating solid block or consolidated land ownership, and develop procedures that are most expeditious and cost effective.

#### Sales of Public Lands

The SRA maintains a record of individuals, businesses, and other organizations interested

in purchasing public lands. Sales of public lands, identified as suitable for disposal in an approved land—use plan, are administered on a case—by—case basis. All sale actions are examined through the NEPA process and are subject to public participation and review. All sales, including landfill sites for local governments, will be at or above fair market value.

#### Middle Rio Grande Occupancy Resolution Program

Since 1976, the SRA has been highly involved with the MRGORP, which was developed to resolve long—standing title disputes within the Rio Grande Valley. These title disputes, which date back to as early as the Treaty of Guadalupe Hidalgo of 1848, have become increasingly confused. Public lands have inadvertently been bought and sold along with other private lands, creating clouded titles and making title insurance and home improvement loans quite a problem for individual landowners.

The MRG MFP amendment to the Stallion MFP mandated the disposal of the majority of public lands within the Valley primarily via the Color—of—Title Act of 1928 as amended. Those public lands which were determined not to be necessary for BLM resource programs have or are to be disposed of by sales pursuant to Section 203 of the FLPMA of 1976.

#### Land Withdrawals

BLM policy is to keep the public lands open for public use and enjoyment. However, there are conditions which may warrant the removal or withdrawal of certain public lands from multiple use; e.g., public safety or protection of special uses and resources.

Withdrawals designate public lands for a particular project, purpose, or use. They may transfer jurisdiction to another Federal agency. Normally, they will close the land to entry under all or some of the public land laws. All withdrawals in the SRA have been or will be reviewed according to the requirements of laws and existing guidance. Withdrawals will be continued, modified, or terminated consistent with the need as rejustified by the withdrawing agency.

Classifications were made under the authority of the Classification and Multiple Use Act of 1964 (78 Stat. 986). These classifications delineated lands 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 high, unique resource values were sometimes further segregated against entry under the mining laws and/or the mineral leasing laws. This planning document deals with the questions of retention and disposal and the segregations needed to accomplish these objectives. It also recommends the placement of further segregations against the mining laws and/or mineral leasing laws where they are needed to protect unique and valuable resources.

#### Recreation and Public Purposes:

Under the R&PP Act, the 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. Applications for use of public lands under the R&PP Act are processed as an SRA priority. Such applications are processed under the requirements of NEPA and are subject to public review.

#### Rights—of—Way, Leases, and Permits

The SRA grants rights—of—way, leases, and permits to qualified individuals, businesses, and governmental entities for the use of the public lands. New rights—of—way are also issued simultaneously with existing rights—of—way to promote joint use whenever possible. All right—of—way actions are coordinated, to the fullest extent possible, with Federal, State, and local government agencies, adjacent landowners, and interested individuals and groups. All right—of—way applications are analyzed site specifically on a case—by—case basis, and natural and cultural values are protected or avoided (see Map 2—8).

The authorized officer will continue to authorize these routine, nonissue oriented realty actions throughout the 20—year life of this RMP. These actions include the granting of routine rights—of—way, leases, permits, and



R&PPs. All of the above mentioned future activities will be subject to site—specific environmental analysis whereby mitigative measures will be incorporated within the authorizations to minimize the adverse effects of any surface disturbing activity. Project construction areas will be rehabilitated by various reseeding and soil manipulating activities.

#### Land—Use Al locations

Specific land—use allocations were not identified for this resource.

#### ACCESS

#### Objective

The objective of the access program is to prioritize and provide public and/or administrative access to those areas of public land having significant resource values for which there is insufficient legal or physical access. This program is also involved in the identification of those areas which are sensitive to or not suitable for the construction of new roads as well as those roads which are unneeded and should be closed and rehabilitated for resource protection and public safety.

#### Description

The Socorro County Transportation Plan, approved November 7, 1981, and the Catron County Transportation Plan, approved October 27, 1982, provide road inventories for all known existing Federal, State, County, and private roads within the SRA. These plans are similar in that they did not attempt to develop acquisition, construction, or maintenance schedules, nor did they attempt to set priorities.

Existing transportation facilities within the SRA include Interstate 25, which runs north to south through Socorro as it parallels the Rio Grande. U.S. Highway 60 enters Catron County north of the Gila National Forest and traverses easterly, linking the communities of Quemado, Pie Town, Datil, Magdalena, and Socorro. U.S. Highway 60 then runs north concurrently with 1—25 until it reaches Bernardo where it leads east out of the SRA. U.S. Highway 380 begins at the community of San Antonio and leads east to Bingham and then out of the SRA to Carrizozo and on into Texas. Travel along Highway 380 is restricted at certain times due to WSMR missile firings, yet is seldom closed for

more than a few hours. U.S. Highway 180 extends from the Arizona border west of Reserve, south through the Gila National Forest out of the SRA and on to Silver City and Deming.

The State of New Mexico maintains nine State roads within the SRA. The most highly travelled is paved State Road 12 as it links Datil and U.S. Highway 60 to U.S. Highway 180 just west of Reserve. Other paved or partially paved roads include State Road 117, the northern portion of State Road 52 from Magdalena to the Alamo Indian Reservation, and the southern portion of State Road 32 from Apache Creek to Quemado. State Roads 61, 117, 36, 78, 107, and 10 remain unpaved with no immediate plans for upgrading.

Numerous county roads under the jurisdiction of Socorro and Catron Counties traverse nearly all portions of the SRA and can be further seen on the visual in the back map pocket. Catron County maintains in excess of 1,000 miles of county roads, with 417 miles affecting BLM operations; while Socorro County maintains nearly 2,000 miles of county roads of which approximately 978 miles affect BLM.

The Atchison Topeka and Santa Fe Railway Company maintains railway facilities which parallel the Rio Grande and Interstate 25 as it dissects the SRA. Four public airports are located within the SRA in the communities of Socorro, Magdalena, Reserve, and Glenwood, with an additional eleven privately—owned landing fields.

Historically, BLM's transportation network has primarily utilized the Federal, State, and County road systems (see Map 2—3). The easement acquisition program within the SRA has been relatively inactive, largely due to this fact and to minimal funding levels. Easement acquisitions have generally been pursued only when access has been unavailable to specific BLM—initiated projects.

Access concerns have steadily increased over recent years as demand upon the public lands has multiplied. As a result, access activity plans will be developed which will identify specific locations where legal access is needed. Appendix D discusses the priorities for developing access activity plans within the SRA. As these activity plans are approved, the required easements will be prioritized by the SRA.

#### Land—Use Allocations

Specific land—use allocations were not identified for this resource.

### FORESTRY

#### Objective

The objective of the forestry program is to manage the woodlands and timber resources on the basis of multiple use and sustained yield for the production of forest products.

#### Description

The forestry program conducted by the SRA consists of managing limited ponderosa pine stands and more extensive pinyon—juniper woodlands. The FLPMA directs that the forestry and woodland programs be managed on the basis of multiple use and sustained yield. Also, the Material Disposal Act of 1947, as amended, establishes the authority under which the BLM disposes of timber and other forest products.

#### Timber

The Material Disposal Act of 1947, as amended, and FLPMA direct the forestry program in the SRA to manage the ponderosa pine stands on a multiple—use and sustained—yield basis. The management goal will be to provide long—tern maintenance of the pine stands and to enhance the other natural resources. The Material Disposal Act of 1947 established the authority under which the BLM disposes of timber and other forest products.

The long—term goal of the forestry program in the SRA is to conduct silvicultural practices that will encourage natural regeneration, reduce encroachment of the woodland species, and increase individual tree vigor. Since the existing ponderosa pine forests are managed for the enhancement and protection of the stands instead of for maximum production of wood products, no specific allowable cut goals will be established.

The last timber harvesting operation was carried out in 1976 on Pelona Mountain. Several mistletoe eradication projects were attempted and were partially successful. No follow—up projects were funded and no timber sales have been offered since that time.

Small scattered tracts of ponderosa pine exist adjacent to the FS boundaries and outside of the wilderness study areas (WSAs). These tracts will require silvicultural treatment in the future if they are to remain pine sites and not revert to woodlands. All forestry activities implemented in these forests will conform to standard silvicultural practices. Most of the previous forestry program has emphasized woodland products disposal to meet public demand rather than timber management or development.

#### Woodlands

Out of 350,000 acres of pinyon—juniper woodlands in the SRA, only about 40 percent is capable of being managed on a sustained—yield basis. The slower growth rate coupled with the poorer sites, makes any kind of sustained yield difficult. Until the results of the Statewide Woodland Inventory are available, the program will only satisfy the local public demand for fuelwood, fence posts, Christmas trees, and wildlings utilizing standard silvicultural practices and a sustained—yield approach. Once the information is available from the woodland inventory, specific activity plans can be prepared and sustained—yield calculation quotes obtained.

Using the authority granted BLM in the Material Disposal Act of 1947 and the 1982 Public Domain Woodlands Management Policy Statement, the long—term goals of the Woodland Management Program in the SRA are to establish and maintain healthy stands, produce forest products on a sustained—yield basis, reduce trespass cutting throughout the SRA, and

manage stands with consideration for other forest and woodland product yields.

Public land areas in the SRA containing vegetative products, such as firewood, fence posts, Christmas trees, and wildlings (including cactus spp.) will continue to be considered and designated for harvest. The current demand for these resources is increasing annually. Currently within the SRA, approximately 6,500 acres have been designated to meet this demand; however, it is estimated that no more than an average of 10 percent or 650 acres per year would be involved. Actions would include ORV travel, plant digging, slash disposal, and material skidding.

#### Land—Use Allocations

Specific land—use allocations were not identified for this resource.

### SOIL/WATER RESOURCES

#### Objectives

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

#### Description

The soil information for the SRA is available in the Catron County Soil Survey Report and the Socorro County Soil Survey Report published by the SCS. Soil data for that portion of the SRA that extends into Lincoln County is available in the Lincoln County Soil Survey.

#### Soils

Participation with the United States Department of Agriculture (USDA) SCS in the National Cooperative Soil Survey Program will continue. Updating of the soil surveys and soil interpretative data will be maintained as current as possible. Soils data will be used in planning, support, and implementation of resource activities. BLM Manual 7100 and NMSO Instruction Memorandum 78—47 will provide administrative guidance to the soil resource program.

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.

#### Water Resources

Policy and guidance for the management of water resources associated with lands administered by the BLM is summarized in BLM Manual Sections 1621, 7000 through 7300. 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.

#### Surface Water

The major surface water drainage basin in the SRA is the Rio Grande Valley. This basin is bounded on the west by the Continental Divide and by ridges east of the River. The Little Colorado River basin, San Francisco River basin, and the Gila River basin are west of the Continental Divide. These basins are on the upper end of the Lower Colorado River basin system in New Mexico. Upper tributaries to these drainage systems flow only in times of heavy storms. The Jornada del Muerto and the Tularosa basins on the east side of the SRA have no outlets, and are part of the Central Closed Basin system. The San Augustine Plains and North Plains basins are part of the Western Closed Basin system. These basins are dry most of the time, but may have ponded water during periods of runoff.

#### Ground Water

The Rio Grande Valley overlies a major ground water basin in the SRA. This basin makes up about two-thirds of the area. The aquifers of the Rio Grande basin are predominantly of the valley fill and the bedrock types. Valley fill aquifers include quaternary age alluvium and floodplain sediments that are saturated with water on the Rio Grande Valley floor and

in the valleys of its major tributaries. The bedrock The aquifers are composed mostly of sandstone, conglomerate, or limestone (New Mexico State Engineer's Office). Recharge of the Rio Grande aquifers is mainly by infiltration from the Rio Grande; however, some infiltration occurs from the Rio Grande tributaries and irrigation seepage. Three remaining basins within the area are the Jornada del Muerto (closed basin), Tularosa (closed basin), and Gila—San Francisco. Groundwater resources in the Jornada del Muerto are of varying depths.

### Water Rights

Currently a water use and water rights inventory is being completed in the SPA to identify the status of the BLM's water rights filings.

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 Interior Solicitor's opinion of June 25, 1981, as modified by Solicitor's opinion on September 11, 1981. BLM's Federal reserved water right claims are primarily associated with the withdrawal established by the Executive Order of April 17, 1926, dealing with public water reserves.

### Water Quality

Water quality regulation in the United States receives its basic authority from two laws. The Federal Water Pollution Control Act of 1972 and the Clean Water Act of 1977 as amended are the basic authority 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.

The BLM's water resource program includes participating 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 directs 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 Director of BLM to develop a comprehensive program for minimizing salt contributions to the Colorado River from BLM—administered lands. Specific watershed plans will be prepared to reduce sediment yields and improve water quality through salt reduction.

### Dam Safety Program

The first phase of the program is an inventory of dams, assessing the condition and maintenance needs of each structure, and the development of a rating of potential impacts to life and property of each structure. The second phase includes the development of a maintenance and rehabilitation plan for all structures and the development of an Emergency Action Plan for those structures with a significant and high hazard rating.

### Watershed Activity Plans

In order to better organize and establish priorities in the watershed program, a review of watershed plans and updating of watershed summaries is needed. Some of the watersheds will be in SMAs and receive special management. Projects of lower priority will be on standby until funds are available.

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

There are three large general areas of critical watershed in the SPA: Stallion, Puertecito, and Fence Lake. Portions of these areas are being proposed as SMAs. Several

other areas of localized critical watersheds exist and are further identified in the Divide Unit Resource Analysis (URA), East Socorro Grazing ES, and the West Socorro Rangeland Management Program EIS.

Continuing efforts to control erosion will include the following: minimizing surface disturbance from construction projects, closure and rehabilitation of unneeded roads, and control of ORV use in critical areas. This direction was provided in the East Socorro Grazing ES and the West Socorro Rangeland Management Program EIS.

The hydrology program will continue to emphasize its legislative mandates of protection, as they relate to surface and groundwater quality, as well as provide support to other resource activities in the SRA.

Project level planning will consider the sensitivity of the watershed (i.e., soil, water, and vegetation) resource in the affected area on a site—specific basis. Grazing management, rangeland improvements, and land treatments will be designed to minimize the adverse impacts to the watershed resource. Project construction areas will be reseeded with a mixture of grasses, forbs, and shrubs as necessary. The average size of watershed management practices is estimated to be approximately 740 acres per year. These practices consist of contour furrowing and pitting, mechanical treatments and constructing detention dams, diversions, water spreaders, wire checks, and exclosures.

#### Land—Use Allocations

Fence Lake SMA (Section 5)— Develop management plan and implement necessary actions.

Puertecito SMA (Section 5)— Develop management plan and implement necessary actions.

Stallion SMA (Section 5) — Develop management plan and implement necessary actions.

## AIR QUALITY

### Objective

The objective of the air quality program is to protect, maintain, and enhance this resource on the public lands.

### Description

Air quality is generally affected by natural terrain and emissions. Ridges and high elevation areas usually experience better dilution and dispersion of pollutants than do valleys and low elevation areas. Other factors affecting air quality are depth of the mixing layer and height of emission release.

Emissions, in the form of windblown fugitive dust from dirt roads and barren soils, cause impaired visibility. Human—caused emissions from vehicles, chemical combustions, and industrial processes cause a variety of human and animal physiological impairments with damage to structural materials, paint, fabric, and natural vegetation.

The air quality of the SRA is very good as the area is sparsely populated and, for the most part, undeveloped with population centers not being large enough to generate significant amounts of air pollutants. Also, there are no major industries or factories within the area. The primary source of air pollution in the SRA is particulate matter generated from intermittent dust storms, which are probably minimal, localized, and of short duration. Specific pollution levels due to dust are not known, however, and at present are not considered to detract from the good air quality of the SRA.

There are two types of areas vulnerable to decreasing air quality in the SRA. Type I locations are localized areas of extensive development, such as surface mining and coal—fired power plants. Type II locations are structural depressions such as the Rio Grande Valley that experience atmospheric drainage.

Reduction of air quality impacts from activities on public lands is accomplished by

mitigation measures developed on a case—by—case basis through the 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 mining have fugitive dust abatement programs as part of their permits or contracts.

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.

The BLM 7300 Manual will provide administrative guidance on air resources upon approval.

#### Land—Use Allocations

Specific land—use allocations were not identified for this resource.

FIRE

#### L Objective

The objective of fire management in the SRA is to protect and enhance the resources of the public lands in order to preserve their capability to contribute toward meeting the resource needs of the nation.

#### Description

The District is operating under the National Interagency Incident Management System (NIIMS). The number and size of fires varies from year to year, depending on the occurrence of lightning storms and the amount of fire fuels build—up. Between 1968 and 1986, there were 31 fires on lands administered by the SRA. During those years, annual ignitions ranged from zero in six of the 20 years to ten ignitions in 1971. Just over 14,700 acres burned during that period; however, 81 percent of that occurred during one year, 1971. During this period, 21 of the fires were caused by lightning with sizes ranging from .1 of an acre to 10,106 acres. There were three fires caused by arson and six caused by debris burning. Wildfires involve approximately 230 acres of surface per year. Fuels consumed were primarily grass, pinyon/juniper, sagebrush, and a little creosote. For more details on fuel types refer to the maps and fuel models in the District Fire Management Activity Plan 1986 as revised.

The current SRA policy is to initially attack all wildfires on, or threatening, public lands. Currently, a Joint Powers Agreement (JPA) exists between the BLM, NMSO, the U.S. FS Region III, and the New Mexico State Forestry Division. Under an exchange of initial attack areas with fire protection responsibilities for private, State, and Federal lands. The BLM SRA maintains an initial attack fire crew on a year-round Basis.

Specific management strategies as they relate to wildfire and prescribed fire are detailed in the District Fire Management Activity Plan, 1986 as revised.

#### Land-Use Allocations

Specific land—use allocations were not identified for this resource.

WILDLIFE

#### Objective

The objective of the wildlife program is to maintain, improve, and expand wildlife habitat on the public lands for both consumptive and nonconsumptive use. This program is also responsible for the protection and recovery of Federal and State listed and candidate T&E plant and animal species.

#### Description

Wildlife habitat and wildlife species have been identified and inventoried utilizing the Bureau's Integrated Habitat Inventory Classification System (IHICS). Seventeen distinct Standard Habitat Sites (SHS's) have been mapped within the SRA based on landforms and vegetation. The wildlife species listed and SHS descriptions are in the Socorro IHICS computer program which are both on file in the SRA Office.

Legislation such as FLPMA, the Endangered Species Act of 1973, and the PRIA, as amended, have directed the BLM to improve management of wildlife habitat to meet wildlife needs in the face of increasing demands for basic energy supplies, building materials, and food products. It is the responsibility of the SRA to identify opportunities to maintain, improve, and expand wildlife habitat on the public lands for both consumptive and nonconsumptive use and identify portions of the wildlife resource deserving special attention. Furthermore, it is USD1 regulation (as specified in 43 CFR 24.4) that Interior agency fish and wildlife management strategies assist State agencies in accomplishing fish and wildlife resource plans.

All actions in the SRA are reviewed and given site-specific analysis during the EA process to determine whether the action will affect wetland or riparian areas. Also considered are impacts to resident species' habitat or habitat improvement projects and compatibility with the NMDG&F Operations Wildlife Plan (NMDG&F 1986). All rangeland and watershed improvements will continue to be designed to achieve both range and wildlife objectives. This includes location and design of waters and vegetation manipulation projects. Fences are designed to cause the least resistance to wildlife movement.

#### Animal Damage Control

Animal damage control activities on public lands in the SRA are guided by USD1 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 has approval responsibility for all specific control actions on public lands.

#### Habitat Management

Habitat Management Plans (HMPs) are developed in an effort to improve wildlife habitat. Implementation of existing HMPs (Red Hill, Nogal, Pelona/Horse Mountain, Rio Grande, and Ladrones Mountain) will continue as funding allows. Existing HMPs are on file and available for public review at the SRA Office. The Ladrones Mountain HMP may undergo revision to conform with the NMDG&F plans in regard to bighorn sheep management.

Detailed estimates of big game forage allocations are presented in Appendix C, Table C—2. Monitoring of the big game habitat by key species utilization will continue to be conducted as part of the rangeland program monitoring plan. The information obtained from the vegetative transects will be incorporated into final grazing decisions.

Wildlife management actions (i.e., spring developments, exclosures, and game waters) involve approximately 185 acres of surface disturbance per year. The vegetative land treatment actions for wildlife habitat improvement are included in the total estimate for vegetative land treatments.

Prior to authorizing activities in crucial wildlife habitats (winter ranges, raptor nest sites, fawning habitats, etc.), considerations will be made to avoid or minimize disturbance to wildlife. The areas and time stipulations are shown in Table 2—3.

Prescribed burning will be designed to improve wildlife habitat.

Rangeland management practices and rangeland improvements will be designed or modified to maintain or improve wildlife habitats.

Livestock grazing management will incorporate the needs of key plant species important to wildlife.

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

Wildlife escape devices will be installed on all new and existing water tanks or troughs constructed for livestock within the SRA.

TABLE 2—3  
WILDLIFE HABITAT OCCUPANCY RESTRICTIONS  
(for Oil, Gas) Geothermal Exploration  
and Development, and all Major Construction  
Activities)

Species	No Time Periods	Occupancy Area
<u>Game Species</u>		
<u>Antelope</u>		
Crucial Fawning Ranges 1/	5/1 — 8/1	Entire Habitat areas
<u>Elk</u>		
Crucial Winter Ranges 1/	11/1 — 4/1	Entire Habitat Areas
<u>Sensitive Species</u>		
Ferruginous Hawk Nests	2/1 — 7/15	Within 1/2 mile radius from nest
<u>Endangered Species</u>		
Bald Eagle Wintering Areas	11/1 — 4/1	Wintering Areas
<u>Species of Concern</u>		
Golden Eagle Nests	2/1 — 7/15	Within 1/2 mile radius from nest
<u>Prairie Falcon</u>		
Nests	3/1 — 8/1	Within 1/2 mile radius from nest
<u>Special Habitats</u>		
Reservoirs, ponds, lakes, wetlands, riparian areas	Yearlong	Within 500 feet

1/ Those areas where big game animals have demonstrated a definite pattern of use each year or an area where animals tend to concentrate in significant numbers.

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

Raptor habitat will be improved by requiring all new power lines to be constructed to “electrocution proof” specification and any problem lines to be modified to be “electrocution proof.”

Riparian and wetland habitat have a priority for retention, protection, improvement in accordance with State and national policy.

Suppression of wildfire in riparian habitats will have a high priority. Riparian areas which have burned will be rehabilitated through protection and, if necessary, seeded or planted with indigenous species.

Grazing management practices will be designed and established to meet riparian and water quality needs in the development of the 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 the riparian zones.

Management of riparian and wetland habitats will be prioritized as follows: 1) avoiding impacts, 2) minimizing unavoidable impacts, and 3) compensating for lost habitat values in kind where possible.

Construction activities which remove or destroy riparian vegetation will be avoided to the extent possible.

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, reservoirs will be fenced and water for livestock will be provided away from the reservoirs. Wildlife habitat needs will be considered when reservoir site determinations are made.

#### Threatened or Endangered Species Management

Section 7 of the Endangered Species Act of 1973 (Public Law 97—304) specifically requires all Federal agencies to (a) carry out programs for the conservation of listed species and (b)



to ensure that any agency action is not likely to jeopardize the continued existence of a listed species or adversely modify critical habitat. This is a nondiscretionary requirement pertaining to the actions of all Federal agencies. BLM policy and guidance establish that species proposed for Federal listing be managed at the same level of protection as listed species except that formal consultation is not required. However, Section 7 conference with U.S. FWS is required for “may affect” situations on proposed species (BLM Manual 6840). For Category 1 and 2 Candidate species, the BLM shall carry out management, consistent with the principles of multiple—use, for the conservation of the species and their habitats and shall ensure that actions authorized, funded, or carried out do not contribute to the need to list any of these species as T&E (BLM Manual 6840). The State Director may designate sensitive species in cooperation with the State of New Mexico. These sensitive species must receive, as a minimum, the same level of protection as do Federal candidate species (BLM Manual 6840). The BLM shall carry out management for the conservation of State—listed plants and animals. State laws protecting these species apply to all BLM programs and actions to the extent that they are consistent with FLPMA and other Federal laws. Where the State government has designated species in categories that imply local rarity, endangerment, extirpation, or extinction, the State Director will develop policies that will assist the State in achieving their management objectives for those species (BLM Manual 6840).

Protection and management of bald eagle roost areas will continue. Inventory for Federal and/or State candidate species will continue, and monitoring programs will be implemented on known populations of listed and candidate species. Where monitoring identifies threats to these populations, appropriate actions will be taken to protect the species and its habitat.

#### Land—Use Allocations

Agua Fria ACEC (Section 5) — Develop management plan and implement necessary management actions.

Ladron ACEC (Section 5) — Develop management plan and implement necessary management actions.

Horse Mountain ACEC (Section 5) Develop management plan and implement management actions.

Walnut Canyon SMA (Section 5) — Develop management plan and implement necessary management actions.

Iron Mine Ridge SMA (Section 5) — Develop management plan and implement necessary management actions.

Taylor Canyon SMA (Section 5) — Develop management plan and implement necessary management actions.

Pelona Mountain SMA (Section 5) — Develop management plan and implement necessary management actions.

## CULTURAL RESOURCES

### Objectives

The objective of the cultural resource program is to manage cultural resources on the public lands in a manner that protects and provides for their proper use.

### Description

Cultural resources include archeological, historic, and socio—cultural properties.

SRA corresponds closely to an important geographic area of prehistoric and historic culture change. Archeological evidence of past cultures is abundant, but not well documented, and the cultural groups, cultural changes through time, and relationships between major groups remain poorly understood. A primary focus of modern archeology is the analysis and explanation of culture change, and a primary criterion for the managerial evaluation of the significance of archeological sites is the importance of the problems to which data contained in a site or region may be applied. Therefore, in a region of poorly understood cultural

interaction and change, with a vast number of projected archeological remains with excellent data potential and with questions to be addressed of human group dynamics of local, regional, and national significance, the research potential of sites within the SRA constitutes a scientific resource of major importance.

Evidence from the earliest known era of human occupation of the New World has been found in the SRA, beginning at least 10,000 years ago, with continuous occupation in some regions through the present. The SRA also contains regions of prehistoric abandonment, which provide the opportunity for analysis in view of abandonments and population dynamics in other geographic and environmental regions of the southwest.

A total of 2,918 archeological sites are presently recorded on lands of all ownership in Catron and Socorro Counties. Of these, 787 lie on surface lands managed by the BLM. No figures are available to determine the total acreage surveyed on lands of other ownership; and because of the nonrandomness of projects that have prompted surveys on BLM lands, there is no valid quantitative method to extrapolate the total number of sites which may be present on BLM lands. Subjective estimates of 20,000 to 30,000 sites have been made, however.

Archeological sites often represent a place of repeated use by humans during different time periods; when these can be identified, they are recorded as separate temporal components. Table 2—4 represents 3,407 temporal components within the 2,918 sites recorded on all lands, and Table 2—5 represents 972 components within the 787 sites recorded on BLM land. Because of the difficulties in defining Mogollon vs. Anasazi sites, two sets of data are presented for each case, one which lumps Mogollon and Anasazi under “Pueblo”, and one which separates the two classes according to the recorders’ interpretation.

TABLE 2—4  
ALL SITES IN CATRON AND SOCORRO  
COUNTIES

Culture	Freq.	Cum. Freq.	Per— Cent	Cum. Percent
<b>Mogollon and Anasazi = Pueblo</b>				
Paleo	12	12	0.352	0.352
Archaic	235	247	6.898	7.250
Pueblo	1640	1887	48.136	55.386
Navajo	44	1931	1.291	56.677
Historic	275	2206	8.072	64.749
Unknown	1201	3407	35.251	100.000
<b>Mogollon and Anasazi Indicated</b>				
Paleo	12	12	0.352	0.352
Archaic	235	247	6.898	7.250
Anasazi	1034	1281	30.349	37.599
Mogollon	606	1887	17.787	55.386
Navajo	44	1931	1.291	56.677
Historic	275	2206	8.072	64.749
Unknown	1201	3407	35.251	100.000

TABLE 2—5  
BLM SITES IN CATRON AND SOCORRO  
COUNTIES

Culture	Freq.	Cum. Freq.	Per— Cent	Cum. Percent
<b>Mogollon and Anasazi = Pueblo</b>				
Paleo	5	5	0.514	0.514
Archaic	144	149	14.815	15.329
Pueblo	383	532	39.403	54.733
Navajo	7	539	0.720	55.453
Historic	84	623	8.642	64.095
Unknown	1201	3407	35.251	100.000
<b>Mogollon and Anasazi Indicated</b>				
Paleo	5	5	0.514	0.514
Archaic	144	149	14.815	15.329
Anasazi	355	504	36.523	51.852
Mogollon	28	532	2.881	54.733
Navajo	7	539	0.720	55.453
Historic	84	623	8.642	64.095
Unknown	349	972	35.905	100.000

Federal laws such as the National Historic Preservation Act of 1966 (NHPA) as amended, the Archeological and Historic Preservation Act of 1974, the Archeological Resources Protection Act of 1979 (ARPA), the American Indian Religious Freedom Act of 1978 (AIRFA), and the FLPMA provide for the protection and management of cultural resources.

These laws are implemented through Federal regulations, which provide guidance for the operational procedures of the cultural resource program in meeting the requirements of the law. One of the primary regulations directing procedures for compliance is 36 CFR 800, "protection of Historic and Cultural Properties," which implements Section 106 of NHPA. These regulations, as amended (Federal Register, Vol. 51, No. 169, Tuesday, September 2, 1986), 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; NMSO—168, incorporated by reference) between the three parties further defines these roles and streamlines the consultation process. Other relevant regulations are 43 CFR 7, which implements ARPA; and 36 CFR 60, which makes operational the National Register of Historic Places. 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 SRA files. Two local agreements affect management of cultural resources—an agreement with the SHPO concerning the waiver of intensive archeological survey under specific conditions for the MRGORP, in conformance with PMOA NMSO—168; and a Cooperative Agreement with the NMBMMR, which is discussed in the Paleontology section of this document. Both of these agreements are in conformance with Federal plans and policies.

Archeological and historic resources are evaluated initially under the criteria of eligibility of the National Register of Historic Places (36 CFR 60.4). 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 with relevant sections of 43 CFR 7, which take into account issues of concern to 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 and maintains a cultural resource inventory for all BLM—administered lands. 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 Manual and NMSO—168, Class III inventory is required before any surface disturbance may occur.

The SRA maintains a cumulative site inventory file documenting the locations of all known sites, all areas surveyed, as well as areas known to be devoid of cultural resources. In the SRA, the latter situation exists only in isolated tracts previously subject to Class III survey with negative results, or subject to total surface alteration in the past through natural or human forces; all unsurveyed portions of the SRA can be expected to contain varying densities of cultural resources.

Cultural resources in the SRA are organized into five classes with subclasses which roughly parallel traditional Southwestern cultural/temporal distinctions: (1) Paleo— Indian, (2) Archaic (Oshara; Cochise), (3) Pueblo (Anasazi; Mogollon), (4) Historic, and (5) Unknown. These are management classifications and are synthetic in the sense that they generalize broad, temporally—based classes of sites, allowing the development of long—term management strategies appropriate to

a particular class. A Class I inventory has been prepared for SRA, and provides an outline of culture history and a broad discussion of cultural/temporal classes (Berman 1979).

Seven sites within SRA are currently listed on, or have been formally nominated to, the National and/or New Mexico State registers of historic properties. These are:

National Register:

The Ake Site  
Bat Cave  
Cox Ranch Ruin (“Mogollon Pueblo”)  
Fort Craig  
Parida (nominated)  
Piro Thematic Sites (nominated)

State Register: (the above, plus)

Mockingbird Gap

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 are: (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) Discharged Use.

Cultural Resource Management Plans (CRMP)

The SRA is currently implementing four CRMPs: Bat Cave and Fort Craig National Historic Register properties, the Arroyo del Tajo pictograph site, and Teypama (a Piro pueblo ruin). CRMPs will be developed for the SMAs identified under Land—Use Allocations.

Protection

The SRA protects cultural resources on a limited basis through the application of both administrative (such as ORV closure) and physical (such as fencing) measures 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. SRA has implemented a formal Patrol and Surveillance Plan designed to protect major, well—known sites, investigate conditions of vandalism and natural forces in remote areas, and concomitantly increase site inventories through site recordation during patrols. An active program of signing cultural resource properties under threat of active or potential vandalism will continue. These current management practices have decreased the level of vandal—caused damage to specific sites, such as Fort Craig, and have had positive effects throughout the SRA. Vandalism appears to have stabilized at a level reduced from previous years.

Grazing exclosures and ORV limitations are administrative actions which will continue. Grazing exclosures for the protection of cultural resources are often small (an average of 40 acres) and will not, as a rule, affect AUMs. Likewise, limitations or ORV use are generally localized for protection of specific sites, and may average 40 acres per year.

Resource Stabilization

In recent years, three sites have received some measure of repair for improved preservation. Portions of the Fort Craig adobe casements have been repaired and stabilized; vandal damage to the Teypaina Piro pueblo ruin has been partially mitigated through data recovery and limited stabilization; and damage to the cultural talus of Bat Cave, resulting from uncontrolled visitor foot—traffic, has been lessened through the definition of visitor trails. All of these measures are interim and minor, in comparison to the needs of the specific sites and the endangered sites of the SRA as a whole. Although vandalism appears to have stabilized in recent years, extensive past vandalism is the primary cause for the rapid deterioration of the sites which are presently most endangered.

Actions to stabilize degradation of ruins may involve physical measures to control erosion and arroyo cutting and acquisition of sterile fill from BLM sources for recontouring of damaged sites.

#### Special Management Areas

One ACEC is presently managed primarily for its cultural values. This is Tinajas ACEC, which surrounds the Arroyo del Tajo pictograph site. CRMPs are in effect for three additional sites: Bat Cave, Fort Craig, and Teypama; and these are also consistent with the objectives of the RMP.

These four sites, encompassing 1,482 acres, will be subject to continued special management.

#### Program Direction

Section 110 of the NHPA states 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 SRA cultural resource program will meet its responsibilities to Section 110 by establishing a goal for completion of a 10-percent inventory over the approximate 20-year life of the plan.

Although the 10-percent sample will be stratified across the entire SRA, an initial focus will be in regions of potentially conflicting uses, such as disposal areas and mineral extraction areas. 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 SRA.

In addition, 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.

#### Land—Use Allocations

Tinajas ACEC (Section 5) — Develop management plan and implement necessary management actions.

Fort Craig SMA (Section 5) — Develop management plan and implement necessary management actions.

Rio Salado SMA (Section 5) — Develop management plan and implement necessary management actions.

Town of Riley (Section 5) — Develop management plan and implement necessary management actions.

Mockingbird Gap SMA (Section 5) — Develop management plan and implement necessary management actions.

Mogollon Pueblo SMA (Section 5) — Develop management plan and implement necessary management actions.

Newton Site SMA (Section 5) — Develop management plan and implement necessary management actions.

Zuni Salt Lake (Section 5) — Develop management plan and implement necessary management actions.

Teypama SMA (Section 5) — Develop management plan and implement necessary management actions.

Playa Pueblos SMA (Section 5) — Develop management plan and implement necessary management actions.

#### PALEONTOLOGY

##### Objective

The objective of the paleontology program is to manage and protect the paleontological resources found on public land.

## Description

A wide variety of paleontological resources can be expected to be found in the SRA. Fossil lifeforms of plants and both invertebrate and vertebrate animals of marine and terrestrial settings may potentially be found wherever the appropriate sedimentary rocks are exposed. But, although the Socorro region has been the subject of professional and student investigations for many years (notably because of the presence in Socorro of the NMIMT), no overview of paleontology for the region has ever been prepared. Research conducted to date has been specific to researcher interest or particular problems of the fossil record

(Wolberg 1987). The long-term management of paleontological resources in the SRA will benefit from the development of a synthesis of existing literature, parallel to a Class I Inventory of the Cultural Resource Program.

The SRA comprises a geologically complex region with outcrops of sedimentary rocks ranging in age from Precambrian to Quaternary, and unconsolidated deposits of Pleistocene age, which have yielded fossils of mammoth and other Pleistocene fauna. Cretaceous marine and terrestrial fossils have been found in the Carthage area, petrified wood of Triassic origin in northwestern Catron County, and Permian amphibians have been described from the Abo formation along the east side of the Rio Grande. The recommended overview of paleontology for the SRA should include an evaluation of the significance of these and other recorded localities.

Paleontological resources are protected under FLPMA and managed through the issuance of scientific use permits. Petrified wood is managed under public free use which is authorized under 43 CFR 3622. Use by both professional researchers and hobby collectors has been limited in comparison to other regions where either higher interest in fossil collection occurs, or where conflicting land uses have raised paleontology as a resource issue. The NMSO presently issues only one to two permits for scientific use of paleontological resources each year in the SRA.

The SRA has entered into a cooperative agreement (incorporated by reference) with the NMBMMR in an effort to improve the management of paleontological resources. This agreement provides support to the SRA with special expertise of the NMBMMR, and defines roles and joint activities in the management of the resource. The agreement is consistent with the objectives of the RMP, and continues in effect.

The NMSO has entered into an MOU with the State of New Mexico Energy, Minerals, and Natural Resources Department (NM—21—3032) for the mitigation of paleontological resource on BLM-managed coal mining leases in New Mexico. This MOU governs applicable activities in the SRA.

## Land—Use Allocations

Specific land—use allocations were not identified for this resource.

Paleontological resources are subject to an active and continuous discovery process; and future special management designations are warranted, when consistent with the objectives of the RMP.

## RECREATION

### Objective

Recreation use will be managed to protect the health and safety of visitors; to protect natural, cultural, and other resource values; to stimulate public enjoyment of public lands; and to resolve user conflicts. A broad range of outdoor recreation opportunities 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.

The use of ORVs will be controlled and managed to protect resources of the public lands, to promote the safety of all users, and to minimize conflicts among the various users of those lands.

## Description

### Recreation Program Overview

Outdoor recreation resources in the SRA range from predominately natural, low—use areas to developed, intensive use areas. The physical environment generally determines where activities occur, influences the types of activities that can occur, and determines the resulting experiences that can be achieved.

Public land attributes that enhance recreation opportunities and attract visitors in the SRA include desert badlands, mountains, canyons, lava features, grasslands, and woodland environments. Badlands, such as the Tinajas ACEC and Sierra de las Canas WSA, offer unusual scenic opportunities with highly colorful rock formations, unusual banding, and a uniquely contrasting landscape with the adjacent Rio Grande and associated bosque. Mountains, such as the Sierra Ladrones and Horse Mountain, provide prominent landmarks supporting unique resources and opportunities. The Box, San Lorenzo, and Walnut Canyon SMAs afford visitors opportunities to rock climb, hike in washes and along ridges, experience solitude in canyons, and offer sweeping panoramic views of surrounding mountains and valleys. Interesting geologic features, such as the Cerro Pomo cinder cone and lava flow, are found in the Cerro Pomo SMA. The Pelona Mountain SMA, Continental Divide WSA, and the proposed CDNST SMA are situated in a highly scenic, remote, natural region. This region contains sweeping grasslands, pinyon—juniper hills, and ponderosa pine forests. The landscape provides superb opportunities for viewing elk and raptors, big game hunting, hiking, backpacking, horseback riding, and camping.

Opportunities are available for enjoying a variety of outdoor recreation activities in the WSAs. Trail—based activities include horseback riding, day hiking, cross—country hiking (i.e., CDNST), and off—highway vehicle driving. Dispersed recreation includes backpack camping, mountain climbing, big game hunting, rockhounding, ORV use, hiking, and sightseeing related to cultural, wildlife, scenic, and geological resource values.

Developed recreation opportunities are available at the Datil Well Campground. Activities at Datil Well include day hiking, vehicle camping, picnicking, sightseeing, and interpretation.

### Recreation Opportunity Spectrum (ROS)

The ROS provides the conceptual framework for inventory, planning, and management of the recreation resource. An ROS inventory is lacking for the SRA. An SRA ROS inventory should be funded and completed within the next 5 years to enhance management of recreation opportunities.

### Management Areas

Special emphasis has been placed on recreation management areas to provide a framework for program emphasis. Three tiers exist: Special Recreation Management Area (SRMA); SMA; and Extensive Recreation Management Area (ERMA).

The Datil Well Campground is the only SRMA in the SRA. This area has been identified because it receives moderate to heavy visitor use and requires intensive management to protect sensitive resources, resolve user conflicts, and provide for visitor safety.

Four SMAs have been identified: The Box, San Lorenzo Canyon, Cerro Pomo, and the CDNST. These SMAs include sites that incur low visitor use and require a moderate level of management attention to meet goals and carry out general ROS semi—primitive motorized and nonmotorized objectives. Other SMAs such as Ladron, Pelona, and Horse Mountain also contain significant recreational resources.

The remaining public lands not in the SRMA and SMAs are categorized as ERMAs. Recreation resources and uses are routinely monitored and periodic patrol provides the necessary information for appropriate management and feedback to planning.

The recreation program is geared toward responding to public demand and building constituencies by providing visitor information and services as well as issuing special recreation permits. A variety of informational brochures and management plans

are available over the counter or by mail. Applications for special recreation permits are received for a variety of events. Commercial permits have been issued for outfitting and guide services. Competitive permits have been issued for off—highway/ off—road events such as hill climbs, motorcross, and desert racing.

### Recreation Lands

The Federal Cave Resources Protection Act of 1988 requires Federal lands to be managed in a manner which protects and maintains, to the extent practical, significant caves. The FLPMA of 1976 provides for management of outdoor recreation on public lands. Section 202(c)(9) calls for land—use planning consistent with Statewide outdoor recreation plans. The Wild and Scenic Rivers Act of 1968, as amended, provides for protection of outstanding river resources. It requires the identification and study of rivers or portions of rivers (wild and scenic, recreational) and directs Federal agencies to cooperate with State governments. Other national laws that govern recreation management include the National Trails System Act of 1968, as amended; the Land and Water Conservation Fund Act of 1964, as amended; and the R&PP Act, as amended.

Recreation resources will continue to be evaluated on a case—by—case basis as a part of project—level planning. Such evaluation will consider the significance of the proposed project and the sensitivity of recreation resources in the affected area. Stipulations will be attached as appropriate to ensure compatibility of projects with recreation management objectives.

The outdoor recreation program will continue to use ROS as a basic tool for inventory and management to ensure the general public the continued variety of quality recreational opportunities.

Providing opportunities for back—country recreation close to major urban areas will be stressed. Motorized vehicle recreation, including off—road and off—highway vehicle use will be maintained to the greatest extent possible under existing policy. A concentrated effort will be made to locate and establish use areas and trails compatible with social and natural environments in proximity to heavily populated areas.

The dynamic nature of this discipline and its close association with the BLMs public image program and volunteer efforts may result in many shifts in management direction in the near future. Consistency may be complicated by recommendations and decisions resulting from on—going efforts like the New Mexico Statewide Comprehensive Recreation Plan (1986), the President’s Commission on American Outdoors Report (1986), and the CDNST Comprehensive Plan (1985).

Continuing efforts will be made to ensure consistency through cooperation with local, State, and Federal agencies, private landowners, user groups, the CDNST society, and others concerning the implementation and management of the CDNST.

### Land—Use Allocations

Datil Well Campground Recreation Area (Section 5)— Develop a recreation area management plan and management actions for the Datil Well Campground Recreation Area.

The Box SMA (Section 5) — Develop and implement a management plan and management actions.

The CDNST SMA (Section 5) — Implement decisions of the CDNST Comprehensive Plan (1985).

The San Lorenzo Canyon SMA (Section 5) —Develop and implement a management plan and management actions.

The Cerro Pomo SMA (Section 5) — Develop and implement a management plan and management actions.

### VISUAL RESOURCES

#### Objective

The objective of the Visual Resource Management (VRM) program is to maintain the VRM data base and to maintain the quality of



visual values according to VRM class objectives.

### Description

Congressionally designated areas are subject to Class I VRM guidelines. WSAs are subject to an interim Class II category. SMAs identified in the RMP will contain the VRM class management objective in their management actions if applicable. The VRM system will continue to be the basic tool for inventory, planning, and management of visual resources on public lands. Future efforts will concentrate on updating the visual resource inventory data base, protecting the quality of visual values, and maintaining the established VRM class objectives. The BLM recognizes the constantly changing natural resource base and its effects on scenic quality. Each multiple—use program involved in resource development work should incorporate visual design into projects and complete visual contrast ratings for all projects proposed for highly sensitive areas and for potentially high impact projects, regardless of location.

### Land—Use Allocations

The BLM administers visual resources on lands according to four Visual Resource Management (VRM) Class objectives (see Appendix E for descriptions). The following is a display of the total acreages by class of inventoried public and nonpublic land.

Class I	19,334acres
Class II	828,877acres
Class III	596,593acres
Class IV	3,229,106acres

## WILDERNESS

### Objective

The SRA manages 12 WSAs. Five of the 12 WSAs have been recommended by BLM as suitable for wilderness designation in the January 1988 New Mexico Statewide Final EIS (see Table 2—6). Congress will ultimately act on these recommendations and either remove from study status or designate these 12 WSAs as wilderness.

### Description

The 12 WSAs in the SRA will be managed in accordance with the “Interim Management Policy (IMP) and Guidelines for Lands Under Wilderness Review” until either designated or officially removed from interim management. Any designated wilderness areas will be managed under the Wilderness Management Policy dated September 1981. Recommendations are displayed in Table 2—6.

### Land—Use Allocations

#### Implement ORV Designations Within WSAs

Limited:	Antelope WSA Continental Divide WSA Devil’s Backbone WSA Eagle Peak WSA Horse Mountain WSA Jornada del Muerto WSA Mesita Blanca WSA Presilla WSA Sierra de las Canas WSA Sierra Ladrones WSA Stallion WSA Veranito WSA
Closed:	Continental Divide WSA (9 miles) Horse Mountain WSA (2 miles) Presilla WSA (2 miles)

#### Implement ACEC Designations Within WSAs

Horse Mountain ACEC  
Ladron ACEC  
Tinajas ACEC  
Agua Fria ACEC

#### Implement SMA Designations Within WSAs

Cerro Pomo SMA (Section 5) — Develop a management plan and implement necessary management actions.

Continental Divide National Scenic Trail SMA (Section 5) — Develop a management plan and implement necessary management actions.

Pelona Mountain SMA (Section 5) — Develop a management plan and implement necessary management actions.

TABLE 2-6  
WILDERNESS RECOMMENDATIONS

Name	Acres Suitable	Acres Nonsuitable	Recommendation
Antelope	0	20,710	Nonsuitable
Continental Divide	37,599	31,162	Partial Suitable
Devil's Backbone	0	8,904	Nonsuitable
Eagle Peak	0	43,960	Nonsuitable
Horse Mountain	4,432	600	Partial Suitable
Jornada del Muerto	31,147	0	Suitable
Mesita Blanca	0	19,414	Nonsuitable
Pre sill a	0	8,680	Nonsuitable
Sierra de las Canas	12,798	40	Partial Suitable
Sierra Ladrones	31,804	13,504	Partial Suitable
Stallion	0	24,238	Nonsuitable
Veranito	0	7,206	Nonsuitable

# Section 3

## *Plan Implementation & Monitoring*



Fort Craig National Historic Site

All future resource management authorizations and actions, including budget proposals, will conform or, at a minimum, not conflict with the RMP. All operations and activities under existing permits, contracts, cooperative agreements or other instruments for occupancy and use will be modified, if necessary, to conform with this RMP within a reasonable period of time, subject to valid existing rights.

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.

### **PLAN IMPLEMENTATION**

There are three levels of decisions to be implemented in order to resolve the seven planning issues listed in Section 1. All three levels of implementation are identified in Section 2, Management Program.

The first level of implementation is to strive to meet the issue decisions which are the proposed resolutions of each planning issue. The second level of implementation is to meet the program objectives by accomplishing the program decisions listed as Description for each resource program. The third level of implementation is to complete the land—use allocation decisions listed under each applicable resource program.

### **IMPLEMENTATION PROCEDURES**

After midyear, prior to establishing program packages, the Implementation Priorities Summary Worksheet (BLM Form NM—1617—1) is completed by the specialist. 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) 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 by the staff chiefs and given to the Socorro Resource Area (SRA) Planning and Environmental Coordinator for automation using the computerized system created by the New Mexico State Office for statewide RMP tracking.

### **PLAN MONITORING**

Monitoring provides a record of the progress made in implementing the RMP. The record contains information for use in routing plan evaluations and provides information needed for the annual RMP summary update.

While implementation of the plan is the ultimate responsibility of the SRA 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—2 to provide a transition from implementation to tracking the decisions. The staff chiefs will compile each section's worksheets and file them with the Planning and Environmental Coordinator. Form NM—1617—2 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 summary update.

FIGURE 3-1

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

IMPLEMENTATION PRIORITIES SUMMARY WORKSHEET

Date Prepared: \_\_\_\_\_

Plan Name: \_\_\_\_\_

Decision Name	Page No. in RMP	PRIORITY A-Complete B-High C-Moderate D-Low	Subactivity	Target Implementation Goal Date	Date Implementation Completed	Remarks Narrative	Remarks Date

NM-1617-1

FIGURE 3-2

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
IMPLEMENTATION WORKSHEET

Plan Name \_\_\_\_\_  
 Date Prepared \_\_\_\_\_  
 Decision No.: \_\_\_\_\_  
 Priority: \_\_\_\_\_ Specialist: \_\_\_\_\_ BLM Initiated: \_\_\_\_\_ Approved in RMP: Page: \_\_\_\_\_ Line: \_\_\_\_\_  
 Approved in Activity Plan: Name Plan/EA: \_\_\_\_\_  
 NonBIM Initiated: Name of Action: \_\_\_\_\_ Consistent with RMP: \_\_\_\_\_  
 RMP Restrictions: \_\_\_\_\_

\_\_\_\_\_ Inconsistent with RMP: Maintain Plan: \_\_\_\_\_ Amend Plan: \_\_\_\_\_ Drop Action: \_\_\_\_\_ Location in RMP: \_\_\_\_\_

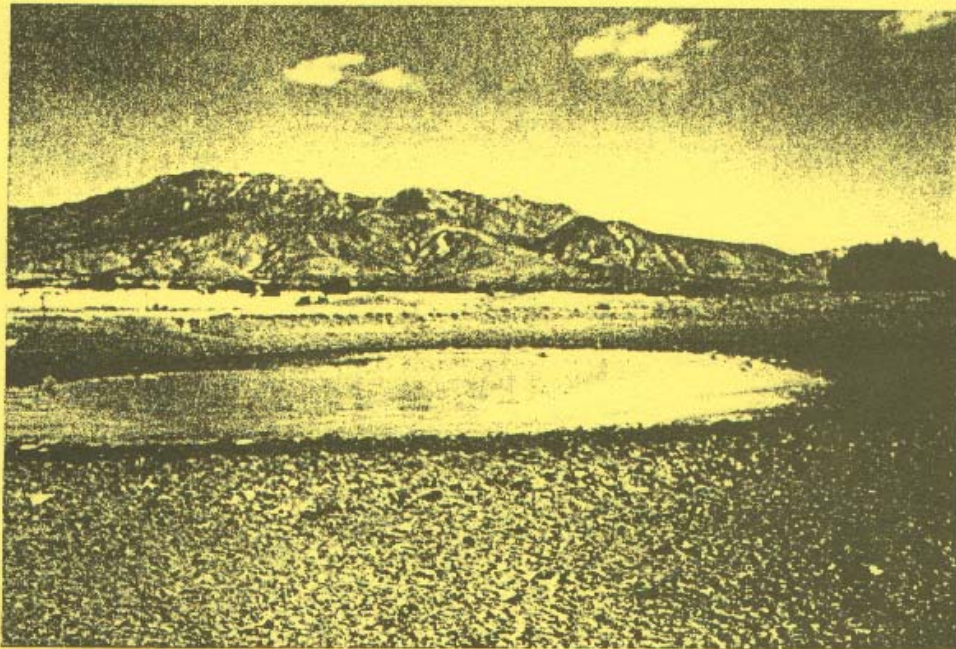
3-3

SEQUENCE OF EVENTS AND COSTS

Sequence of Events	FY Needed	Estimated Costs		Funding Sub-Program activity-Element	Date Completed	Actual		REMARKS
		W\$ / Cost	Procurement			W\$ / Cost	Procurement	

Section 4

*Plan Maintenance & Evaluation*



West of Sierra Ladrones

## PLAN MAINTENANCE

The completed Socorro Resource Area (SRA) Resource Management Plan (RMP) provides general guidance for management of the public lands in the SRA. The useful life—expectancy of the RMP is expected to be approximately 20 years. To ensure the document maintains viability and usefulness for the intended life—expectancy, maintenance of the RMP must be accomplished. Plan 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 is 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 SRA RMP will use a “forms—by—number” system to provide a simple structure for maintenance including documentation procedures for land—use plans.

To implement this “forms—by—number” system, the entire SRA RMP will be placed in a binder entitled “Master RMP” to allow insertion of the forms. A change index sheet, Form RMP—1 (see Figure 4—1), will also be added to the beginning of the Master RMP. The change index sheet will contain the change numbers— including the page number and the change sequence for that page. For example, the second change on page 22 would be labeled change number 22—2.

To use the system, the individual identifying the need for change completes Form RMP—2 (see Figure 4—2).

When an individual initiates a change, Form RMP—2 is turned over to the Staff Chief for review, signature, and incorporation into the Master RMP by the SRA Planning and Environmental Coordinator. The change number is recorded on the index sheet (Form RMP—1) at the front of the Master RMP. The original RMP material to be changed will be lined through neatly (i.e., simply overstruck, not written or changed) to maintain the integrity of the original material on computer disk. The change number will be plainly written in the margin on each original page and Form RMP—2 will be placed in the Master RMP preceding the changed page.

This plan maintenance section should assist the Area Manager and staff in keeping the plan



usable until it is amended or revised. It is probable that information in any maintained RMP will be used as a basis for updating the plan. 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 Summary Report. 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 Report along with the Rangeland Program Summary updates and other pertinent information. The evaluation will focus on implementation of plan decisions as listed in Appendix A.



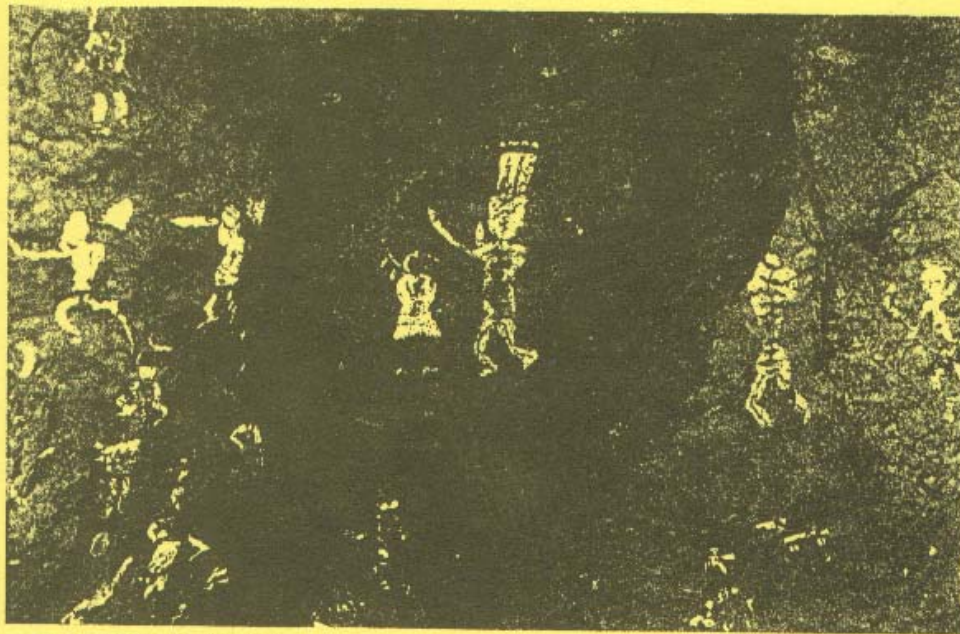
FIGURE 4-2

SOCORRO RMP	
<b>PLAN CHANGE NUMBER</b> _____ (Use Change Number from Form RMP-1)	
Page _____	
Section _____	
Heading _____	
<b>Change:</b>	(Describe exactly what is to be deleted, added, rewritten, etc.)
<b>Reason:</b>	(Describe exact rationale for change, to include reference material, ie. EA, RMP,IM.)
<b>SIGNATURE AS APPROPRIATE:</b>	
Resource Specialist _____	Date _____
Staff Chief _____	Date _____
Area Manager _____	Date _____

Form RMP-2

Section 5

*Special Management Areas -  
Areas of Critical Environmental Concern*



Arroyo del Tajo pictographs

## SPECIAL MANAGEMENT AREAS

### INTRODUCTION

This section contains information on the Special Management Areas (SMAs) identified in this Resource Management Plan (RMP). The SMAs include areas identified in previously approved planning documents as well as newly designated areas requiring special management.

The narratives for each SMA include a general description, the management goals, the planned actions, and a location map. No maps are included for the threatened or endangered (T&E) plants and cultural resources SMAs because these sites are sensitive and could be subject to vandalism. The descriptive narratives of the SMAs vary due to the nature of the management attention each area has received. Detailed activity plans will be developed and will contain more specific information. The management goals and planned actions identified provide the reader with the general management emphasis the SMA will receive. It is important to note that the information described in this document is subject to modification during the preparation of the activity plans.

The SMAs for the Socorro Resource Area (SRA) are listed below.

#### Special Management Areas

##### Rangelands

- |                |                     |
|----------------|---------------------|
| 1. Sawtooth*   | 10. Agua Fria*      |
| 2. Soaptree *  | 11. Horse Mountain  |
| 3. San Pedro*  | 12. Iron Mine Ridge |
| 4. Harvey Plot | 13. Taylor Canyon   |

##### Cultural

##### Watershed

- |               |                     |
|---------------|---------------------|
| 5. Stallion   | 14. Tinajas*        |
| 6. Puertecito | 15. Fort Craig      |
| 7. Fence Lake | 16. Teypama         |
|               | 17. Newton Site     |
|               | 18. Playa Pueblos   |
|               | 19. Rio Salado      |
|               | 20. Town of Riley   |
|               | 21. Mogollon Pueblo |
|               | 22. Mockingbird Gap |
|               | 23. Zuni Salt Lake  |

##### Wildlife

- |                     |
|---------------------|
| 8. Ladron Mountain* |
| 9. Pelona Mountain  |

### Recreation

24. Cerro Pomo
25. Continental Divide National Scenic Trail
26. Datil Well Campground
27. Walnut Canyon
28. The Box
29. San Lorenzo Canyon

\*Designated as an ACEC.

## AREAS OF CRITICAL ENVIRONMENTAL CONCERN DESIGNATIONS

Areas of Critical Environmental Concern (ACEC) are defined in the Federal Land Policy and Management Act (FLPMA) as “. . . areas within the public lands 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 areas of potential ACECs must meet both of the following criteria:

- 1) Relevance: There shall be present a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard.
- 2) Importance: The above described value, resource, system, process, or hazards shall have substantial significance and values. This generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause of concern. A natural hazard can be important if it is a significant threat to human life or property.

Where BLM determined that the ACEC criteria for relevance and importance was met, these areas have been specifically designated.

## SMA PLANNED ACTION DEFINITIONS

1. Restrict authorization for rights-of-way (ROWs) and leases: pertains to restricting the size and the type of new ROW and lease authorization within specific areas. Restrictions may vary depending upon management objectives of the specific SMA.
2. Exclude authorization for ROWs and leases: pertains to excluding all new ROWs and leases.
3. Limit fire suppression: pertains to limiting fire suppression to initial attack procedures excluding the use of heavy equipment and aerial tankers.
4. Restrict mineral material disposals: pertains to restricting the amount and location for sales and free-use permits of gravel, sand, and other common variety minerals in specific areas such that these sales will be nonimpairing to the major resources being managed for in those areas.
5. Restrict geophysical operations: pertains to restricting geophysical exploration activities to nonvehicular methods such as foot travel or use by helicopter.
6. Exclude vegetative material sales: pertains to excluding or closing a specific area to the sale of living plants, specifically yuccas.
7. Designate grazing allotments in "M" category: pertains to designating allotments within certain watershed areas in "M" or maintain range vegetative class condition for an absolute minimum and provides for enhanced management opportunities.

## 8. Fluid leasing stipulations:

SRA—1 Surface use or occupancy will be strictly Controlled in these areas to mitigate special values, special purposes or areas that require special attention. Use or occupancy will be authorized only when it has been demonstrated that the area is essential for operations. The lessee/operator may be required to submit a surface use and operations plan to the BLM for the purpose of mitigating these special concerns.

SRA—2 Surface disturbing activities will be allowed only during specified time periods.

SRA—3 No surface occupancy will be allowed.

NM—5: Lands within the White Sands Missile Range Extension Area.

Missile firing shutdown — The lease is located within the WSMR Extension Area. Persons operating the leasehold will be requested to evacuate the leasehold on those days that missiles are being fired.

9. Limited or closed to motor vehicle use —see Glossary for off-road vehicle (ORV) definition

10. Acquire nonpublic lands — BLM will entertain proposals from the State and from private landowners and will also introduce its own proposals to acquire these identified parcels. However, all land ownership adjustments will be strictly voluntary and done in close coordination with the parties involved.

1. SAWTOOTH — 120 Acres

General Description: The Sawtooth ACEC is located northwest of Datil, New Mexico. The area is characterized by steep ridges and footslopes.

The soils composing the plant habitat are of highly erodable sandstone and clay, usually in association with the Baca formation. Pinyon—juniper is the dominant vegetation aspect. Other vegetation common to the area include: broom snakeweed, rabbitbrush, blue grama, bottlebrush squirreltail, and galleta.

Sawtooth contains approximately 120 acres, part of which is habitat to a small population of Erigeron rhizomatous (Rhizome fleabane). This species is listed by the U.S. Fish and Wildlife Service (FWS) as a threatened plant, under the Endangered Species Act (ESA) of 1973.

The area was nominated for special management because of the sensitivity of the species. This mutual concern is shared by both the New Mexico Energy, Minerals, and Natural Resources Department (NMEMNRD) and the Nature Conservancy. Activities that could jeopardize the plant and its habitat include, intensive livestock or recreational use and fire. These concerns help establish the importance and significance of this area and its designation as an ACEC.

Management Goals: Sawtooth ACEC will be managed to protect the habitat of T&E plants.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Exclude authorization for ROWs and leases.
3. Fluid Leasing Stipulation SRA—3.
4. Withdraw from locatable mineral entry.
5. Acquire legal access.
6. Initiate monitoring studies.
7. Develop an allotment management plan (AMP).
8. Designate as fire suppression area.

2. SOAPTREE – 1200 Acres

General Description: The Soaptree SMA contains approximately 1,200 acres, and is located 27 miles southeast of San Antonio, New Mexico. The SMA occurs on gently sloping or undulating slopes or plains. The vegetation aspect is yucca. Other species occurring in the area include ephedra, sand sagebrush, winterfat, broom snakeweed, black grama, sand dropseed, bush muhly, and threeawns.

The area was nominated as an SMA because of the aesthetic and recreational values it possesses. The SMA lies just north of the Jornada del Muerto Wilderness Study Area (WSA). Large, dense stands of yucca dominate the desert scenery. Although yucca stands appear in other parts of the SRA, they do not appear at the size and density that they do in this area.

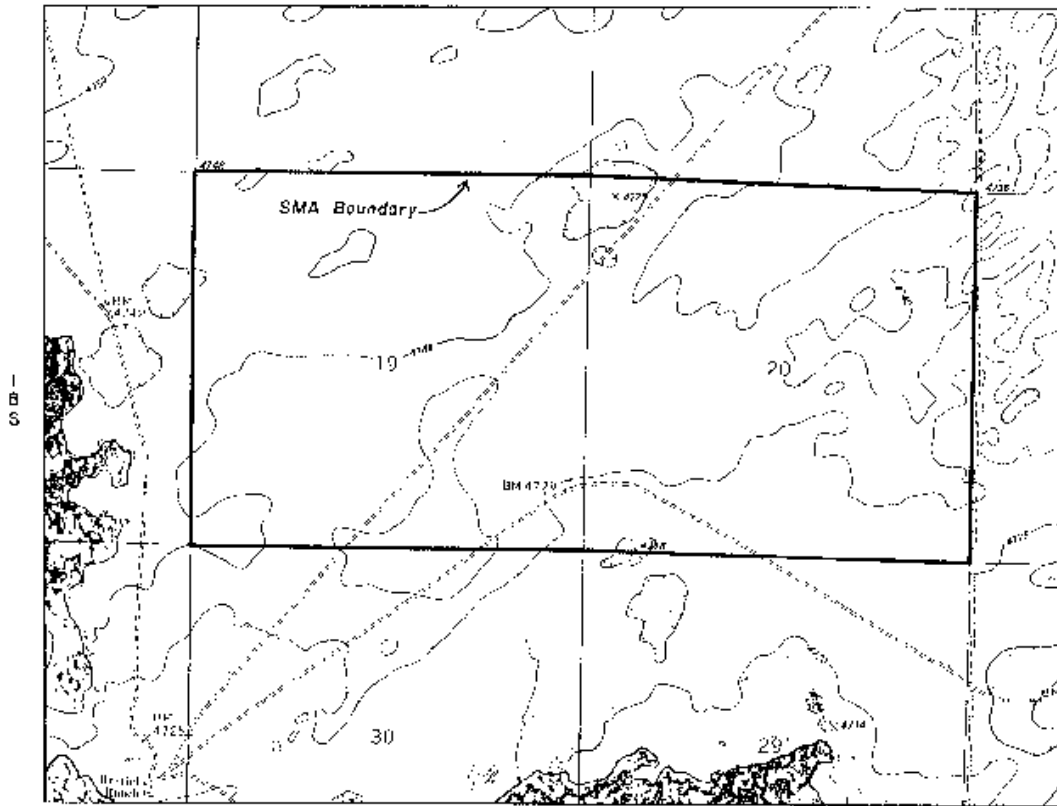
With the increasing demand for yucca for landscape purposes, it becomes necessary to monitor and conserve areas for future use by the public.

Management Goals: Soaptree SMA will primarily be managed for grazing use, to improve recreational opportunities and to protect the unique, natural and scenic soaptree yucca type ecosystem.

Planned Actions:

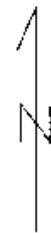
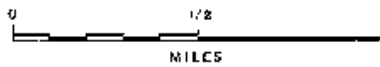
1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Fluid Leasing Stipulation SRA—1.
4. Exclude vegetative material sales.
5. Restrict mineral material disposals.

R 2 E



U.S. DEPARTMENT OF INTERIOR  
BUREAU OF LAND MANAGEMENT  
LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

SOAPTREE  
SPECIAL MANAGEMENT AREA





### 3. SAN PEDRO — 1,200 Acres

General Description: The San Pedro ACEC contains approximately 1,200 acres, and is located east of San Antonio, New Mexico. The area is characterized by low ridges, footslopes, arroyos, and water courses. Soils are shallow to deep, and usually very gravelly with underlying layers of fine sandy loams and caliche.

Vegetation within the area is of a mixed—shrub grassland type with juniper, snakeweed, creosotebush, Apache—plume, black grama, galleta, fluffgrass, sand dropseed, and a variety of other species making up the ecosystem.

The area was nominated by the Nature Conservancy and the NMEMNRD for special management because it is habitat to the plant species, Amsonia fugatei. This species of Amsonia, native to the Southwestern United States and Northwestern Mexico consists of a few, generally small, isolated populations. No two populations are precisely alike and classification is a problem when comparing phenotypic variation within and between populations (McLaughlin 1985). The species of Amsonia here cited possesses a sufficiently distinctive combination of characters to warrant its recognition as a new species (McLaughlin 1985).

The San Pedro ACEC meets the importance criterion for ACEC designation because of the sensitivity of the plant species Amsonia fugatei. The species has been proposed to the FWS for listing as a Federal candidate on the endangered species list.

Management Goals: San Pedro ACEC will be managed to maintain and protect the habitat for Federal T&E plants.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Exclude authorization for ROWs and leases.
3. Fluid Leasing Stipulation SRA—1 and NM—5.
4. Initiate monitoring studies.
5. Restrict mineral material disposals.

### 4. HARVEY PLOT – 3 Acres

General Description: The Harvey Ecological Plot SMA is located northeast of Bingham, New Mexico on Chupadera Mesa Allotment, No. 1368 Soils on the site are usually shallow over limestone although deep pockets may exist.

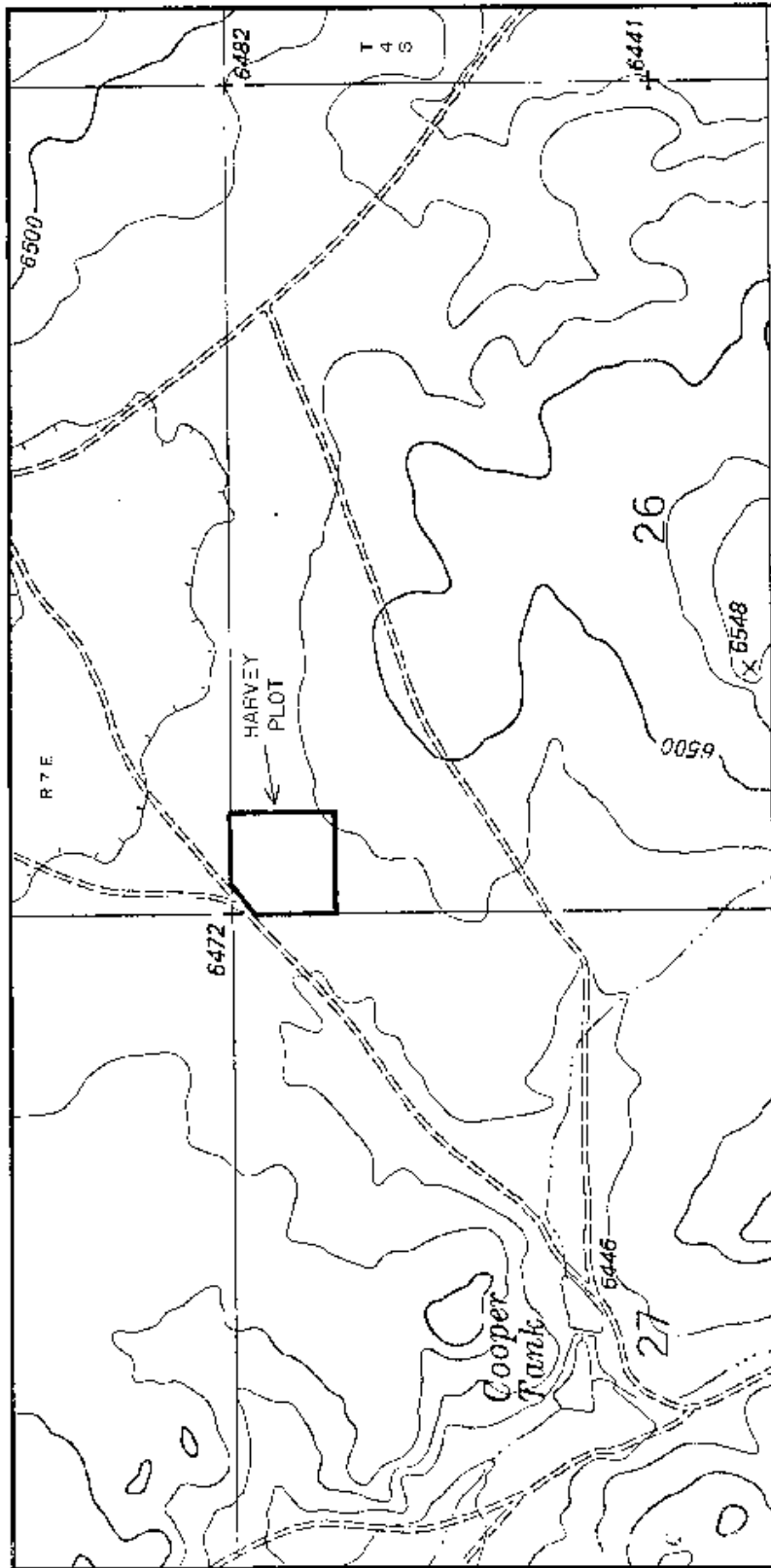
The 3—acre study plot was established in 1962 by the BLM. Its purpose was to provide information to determine the effect of rodents on native vegetation as well as study the ecology of range for rainfall and soil types.

Vegetation on the area includes, juniper, skunkbush sumac, black grain, sideoats grama, blue grama, New Mexico feathergrass and other species.

Management Goals: The Harvey Plot SMA will be managed to provide vegetative use data for future scientific use.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorizations for ROWs and leases.
3. Fluid Leasing Stipulations SRA—1 and NM—5.
4. Withdraw from locatable mineral entry.



U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE APL 4

**HARVEY PLOT**  
 SPECIAL MANAGEMENT AREA



## 5. STALLION — 22,840 Acres

General Description: The Stallion SMA is located approximately 8 air miles east of Socorro, New Mexico. The unit encompasses 22,840 acres of which 19,840 acres are public, 1,920 acres are State, and 1,080 acres are private. The western part of the SMA encompasses the Sierra do las Canas and Presilla WSAs. Until Congressional action the area will be managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USD1, BLM, as amended, 1983).

The SMA is located within the Chihuahuan Desert. Maximum summer temperatures range from 90 to 100+ degrees Fahrenheit. Winter temperatures are generally mild during daylight hours (40 to 50 degrees Fahrenheit) and moderately cold at night (15 to 30 degrees Fahrenheit). Spring and fall temperatures tend to be mild. The spring season typically is accompanied by winds ranging from 10 to 40 miles per hour.

Precipitation averages 10 inches per year. Over half the annual rainfall is received during the summer thundershower season (July through September). A third of the year's precipitation usually falls during the winter months (December through March). The remaining moisture, normally 10 percent or less, is received in the spring and fall months.

The SMA is varied in landscape, a rugged desert mountain range characterized by sheer rock escarpments, deep narrow canyons, ridges, mesa tops, broken badlands, rolling pinyon—juniper, and grass covered hills. Elevations range from 5,100 to 6,200 feet with a maximum relief of 1,100 feet.

The SMA is located within the Rio Grande and Jornada del Muerto surface water drainage basins. There are no permanent streams or surface water bodies within the SMA. However, the normally dry arroyos occasionally carry storm runoff to the Rio Grande and Jornada del Muerto immediately after rainfall within their respective drainage areas. Periods of flow are short and may be widely spaced in time due to intermittent and sporadic rainfall patterns. Runoff averages 0.1 inches per year.

Soils of the SMA vary from moderately deep to deep and loamy in swales and lower areas to coarse textured, gravelly, ranging from deep to shallow over bed rock. Portions of the area contain gypsum. Much of the SMA is in a critical erosion class with the remaining being moderate. Active and severe sheet and gully erosion is occurring over much of the SMA; particularly in the central and eastern parts. There have been several erosion control projects completed in the past on portions of the SMA. These projects have primarily entailed construction of wire check dams. Most of the work appears to have been completed in 1965. For a more complete description of the watershed refer to a watershed program report completed in May 1983 located in the SRA office.

The vegetation of the SMA is typical of the upper Chihuahuan Desert at the northern extreme of its range. Vegetation types have been identified as: desert shrub, pinyon—juniper, creosote, and grassland.

The desert shrub vegetation type encompasses dominant shrubs such as cholla and squawberry associated with winterfat, creosote, Mormon tea (et al). Grasses include gramas, dropseeds, muhly, alkali sacaton, and galleta. Prominent forbs include globemallow and wild buckwheat among others.

Pinyon—juniper covers much of the central and northeastern part of the SMA. The understory vegetation is dominated by warm—season grasses of which the gramas are most prevalent. Cool—season grasses associated with this type include silver bluestem and Indian ricegrass among others. Associated shrubs include yucca, Mormon tea, squawberry, cholla, and prickly pear. Forbs, to include a few, are globemallow, hog potato, and aster.

The creosote community includes creosote, cheatgrass, bush muhly, and broom snakeweed as dominates. Other common species are mesquite, mariola, and grasses such as black grama, galleta and dropseed. Forbs of this type include desert hollyand pepperweed among others.

The short grass subtype of the SMA are dominated by grama grasses and also include dropseeds, burrograss, and muhly. Associated shrubs of this type include cholla, Mormon tea, and slender gray sagebrush. Russian thistle, globemallow, and desertholly are some forbs included in the type.

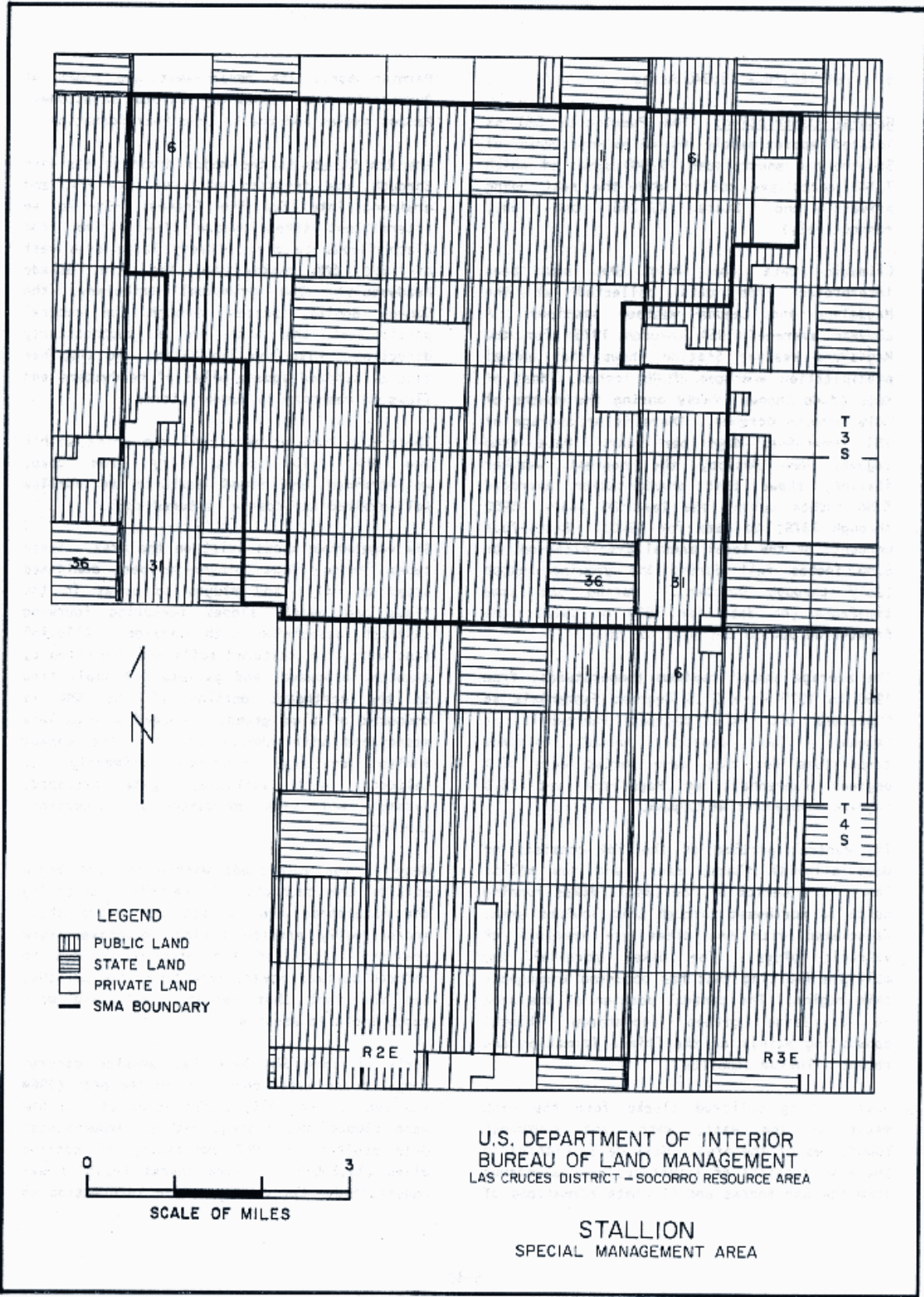
The mid—grass subtype is characterized by alkali sacaton. Giant sacaton also occurs in the overflow drainages of the WSA. Other grasses present are burrograss, blue grama, galleta, vine—mesquite, and mat muhly. Forbs include Russian—thistle, desertholly, white horse nettle, and, threadleaf groundsel. The only shrub of significant composition in this subtype is broom snakeweed. However, traces of one—seed juniper, fourwing saltbush, cholla, and Apache—plume are present.

For a more detailed description of the vegetation of the SMA refer to the New Mexico State Wilderness Analysis Report for the Sierra de las Canas and Stallion WSAs. This report is located in the SRA office. Other resources of the SMA include wildlife, range, cultural, mineral, forestry, and recreation.

Management Goals: Stallion SMA will be managed to protect and rehabilitate this critical watershed area through efforts to control erosion by minimizing surface disturbance, closure and rehabilitation of unneeded roads when additional inventory is complete, and monitoring and control of ORV use.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Fluid Leasing Stipulation SRA—1 and NM—5.
4. Designate grazing allotments in “M” category.
5. Acquire nonpublic lands.
6. Close and rehabilitate certain trails as a part of the activity plan.



U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

**STALLION**  
 SPECIAL MANAGEMENT AREA

## 6. PUERTECITO — 10,040 Acres

General Description: The Puertecito SMA is located approximately 40 miles northwest of Socorro and encompasses 10,040 acres of which 7,140 acres are public with the rest being private and State (2,260 and 640, respectively).

Climatic data for this SMA has been interpreted from data collected at the Magdalena and Laguna weather stations. A 25—year average (1951 through 1975) for the Magdalena Weather Station shows that annual precipitation averages 10.85 inches. Most of this (7.48 inches) falls during the months of July through October. There is an average of 154 frost—free days per year. Data from Laguna, New Mexico, the nearest weather station, shows that precipitation averaged 8.86 inches during the last 26 years (1950 through 1975; no data for 1970). Sixty—four percent, of the total annual precipitation, or 5.66 inches fell during the growing season (July through October). During the same time frame (no data for 1970 or 1973), the frost—free period averaged 160 days.

The average annual maximum temperatures, from 1960 to 1979 were 71.5 degrees Fahrenheit at Magdalena and 74.7 degrees Fahrenheit at Laguna. The average annual minimum temperature for this same period were 32.1 degrees Fahrenheit at Magdalena and 30.8 degrees Fahrenheit at Laguna.

The central portion of the SMA consists of deep alluvial flats, fans, and low hills. There is a series of low basalt dikes running north to northwest through this lowland area. Associated with the dikes are remnants of volcanic plugs. The dikes parallel the multiple faulting that has occurred throughout this region. The central portion of the area is a large graben (downthrow block) consisting mainly of the Chinle formation and recent alluvium deposits.

West tilting uplifted blocks form the high mesas on the east, west, and southwest boundaries of the area. Mesa de la Cienega on the east consists of limestones and sandstones from the San Andres and Glorieta formations of

Permian Age. The mesas west and south of Puertecito are capped by Dakota sandstones, Mancos shales and the La Cruz Peak formation.

The Rio Salado is the major drainage eastward through the southern part of the SMA and draining into the Rio Grande. It is an intermittent stream whose flow varies from flash floods to dry. A very large area west of the SMA makes up the Rio Salado headwaters. The principal tributary, the Canada Bonita, passes through the central portion of the area in a southeasterly direction. Like the Rio Salado, it also has several hundred square miles of headwaters and flows in response to summer storms.

There are five primary soil map units within the SMA. The soils vary from deep, well—drained and fined textured to shallow well—drained and coarse textured soil.

Six vegetative types exist on the area. These types range from pinyon—juniper dominated areas on hills and ridges to areas in the flats and gentle slopes featuring fourwing saltbush associated with sacaton. Alluvial fans with fine textured soils are dominated by sacaton, dropseed, and galleta. A small area in the northeast portion of the SMA is composed of blue grama, dropseed and galleta associated with cholla cactus. The Canada Bonito drainage consists primarily of saltcedar with saltbush, spike dropseed, sacaton and vine mesquite as understory species.

Many of the watersheds within the SMA begin outside the boundary of the SMA. Generally the watersheds are subject to severe sheet and/or gully erosion during intensive storm activity. Much of the erosion is due to reduced surface cover, intensive flow periods, and the fact that certain soils are more susceptible to erosion.

Parts of this SMA have had erosion control projects and tests completed in the past (1964 and 1982). In 1964, 2,200 acres of the SMA were ripped and seeded, and an experimental dike project in 1982 consisting of contour dikes (13,800') and wire checks (4,150') was constructed. For more specific information on

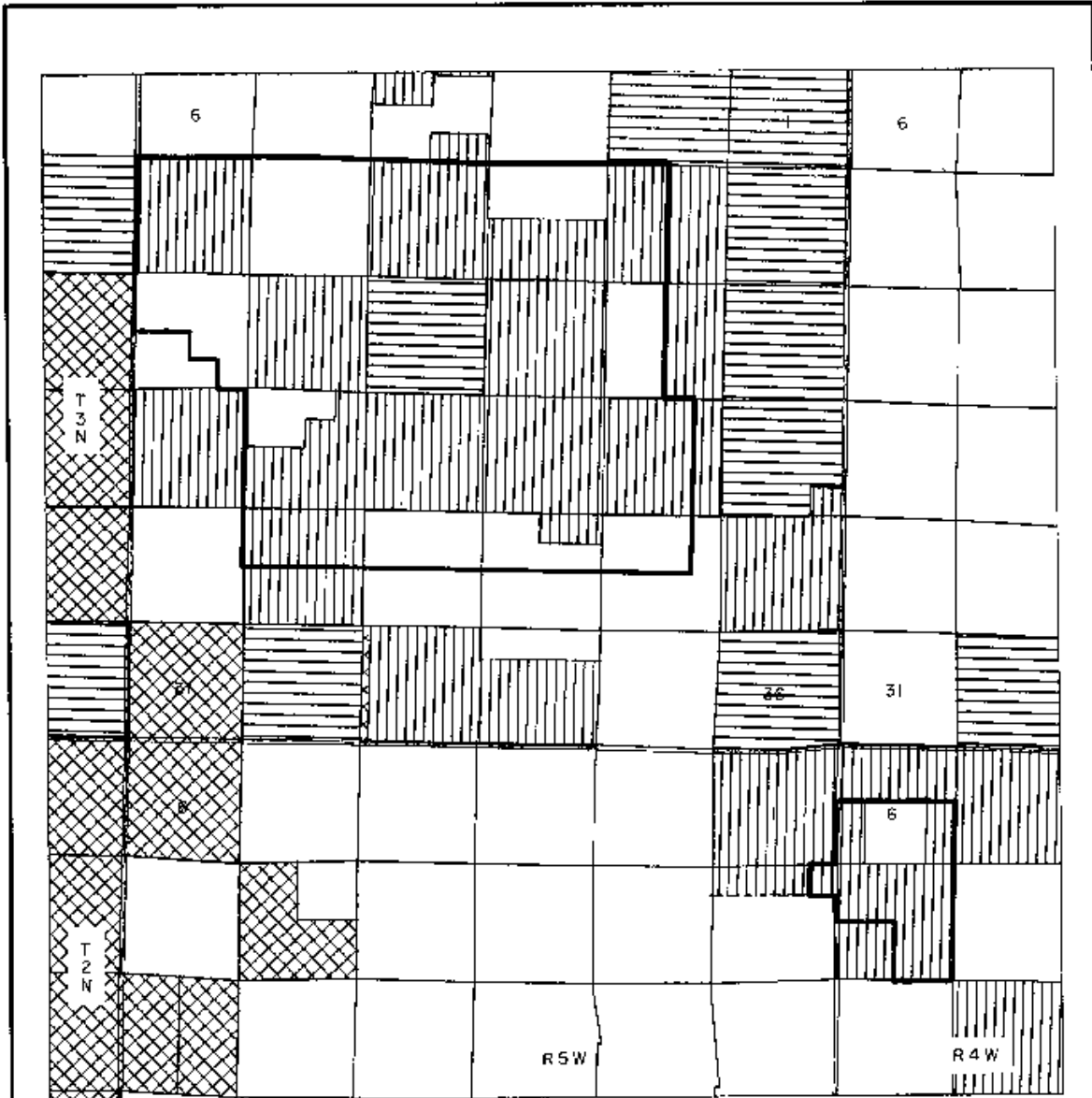
the projects and a detailed description of the soils and vegetation, refer to the Puertecito—Barranco watershed plan in the SRA office.

Other resources wildlife, range, recreation. There are portions of two grazing allotments within the SMA include cultural, mineral, and the SMA (Puertecito and Barranco).

Management Goals: Puertecito SMA will be managed to protect and rehabilitate this critical watershed area. Efforts will be made to control erosion by minimizing surface disturbance, closure, and rehabilitation of unneeded roads, when additional inventory is complete, and monitoring and control of ORV use.

Planned Actions:

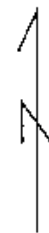
1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorizations for ROWs and leases.
3. Fluid Leasing Stipulation SRA—1.
4. Designate grazing allotments in "M" category.
5. Close and rehabilitate certain vehicle trails as part of the activity plan.



U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOGDERO RESOURCE AREA

PUERTECITO  
 SPECIAL MANAGEMENT AREA

- LEGEND
-  PUBLIC LAND
  -  STATE LAND
  -  PRIVATE LAND
  -  INDIAN LAND
  -  SMA BOUNDARY





## 7. FENCE LAKE — 32,840 Acres

General Description: Fence Lake SMA is located in northwestern Catron County approximately 20 air miles northwest of Quemado, New Mexico. It encompasses 32,840 acres of which 25,280 are public, the rest of which are private and State (3,480 and 4,080, respectively).

The SMA is on the border of the northwestern plateau and southwestern mountains climatic regions. Climatic data is available from four stations near the area: Quemado, Salt Lake, Fence Lake, and the Goesling Ranch. Only a few years' data is available at Salt Lake and the Goesling Ranch. Quemado is in the southwestern mountains climatic region and Fence Lake is in the northwestern plateau region so the climate for the area is somewhere in between the two. Generally, Fence Lake receives more precipitation than Quemado with an average annual value of 12.42 inches for the 1970s. Quemado had an average annual value of 10.98 inches during this same period. Historically, there has been a large variation in average annual precipitation. Average annual temperatures are nearly the same for Fence Lake and Quemado, about 47.7 degrees Fahrenheit. Frost—free days are in the 103 and 106 range.

There are three major land forms: the nearly level mesa tops, the steep sandstone and shale escarpments and hills, and the gently sloping alluvial fans and drainageways. Most of the severe gullying problems, common to this area, occur on the alluvial fans and drainageways.

The SMA contains four major geologic systems: Quaternary, Tertiary, Cretaceous, and Triassic in an east—west plunging syncline in the western portion of the unit. The bottom of the syncline is near the center of the western section of the area and slopes upward to mesas north and south. The syncline and structural movements undoubtedly had an influence on the arroyo cut and fill cycles in Twenty—two Draw. For a detailed description of the

geologic units refer to the Cox and Estrada watershed plans in the SRA office.

A small portion of the SMA lies within the maximum coal potential area and application of land—use screens will be applied to those areas for management of coal resources.

Soils vary considerably from relatively deep and well—drained to shallow over shale. Much of the area is rock outcrop varying to badland alluvial fans and plains. Soil textures vary from clay to sandy loams to extremely gravelly loamy coarse sands. Erosion potentials vary from slight to high. For a more detailed description of soil units refer to the activity plans referenced above.

Topography is comprised of plains and alluvial fans generally in the southern part and interspersed with rolling hills to high mesas and escarpments to the north. Elevations vary from 6,400 feet in the bottoms to over 7,400 in the northeast.

Much of the watershed is subject to severe headcutting, soil piping, and sheet erosion resulting in numerous continuous and discontinuous gullies. Past erosion control measures have included construction of gully plugs, detention dams, wire checks, etc. Much of the existing erosion control system needs maintenance as many of the structures are at capacity or have failed.

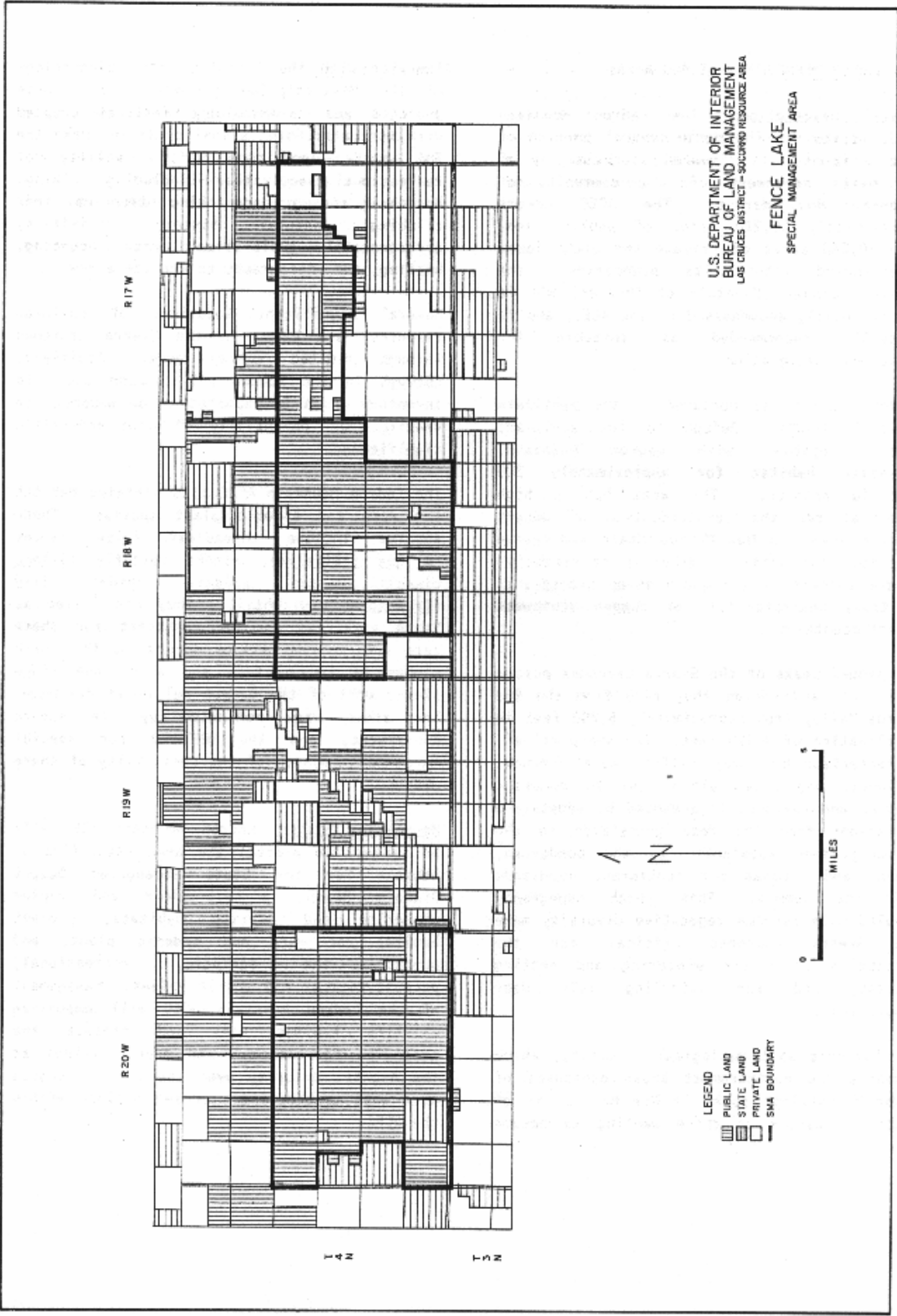
Vegetation varies from giant or alkali sacaton, and scattered shrubs such as fourwing saltbush, Apache—plume in the wetter bottomlands to alkali sacaton, western wheatgrass, blue grama, galleta, mixed with fourwing saltbush, wolfberry, and winterfat in finer textured uplands. Much of the area is pinyon—juniper woodland in the higher elevations and mesas.

Other resources include wildlife, range, forestry, cultural, and mineral. There are two active grazing allotments (Cox and Estrada).

Management Goals: Fence Lake SMA managed to protect and rehabilitate critical watershed through efforts to control erosion by minimizing surface disturbance, closure and rehabilitation of unneeded roads when additional inventory is complete, and monitoring and control of ORV use.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorizations for ROWs & leases.
3. Fluid Leasing Stipulation SRA—1.
4. Designate grazing allotment in “M” category.
5. Close and rehabilitate certain vehicle trails.



## 8. LADRON MOUNTAIN — 62,460 Acres

General Description: The Ladron Mountain ACEC, located in the north—central portion of Socorro County, is situated approximately 15 air miles northwest of the community of Socorro, New Mexico. The ACEC covers approximately 52,220 acres of public land, with 10,240 acres of private and State lands intermingled within its boundaries. The Sierra Ladrones (Mountain of Thieves) WSA is almost totally encompassed by the ACEC, and is presently recommended as suitable for wilderness designation.

Ladron Mountain is bordered by the Sevilleta National Wildlife Refuge to the southeast which, together with Ladron Mountain, possesses habitat for approximately 200 wildlife species. The area has a high potential for the reintroduction of desert bighorn sheep, a New Mexico State endangered species. The habitat, which is so conducive to the success of a bighorn sheep transplant, is truly characteristic of rugged southwest desert mountains.

The jagged peaks of the Sierra Ladrones pose a prominent landmark as they rise from the Rio Grande Valley from approximately 5,200 feet to an elevation of 9,176 feet. The sharp relief, characterized by rocky cliffs, mesa rimrock, badlands, and steep slopes cut by numerous canyons and ravines, is accented by vegetative variations from the mesa grasslands to the pinyon—juniper woodlands, to the ponderosa, aspen, and Douglas fir coniferous woodlands near the summit. This rough topography coupled with extreme vegetative diversity make the Sierra Ladrones critical for the protection of raptor wintering and nesting habitat, and for dwindling mule deer populations.

The Ladron's vast geological diversity, which contains the northernmost known exposures of lower Mississippi rocks in New Mexico, is of special interest to those wanting to become familiar with the lithology and paleontology of the Mississippian geologic era. These geologic and paleontologic features coupled with its outstanding visual qualities make the SMA quite appealing for a variety of recreational activities including hiking, horseback riding, backpacking, technical rock climbing, natural history activities, environmental exploration, rock hounding, hunting, and photography to mention a few.

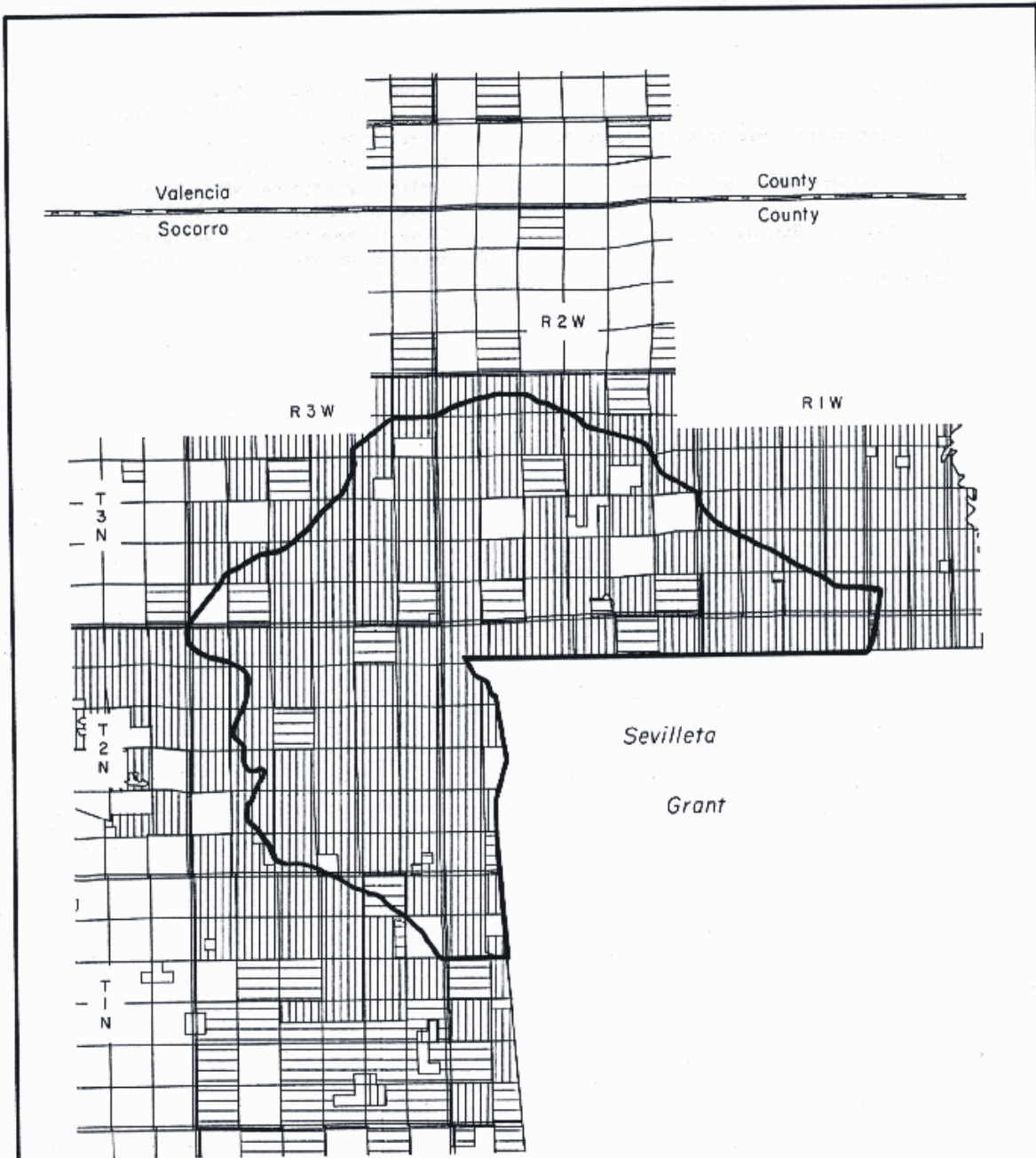
Several significant locations of cultural resources are known in the Sierra Ladrones through limited survey work. Additional surveys in the future will expand the site inventory which is expected to be moderate in density, but potentially of high scientific significance.

The Ladron Mountain ACEC also contains habitat for rare and endemic plant species. These species include threadleaf false carrot (*Aletes filifolia*), planks catchfly (*Silene Dlankii*), and Wrights spider lily (*Tradescantia wriczhtii*). They are listed as State sensitive species. Habitat for these rare and endemic plants occurs on the north slopes of Ladron Peak and along the ridge slopes west of the Canyon del Norte drainage. The areas were nominated by the Nature Conservancy and the NMEMNRD for special management because of the sensitivity of these plants.





Management Goals: Ladron Mountain ACEC will be managed to protect the area identified as habitat for the State endangered Desert Bighorn Sheep; protect deer and raptor wintering and nesting habitats; protect habitat for rare and endemic plants and protect the geologic, recreational, paleontological and scenic values. Management of the Ladron Mountain ACEC will emphasize wildlife habitat uses and protect the geologic, recreational and scenic values as the highest priority over the other resource uses when considering proposed actions within the ACEC.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Fluid Leasing Stipulations SRA—1 and SRA—2.
4. Limit fire suppression.
5. Exclude from woodcutting.
6. Restrict mineral material disposals.
7. Close certain vehicle trails—18 miles.
8. Acquire nonpublic lands.
9. Restrict geophysical operations.
10. Close only allotment No. 1152 to grazing.
11. Close to domestic sheep and goats.
12. Reintroduce Desert Bighorn Sheep.



**LEGEND**

-  PUBLIC LAND
-  STATE LAND
-  PRIVATE LAND
-  SMA BOUNDARY

U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

**LADRON**  
 AREA OF CRITICAL ENVIRONMENTAL CONCERN



## 9. PELONA MOUNTAIN — 78,320 Acres

General Description: The Pelona Mountain SMA is located in Catron County, at the southwest edge of the Plains of San Augustine, approximately 29 air miles southwest of Datil. The SMA contains 78,320 acres of which 56,880 are public, 9,960 are State, and 11,480 are private. Pelona Mountain SMA varies in elevation from 6,780 feet up to 9,212 feet. The majority of the SMA is characterized by rugged canyons and rough hilly to mountainous country.

The major vegetative associations include ponderosa pine mountains, pinyon—juniper hills, half—shrub hills, rabbitbrush—grama hills, and saltbrush—grama valleys.

There are 309 potentially—occurring wildlife species on Pelona Mountain. Game species include mule deer, elk, pronghorn antelope, mountain lions, black bears, and turkey. Other species include bobcats, coyotes, gray fox, porcupines, jackrabbits, cottontails, squirrels, chipmunks, raptors, and various species of songbirds, reptiles and amphibians. The SMA has also been identified by the FWS as providing potential habitat for bald eagles, peregrine falcons, and black—footed ferrets; all are Federally endangered species. Wintering bald eagles are known to utilize portions of the SMA.

Currently, forage availability is not a limiting factor. Much of the SMA is in good condition, and has adequate forage available for wildlife; however, some areas do have considerable potential for improvement.

The Pelona Mountain SMA is a rugged landscape which exhibits the diversity of color, vegetation, relief, shape, and geology characteristic of pine—forested mountains. Numerous vantage points exist along ridges and other high points within the SMA offer spectacular vistas. Views from the 1,200—foot

escarpment along the western edge of the SMA extend across the Plains of San Augustine and encompass much of west—central New Mexico.

The western portion of the Continental Divide WSA (NM—020—044) is located within the Pelona Mountain SMA. This portion has been recommended as “suitable” for wilderness designation and is currently being managed under the Interim Management Policy and Guidelines for Lands under Wilderness Review (USD1, BLM, as amended, 1983). This management will continue until Congress decides for or against wilderness designation on this area.

Recreation uses in this SMA include scenic sightseeing, big game hunting, backpacking, and hiking; however, the area offers a high potential for camping trips, and nature photography and study also.

The Continental Divide crosses the Pelona Mountain SMA and presently attracts a few hikers following the route of the Continental Divide. Should the Continental Divide National Scenic Trail (CDNST) actually be designated and routed through the SMA, use would undoubtedly increase.

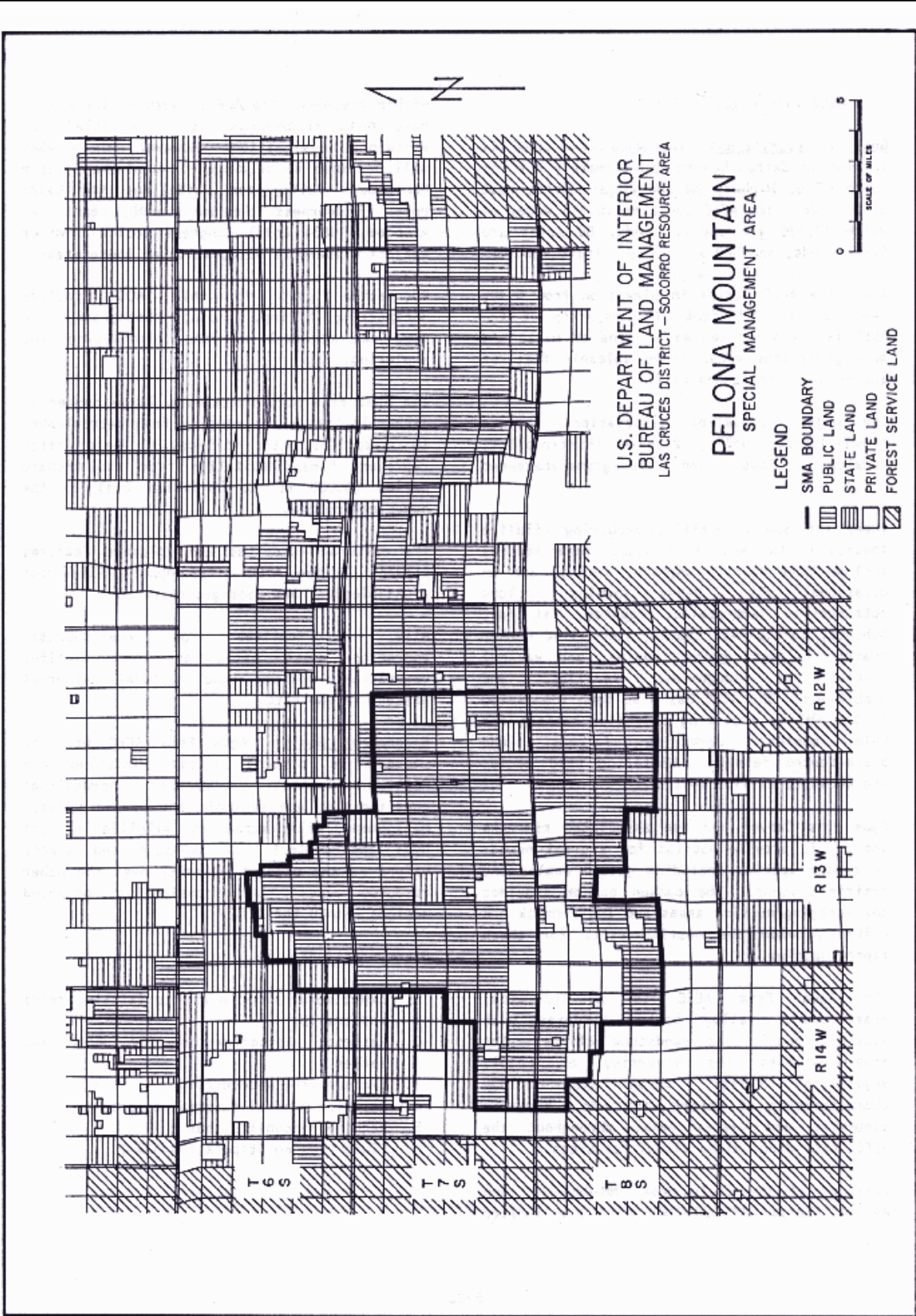
Bat Cave, a highly significant archaeological site which is within the Pelona Mountain SMA, is on the National Register of Historic Places (NRHP). Earlier people living in the cave on the shores of the extinct Lake Augustine developed what is believed by some to be the earliest domesticated maize in North America.

Management Goals: Pelona Mountain SMA will be managed to protect elk, deer and raptor wintering and nesting habitats; the geologic, recreational and scenic values; and Bat Cave Cultural Site. Management will emphasize wildlife habitat uses and protect the geologic, recreational, and scenic values as the highest priority over other resource uses when considering proposed actions within the SMA.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Fluid Leasing Stipulations SRA—1 and SRA—2.
4. Exclude from woodcutting.
5. Acquire nonpublic lands.
6. Acquire legal access.
7. Implement Fire Management Plan.
8. Restrict geophysical operations.
9. Develop AMPs on all allotments.
10. Develop Bat Cave Cultural Site.
11. Close certain vehicle trails—5 miles.
12. Close to domestic sheep and goats.





## 10. AGUA FRIA — 10,770 Acres

General Description: The Agua Fria ACEC is located in Catron County approximately 4 miles north of US Highway 60 and 20 air miles west of Quemado. The ACEC contains 10,770 acres of which 10,170 are public lands, 80 acres are State lands, and 520 acres are private lands.

Agua Fria ACEC varies in elevation from 6,400 feet up to 7,600 feet. The majority of the ACEC is characterized as an area of mesas and open grasslands enhanced by volcanic features and vertical sandstone cliffs.

The major vegetation associations include pinyon—juniper hills, Russian thistle—alkali sacaton valleys, and blue—grama—snakeweed hills.

There are 306 potentially occurring wildlife species in the Agua Fria ACEC. Game species include mule deer, pronghorn, turkey, and an occasional elk. Other species include cottontails, jackrabbits, coyotes, kit fox, bobcats, porcupines, skunks, red—tailed hawks, prairie falcons, golden eagles, and various species of songbirds, reptiles, and amphibians. The ACEC has also been identified by the FWS as providing potential habitat for bald eagles, peregrine falcons, and black—footed ferrets. Wintering bald eagles are known to utilize this ACEC.

Agua Fria Canyon and the associated rimrocks and cliffs provide habitat for a great number of raptor species including golden eagles and prairie falcons. The canyon bottom provides the foraging/hunting areas and the rimrock and cliffs provide the nesting sites for these raptor species.

The Agua Fria ACEC is a long—wide, grass—covered valley bottom bordered with vertical basalt and sandstone cliffs. The area exhibits the diversity of color, vegetation, relief, shape and geology characteristic of desert woodlands. Numerous panoramas and vistas exist throughout the ACEC, providing unique visual resources.

Portions of the Eagle Peak (NM-020-019) and Mesita Blanca (NM-020-018) are located within the Agua Fria ACEC. Both of these WSAs have been recommended as “unsuitable” for wilderness designation. However, these WSAs will continue to be managed under the Interim Management Policy and Guidelines for Lands under Wilderness Review (USD1, BLM, as amended, 1983) until Congress decides for or against wilderness designation on these areas.

Recreation uses in this ACEC include backpacking, hiking, camping, photography, big game hunting, rock hounding, sightseeing, and exploring.

The Agua Fria ACEC contains a large number of archaeological sites ranging from petroglyphs, to campsites, to villages. These sites represent human habitation from the Archaic period (6,000 BC to Christian Era) to the homesteading era.

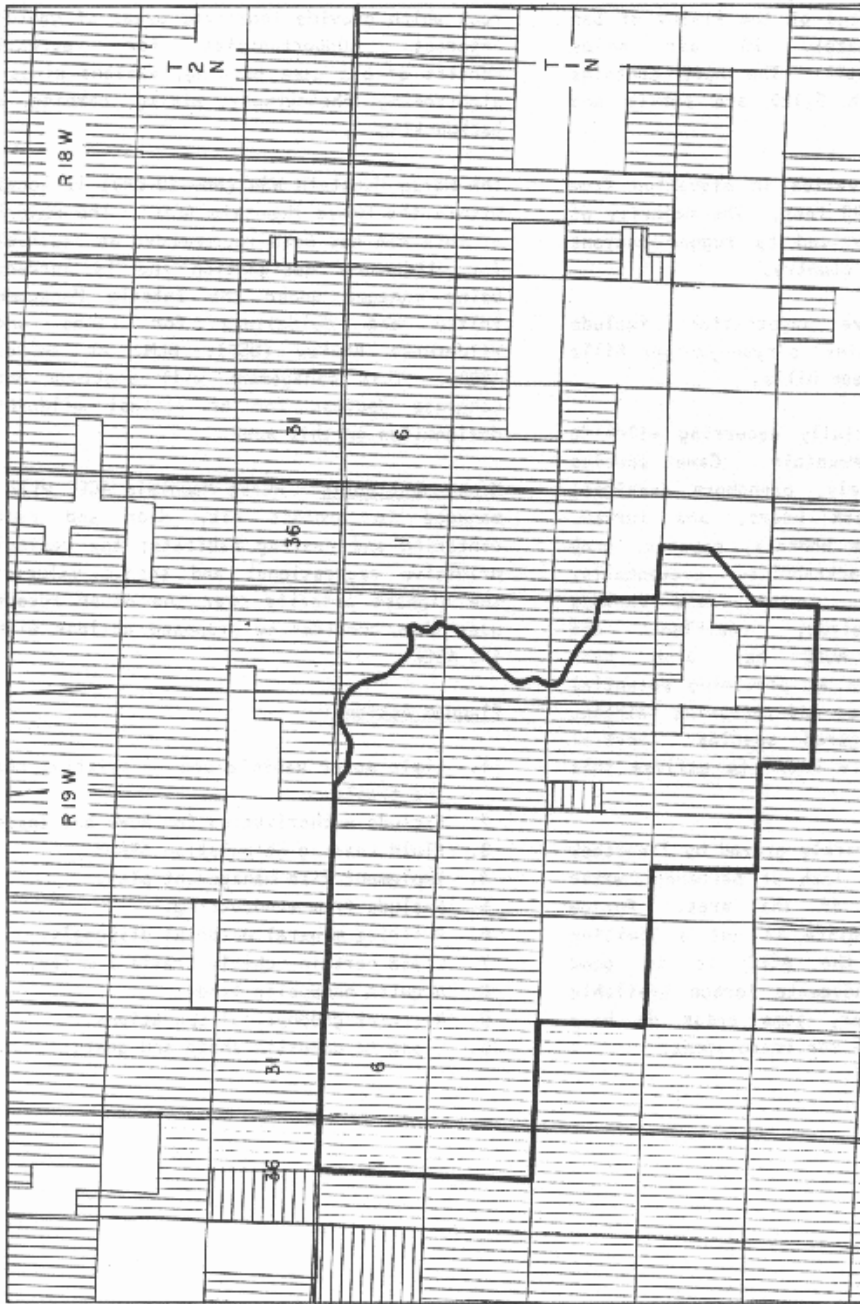
The cultural resources and volcanic features present in the ACEC offer opportunities for archaeological and geologic research.

Also, opportunities for environmental education exist based on the wildlife, vegetation, geology, and cultural resources present in the ACEC.

Management Goals: Agua Fria ACEC will be managed to protect raptor wintering and nesting habitats; improve recreational opportunities and geologic and scenic values. Management will emphasize wildlife habitat uses and protect the geologic and scenic values as the highest priority over the other resource uses when considering proposed actions within the ACEC.

### Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Exclude from woodcutting.
4. Restrict mineral material disposals.
5. Acquire nonpublic lands.
6. Fluid Leasing Stipulation SRA—2.



U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA  
 AGUA FRIA  
 AREA OF CRITICAL ENVIRONMENTAL CONCERN

- LEGEND
-  PUBLIC LAND
  -  STATE LAND
  -  PRIVATE LAND
  -  SMA BOUNDARY

## 11. HORSE MOUNTAIN - 7,720 Acres

General Description: The Horse Mountain ACEC is located in Catron County, at the northwest edge of the western end of the Plains of San Augustine, approximately 25 air miles west—southwest of Datil. The ACEC contains 7,720 acres of which 5,120 are public and 2,600 are State.

Horse Mountain ACEC varies in elevation from 7,650 feet up to 9,490 feet. The majority of the ACEC is characterized by rugged canyons and rough mountainous country.

The major vegetative associations include ponderosa pine mountains, pinyon—juniper hills and blue grama—snakeweed hills.

There are 299 potentially occurring wildlife species on Horse Mountain. Game species include mule deer, elk, pronghorn antelope, mountain lions, black bears, and turkey. Other species include bobcats, coyotes, gray fox, porcupines, jackrabbits, cottontails, squirrels, chipmunks, raptors, and various species of songbirds, reptiles, and amphibians. This ACEC has also been identified by the FWS as providing potential habitat for bald eagles and peregrine falcons, both Federally—endangered species. Several species of raptors are known to utilize this ACEC.

Much of the ACEC is rarely grazed by livestock due primarily to the lack of permanent water and inaccessibility of the area. Forage availability for wildlife is not a limiting factor. Much of the ACEC is in good condition, and has adequate forage available for wildlife; however, some areas do have considerable potential for improvement.

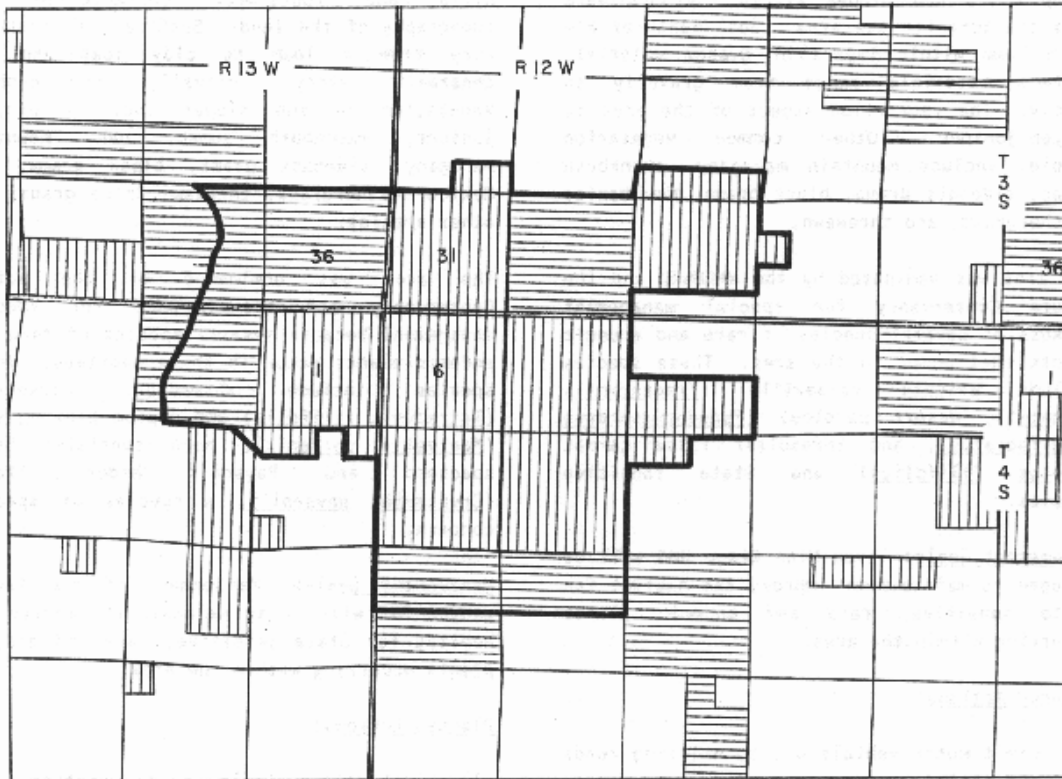
The Horse Mountain ACEC is an isolated mountainous area and the view from the summit offers a spectacular 360 degree panorama. There are also isolated outcrops of volcanic rock which provide localized areas of geologic interest. Opportunities for recreation consist of big game hunting, various kinds of sightseeing, photography, hiking, camping, and backpacking.

The Horse Mountain WSA (NM—020—043) is located within the Horse Mountain ACEC. The majority of this WSA has been recommended as “suitable” for wilderness designation and is currently being managed under the Interim Management Policy and Guidelines for Lands under Wilderness Review (USDI, BLM, as amended, 1983). This management will continue until Congress decides for or against wilderness designation on this area.

Management Goals: Horse Mountain ACEC will be managed to protect elk, deer and raptor wintering and nesting habitats; the geologic, primitive recreational and scenic values as the highest priority over the other resource uses when considering proposed actions within the ACEC.





### Planned Actions:

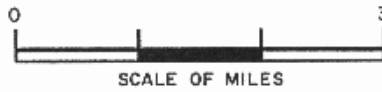
1. Limit motor vehicle use to existing roads and trails.
2. Exclude authorization for ROWs and leases.
3. Fluid Leasing Stipulation SRA—3.
4. Implement fire management plan.
5. Exclude from woodcutting.
6. Restrict mineral material disposals.
7. Close certain vehicle trails—2 miles.
8. Acquire nonpublic lands.
9. Restrict geophysical operations.
10. Close to domestic sheep and goats.



U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

**HORSE MOUNTAIN**  
 AREA OF CRITICAL ENVIRONMENTAL CONCERN

- LEGEND
-  PUBLIC LAND
  -  STATE LAND
  -  PRIVATE LAND
  -  SMA BOUNDARY



12. IRON MINE RIDGE — 1,440 Acres

General Description: The Iron Mine Ridge SMA contains approximately 1,440 acres and is located northeast of Bingham, New Mexico. Steep hills and slopes within the Chupadera Mesa characterize the area. Soil textures are of a loam within layers of gypsum material. Surface materials range from gravelly to cobbly. The vegetation aspect of the area is pinyon—juniper. Other common vegetation species include mountain mahogany, skunkbush sumac, sideoats grama, black grama, New Mexico feathergrass, and threeawn.

The area was nominated by the NMEMNRD and the Nature Conservancy for special management because of several species of rare and endemic plants that occur in the area. These species include Wrights spiderlily (Tradescantia Wrightii), desert parsley, (Pseudocymopterus longiradiatus), and threadleaf false carrot (Aletes filifolius) and State sensitive species.

Management Goals: Iron Mine Ridge SMA will be managed to maintain or improve the habitat for State sensitive, rare and endemic plants occurring within the area.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Fluid Leasing Stipulation SRA—1 and NM—5.
4. Exclude from woodcutting.
5. Restrict mineral material disposals.

13. The Taylor Canyon – 320 Acres

General Description: SMA contains approximately 320 acres, and is located east of Bingham, New Mexico. Steep hills and footslopes characterize the topography of the land. Surface soil textures vary from a loam to clay loam and are generally stony, gravelly or cobbly. Vegetation on the slopes includes pinyon, juniper, skunkbush sumac, oak, mountain mahogany, sideoats grama, black grama, New Mexico feathergrass, threeawn, blue grama, and other species.

The area was nominated by the Nature Conservancy and the NMEMNRD for special management because several species of rare and endemic plants occur in these habitats. These species include threadleaf horsebrush (Tetradymia filifolia) and gypsum blazing star (Mentzelia perrenis), both sensitive State species; and Payson's hidden flower (Cryptantha pavsonii), a species of special concern.

Management Goals: Management of the Taylor Canyon SMA will be to maintain or improve the habitat for State sensitive, rare and endemic plants occurring within the area.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Fluid Leasing Stipulation SPA—i and NM—S.
4. Restrict mineral material disposals.

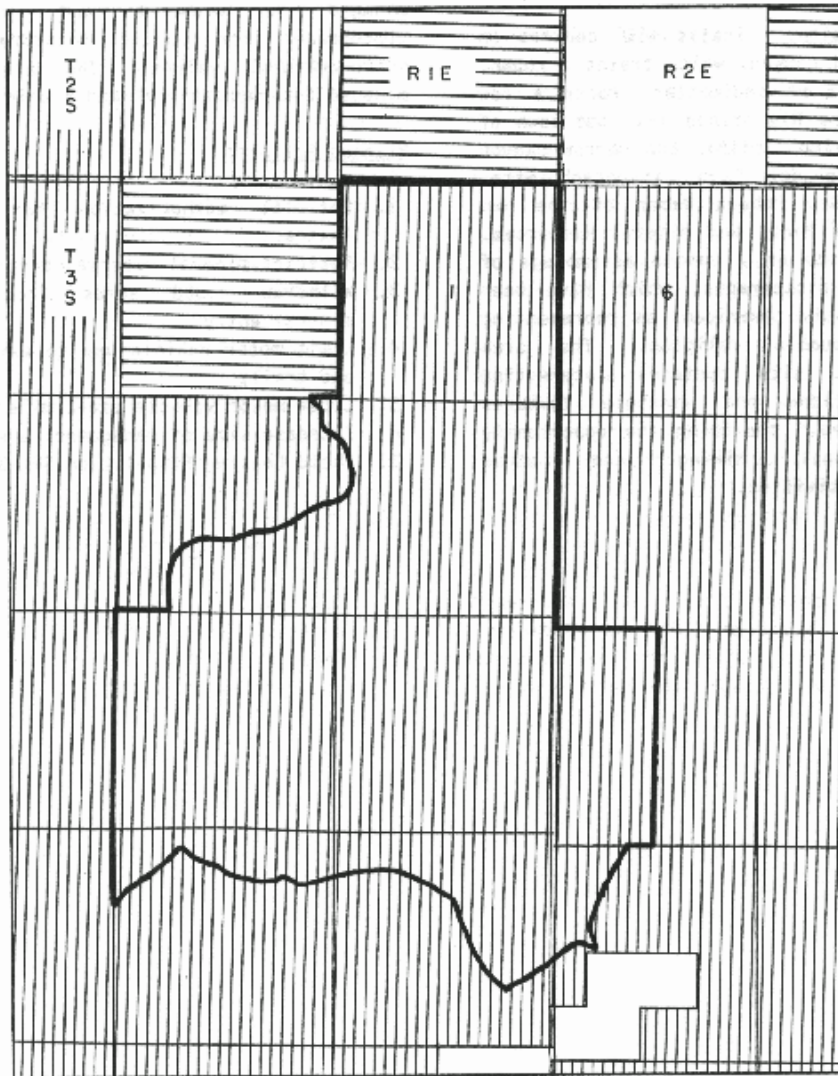
14. TINAJAS — 3,520 Acres

General Description: Tinajas ACEC centers on a narrow incised canyon, which drains a rough, broken landscape of sedimentary rocks a few miles east of the Rio Grande near the town of Socorro, New Mexico. Within the narrow canyon lies the Arroyo del Tajo Pictograph Site, discovered by Dr. Robert Weber of the New Mexico Bureau of Mines and Mineral Resources. This site consists of a unique assemblage of pigment—painted pictographs, which have been identified by Native Americans as representing elements of pueblo religion. The area surrounding the site contains interesting geologic formations and sinkhole features known as “Tinajas,” providing the opportunity for recreational hiking and other nondisturbing activities.

Management Goals: Tinajas ACEC will be managed to preserve and protect the pictographs for public interpretation and socio—cultural values. The area will be managed for recreational and scenic values.

Planned Actions:

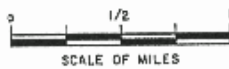
- 1.Restrict authorization for ROWs and leases.
- 2.Restrict mineral material disposals.
- 3.Withdraw 1,500 acres from locatable mineral entry.
- 4.Limit motor vehicle use to existing roads and trails.
- 5.Close motor vehicle use—2 miles.
- 6.Increase size of management area.
- 7.Fluid Leasing Stipulation SRA—3 and NM—5



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 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

TINAJAS  
 AREA OF CRITICAL ENVIRONMENTAL CONCERN

- LEGEND
-  PUBLIC LAND
  -  STATE LAND
  -  PRIVATE LAND
  -  SMA BOUNDARY





15. FORT CRAIG — 160 Acres

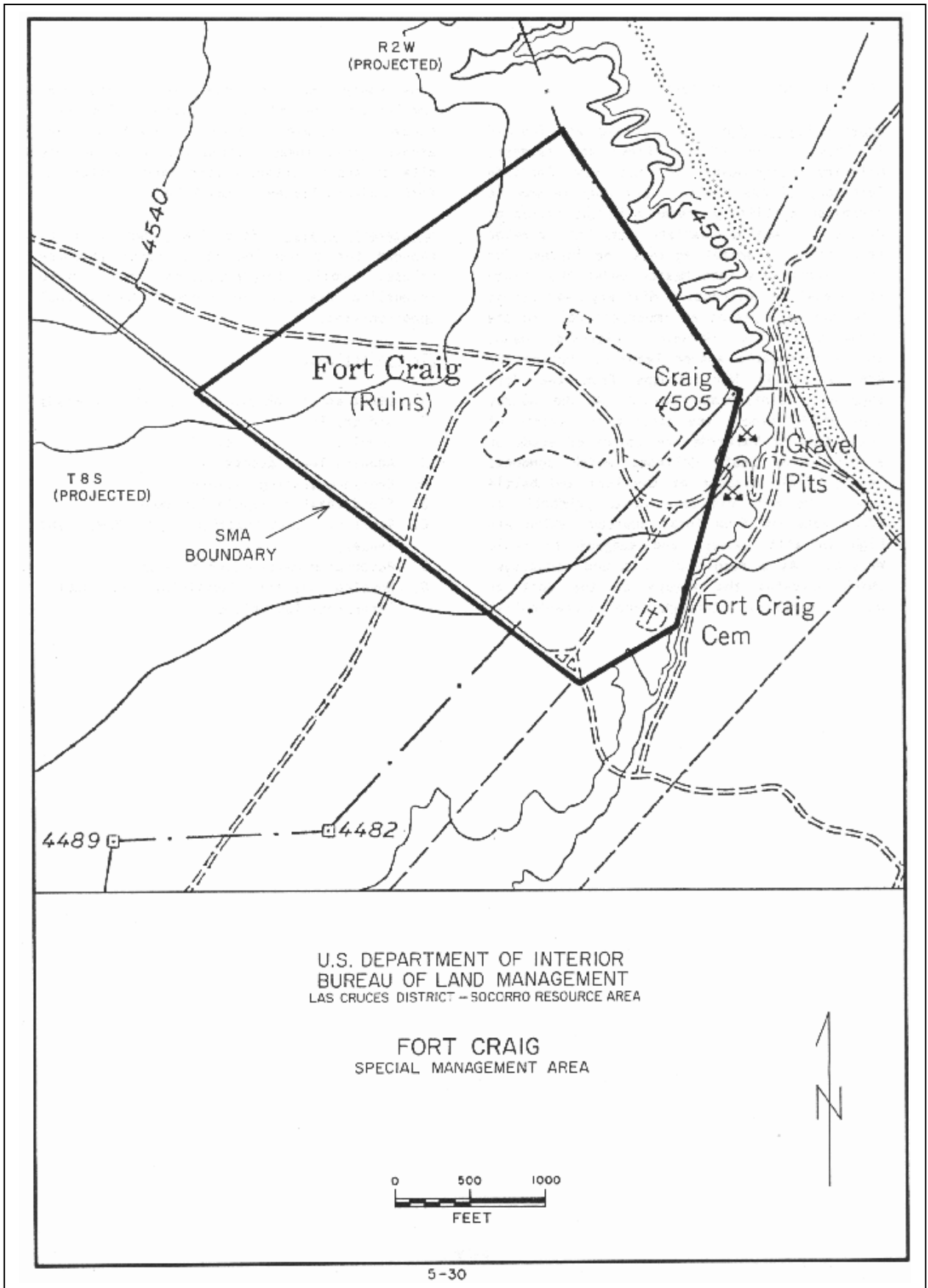
General Description: Fort Craig was founded in 1854 as one of the first and largest, military strongholds in the New American Territory of New Mexico. Its purpose was to establish a military presence in the region to discourage Apache warfare and to provide retaliatory potential against the Apaches for their incursions into Mexico under the Treaty of Guadalupe Hildago. Military excursions from the Fort played an important role in the campaigns against Geronimo, Victorio, Nana, and other notable Apache leaders. During the American Civil War, troops from the Fort engaged a Confederate column at the nearby area of Valverde. The tactics and events of the Battle of Valverde are topics of study of a U.S. Army Staff College, which conducts regular field classes at the Fort and battle site. The Fort was constructed primarily of adobe obtained from local sources, which are high in silt content and subject to rapid erosion. As a result of this and vandalism, which predates the return of the Fort to public ownership through the Archeological

Conservancy, most of the Fort's structural remains are reduced to low mounds. The Fort, however, retains great potential for archeological investigation and is a notable site of public interpretation and visitation. Fort Craig is listed on the NRHP.

Management Goals: Fort Craig SMA will be managed for protection of cultural resource values, public interpretation, and future scientific use and to improve recreational opportunities.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Acquire all minerals.
3. Acquire legal access.
4. Continue grazing closure.
5. Fluid Leasing Stipulation SRA—3.
6. Restrict authorization for ROWs and leases.
7. Restrict mineral material disposals.
8. Develop visitor facilities and public interpretation values.



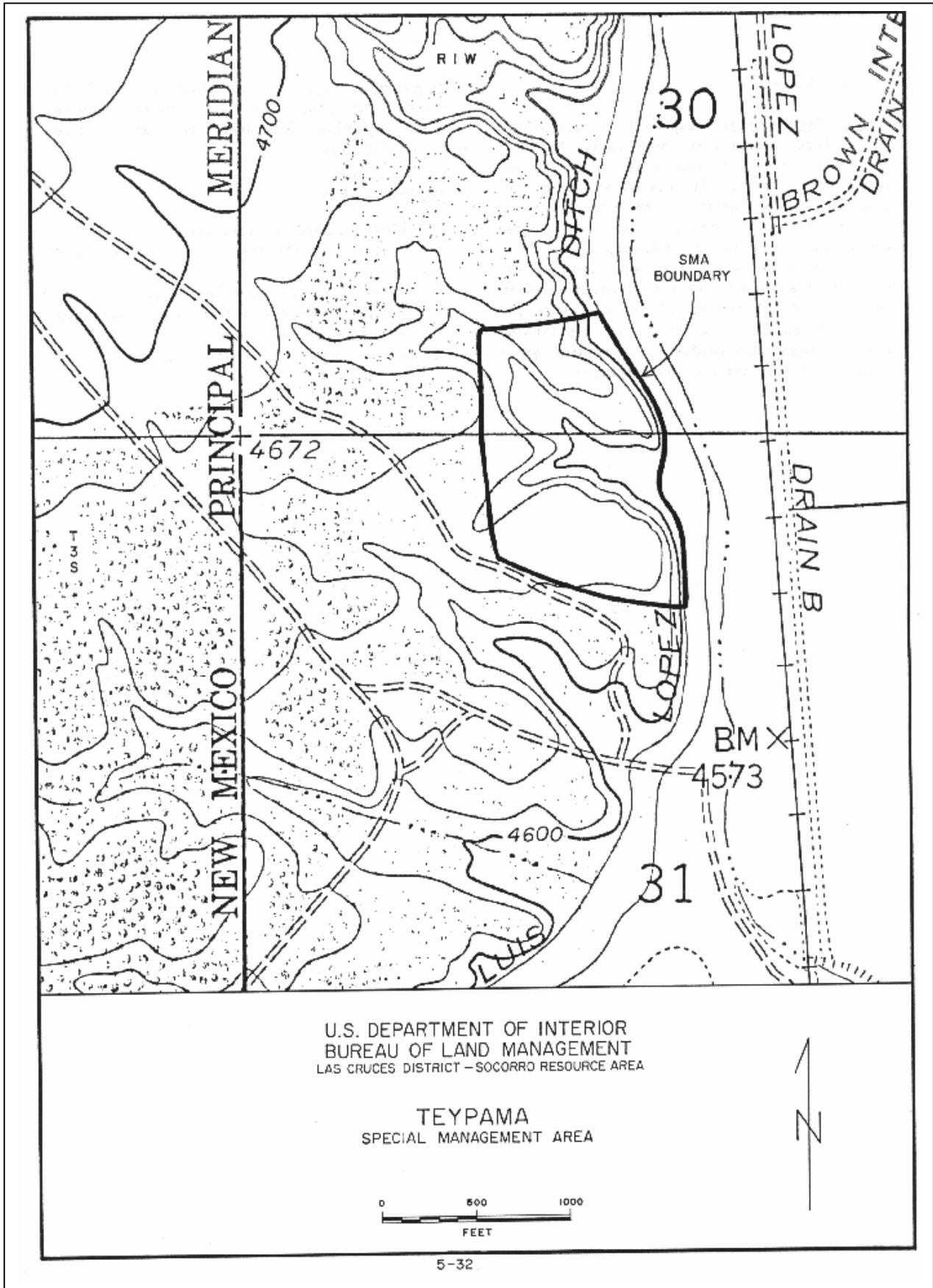
16. TEYPAMA — 17 Acres

General Description: Teypama Piro pueblo ruin is a late prehistoric and early historic habitation site of the Piro Indians, who occupied the central Rio Grande Valley at the time of Spanish contact. The site is listed on the NRHP, and consists of over two hundred rooms with kivas and a central plaza. It is located on a terrace of the west bank of the Rio Grande and overlooks the flood plain, where the agricultural economy of the occupants was no doubt based. The site has experienced severe damage from vandals, but retains great potential for scientific investigation.

Management Goals: The Teypama SMA will be managed for protection of cultural resource values, public interpretation, and future scientific use.

Planned Actions:

1. Close to motor vehicle use.
2. Restrict authorization for ROWs and leases.
3. Restrict mineral material disposals.
4. Exclude livestock grazing on 17 acres by expanding the exclosure.
5. Fluid Leasing Stipulation SRA—3.



17. NEWTON SITE — 40 Acres

General Description: The Newton Site consists of a 150 to 200 room pueblo, a large, double-walled kiva or plaza, and associated outlying room blocks. The site was occupied from about A.D. 1200 to A.D. 1325 and represents an important locus for scientific investigation, lying on the southern periphery of the “Acoma Culture Province,” and the extreme eastern periphery of the major occupation of the same era, of the Upper Little Colorado drainage. The site has been heavily disturbed by vandals and by uncontrolled student excavations prior to acquisition by the Federal Government, but retains good potential for scientific investigation.

Management Goals: Newton Site SMA will be managed to preserve and protect for public interpretation and future scientific use.

Planned Actions:

1. Nominate to NRHP.
2. Limit motor vehicle use to existing roads and trails.
3. Restrict authorization of ROWs and leases.
4. Fluid Leasing Stipulation SRA—1.
5. Restrict mineral material disposals.
6. Exclude from woodcutting.
7. Stabilize ruins.

18. PLAYA PUEBLOS –320 Acres

General Description: This SMA consists of two major prehistoric pueblo ruins probably associated with the Tompiro prehistoric culture area. These sites are notable in addition to their size (200 plus rooms each) because of the fact that they are not located on water courses, but rather seem to have exploited wide, shallow internal drainages (playas), and, if early ceramic assessments are correct, were occupied over extraordinarily long time periods. Ceramic sequences for one of the sites suggest occupation from about A.D. 1150 through the 1700s. One of the ruins has been extensively vandalized, but retains good scientific potential, while the other remains virtually intact.

Management Goals: Playa Pueblos SMA will be managed to preserve and protect for public interpretation and future scientific use.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Acquire nonpublic lands.
4. Restrict mineral material disposals.
5. Fluid Leasing Stipulation SRA—1 and NM—5.
6. Exclude livestock grazing.
7. Fence and stabilize ruins.
8. Include in thematic Tompiro National Register Nomination.
9. Close certain vehicle trails — 0.04 miles.

## 19. RIO SALADO — 6,400 Acres

General Description: The Rio Salado SMA consists of approximately 6,400 acres of public land, and is located 8 miles west of Ladron Mountain. The area was nominated as an SMA because of the cultural values and the unusual plant community contained within.

The Rio Salado cultural resource district consists of approximately 30 known archeological sites representative of developmental and early puebloan occupation along the middle Rio Salado drainage, which hold considerable potential for elucidation of cultural dynamics in the region. The area is composed of complex campsites/processing sites, and small habitation sites ranging in age from Basketmaker III/Pueblo I, through late Pueblo II, with an unexplained absence of later puebloan material (which awaits investigation).

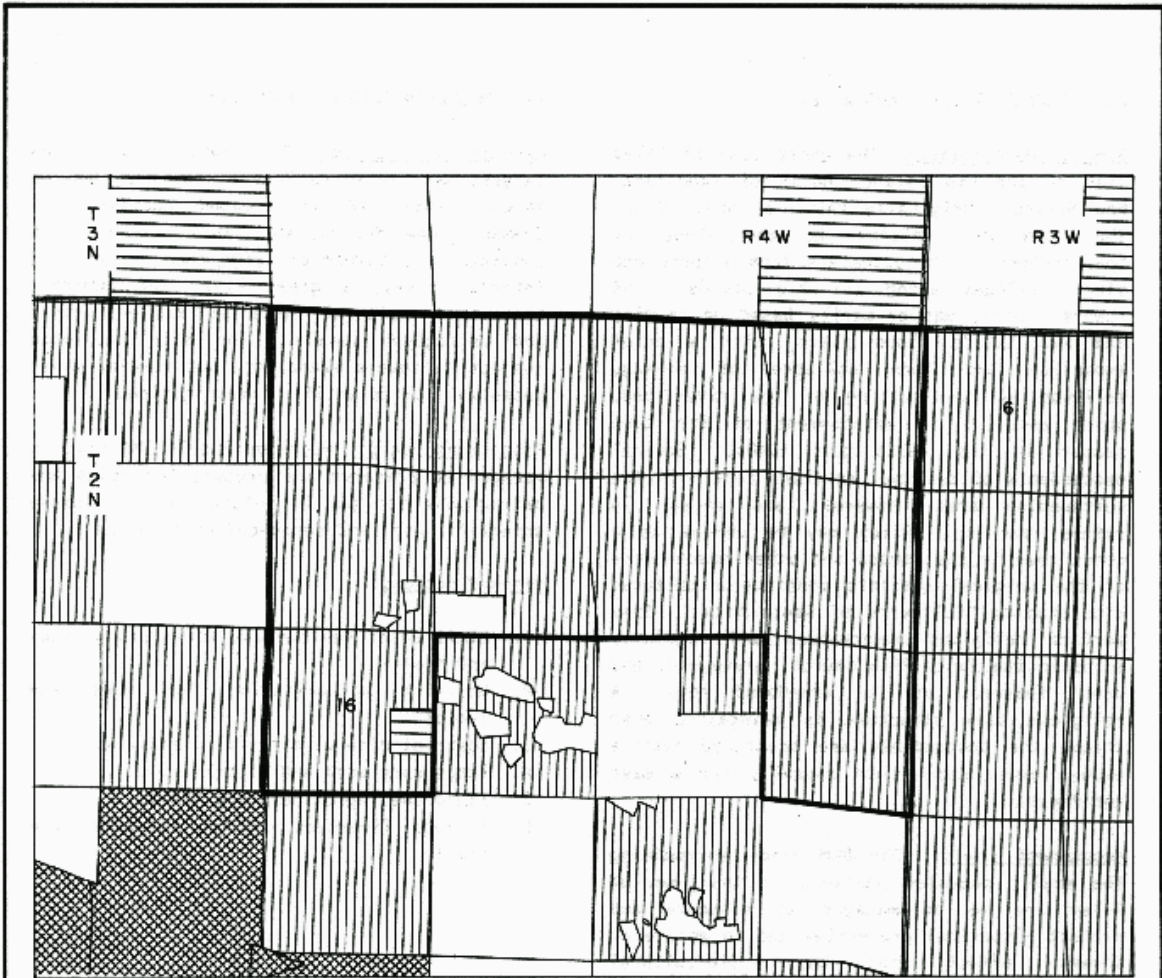
The Riley Caves consists of two, small limestone cave formations which have been recommended for special management by the NMEMNRD. The larger of the two caves supports a small population of cave fauna and geologic features of interest. The caves are located on the high ridges north of the Rio Salado and west of Sierra Ladrones.

The NMEMNRD and the Nature Conservancy focused attention on the area because it is habitat to a variety of flora. In this area is a combination of geological substrates and an overlapping and intermixing of the Great Basin and Chihuahuan floras that result in an unusual plant community. Several Chihuahuan desert species reach their northernmost extension here and several Great Basin species reach their southernmost boundaries.

Management Goals: Rio Salado SMA will be managed to preserve and protect for cultural properties, rare and endemic plants, and natural cave features.

### Planned Actions:






1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Restrict mineral material disposals.
4. Fluid Leasing Stipulation SRA—I.
5. Nominate as district to NRHP.
6. Exclude from woodcutting.
7. Restrict geophysical operations.
8. Implement present CRMP for 20 acres.

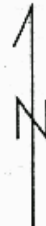


U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

RIO SALADO  
 SPECIAL MANAGEMENT AREA

LEGEND

-  PUBLIC LAND
-  STATE LAND
-  PRIVATE LAND
-  FOREST SERVICE LAND
-  SMA BOUNDARY



## 20. TOWN OF RILEY — 600 Acres

General Description: The ghost town of Riley lies on the Rio Salado, north of Magdalena, New Mexico. Originally known as Santa Rita, the town was settled in the 1880s by Spanish—American homesteaders from Socorro and other villages along the Rio Grande. The town's economy was primarily based on farming the Rio Salado flood plain, with a brief expansion and then collapse of mining, followed by down—cutting of the river bed, which resulted in abandonment of the town proper in the 1930s and 1940s. Several descendants of original settlers remain in the surrounding area, however, and engage in cattle ranching. Riley may be unique as a ghost town in that these and other descendants of the original settlers continue a cultural tradition as “Followers of Santa Rita.” They perform religious observances and regularly maintain the Santa Rita Church, graveyard, and other features of the abandoned town. A religious task structure is maintained even though the descendants are scattered over a wide region, and return annually for a mass and fiesta.

Management Goals: The BLM lands surrounding the small, patented portions of the Town of Riley are to be managed to preserve and protect historical properties and to ensure no adverse effect upon the socio—cultural traditions of the “Followers of Santa Rita”.

### Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Survey Federal ownership within historic town.
4. Exclude from woodcutting.
5. Restrict mineral material disposals.
6. Fluid Leasing Stipulation SRA—1.
7. Restrict geophysical operations.
8. Nominate to NRHP.

## 21. MOGOLLON PUEBLO – 640 Acres

General Description: This NRHP site is the largest Reserve Phase Pueblo (ca. A.D. 900 ±) known. This SMA is located northeast of Quemado, New Mexico, in Catron County. It consists of a number of large room blocks with internal kivas, a great kiva, and numerous associated cultural material concentrations and petroglyph panels. The site has been subject to severe vandalism, but retains great potential for scientific investigation.

Management Goals: Mogollon Pueblo SMA will be managed to preserve and protect the ruins and petroglyphs for public interpretation, future scientific use, and socio—cultural values.

### Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Restrict mineral material disposals.
4. Fence core area and stabilize.
5. Fluid Leasing Stipulation SRA—2.
6. Exclude livestock grazing (12—acre core area).



22. MOCKINGBIRD GAP — 11,970 Acres

General Description: Mockingbird Gap is listed as a New Mexico State Historic Property and consists of an extensive complex of Paleo—Indian campsites, including both Clovis and Folsom elements (ca. 10,000 B.C.). Portions of the cultural resources, which are found over 18 square miles east of San Antonio, New Mexico, in Socorro County, have been investigated by several researchers, but no comprehensive inventory has been conducted to delineate the full expanse of the site district, nor its component features. Paleo—Indian sites are rare, and this multi—component site provides special opportunities for research on early man in the southwest.

Management Goals: Mockingbird Gap SMA will be managed to preserve and protect cultural resources for future scientific use.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Restrict mineral material disposals.
4. Fluid Leasing Stipulation SRA—1 and NM—5
5. Nominate to NRHP.

23. ZUNI SALT LAKE – 5700 Acres

General Description: Zuni Salt Lake is a location of traditional religious significance to the Zuni Tribe and to other Native American groups in the Southwest. The Lake itself lies in a volcanic crater and contains highly saline water which has been utilized since prehistoric times. The Lake was returned to Zuni ownership by an Act of Congress in 1984, and is surrounded largely by lands managed by the BLM. These surrounding lands contain cultural resources of both archeological and socio—cultural importance which warrant special management attention for Federal undertakings in the vicinity of the lake.

Management Goals: Zuni Salt Lake SMA will be managed to protect socio—cultural values and cultural resources.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization of ROWs and leases.
3. Restrict mineral material disposals.
4. Fluid Leasing Stipulation SRA—1.
5. Restrict geophysical operations.

#### 24. CERRO POMO — 8,840 Acres

General Description: This proposed SMA currently receives little intensive management. The SMA is located within the southwest portion of the Eagle Peak WSA and encompasses approximately 8,840 acres. The scenic Cerro Pomo Cone and Lava Flow is located in the northern portion of the SMA. The habitat is a combination of pinyon—juniper hills and rolling grasslands. Lower elevation bottomlands include Russian thistle and alkali sacaton.

Vegetation in the SMA includes pinyon—juniper, blue grama, mountain mahogany, oak, rubber rabbitbush, fringed sage, winterfat, bottlebrush squirreltail, broom snakeweed, galleta, Apache—plume, and annual forbs.

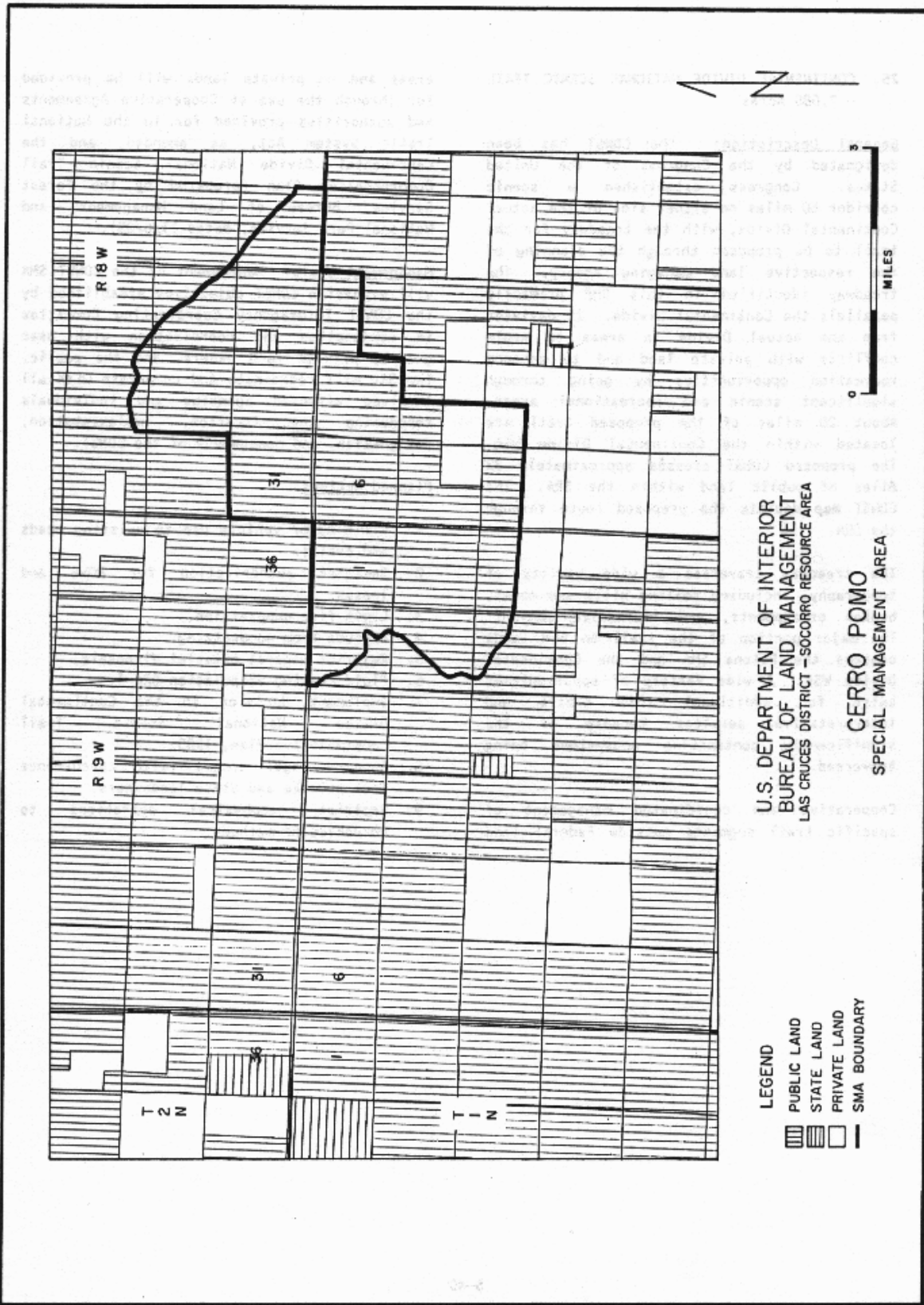
Wildlife in the area is quite diverse, corresponding to the vegetation and land forms. Common animals within the SMA include mule deer, coyotes, cottontail, black—tailed jackrabbits, striped skunks, kit—foxes, pronghorn deer, wintering bald eagles, golden eagles, red—tailed hawks, various resident and migratory birds, and numerous reptile and amphibian species. The SMA also provides potential habitat for bald eagles, peregrine falcons, and black—footed ferrets; all Federal endangered species.

The Cerro Pomo Pueblo ruin is a late Reserve Phase/early Tularosa phase (Pueblo II/Pueblo III; ca. A.D. 1150 ±) village site with two large kiva depressions. Extensive middens at the site have been vandalized, but the site holds potential for contributing to knowledge of the prehistory of the region, lying chronologically, after “Mogollon Pueblo,” and before regional abandonment.

Management Goals: Management objectives for Cerro Pomo SMA will vary, depending on the outcome of possible wilderness designation. The primary objectives will be to improve recreation opportunities, improve wildlife habitat, and protect cultural and geological resources. Management will emphasize protection of archaeological sites and geologic, recreational, and scenic values as the highest priority over the other resource uses when considering proposed actions within the SMA.

#### Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Exclude from woodcutting.
4. Restrict mineral material disposals.
5. Acquire nonpublic lands.
6. Fluid Leasing Stipulation SRA—1.
7. Develop Cerro Pomo cultural site.



## 25. CONTINENTAL DIVIDE NATIONAL SCENIC TRAIL — 7,680 Acres

General Description: The CDNST has been designated by the Congress of the United States. Congress established a scenic corridor 50 miles on either side of the actual Continental Divide, with the treadway for the trail to be proposed through the planning of the respective land managing agency. The treadway identified in this RMP primarily parallels the Continental Divide. It deviates from the actual Divide in areas to avoid conflicts with private land and to enhance recreation opportunities by going through significant scenic and recreational areas. About 20 miles of the proposed trail are located within the Continental Divide WSA. The proposed CDNST crosses approximately 32 miles of public land within the SRA. The CDNST map depicts the proposed route through the SRA.

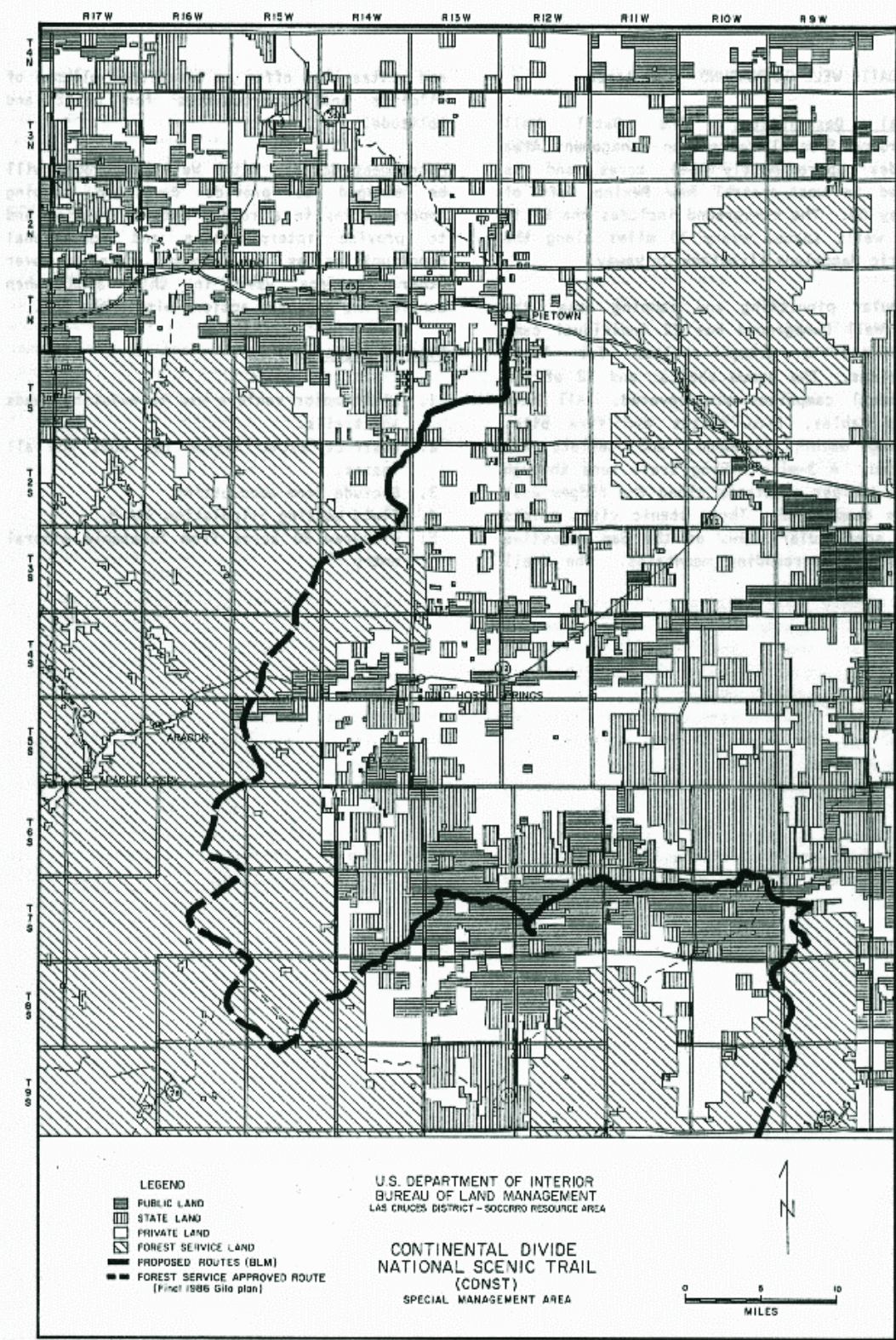
The treadway traverses a wide variety of topography, including rolling hills and mesas, broken escarpments, and impressive canyons. The major portion of the trail on BLM lands crosses the Pelona SMA and the Continental Divide WSA. A wide variety of opportunities exist for additional side trails and Interpretative services because of the significantly contrasting ecosystems being traversed.

Cooperative and coordinated management of specific trail segments outside Federal land areas and on private lands will be provided for through the use of Cooperative Agreements and authorities provided for in the National Trails System Act, as amended, and the Continental Divide National Scenic Trail Comprehensive Plan (prepared by the Forest Service, Bureau of Land Management, and National Park Service, dated 11/6/85).

Management Goals: Management of the CDNST SMA will emphasize CDNST objectives established by the CDNST Interagency Coordinating Committee in conjunction and coordination with user groups, private land owners, and the public. The SRA will coordinate and cooperate with all involved affected agencies and individuals concerning the location, implementation, designation, and management of the CDNST.

### Planned Actions:

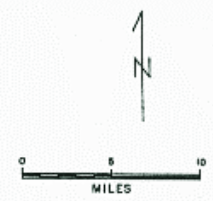
1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Limit fire suppression.
4. Exclude from woodcutting.
5. Restrict mineral material disposals.
6. Fluid Leasing Stipulation SRA—I.
7. Implement decision in the Continental Divide National Scenic Trail Comprehensive Plan, 1985.
8. Acquire legal access (with concurrence) from private and State landowners.
9. Restrict geophysical operations to nonvehicular methods.



- LEGEND**
- PUBLIC LAND
  - ▨ STATE LAND
  - PRIVATE LAND
  - ▧ FOREST SERVICE LAND
  - PROPOSED ROUTES (BLM)
  - FOREST SERVICE APPROVED ROUTE (Final 1986 Gila plan)

U.S. DEPARTMENT OF INTERIOR  
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 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

CONTINENTAL DIVIDE  
 NATIONAL SCENIC TRAIL  
 (CDNST)  
 SPECIAL MANAGEMENT AREA



## 26. DATIL WELL CAMPGROUND — 680 Acres

General Description: The Datil Well Campground Special Recreation Management Area includes approximately 640 acres and is located in west—central New Mexico, off of Highway 60. The campground includes one of 15 water wells spaced every 10 miles along the historic Magdalena Livestock Driveway.

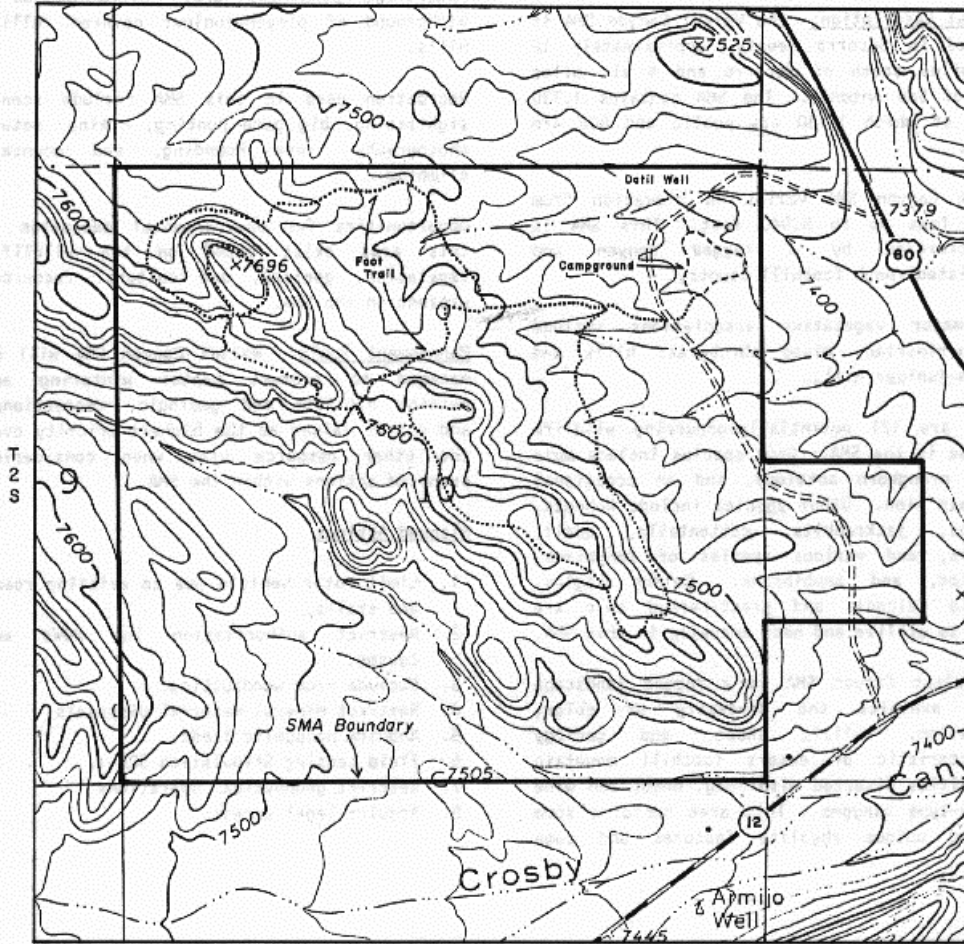
A popular picnicking and camping area, the Datil Well Campground has 22 individual camp sites and a group shelter for large gatherings. The group shelter and 12 of the individual campsites are covered. All have picnic tables, fire grates and fire pits. Drinking water, firewood, and toilets are provided. A 3—mile hiking trail runs through pinyon—juniper woodlands along the ridges west of the campground. Three scenic vista points offer spectacular views of the San Augustine Plains and surrounding mountains. The trail and vistas also offer an occasional glimpse of wildlife and opportunities for quiet and solitude.

Management Goals: Datil Well Campground will be managed to provide developed camping opportunities in a roaded natural setting and to provide interpretative and educational opportunities as the highest priority over other resource uses in this area when considering proposed actions within the SMA.

Planned Actions:

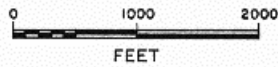
1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and all leases.
3. Exclude from woodcutting.
4. Fluid Leasing Stipulation SRA—3.
5. Withdraw 80 acres from locatable mineral entry.

R 10 W



U.S. DEPARTMENT OF INTERIOR  
BUREAU OF LAND MANAGEMENT  
LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

DATIL WELL CAMPGROUND  
SPECIAL MANAGEMENT AREA



## 27. WALNUT CANYON — 1,730 Acres

General Description: The Walnut Canyon SMA is located in Socorro County, approximately 12 air miles south of Socorro and 4 air miles west of San Antonio. The SMA contains 1,730 acres of which 1,130 are public and 600 are State.

Walnut Canyon SMA varies in elevation from 5,000 feet up to 5,940 feet. This SMA is characterized by a rugged canyon and associated rough foothill country.

The major vegetative associations include arroyo—riparian, mixed shrubgrass hills and pinyon—juniper hills.

There are 121 potentially—occurring wildlife species in the SMA. Game species include mule deer, pronghorn antelope, and an occasional mountain lion. Other species include bobcats, coyotes, jackrabbits, cottontails, quail, raptors, and various species of songbirds, reptiles, and amphibians. Golden eagles, prairie falcons, and great—horned owls are known to utilize and nest annually in this SMA.

The Walnut Canyon SMA is a rugged landscape which exhibits the diversity of color, vegetation, relief, shape, and geology characteristic of desert foothill mountain communities dissected with long, deep, and wide arroyo—type canyons. This area contains some exposed unique rhyolite features and some unique clay—type areas which exhibit an intemixed pink and gray coloration on a background of pinyon—juniper covered rolling hills.

Recreation uses in this SMA include scenic sightseeing, big game hunting, hiking, nature photography, rock hounding, and mountain climbing.

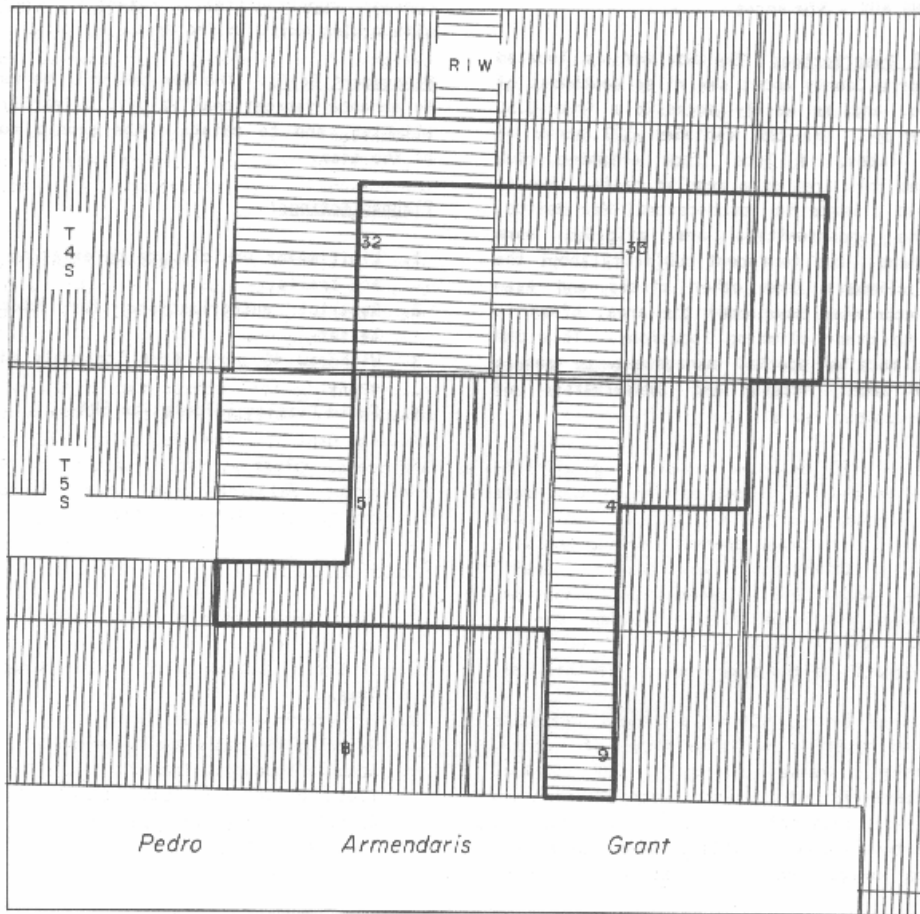
Opportunities for environmental education in this area exist based on the wildlife, vegetation, geology, and cultural resources present in the SMA.

Management Goals: Walnut Canyon SMA will be managed to protect raptor wintering and nesting habitats and geologic, recreational and scenic values as the highest priority over the other resource uses when considering proposed actions within the SMA.

### Planned Actions

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorization for ROWs and leases.
3. Exclude from woodcutting.
4. Restrict mineral material disposals.
5. Acquire nonpublic lands.
6. Fluid Leasing Stipulation SRA—1.
7. Restrict geophysical operations.
8. Acquire legal access.









U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

WALNUT CANYON  
 SPECIAL MANAGEMENT AREA

LEGEND

-  PUBLIC LAND
-  STATE LAND
-  PRIVATE LAND
-  SMA BOUNDARY



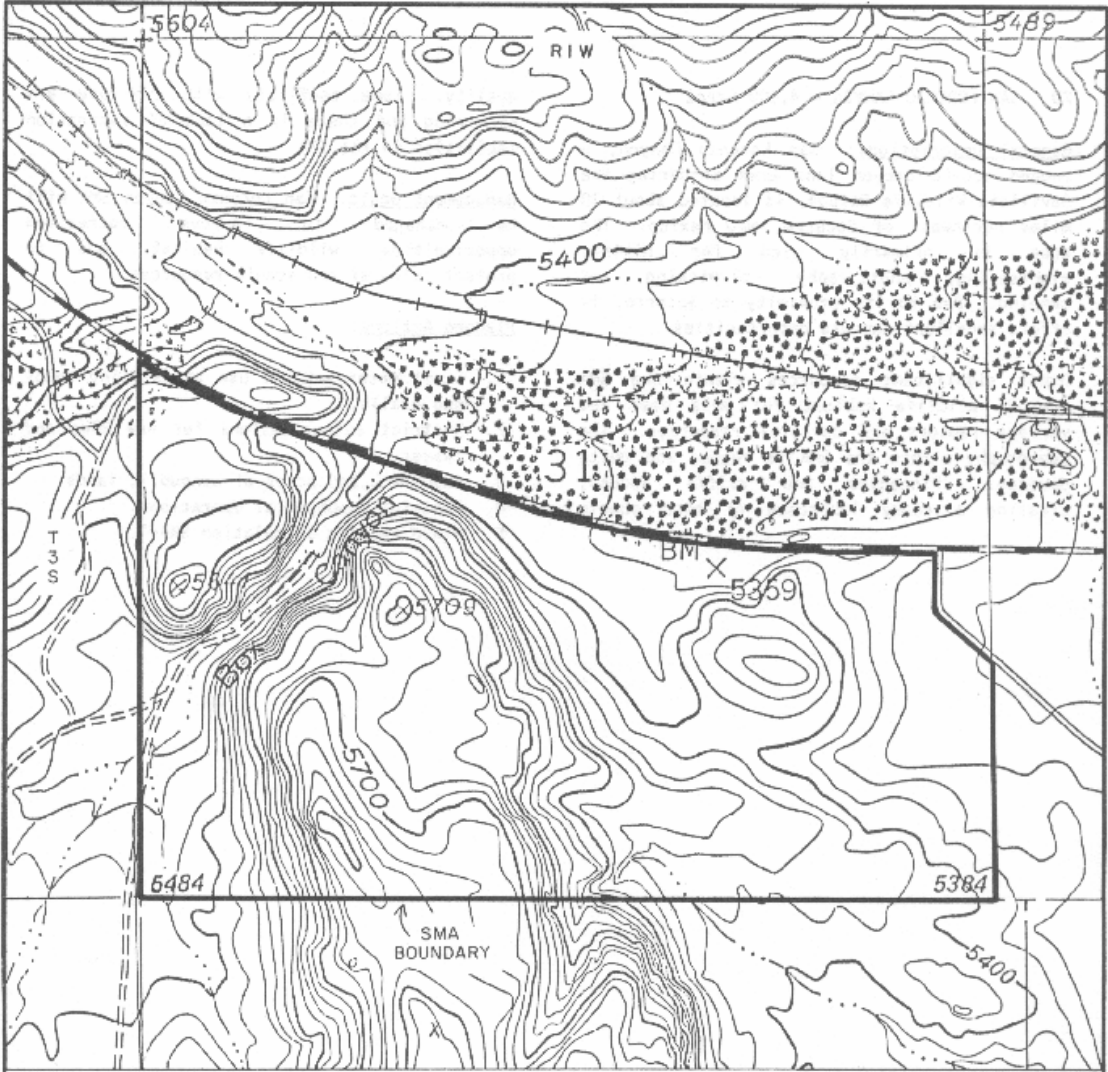
28. THE BOX — 320 Acres

General Description: The Box SMA is located in Socorro County about six miles southwest of Socorro, and is easily accessible from U.S. Highway 60. The SMA contains 320 acres of public lands. A local rock climbing club utilizes this area on a regular basis. Due to the mild climate in south—central New Mexico, climbing opportunities are afforded here year—round. Due to recent publicity about the area, climbers from other states and even other countries have used the area, often in route to other climbing locations. This SMA should receive special management to ensure future legal access and preservation of current opportunities. Potential conflicts with mining exist in the area.

Management Goals: The Box SMA will be managed to enhance recreational values, primarily rock climbing, and to maintain the scenic quality of the area.

Planned Actions:

1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorizations for ROWs and leases.
3. Withdraw 40 acres from locatable mineral entry.
4. Fluid Leasing Stipulation SRA—I.



U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

THE BOX  
 SPECIAL MANAGEMENT AREA



29. SAN LORENZO CANYON — 4,800 Acres

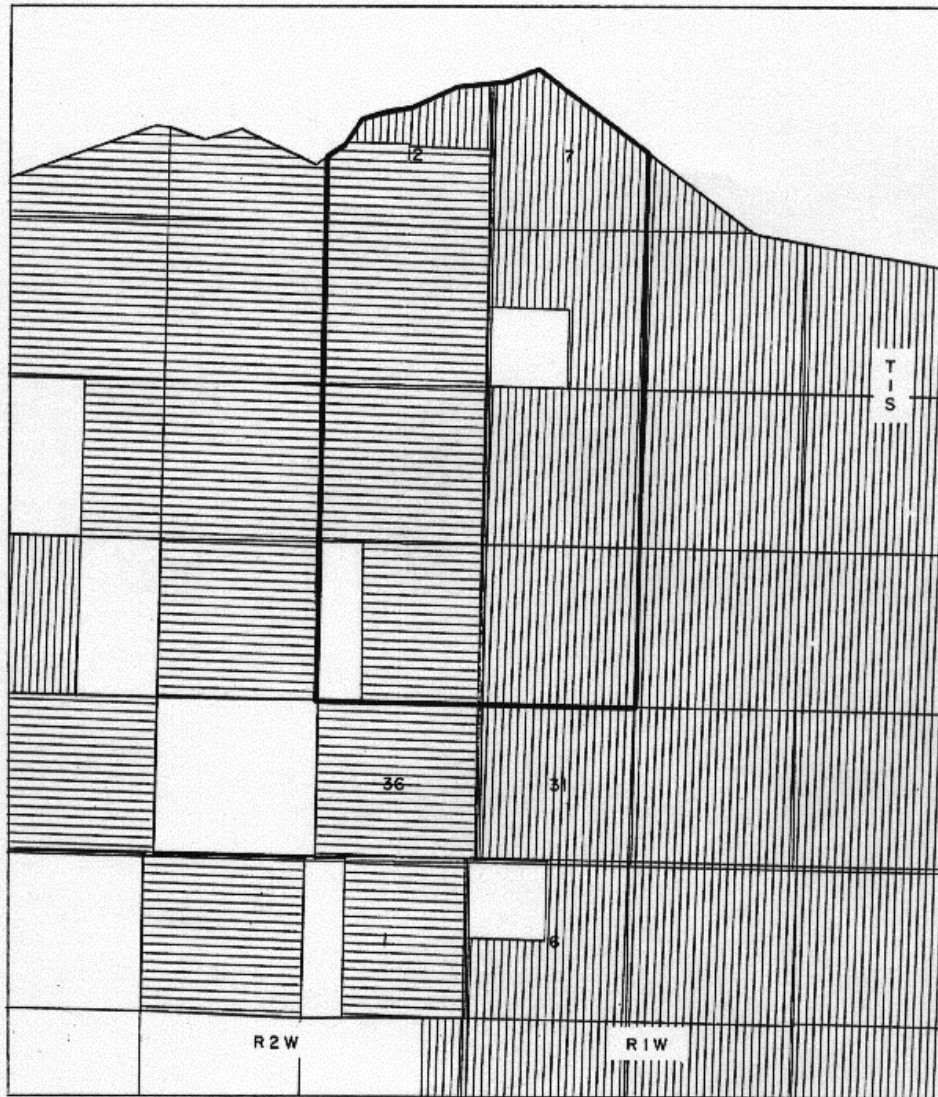
General Descriptions: San Lorenzo Canyon, a rugged scenic canyon land area bordering the Sevilleta Wildlife Refuge, is located about 10 miles northwest of Socorro, New Mexico. The area is primarily used for hiking, sightseeing, photography, picnicking and camping. Due to its proximity to Socorro, it offers excellent day use opportunities.

Other significant resources within the SMA include wildlife habitat for mule deer and various raptors and cultural resources. The topography within the SMA is rugged and quite diverse. Pinnacles and cliffs abound, creating a rocky landscape of high scenic quality. Some conflicts with ORV use are occurring and there is a lack of recreation facilities in the SMA.

Management Goals: San Lorenzo Canyon SMA will be managed to improve recreation opportunities, wildlife habitat, and to protect cultural and scenic resources.





Planned Actions:

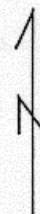
1. Limit motor vehicle use to existing roads and trails.
2. Restrict authorizations for new ROWs and leases.
3. Acquire 2,240 acres of nonpublic lands.
4. Restrict geophysical operations.
5. Fluid Leasing Stipulation SRA—1.

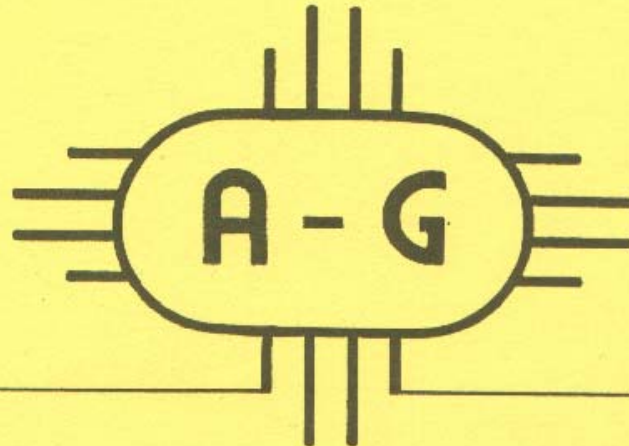


U.S. DEPARTMENT OF INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

**SAN LORENZO CANYON**  
 SPECIAL MANAGEMENT AREA

- LEGEND**
-  PUBLIC LAND
  -  STATE LAND
  -  PRIVATE LAND
  -  SMA BOUNDARY



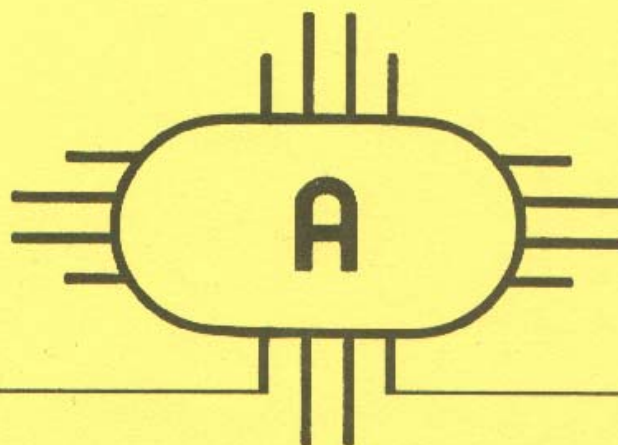


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*Appendices*

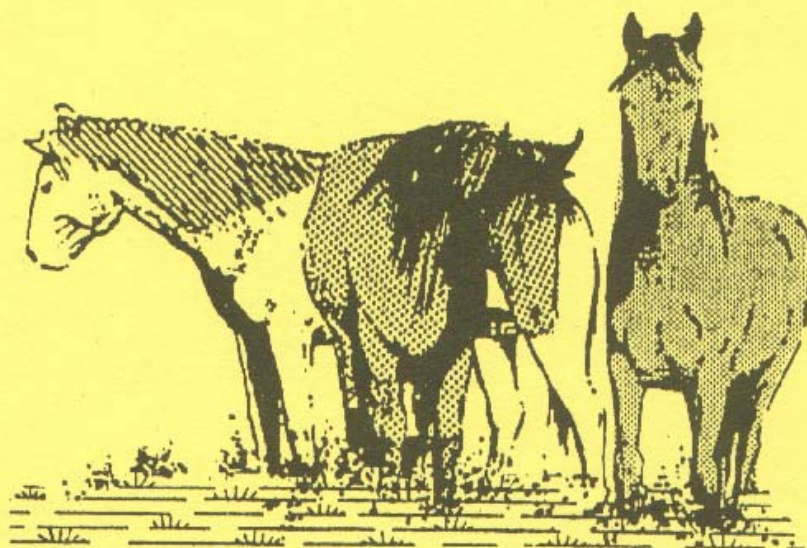
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- A Plan Implementation Steps
- B Mineral Resources Policy & Fluid Leasing Procedures
- C Allotment Categorization
- D Access Analysis Methodology
- E Visual Resource Management Classes
- F Federal Coal Lands Review Process
- G Lands and Minerals Disposal Policy



Plan Implementation Steps

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## INTRODUCTION

The following steps have been determined to be those needed to implement the Approved Socorro Resource Management Plan (RMP). An annual RMP report will contain a similar section to identify those implementation steps that have been completed and those scheduled for completion in the upcoming fiscal year. These steps are also identified so the public can become further involved in the implementation of those actions that are of interest.

### Implementation Steps

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<b>MINERALS:</b>	Develop Fluid Leasing Stipulations Implement Fluid Leasing Stipulations Restrict Disposals in Coal Area Continue Coal Leasing Review Process Designate Saleable Pits for Sand and Gravel Sales Maintain Saleable Minerals Availability
<b>RANGE:</b>	Establish Livestock Conversion Ratios Implement Livestock Conversion Ratios Develop AMPs and/or Review and Revise AMPs Implement AMPs Monitor Utiliz./Determine Forage Alloc./Implement Grazing Management Systems Maintain or Improve Range Conditions Implement Allotment Categorization Establish Study Plots Monitor Study Plots Establish Seeding Trials Monitor Seeding Trials Develop Harvey Plot SMA Plan Implement Harvey Plot SMA Plan Dispose of Isolated Parcels of Public Land Block Lands on 8 Allotments Through Exchange Process Develop Soaptree SMA Plan Implement Soaptree SMA Plan Develop Land Treatment Plans—East Implement Land Treatment Plans—East Acquire Legal Access Across Private and State Lands Designate Six ACECs Develop San Pedro ACEC Plan Implement San Pedro ACEC Plan Develop Sawtooth ACEC Plan Implement Sawtooth ACEC Plan
<b>WILD HORSE:</b>	Revise Wild Horse Management Plan



## Implementation Steps

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### **LANDS/ACCESS:**

Develop ROW Avoid and Exclusion Restrictions  
Implement ROW Avoid and Exclusion Restrictions  
Develop Access Plan A  
Implement Access Plan A  
Develop Access Plan B  
Implement Access Plan B  
Develop Access Plan C  
Implement Access Plan C  
Develop Access Plan D  
Implement Access Plan D  
Develop Access Plan E  
Implement Access Plan E  
Develop Access Plan F  
Implement Access Plan F  
Develop Access Plan G  
Implement Access Plan G  
Develop Access Plan H  
Implement Access Plan H  
Develop Access Plan I  
Implement Access Plan I  
Continue Implementing RGORP  
Dispose of Public Lands Within Community of Aragon, NM  
Implement Blocking of Public Lands in Retention Zones  
Implement Disposal of Isolated Tracts in Disposal Areas  
Acquire Nonpublic Lands to Support Wildlife Programs  
Develop Rehabilitation Plan for MCA Mill Site  
Rehabilitate MCA Mill Site  
Implement Clean—up of Luis Lopez Site

### **FORESTRY:**

Establish Christmas Tree Areas  
Develop Woodland Management Plans  
Implement Woodland Management Plans  
Establish No Woodcutting Restrictions in Moderate or High Erosion Areas

### **SOILS AND WATER:**

Monitor and Restrict Activities on Critical Erosion Areas  
Develop Watershed Plans  
Implement Watershed Plans  
Develop Water Monitoring Plans  
Implement Water Monitoring Plans  
Reduce Erosion on Allotments  
Develop Road Maintenance Plan (Ladron)  
Implement Road Maintenance Plan (Ladron)  
Develop Fence Lake SMA Plan  
Implement Fence Lake SMA Plan  
Develop Puertecito SMA Plan  
Implement Puertecito SMA Plan  
Develop Stallion SMA Plan  
Implement Stallion SMA Plan

### **FIRE:**

Develop Fire Management Plans  
Implement Fire Management Plans

## Implementation Steps

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<b>WILDLIFE:</b>	<ul style="list-style-type: none"><li>Develop Fencing Standards</li><li>Implement Fencing Standards</li><li>Install Escape Ramps in All Troughs</li><li>Construct Antelope Panels to Facilitate Movement of Antelope</li><li>Develop Water for Wildlife</li><li>Design and/or Modify Livestock Management Practices</li><li>Develop Land Treatment Plans—West</li><li>Implement Land Treatment Plans—West</li><li>Protect Wildlife Habitat</li><li>Protect and Enhance Riparian Habitat</li><li>Conduct Wildlife Studies</li><li>Develop Prescribed Burn Plans</li><li>Implement Prescribed Burn Plans</li><li>Ensure All Power line Construction is “Electrocution Proof”</li><li>Develop Iron Mine Ridge SMA Plan</li><li>Implement Iron Mine Ridge SMA Plan</li><li>Develop Taylor Canyon SMA Plan</li><li>Implement Taylor Canyon SMA Plan</li><li>Suppress Fires in Riparian Areas</li><li>Develop Pelona SMA Plan</li><li>Implement Pelona SMA Plan</li><li>Develop Ladron ACEC Plan</li><li>Implement Ladron ACEC Plan</li><li>Develop Agua Fria ACEC Plan</li><li>Implement Agua Fria ACEC Plan</li><li>Develop Walnut Canyon SMA Plan</li><li>Implement Walnut Canyon SMA Plan</li><li>Develop Horse Mountain ACEC Plan</li><li>Implement Horse Mountain ACEC Plan</li></ul>
<b>CULTURAL:</b>	<ul style="list-style-type: none"><li>Manage Archeological Sites</li><li>Nominate National Register Sites</li><li>Develop Zuni Salt Lake SMA Plan</li><li>Implement Zuni Salt Lake SMA Plan</li><li>Develop Newton Site SMA Plan</li><li>Implement Newton Site SMA Plan</li><li>Develop Mockingbird Gap SMA Plan</li><li>Implement Mockingbird Gap SMA Plan</li><li>Develop Teypama SMA Plan</li><li>Implement Teypama SMA Plan</li><li>Develop Cultural Resource Survey Plan</li><li>Implement Cultural Resource Survey Plan</li><li>Develop Mogollon Pueblo SMA Plan</li><li>Implement Mogollon Pueblo SMA Plan</li><li>Develop Town of Riley SMA Plan</li><li>Implement Town of Riley SMA Plan</li><li>Develop Playa Pueblos SMA Plan</li><li>Implement Playa Pueblos SMA Plan</li><li>Develop Fort Craig SMA Plan</li><li>Implement Fort Craig SMA Plan</li></ul>

## Implementation Steps

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**CULTURAL:** (continued)

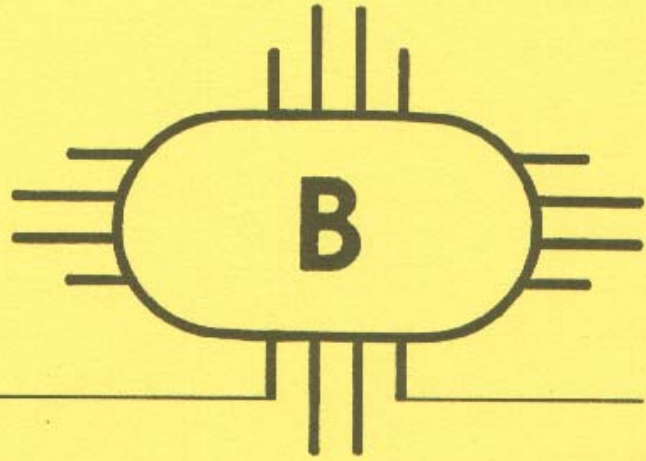
Develop Tinajas ACEC Plan  
Implement Tinajas ACEC Plan  
Develop Rio Salado SMA Plan  
Implement Rio Salado SMA Plan

**RECREATION:**

Manage and Update VRM Classes  
Complete ROS Inventory  
Develop the Box SMA Plan  
Implement the Box SMA Plan  
Exclude Datil Well Campground From Woodcutting  
Develop San Lorenzo Canyon SMA Plan  
Implement San Lorenzo Canyon SMA Plan  
Designate ORV Areas  
Implement ORV Designations  
Develop Cerro Pomo SMA Plan  
Implement Cerro Pomo SMA Plan  
Acquire Nonpublic Land in Ladron  
Coordinate Management of San Lorenzo Canyon (BLM—US FWS)  
Develop Datil Well SMA Plan  
Implement Datil Well SMA Plan

**WILDERNESS:**

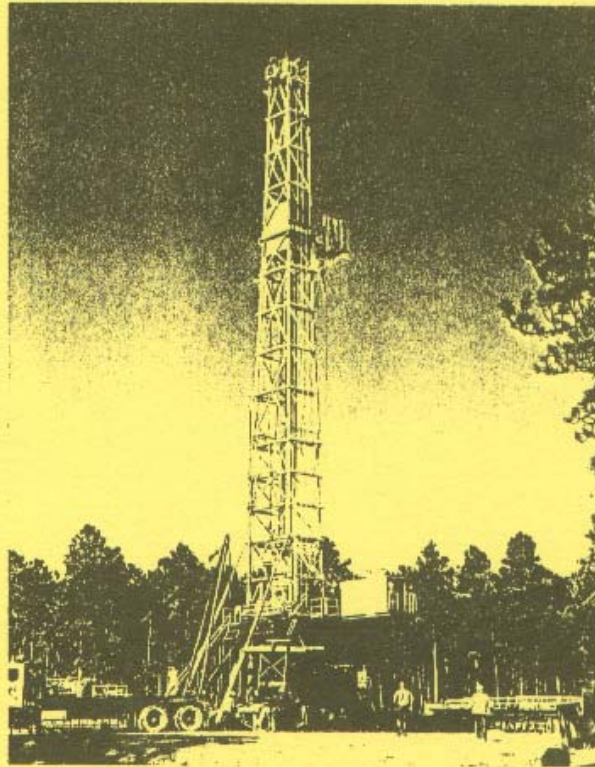
Develop CDNST SMA Plan  
Implement CDNST SMA Plan



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Mineral Resources Policy & Fluid Leasing Procedures

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## **BUREAU OF LAND MANAGEMENT — MINERAL RESOURCES**

This statement sets forth BLM policy for management of mineral and energy resources on public lands. 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.

The Federal Land Policy and Management Act of 1976 reiterates that the 1970 Mining and Minerals Policy Act be implemented and directs that public lands 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 lands are an important source of the Nation's mineral and energy resources, some of which are critical and strategic. BLM is responsible for making public lands 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 lands:

1. Except for Congressional withdrawals, public lands 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 lands 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 lands 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.

/s/ Robert Burford

Director, Bureau of Land Management

### Special Fluid Leasing Procedures and Stipulations

Special stipulations are conditions of lease issuance which the local office of the BLM or other agency provide for additional and more stringent environmental protection by allowing for denial of operations within the terms of the lease contract. Without special stipulations, proposed operations can be modified but not denied (except under certain specific, nondiscretionary statutes). Special 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 and acknowledge in writing all special stipulations prior to acceptance of a lease offer by BLM.

BLM policy is that the use of special 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 siting, 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. A special stipulation is justifiable if there are resources, values, uses, and/or users present that 1) cannot coexist with oil and gas operations, or 2) cannot be adequately managed and/or accommodated on other lands for the duration of the operation, and 3) would provide greater benefits to the public than those of oil and gas operations.

The content and accurate wording of special stipulations is very important since stipulations become part of the lease contract. If the special 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, special stipulations are to specify the reason for the stipulation, the lands involved, and the probable effect of the stipulations on lease activities. Special stipulations should also include a provision for waiver in the event that circumstances or relative resource values change, or in the event that the lessee demonstrates that operations can be conducted without causing unacceptable impacts.

The existing and consolidated fluid leasing stipulations to be used in the Plan follow in this appendix. There are seven existing SRA stipulations (Soc—1 through Soc—7) and two State of New Mexico stipulations (NM—5 and NM—7) currently being used in the SRA. For the purpose of this document, to avoid repetitious verbiage, and to be more concise, a set of three new SRA fluid leasing stipulations has been developed. One State of New Mexico stipulation (NM—5) has also been carried forward.

The process through which the 29 Special Management Areas (SMAs) were identified included special stipulations to protect their values from fluid minerals leasing and development. These have been updated to reflect the consolidated stipulations.

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, and where protection of resource values was clearly in the public interest, the No Surface Occupancy (SRA—3) stipulation was assigned.

Public lands may be affected by discretionary and nondiscretionary closures which are presented in a lease as special stipulations. A discretionary closure includes those lands where the BLM has determined that oil, gas, and/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. An example of this type of closure is the Ladrón Mountain area in northwestern

Socorro County. Nondiscretionary closures include those lands that must be closed to oil, gas, and/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) military extension area is excluded from leasing by a nondiscretionary closure.

Lands which are currently under lease will be subject to existing fluid leasing stipulations. However, new leases will be subject to the consolidated fluid leasing stipulations.

Activities normally deferred to activity planning, or other planning completed subsequent to the RMP, include drill site location; field development and facility layout plans; unitization 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. Between one and three APDs are expected per year 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 NEPA compliance will also need to be performed at appropriate times.

#### EXISTING FLUID LEASING STIPULATIONS

Soc—1: Watersheds subject to critical erosion.

In order to minimize damage in watersheds classified as having critical erosion potential, off-road use and any surface disturbance will be allowed only after close coordination and explicit written concurrence of the authorized officer of the Federal surface management agency.

Soc—2: Areas with known threatened and endangered (T&E) plant species.

The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes or require special attention to prevent damage to surface resources. All surface use or occupancy within such areas will be strictly controlled. Use or occupancy will be authorized only when the lessee/operator demonstrates that the area is essential for operations and when the lessee/operator submits a surface use and operations plan, which is satisfactory to the U.S. Geological Survey (USGS) and the surface management agency, for the protection of these special values and existing or planned uses. Appropriate modifications to the imposed restrictions will be made for the maintenance and operation of producing oil and gas wells.

After the surface management agency has been advised of the proposed surface use or occupancy on these lands, and on request of the lessee/operator, the surface management agency will furnish further data on such areas.

Soc—3: Area with commercial quality timber.

In order to minimize disruption of commercial quality ponderosa pine stands and to facilitate future management of the timber resource, exploration, drilling, and other development activity will be allowed only after coordination with and written approval of the surface management agency. Exceptions to this limitation may be specifically authorized in writing by the Supervisor of the USGS with the written concurrence of the surface management agency.

Soc—4: Areas with known habitat for T&E species.

The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes or require special attention to prevent damage to surface resources. All surface use or occupancy within such areas will be

strictly controlled. Use or occupancy will be authorized only when the lessee/operator demonstrates that the area is essential for operations and when the lessee/operator submits a surface use and operations plan, which is satisfactory to the USGS and the surface management agency, for the protection of these special values and existing or planned uses. Appropriate modifications to the imposed restrictions will be made for the maintenance and operation of producing oil and gas wells.

After the surface management agency has been advised of the proposed surface use or occupancy on these lands, and on request of the lessee/operator, the surface management agency will furnish further data on such areas.

Soc—5: Areas with Class I or Class II visual resource values.

All or part of the lands in this lease are included in a potential Area of Critical Environmental Concern (ACEC) for visual resources. No surface disturbing activities will be allowed which strongly impact scenic values (form, line, color, texture) without prior written approval of the authorized officer of the surface management agency.

Soc—6: Areas with cultural resources which have been, or have potential to be, designated for the National Register of Historic Places.

The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes or require special attention to prevent damage to surface resources. All surface use or occupancy within such areas will be strictly controlled. Use or occupancy will be authorized only when the lessee/operator demonstrates that the area is essential for operations and when the lessee/operator submits a surface use and operations plan, which is satisfactory to the USGS and the surface management agency, for the protection of these special values and existing or planned uses. Appropriate modifications to the imposed restrictions will be made for the maintenance and operation of producing oil and gas wells.

After the surface management agency has been advised of the proposed surface use or occupancy on these lands, and on request of the lessee/operator, the surface management agency will furnish further data on such areas.

Soc—7: Lands classified under the Classification and Multiple Use (C&MU) Act or the Recreation and Public Purposes (R&PP) Act.

The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes or require special attention to prevent damage to surface resources. All surface use or occupancy within such areas will be strictly controlled. Use or occupancy will be authorized only when the lessee/operator demonstrates that the area is essential for operations and when the lessee/operator submits a surface use and operations plan, which is satisfactory to the USGS and the surface management agency, for the protection of these special values and existing or planned uses. Appropriate modifications to the imposed restrictions will be made for the maintenance and operation of producing oil and gas wells.

After the surface management agency has been advised of the proposed surface use or occupancy on these lands, and on request of the lessee/operator, the surface management agency will furnish further data on such areas.

NM—5 Lands within the White Sands Missile Range Extension Area.

Missile firing shutdown — The lease is located within the WSMR Extension Area. Persons operating the leasehold will be requested to evacuate the leasehold on those days that missiles are being fired.

NM—7: Wilderness Protection Stipulation.

By accepting this lease, the lessee acknowledges that the lands described in this lease are being inventoried or



evaluated for their wilderness potential by the BLM under Section 603 of the Federal Land Policy and Management Act of 1976, 90 Stat. 2743 (43 USC Sec. 1782), and that exploration or production activities which are not in conformity with Section 603 may never be permitted. Expenditures in leases on which exploration drilling or production are not allowed will create no additional rights in the lease, and such leases will expire in accordance with law.

Activities will be permitted under the lease so long as BLM determines they will not impair wilderness suitability. This will be the case either until the BLM wilderness inventory process has resulted in a final wilderness inventory decision that an area lacks wilderness characteristics, or in the case of a wilderness study area until Congress has decided not to designate the lands included within this lease as wilderness. Activities will be considered nonimpairing if the BLM determines that they meet each of the following three criteria:

(a) It is temporary. This means that the use or activity may continue until the time when it must be terminated in order to meet the reclamation requirement of paragraphs (b) and (c) below. A temporary use that creates no new surface disturbance may continue unless Congress designated the area as wilderness, so long as it can easily and immediately be terminated at that time, if necessary to management of the area as wilderness.

(b) Any temporary impacts caused by the activity must, at a minimum, be capable of being reclaimed to a condition of being substantially unnoticeable in the wilderness study area (or inventory unit) as a whole by the time the Secretary of the Interior is scheduled to send his recommendations on that area to the President, and the operator will be required to reclaim the impacts to that standard by that date. If the wilderness study is postponed, the reclamation deadline will be changed. A full schedule of wilderness studies will be developed by the Department upon completion of the intensive wilderness inventory. In the meantime, in areas not yet scheduled for wilderness study, the reclamation will be scheduled for completion within 4 years after approval of the activity. (Obviously, if and when the Interim Management Policy ceases to apply to an inventory unit dropped from wilderness review following a final wilderness inventory decision of the BLM State Director, the reclamation deadline previously specified will cease to apply). The Secretary's schedule for transmitting his

recommendations to the President will not be changed as a result of any unexpected inability to complete the reclamation by the specified date, and such inability will not constrain the Secretary's recommendations with respect to the area's suitability or unsuitability for preservation as wilderness.

The reclamation will, to the extent practicable, be done while the activity is in progress. Reclamation will include the complete recontouring of all cuts and fills to blend with the natural topography, the replacement of topsoil, and the restoration of plant cover at least to the point where natural succession is occurring. Plant cover will be restored by means of reseeding or replanting, using species previously occurring in the area. If necessary, a temporary watering system will be required. The reclamation schedules will be based on conservation assumptions with regard to growing conditions, so as to ensure that the reclamation will be complete, and the impacts will be substantially unnoticeable in the area as a whole, by the time the Secretary is scheduled to send his recommendations to the President ("substantially unnoticeable" is defined in Appendix F of the Interim Management Policy and Guidelines for Lands under Wilderness Review).

(c) When the activity is terminated, and after any needed reclamation is complete, the area's wilderness values for other purposes, as to significantly constrain the Secretary's recommendation with respect to the area's suitability or unsuitability for preservation as wilderness. The wilderness values to be considered are

those mentioned in Section 2(c) of the Wilderness Act, including naturalness, outstanding opportunities for solitude or for primitive and unconfined recreation, and ecological, geological or other features of scientific, educational, scenic, or historical value. If all or any part of the area included within the leasehold estate is formally designated by Congress as wilderness, exploration and development operations taking place or to take place on the part of the lease will remain subject to the requirements of this stipulation, except as modified by the Act of Congress designating the land as wilderness. If Congress does not specify in such act how existing leases like this one will be managed, then the provisions of the Wilderness Act of 1964 will apply, as implemented by rules and regulations promulgated by the Department of the Interior.

#### **CONSOLIDATED FLUID LEASING STIPULATIONS**

SRA—1: The lessee is given notice that; (a) all or part of the lease area contains special values, (b) is needed for special purposes, or (c) requires special attention to prevent damage to surface resources. Any surface use or occupancy within such areas will be strictly controlled. Use or occupancy will be authorized only when the lessee/operator demonstrates that the area is essential for operations and when the lessee/operator submits a surface use and operations plan which is satisfactory to the BLM for the protection of these special values and existing or planned uses. Appropriate modifications to the imposed restrictions will be made for the maintenance and operation of producing oil and gas wells.

After the BLM has been advised of the proposed surface use or occupancy on these lands, and on request of the lessee/operator, the BLM will furnish further data on such areas. (insert legal descriptions)

Reason(s) for Restriction (choose one or more)

- A. Minimize damage to watersheds having critical erosion potential.
- B. Prevent damage to cultural resources.
- C. Class I and II visual resource areas.
- D. T&E Species Habitat.
- E. Riparian Habitat.
- F. Other resource values.

Duration of Restriction:

SRA—2: In order to (choose from A or B below), surface disturbing activities will be allowed only during the period (time period). Exceptions to this limitation in any year may be specifically authorized in writing by the authorized office of the BLM. Lands within the leased area to which this stipulation applies are described as follows: (insert legal descriptions)

A. Minimize disruption of critical seasonal wildlife habitat (\* Type of Habitat).

\*Type of Habitat

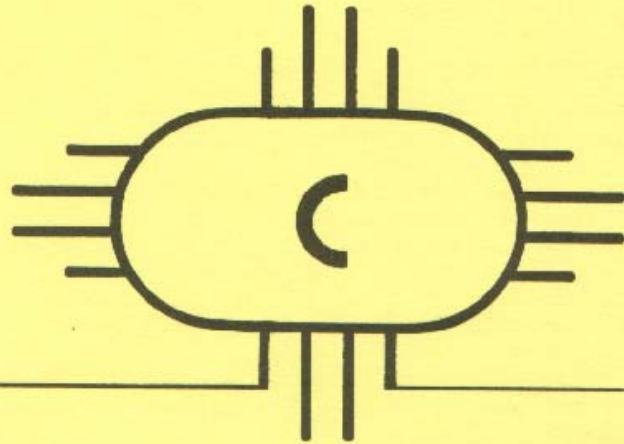
1. Antelope fawning ground.
2. Bald eagle wintering area.
3. Elk calving ground.
4. Other habitat as required.

B. Minimize undue or unnecessary surface degradation due to use under seasonal adverse weather conditions.

SRA—3: No occupancy or other activity on the surface of the following described lands, is allowed in order to protect: (see below) (insert legal descriptions)

- A. Ecological study plots.
- B. Demonstration areas.
- C. Cultural resources.
- D. Other resources values.

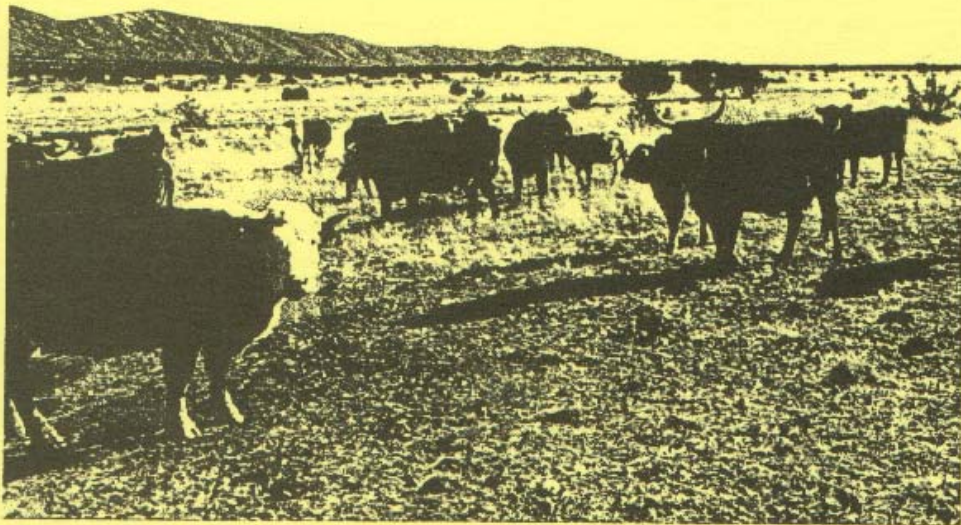
NM—5: All or portions of the land contained in this lease are located within the WSMR Safety Evacuation Area and shall be evacuated on those days that missiles are to be fired. Prior to beginning exploration activities, the lessee shall contact the Corps of Engineers in Albuquerque and the Master Planning Branch at WSMR in order to be advised of the terms of the safety evacuation agreement and missile firing schedules.



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Allotment Categorization

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SW of Sierra Ladronea

TABLE C—1  
SOCORRO RESOURCE AREA  
ALLOTMENT CATEGORIZATION

	CATEGORY M (Maintain)	CATEGORY I (Improve)	CATEGORY C (Custodial)
MANAGEMENT OBJECTIVES	Maintain or Improve Existing Situation	Improve Existing Resource Conditions	Prevent Deterioration and Manage In a Custodial Manner
GENERAL CHARACTERISTICS	<ul style="list-style-type: none"> <li>—Present ecological condition is satisfactory.</li> <li>—Trend is static to upward.</li> <li>—Present management is satisfactory.</li> <li>—Moderate to high potential for vegetative production and is producing near potential.</li> <li>—Limited or no resource conflicts exist with livestock grazing.</li> <li>—Land status may or may not be considered (includes low percentage of public lands, scattered tracts, or checkerboard land patterns within allotments).</li> <li>—Positive return on investment exists,</li> </ul>	<ul style="list-style-type: none"> <li>—Present ecological condition is unsatisfactory,</li> <li>—Trend is apparently downward.</li> <li>—Present management practices are inadequate to meet long-term objectives,</li> <li>—Moderate to high potential for vegetative production and is producing at low to fair levels,</li> <li>—Resource conflicts are evident with livestock grazing.</li> <li>—Land status may or may not be considered (similar to Category M).</li> <li>—Positive economic return on public investment exists.</li> </ul>	<ul style="list-style-type: none"> <li>—Present ecological condition is variable.</li> <li>—Present management appears satisfactory or is the only logical practice under existing conditions.</li> <li>—Vegetative production is relatively low.</li> <li>—Limited potential for improvement.</li> <li>—Limited or no resource conflicts with livestock grazing.</li> <li>—No positive return on investment is likely.</li> </ul>
MONITORING LEVELS			
Actual Use -	As needed by allotment.	Annually.	As needed by allotment.
Utilization -	Every 2 years.	Annually or as needed.	Permit/Lease renewal.
Trend -	Baseline is gathered.	Every 4 years.	No minimum.
Climate -	Annually/growing season.	Annually/growing season.	Annually/growing season.
Condition -	Every 20 years.	Every 15 years.	Baseline data gathered.
Evaluation -	Every 2 years.	Annually.	Permit/Lease Renewal.
MANAGEMENT ACTIONS	<ul style="list-style-type: none"> <li>—Livestock use may remain the same or be increased,</li> <li>—High degree of management flexibility through consultation.</li> <li>—Low intensity supervision and monitoring,</li> <li>—Rangeland improvements with appropriated funds; 2nd priority.</li> <li>—Development of management plans; 2nd priority.</li> </ul>	<ul style="list-style-type: none"> <li>—Livestock use may increase or decrease to meet management objectives,</li> <li>—Proposals for resolving identified issues and conflicts include:               <ol style="list-style-type: none"> <li>1. Season of use management,</li> <li>2. Change in kind and class of livestock,</li> <li>3. Adjust numbers of livestock,</li> <li>4. Distribution management through rangeland improvements or use of salt/supplement.</li> <li>5. Development of management plans; 1st priority.</li> </ol> </li> <li>—High intensity supervision and monitoring.</li> </ul>	<ul style="list-style-type: none"> <li>—Livestock use would remain the same, be excluded or authorized on a seasonal basis.</li> <li>—High degree of management flexibility.</li> <li>—Low intensity supervision and monitoring.</li> <li>—Rangeland improvement funding; 3rd priority.</li> <li>—Development of management plans; 3rd priority.</li> </ul>

TABLE C-2  
PRESENT ALLOTMENT STATUS AND CATEGORY

ALLOTMENT NUMBER	ALLOTMENT NAME	PREFERENCE	MANAGEMENT STATUS	WILDLIFE AUMS	MANAGEMENT CATEGORY
00013	Stock Driveway	221		5	M
00021	San Ignacio Creek	804	AMP	2	I
00025	Cow Springs	1,332	AMP	7	I
00054	Shaw Canyon	6,936		300	M
00076	Santa Rita	9		0	M
00077	Emery	96	AMP	0	M
00078	Patterson	1,804		12	M
00079	Stokes Flat	2,400		18	M
00080	Box Car 9	111	AMP	6	M
00081	Lynch Ranch	2,100		24	I
00082	CN	240		2	M
00033	Cat Mountain	240		0	M
00084	Paul Lund	204	AMP	21	I
00085	Patterson Canyon	192		17	M
00086	Cat Mountain	144		0	M
00087	Cottonwood Spring	31		47	M
00088	Mariano Mesa Ranch	69		4	I
00089	Leandro Well	18	AMP	0	I
00090	Panther Canyon	31		0	M
00091	Cerro Prieto	24		0	M
00092	Agua Fria Creek	3,780	AMP	17	M
00093	Tres Montosas	444		14	M
00094	Escondido Creek	1,488	AMP	13	I
00095	Datil Airstrip	48		0	M
00096	Mayes Wash	912		11	M
00097	Tanque de Caballos	108		2	M
00098	Chavez Ranch	70	AMP	14	M
00099	Florenio Orona	420	AMP	4	I
00100	Gatlin Lake	576	AMP	8	M
00101	Chihuahua Lake	2,364	AMP	20	I
00102	Orona Largo Creek	708		53	M
00103	Lopez Draw	228		4	M
00104	Pueblito Ranch	48		0	M
00105	North Fork Alamocito	24		0	M
00106	Santa Rita	3,300		44	I
00107	Summers Community	271		3	M
	Summers Community	173			M
	Summers Community	233			M
	Summers Community	1,020			M
	Summers Community	95			M
00108	Reynolds	132		2	M
00109	Pattys Hole	852		17	M
00117	N Fox Mountain	108		2	M
00127	Fox Mountain	156		1	M

TABLE C-2 (continued)  
PRESENT ALLOTMENT STATUS AND CATEGORY

ALLOTMENT NUMBER	ALLOTMENT NAME	PREFERENCE	MANAGEMENT STATUS	WILDLIFE AUMS	MANAGEMENT CATEGORY
00128	Williams Home	48		0	M
00129	R M Chavez	60		0	M
00130	Diamond X	60		2	M
00131	Box Car 8	84	AMP	1	M
00132	W Ranch	48		0	M
00133	Tres Lagunas	288		2	M
00134	Coal Canyon	60		0	M
00135	Bill G & W F Green	252		2	M
00136	Silver Creek	1,284	AMP	44	I
00137	Pietown Dike	55		0	M
00138	Iron Mountain	132		7	M
00139	Pietown Tr 15	8		0	M
00140	Lehew	144		0	M
00141	Sawtooth Mountain	120		0	M
00142	Oak Springs	36		0	M
00144	NM AZ State Line	48		0	M
00145	Hale Well	228	AMP	11	I
00146	Monticello Canyon	72		5	M
00147	Kinsely Canyon	120		5	M
00148	Wahoo Ranch	1,503	AMP	47	M
00149	Williamson	60		10	M
00150	Cat Lake	192		2	M
00151	Montoya	156	AMP	24	M
00152	Dusty Ranch	24		0	M
00153	Salvation Well	972		7	M
00154	Nichols Individual	36		0	M
00155	San Ignacio	156		0	M
00164	Lew Daniels	12		0	M
00165	Snake Hill	487		29	M
00166	Olguin Draw	96		13	M
00167	HQ	120		0	M
00168	Tarpley Well	96		0	M
00192	W Emery	36		0	M
00194	HQ Well	311		19	M
01106	Ojo Saladito	1,562		22	M
01112	Riley Community	156		0	M
	Riley Community	36		4	M
	Riley Community	60		0	M
01116	Puertecito Baranco	1,295	AMP	38	M
01117	Canon Bonito	408		5	M
01121	Rio Salado West	756	AMP	15	M
01122	Abeytas	300	AMP	0	M
01123	Abeytas	48	AMP	0	M
01136	Rio Puerco	1,176	AMP	2	M

TABLE C-2 (continued)  
PRESENT ALLOTMENT STATUS AND CATEGORY

ALLOTMENT NUMBER	ALLOTMENT NAME	PREFERENCE	MANAGEMENT STATUS	WILDLIFE AUMS	MANAGEMENT CATEGORY
01137	North Ladron	1,464	AMP	39	M
01140	Monte Negro	480		0	M
01143	Comanche Arroyo	24		0	I
01145	D Cross Mountain	356		5	M
01158	Canon Alamito	720	AMP	6	M
01159	La Jencia Creek	1,992	AMP	67	I
01177	Ladron Peak	444	AMP	36	M
01181	Lopez Community	575	AMP	5	M
	Lopez Community	325	AMP	0	M
01186	West Ladron	2,460		67	M
01191	Canada Colorado	720	AMP	4	I
01250	Buffalo Head	144		0	I
01251	Harless Ranch	1,428		50	M
01252	Silver Road	1,607		44	I
01253	Sand Sage	240	AMP	15	I
01254	Bordo Atravesado	2,714	AMP	63	I
01255	Bosquecito	312	AMP	15	I
01256	Llano	612	AMP	25	M
01257	Antelope Well	132		0	M
01258	Tio Bartolo	365		13	M
01259	Four Hills	360		16	I
01260	Sierra Larga	2,112		52	M
01261	Scott Ranch	2,186	AMP	51	M
01262	Las Canas	1,560		52	I
01263	Black Mesa	790		53	I
01264	Armijo Community	667		26	I
	Armijo Community	308			I
01266	Coyote Spring	1,512		28	M
01267	VL Ranch	384		10	M
01268	Ryan Hill	246		5	M
01269	Torreon Community	2,822		133	M
	Torreon Community	976		20	M
01270	Milligan Gulch	485		38	C
01271	Mesa Redonda	1,704		62	M
01272	San Pasqual	1,836		24	M
01273	Bruton River	1,800		0	M
01274	Rock Creek	230		12	C
01275	Oscura	5,182		326	M
01276	Four Sections	362	AMP	11	M
01277	San Jose Canyon	2,161	AMP	50	I
01278	Anaya Well	348		0	I
01279	Silver Canyon	1,337	AMP	40	I
01280	Tecolote Draw	2,388	AMP	43	I
01281	SO Ranch	696		38	M

TABLE C—2 (continued)  
PRESENT ALLOTMENT STATUS AND CATEGORY

ALLOTMENT NUMBER	ALLOTMENT NAME	PREFERENCE	MANAGEMENT STATUS	WILDLIFE AUMS	MANAGEMENT CATEGORY
01282	Bingham	60		5	M
01283	Blackington Mountain	1,572	AMP	39	I
01284	Mesa Well Canyon	1,287	AMP	36	I
01285	Sand Mountain	1,884		43	M
01286	Blackington Mountain West	312		0	C
01287	Arroyo Del Tajo	264	AMP	11	M
01288	Rio Grande	264	AMP	11	I
01289	Jornada Community	96	AMP	5	M
	Jornada Community	600	AMP	27	M
	Jornada Community	72	AMP	0	M
	Jornada Community	84	AMP	0	M
	Jornada Community	144	AMP	0	M
	Jornada Community	300	AMP	14	M
01290	Rock Springs Canyon	1,344	AMP	83	M
01291	Prairie Springs	1,536		17	M
01292	Chaunte Canyon	543		0	M
01293	Malpals	5,427		67	M
01294	Nogal Canyon	46		59	M
01295	Antelope Well	600		0	M
01296	Antelope West	372		0	M
01297	Puertecito Del Lemitar	1,233	AMP	30	M
01298	Wineglass	690	AMP	23	M
01299	Pequeno	422	AMP	30	C
01300	Casas de Pledras	318	AMP	8	M
01301	White Sage	4,727		85	M
01302	S0 Ranch	544		0	M
01303	Jornada Individual	1,032	AMP	24	M
01305	Chato	50		1	M
01306	Veranlto	445		13	M
01308	San Antonito	146	AMP	12	I
01309	5 Mesa Redonda	684		0	M
01310	Chupadera Wash	525		7	M
01312	La Arenosa	535	AMP	21	I
01315	Polvadera	102		6	C
01317	San Pedro	240	AMP	29	I
01318	Pueblito Community	24	AMP	0	C
	Pueblito Community	34	AMP	11	C
01321	Puertecito Gap	659		27	M
01322	Parida	1,248		46	M
01323	Water Canyon	508		74	M
01324	Water Canyon	240		17	M
01327	Cedar Pass	1,035	AMP	37	M
01328	Jones	912		11	M
01329	Las Lomas	240	AMP	8	M



TABLE C-2 (continued)  
PRESENT ALLOTMENT STATUS AND CATEGORY

ALLOTMENT NUMBER	ALLOTMENT NAME	PREFERENCE	MANAGEMENT STATUS	WILDLIFE AUMS	MANAGEMENT CATEGORY
01330	East Well	461		26	M
01339	Twin Tanks	65		0	M
01340	Twin Tanks	155		10	M
01341	Scholle	23		0	M
01342	Cerro Pelon	300		10	M
01343	ABO	144		10	M
01344	La Jencla Ranch	804		0	M
01345	Hickman Ranch	48		5	M
01346	La Jencia Ranch	36		0	M
01347	Blue Springs	15		3	M
01348	Cerro Montoso	407		7	M
01349	Dripping Springs	234		4	M
01350	Viejo Arroyo	237		7	M
01351	Rienhardt Individual	228		7	M
01352	U Butte	624		19	M
01353	Red Tanks Canyon	276		7	M
01354	Granite Mountain	13		0	M
01356	Tip Top	24		2	M
01361	Brushy Mountain	166		2	M
01365	Black Hills Ranch	6,696	AMP	120	M
01366	Dragoo Tank	1,968		0	M
01367	Lobo Canyon	2,762		24	M
01368	Chupadera Mesa	7,776		180	M
01369	Lincoln County	132		0	M
01370	Cat Mesa East	1,218		30	M
01371	Cuate Canyon	858		6	M
01372	Largo Canyon	2,377	AMP	54	M
01373	Carrlzozo	2,160		48	M
01374	Red Lake	48		0	M
01375	Claunch SE	192		0	M
01376	Gallacher North	1,821		42	M
10001	Twin Peaks	134		3	M
10002	Quails	120		0	M
10003	Quails	132		0	M
10004	Criswell	744		0	M
10005	Horse Springs	180		0	M
10006	Criswell	8		0	M
10007	McBroom	180	AMP	1	M
10009	Sullivan	408		4	M
10010	Kellog Canyon	2,448		15	I
10011	D&D Land and Cattle	1,968	AMP	2	I
10012	Kellog Canyon	144		0	I
10014	Half Circle D	72		0	M
10015	Mangas	84		0	M

TABLE C-2 (continued)  
PRESENT ALLOTMENT STATUS AND CATEGORY

ALLOTMENT NUMBER	ALLOTMENT NAME	PREFERENCE	MANAGEMENT STATUS	WILDLIFE AUMS	MANAGEMENT CATEGORY
10016	Jones Place	144		9	M
10017	Patterson Canyon	293		5	M
10018	Tejana Mesa	1,128		67	M
10019	East Salt Lake	132		2	M
10020	Wilbur Wadley Draw	96		2	M
10022	Augustine	197		5	M
10023	Box Lake	2,688	AMP	29	M
10024	Coyote Canyon	2,448		124	M
10026	Morine-White	240		57	M
10027	Burnett	108		1	
10028	V Ranch	3,993	AMP	234	I
10029	Cross Line	1,152		8	M
10030	Butler	864		9	M
10031	Arroyo Baca	67	AMP	2	M
10032	Adobe Ranch	7,020		147	I
10033	Castillo	50		2	M
10034	F E Chavez	168	AMP	2	M
10035	Mesa Ranch	504		36	M
10037	Wilbur Wadley Draw	180		0	M
10038	Red Hill South	1,716	AMP	14	M
10039	Pedro A Chavez Est	12		12	M
10040	Coyote Canyon	36		0	M
10041	Richard N Chavez	360		2	M
10042	Rito Creek	60		56	M
10043	Zuni Plateau	540		260	I
10044	Goat Ranch	720		7	M
10045	West Salt Lake	84		0	M
10046	Walker	1,161	AMP	60	M
10047	Durfee	1,392	AMP	10	M
10048	Curtis Ranch	864		4	M
10049	Baca Spring	76		0	M
10050	Eagar Red Hill	864	AMP	0	M
10051	Emery	836	AMP	6	I
10053	Lynch Ranch	1,764		28	I
10055	Kiehne Place	552		3	M
10056	Headquarters	2,220		25	I
10057	Carrizo Creek N	1,536		8	M
10058	Morine-White	3,628		6	M
10059	Adobe Ranch	240		0	M
10060	Leandro Well	508	AMP	4	I
10061	Mariano Hill	60		2	M
10062	Red Hill North	1,243		7	M
10063	Anderson Peak	900		23	M
10064	Evans Well	478		9	M

TABLE C-2 (continued)  
PRESENT ALLOTMENT STATUS AND CATEGORY

ALLOTMENT NUMBER	ALLOTMENT NAME	PREFERENCE	MANAGEMENT STATUS	WILDLIFE AUMS	MANAGEMENT CATEGORY
10065	Zuni Plateau	32		0	M
10066	Whitewater Canyon	276	-	13	M
10067	East Rita Creek	540		2	M
10068	Panther Canyon	192		8	M
10069	Cerro Prieto	588		39	M
10070	Rancho Alegre	8,536	AMP	105	M
10071	North Fork Alamocito	8,312		4	M
10072	Mangas Ranch	2,328		2	M
10073	Heavenly Acres	192		6	M
10074	Crosby Canyon	72		3	M
10110	West Horse Mountain	672	AMP	3	I
10111	East Horse Mountain	240	AMP	3	I
10112	Herman Sanchez	312	AMP	2	M
10113	Crosby Canyon	3		0	M
10114	Datil Airstrip	3		0	M
10115	Largo Creek	168	AMP	0	M
10116	Spring Canyon Ranch	514	AMP	3	I
10118	Alamito Ranch	6		0	M
10119	Windrider	444		6	M
10120	Aragon Well	264		2	M
10121	Orona Largo Creek	24		0	M
10122	Shay	72		0	M
10123	Goat Tank Canyon	228		4	M
10124	Hale Well	6		0	M
10126	Limestone Canyon	1,895	AMP	65	I

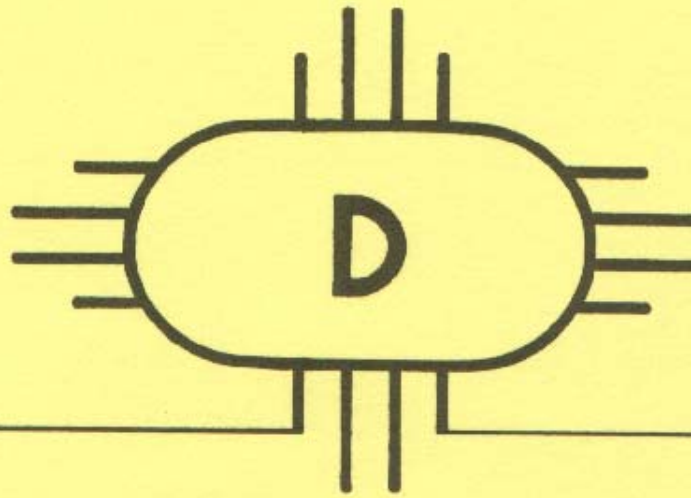
Table C-3  
CHUPADERA MESA ALLOTMENT CONDITION 1/

Allotment No.	Name	Ecological Condition Class				Average Condition Rating	Apparent Trend			Total Acreage
		Excellent	Good	Fair	Poor		Up	Static	Down	
1365	Black Hills Ranch	0	15,650	13,769	0	50.8	27,388	1,250	781	29,419
1366	Dragoo Tank	0	7,719	752	0	60.3	4,788	3,683	0	8,471
1367	Lobo Canyon	0	13,178	838	0	61.0	13,035	261	123	14,019
1368	Chupadera Mesa	5,607	15,828	9,068	0	59.7	28,702	774	1,027	30,503
1369	Lincoln County	0	483	152	0	56.5	306	329	0	635
1370	Cat Mesa East	0	1,463	3,218	0	45.3	4,658	33	0	4,681
1371	Cuate Canyon	0	3,073	597	0	58.4	3,452	218	0	3,670
1372	Largo Canyon	3,191	5,105	2,758	0	63.5	7,658	2,813	583	11,054
1373	Carrizozo	0	6,608	1,751	1,141	51.9	7,528	1,845	127	9,500
1374	Red Lake	0	61	109	0	46.5	170	0	0	170
1375	Harvey Investment Co.	0	652	0	0	62.5	498	154	0	652
1376	Gallacher North	0	5,910	2,587	0	54.9	6,467	2,030	0	8,497
TOTAL		8,798	75,730	35,599	1,141		104,650	13,980	2,641	121,271

1/ Public land acres only

Table C-4  
RECOMMENDED MANAGEMENT ACTIONS FOR CHUPADERA MESA ALLOTMENTS

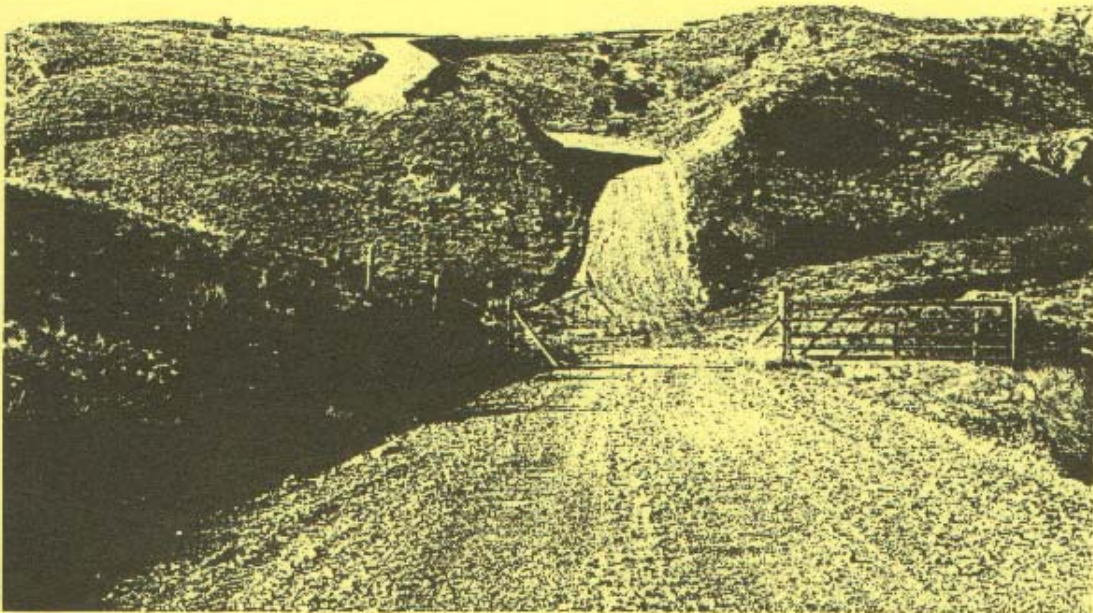
Allotment No.	Name	Existing Preference AUMs	Implement AMP	Vegetative Land Treatments (ac)		Pipe- Line (ml.)	Fence (ml.)	Wells (no.)
				Chemical	Burning Mechanical			
1365	Black Hills Ranch	6,696	Revise	450	150	3	8	0
1366	Dragoo Tank	1,968	Yes	640	140	3	4	0
1367	Lobo Canyon	2,762	Yes	100	200	0	5	0
1368	Chupadera Mesa	7,776	Yes	700	240	7	4	1
1369	Lincoln County	132	No	0	0	0	0	0
1370	Cat Mesa East	1,218	Yes	100	100	2	0	0
1371	Cuate Canyon	858	Yes	80	80	0	0	0
1372	Largo Canyon	2,377	Revise	100	150	5	0	0
1373	Carrizozo	2,160	Yes	400	240	0	0	0
1374	RedLake	48	No	0	0	0	0	0
1375	Harvey Investment	192	No	0	0	0	0	0
1376	Gallacher North	1,821	Yes	200	100	3	4	0



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Access Analysis Methodology

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Quebradas Road

## ACCESS ANALYSIS METHODOLOGY

The intent of the RMP access evaluation procedure was to simplify inventory tasks, to accurately identify problems considering motorized/non—motorized access needs, and to establish achievable objectives whereby access concerns can be resolved according to their relative importance. Access plans developed in the implementation phase will be in accordance with objectives described in this Appendix.

Inventory of physical and legal access routes consisted of the collection of existing information compiled within the Socorro County Transportation Plan of 1981, and the Catron County Transportation Plan of 1982. These plans, prepared by the BLM upon the close coordination with Federal, State, and County road departments, identified the legal public road systems as well as other known physical transportation routes. Sources used for the collection of this data included BLM 1/2—inch to the mile color quad maps, as well as USGS topographic maps. Intensive field inventories were completed to verify the existence of these transportation systems. Once the legal status of these access routes was determined, they were graphically portrayed on the RMP “legal access” overlay (see Map 2—3).

The RMP’s interdisciplinary team of resource specialists, who represented the interests of cultural resources, range, wildlife, lands, minerals, forestry, recreation, and watershed, then divided the SRA into nine geographic regions whereby access needs and concerns could be more closely scrutinized. These nine geographic areas or access tracts (ATs) were then superimposed onto the legal access overlay and were then identified alphabetically, A—I (see Map D—1). The internal boundaries of these ATs were delineated based upon various physical and political features such as county boundaries, Federal, State and County highways, National Forests, Indian Reservations, and private land grants. Once these AT boundaries were identified and analyzed, along with the existing legal access routes, the interdisciplinary team of resource specialists could then make evaluations as to whether or not access to the public lands needed improvement or was adequate to accommodate existing and potential uses.

In accordance with the various themes of each of the four alternatives the ATs were then prioritized for the eventual development of detailed access activity planning. Some of the factors used for this prioritization, in addition to the legal access route overlay, included:

1. Configuration (AT size, shape, and amount of public land);
2. Resource values (quantity and quality);
3. Public demand and BLM administrative needs;
4. Proximity to population centers;
5. Proximity to major travel routes;
6. Potential for access closures;
7. Potential for public land disposal and/or acquisition;
8. Resource conflicts (caused by accessibility);
9. Presence of proposed special management areas.

Detailed access activity plans will be developed and will specifically identify certain easement needs and target acquisition dates. These access activity plans will be implemented upon a priority basis for each AT depending upon the alternative ultimately selected. Access activity plans will be prepared, in close coordination with SMA activity plans, to ensure that common goals are achieved.

Access activity planning will first concentrate its efforts toward a determination as to whether the existing legal access is sufficient, insufficient, excessive, or in some cases a mix of the three. In all analyses, the distinction between legal access and physical access will be addressed. Legal access acquisition will always be pursued over existing physical access routes before new road construction is considered as long as the existing physical access route serves the intended purposes. All ATs will be monitored throughout the life of the RMP to ensure that:

- 1) changing demands on the public land and its resources do not necessitate changes in the

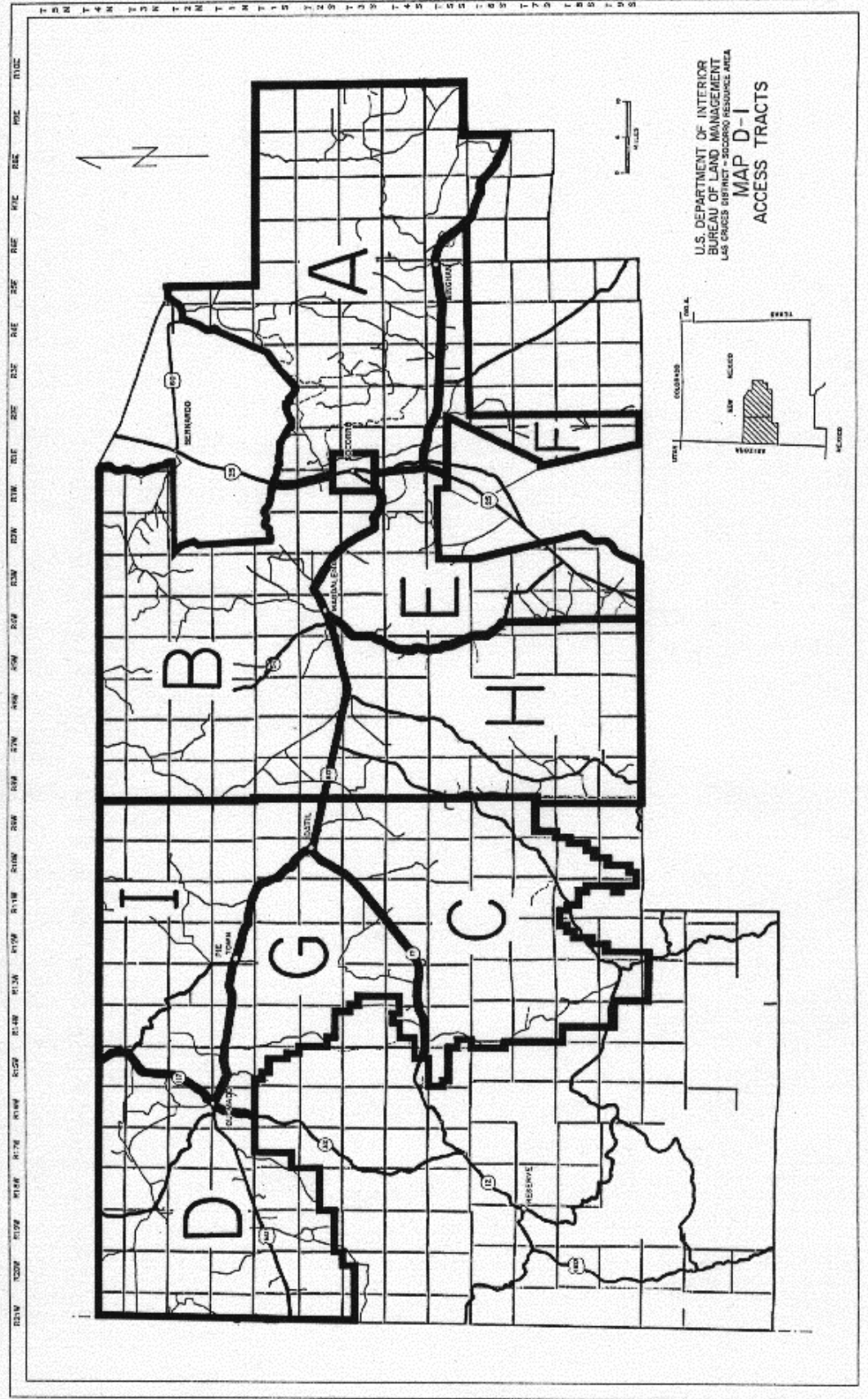
ATs existing access systems, and 2) that existing access systems receive proper maintenance in accordance with BLM standards.

ATs that are determined to possess sufficient access systems will receive little attention other than those monitoring activities mentioned above. In ATs where access is excessive, road closures with proper rehabilitation will be considered based upon the resource values present within the AT. All road closure proposals will be aired for public comment prior to any closure action.

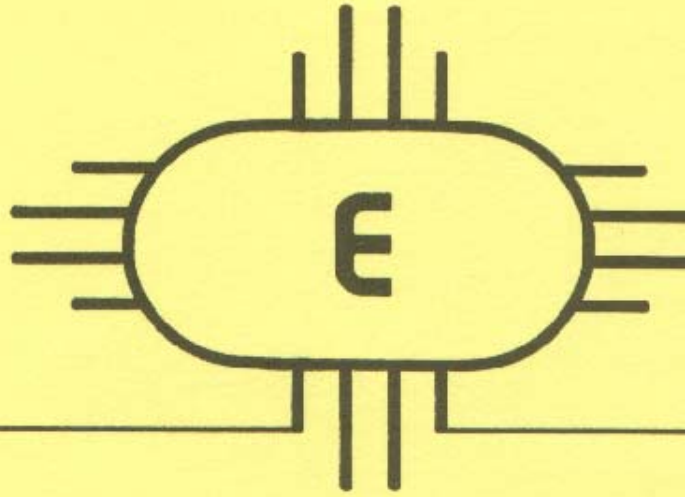
Where it is determined that existing access routes are insufficient and do not meet the

needs of a particular resource program or combination of programs, the SRA will pursue the acquisition of legal access. Factors or criteria to guide the SRA toward these acquisitions include, but are not limited to:

1. Private landowner's interests and/or concerns.
2. Number of private landowners affected.
3. Varying lengths of desired access routes.
4. Private property values.
5. Number of potential route users.
6. Season or seasons of potential use.
7. Road engineering design criteria.
8. Resource values enhanced versus resource values lost.



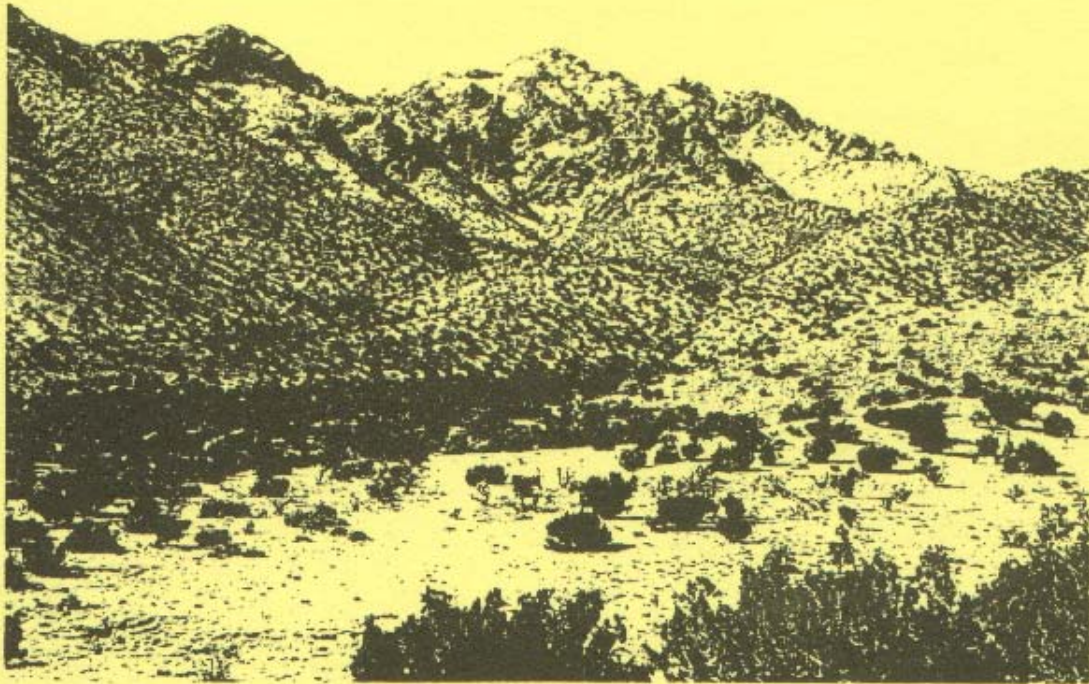




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Visual Resource Management Classes

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Ladron Peak from northeast

## VISUAL RESOURCE MANAGEMENT

### DETERMINATION OF VRM CLASS RATINGS

Visual resource classes are categories assigned to public lands 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 (Map E—1). 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 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/midground zone, background zone, and seldom seen zone. The foreground/midground zone is closest to the viewer and requires more attention and consideration in management decisions because of the great 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 for scenic quality, visual sensitivity, and distance zones, areas are assigned to one of four management classes. These classes are designed to maintain or enhance 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/midground 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/midground zone or with Class C scenery of high visual sensitivity in the foreground/midground 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/midground zone). Changes may subordinate the original composition and character but must reflect what could be a natural occurrence within the characteristic landscape.

### MANAGEMENT AND CONTRAST RATING OBJECTIVES FOR VRM CLASSES

For activities proposed on public lands, 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.

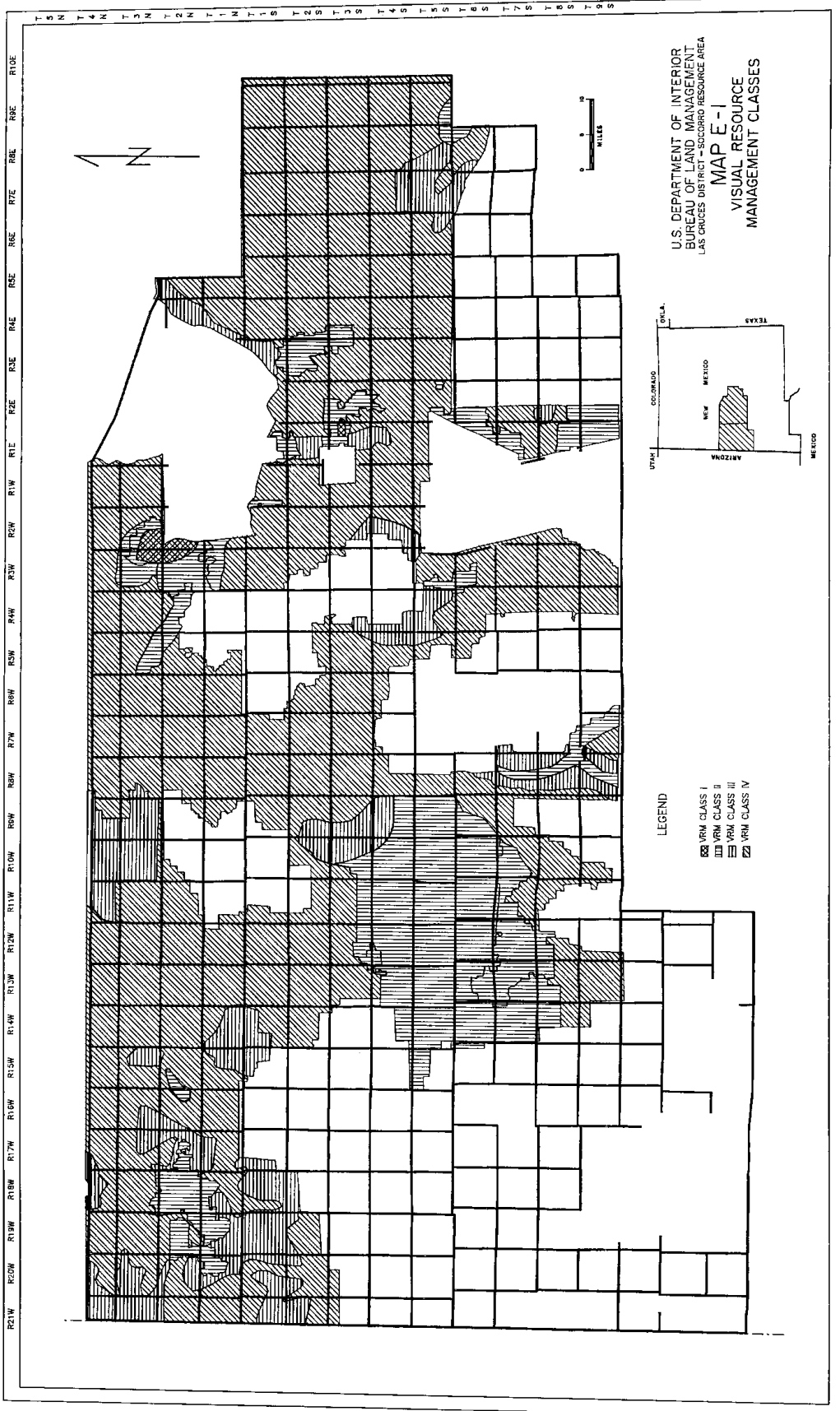
The amount of contrast is measured by separating the landscape into its major features (land and water surface, vegetation, and structures) and then predicting the magnitude of change in contrast with each of the basic elements (form, line, color, and texture) and then to each of the individual features. Assessing the amount of contrast for a proposed activity in this manner will indicate the severity of impact and serve 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 are listed below:

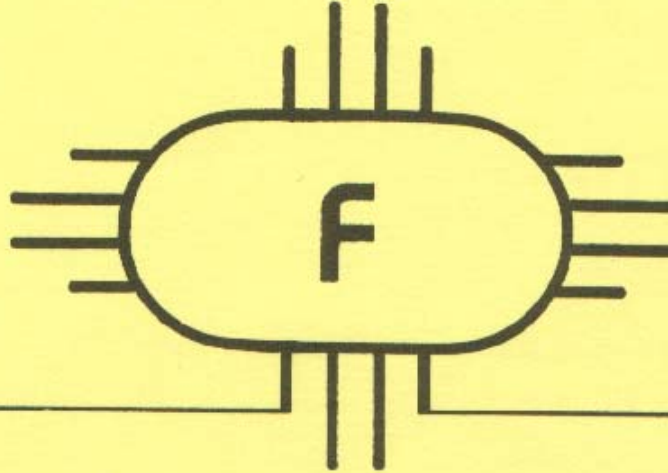
CLASS I: The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

CLASS II: The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

CLASS III: The objective of this class is to partially retain the existing character of the landscape. The level of 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 may dominate the view 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.

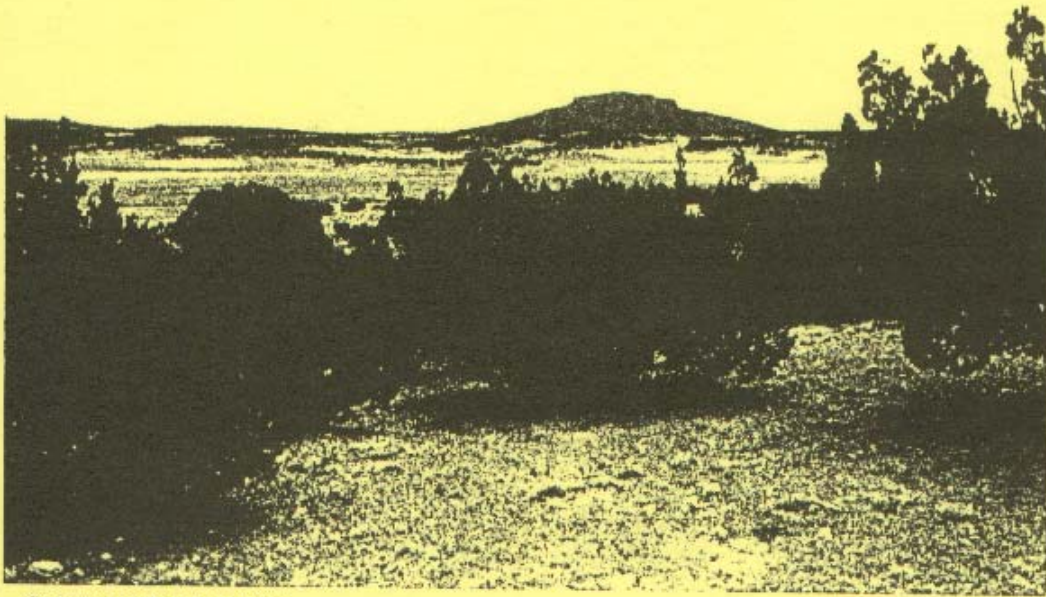




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Federal Coal Lands Review Process

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San Augustine Coal Area

## **FEDERAL COAL LANDS REVIEW AND IMPACT ANALYSIS PROCESS**

### INTRODUCTION

The regulations set forth in Title 43 of the Code of Federal Regulations (CFR), Subpart 3400, provide the framework under which the Department of the Interior (hereinafter referred to as the Department) conducts leasing of the rights to extract Federal coal. The objectives of these regulations are to establish policies and procedures for considering development of coal deposits through a leasing system involving land—use planning and environmental impact analysis. Additionally, the regulations are intended to ensure that coal deposits are developed in consultation, cooperation, and coordination with the public, State and local governments, Indian tribes, and involved Federal agencies.

The Secretary of the Interior may not hold a lease sale unless the lands containing the coal deposits have been included in a comprehensive land—use plan and unless the sale is compatible with, and conforms to, any relevant stipulations, guidelines and standards set out in the plan.

More detailed information on the area can be found in the Draft Divide Management Framework Plan (MFP) Amendment [Bureau of Land Management (BLM) 1984] at the BLM office in Socorro, New Mexico. It should be noted that since all four land—use planning screens for coal (coal development potential, surface owner consultation, unsuitability criteria and multiple—use screens) were applied to the area, the remaining Federal lands contained therein were carried forward. Figure F—1 describes the screen application process. Those lands that were identified as acceptable for further leasing consideration served as a pool from which tracts were delineated. These tracts will undergo further analysis to determine whether or not they will be leased.

### APPLICATION OF THE LAND—USE PLANNING SCREENS COAL DEVELOPMENT POTENTIAL

The coal development potential screen identifies lands suitable for further consideration for leasing for coal development within the planning cycle, which is assumed to be ten to twenty years. The coal development potential screen has been applied to the San Augustine Coal Area (SACA).

The determination of the area of maximum coal development potential is based on the following criteria:

1. Strippable reserve—base — a correlatable coal seam at least 2.3 feet thick, deeper than 20 feet and shallower than a 15 to 1 stripping ratio, with a maximum depth of 250 feet.
2. Underground minable reserve—base — a correlatable seam at least 5 feet thick and beyond the 15 to 1 stripping ratio limit.

All discernible areas meeting these criteria, plus a number of small areas with greater than a 15 to 1 stripping ratio, and areas of underground minable reserve—base are included in the area of maximum coal development potential for the SACA.

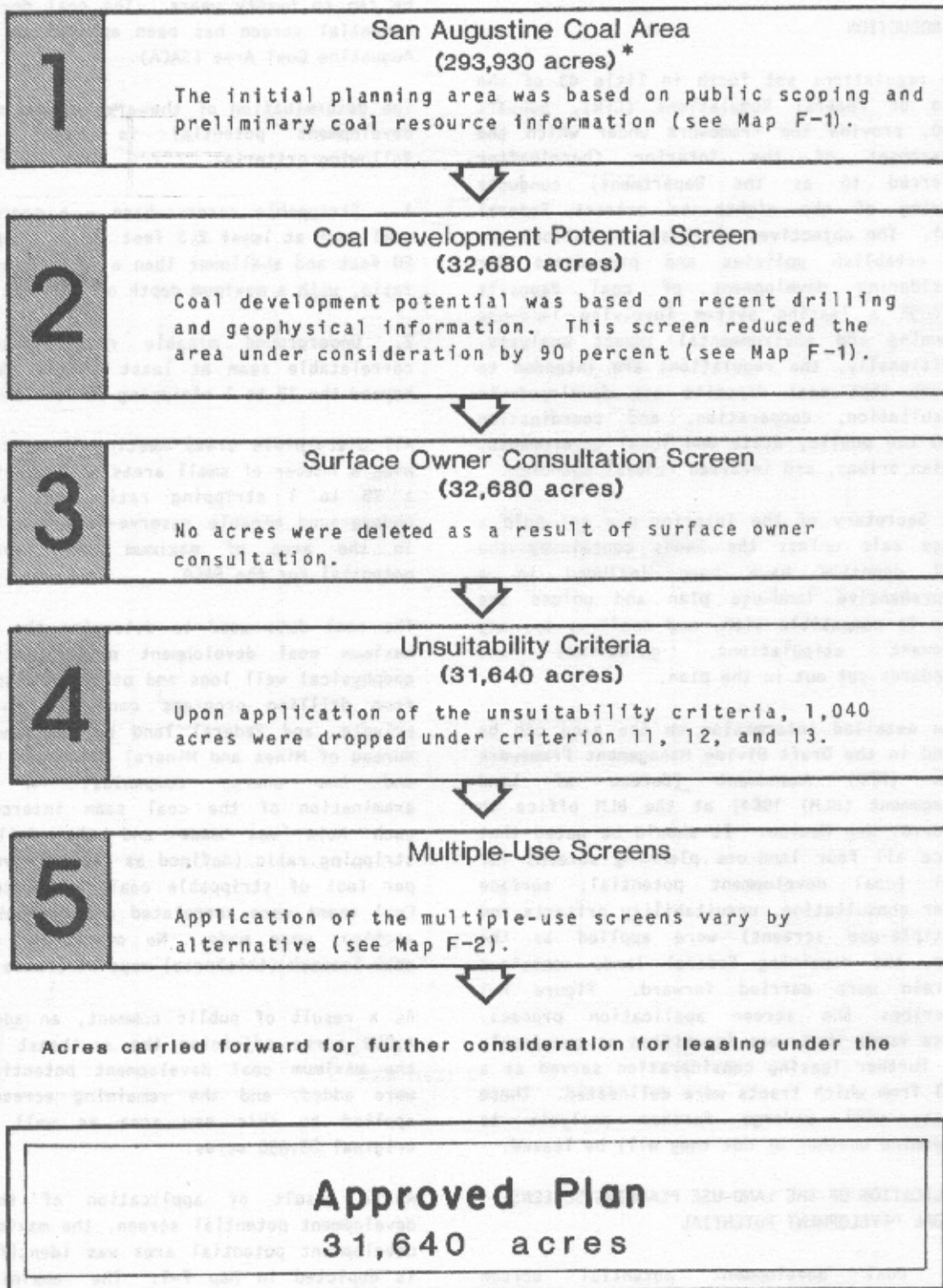
The coal data used to determine the area of maximum coal development potential included geophysical well logs and other bore—hole data from drilling programs conducted on State, private, and Federal land by the New Mexico Bureau of Mines and Mineral Resources (NMBMMR) and two energy companies. A cursory examination of the coal seam intercepts in each hole was made and the drill hole stripping ratio (defined as feet of overburden per foot of strippable coal) was determined. Coal seams were correlated and geologic cross sections were made. No overburden or coal seam isopack (thickness) maps were made.

As a result of public comment, an additional 4,000 acres adjoining the southeast edge of the maximum coal development potential area were added, and the remaining screens were applied to this new area as well as the original 28,680 acres.

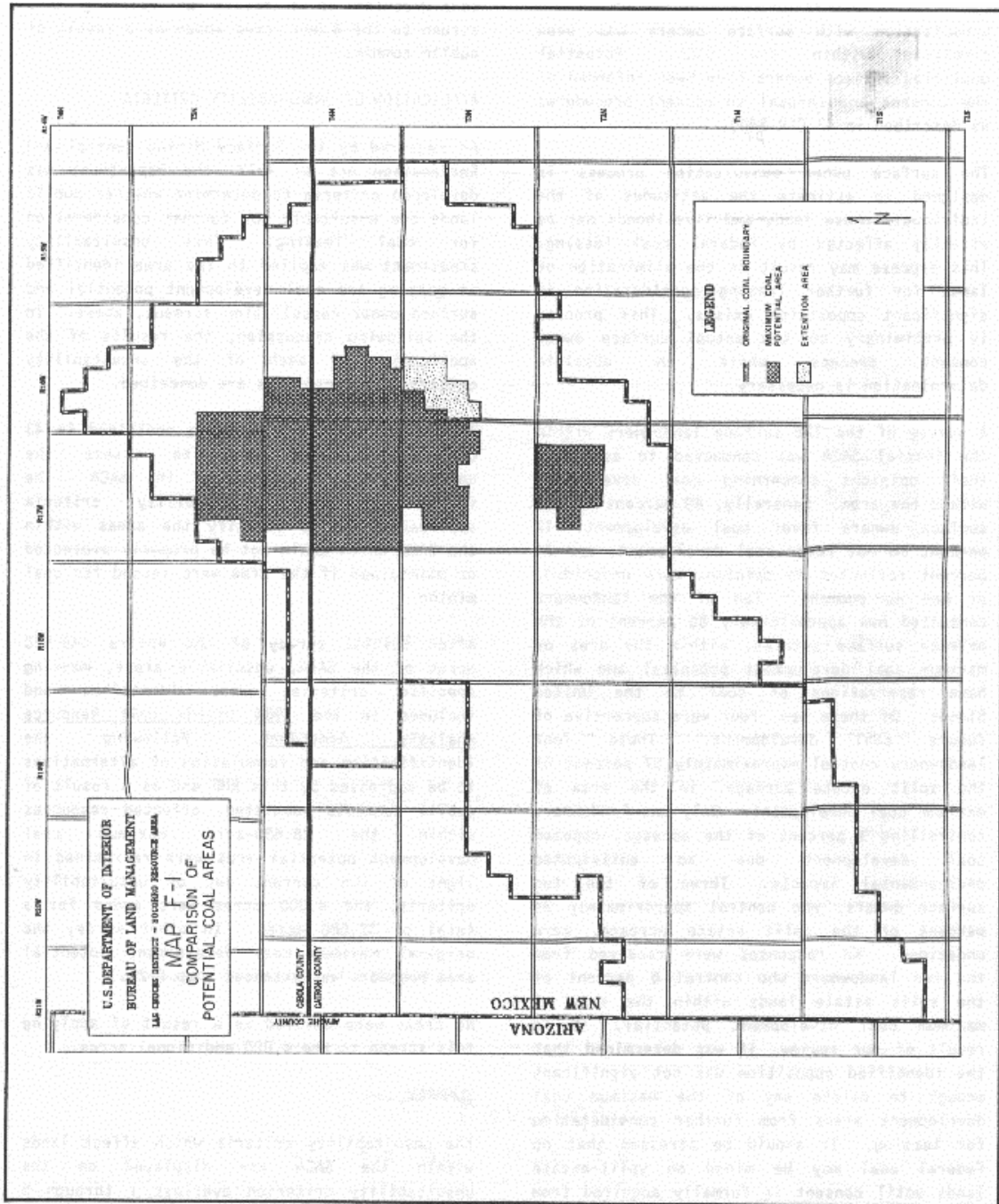
As a result of application of the coal development potential screen, the maximum coal development potential area was identified and is depicted in Map F—1. The remaining land use planning screens were applied to this area.

FIGURE F-1

Application of Coal Land-Use Planning Screens for Impact Analysis



\* All acre figures represent the affected Federal coal





## SURFACE OWNER CONSULTATION

Consultation with surface owners has been completed within the SACA. Potential qualified surface owners have been informed of the consent and refusal to consent procedures as described in 43 CFR 3400.

The surface owner consultation process is designed to estimate the attitudes of the individuals whose lands and livelihoods may be directly affected by Federal coal leasing. This process may result in the elimination of lands for further leasing consideration if significant opposition exists. This process is preliminary to the actual surface owner consent process where an absolute determination is necessary.

A survey of the 128 surface landowners within the initial SACA was conducted to ascertain their opinions concerning coal development within the area. Generally, 49 percent of the surface owners favor coal development, 17 percent do not favor coal development, and 34 percent reflected no opinion, were undecided, or had no comment. Ten of the landowners consulted own approximately 85 percent of the private surface estates, within the area of maximum coal development potential and which have reservations of coal to the United States. Of these ten, four were supportive of future coal development. These four landowners control approximately 57 percent of the split estate acreage, in the area of maximum coal development. Only one landowner, controlling 3 percent of the acreage, opposed coal development due to anticipated environmental impacts. Three of the ten surface owners, who control approximately 34 percent of the split estate acreage, were undecided. No responses were received from the two landowners who control 6 percent of the split estate lands within the area of maximum coal development potential. As a result of our review, it was determined that the identified opposition was not significant enough to delete any of the maximum coal development areas from further consideration for leasing. It should be stressed that no Federal coal may be mined on split—estate lands until consent is formally acquired from all directly affected qualified surface owners. No areas were deleted from further lease consideration as a result of applying this screen to the 4,000 acres added as a result of public comment.

## APPLICATION OF UNSUITABILITY CRITERIA

As required by the Surface Mining Control and Reclamation Act of 1977, the Department has developed criteria to determine whether public lands are unsuitable for further consideration for coal leasing. This unsuitability assessment was applied to the area identified as passing the coal development potential and surface owner consultation screens, above. In the following discussion, the results of the application of each of the unsuitability criteria and exceptions are described.

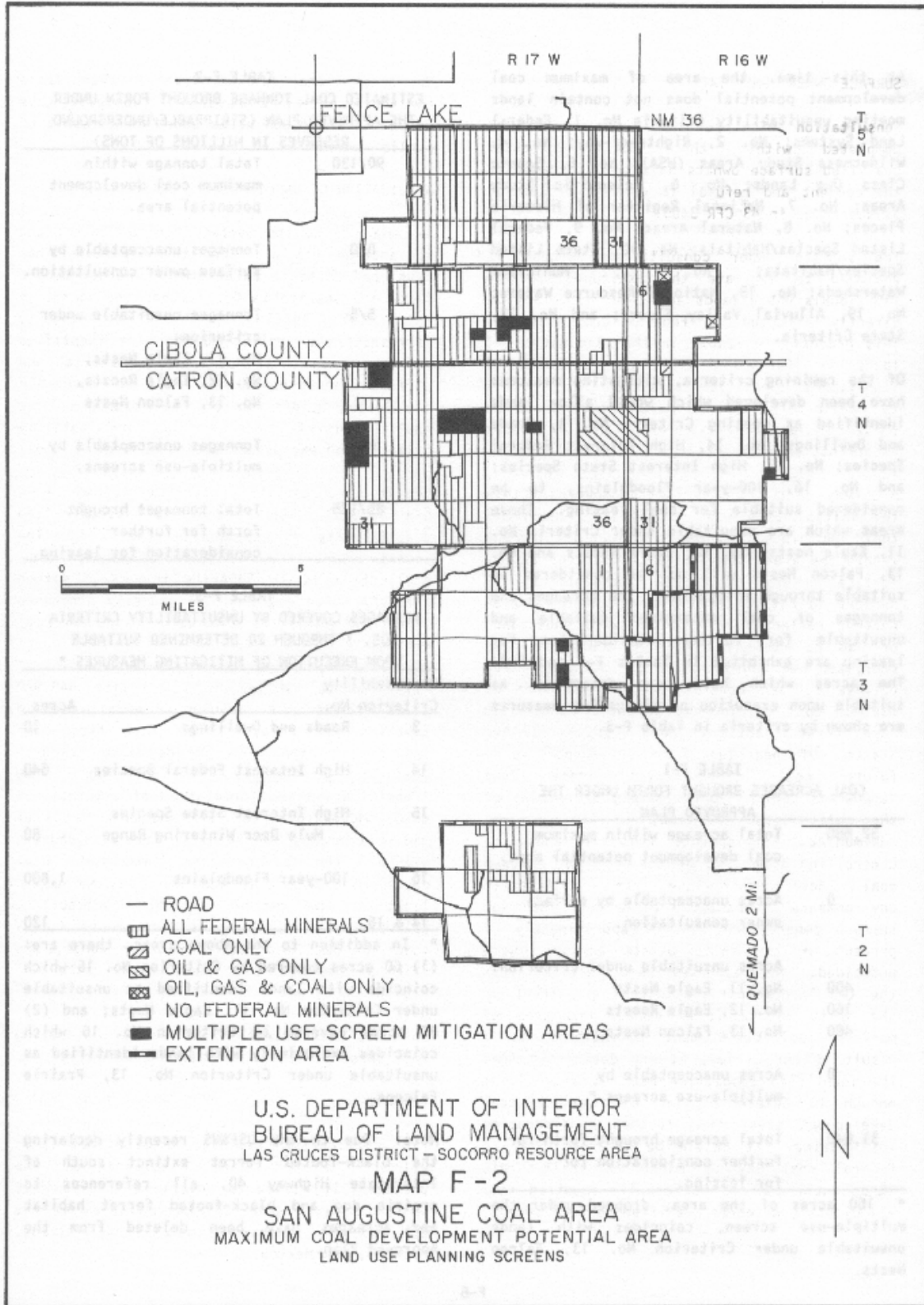
The 20 unsuitability criteria contained in 43 CFR 3461.1 were used to assess the unsuitability for mining of the SACA. The intent of the unsuitability criteria application is to identify the areas within the SACA which could not be properly protected or maintained if the area were leased for coal mining.

After initial survey of the entire 448,920 acres of the SACA, unsuitable areas, meeting specific criteria, were identified and included in the 1984 Divide Unit Resource Analysis Addendums. Following the identification and formulation of alternatives to be addressed by this RMP and as a result of public comments submitted, affected resources within the 28,680—acre maximum coal development potential area were reexamined in light of the current set of unsuitability criteria, and 4,000 acres were added for a total of 32,680 acres. In other words, the original maximum coal development potential area boundary was extended (Map F—2).

No areas were deleted as a result of applying this screen to the 4,000 additional acres.

## SUMMARY

The unsuitability criteria which affect lands within the SACA are displayed on the unsuitability criterion overlays 1 through 5 which are available for public review at the BLM Socorro Resource Area (SRA) Office, Socorro, New Mexico.



At this time, the area of maximum coal development potential does not contain lands meeting unsuitability Criteria No. 1, Federal Land Systems; No. 2, Rights-of-way; No. 4, Wilderness Study Areas (WSA); No. 5, Scenic Class One Lands; No. 6, Scientific Study Areas; No. 7, National Register of Historic Places; No. 8, Natural Areas; No. 9, Federal Listed Species/Habitats; No. 10, State Listed Species/Habitats; No. 17, Municipal Watersheds; No. 18, National Resource Waters; No. 19, Alluvial Valley Floors; and No. 20, State Criteria.

Of the remaining criteria, mitigating measures have been developed which would allow lands identified as meeting Criteria No. 3, Roads and Dwellings; No. 14, High Interest Federal Species; No. 15, High Interest State Species; and No. 16, 100-year Floodplains, to be considered suitable for coal leasing. Those areas which are unsuitable under Criteria No. 11, Eagle Nests, No. 12, Eagle Roosts and No.13, Falcon Nests will not be considered as suitable through mitigation. The acreages and tonnages of coal determined suitable and unsuitable for further consideration for leasing are exhibited in Tables F—1 and F—2. The acres which have been determined as suitable upon execution of mitigating measures are shown by criteria in Table F—3.

TABLE F—1  
COAL ACREAGES BROUGHT FORTH UNDER  
THE  
APPROVED PLAN

32,680	Total acreage within maximum coal development potential area.
0	Acres unacceptable by surface owner consultation.
	Acres unsuitable under criterion:
400	No. 11, Eagle Nests
160	No. 12, Eagle Roosts
480	No. 13, Falcon Nests
0	Acres unacceptable by multiple—use screens.*
31,640	Total acreage brought forth for further consideration for leasing.

\* 160 acres of the area, dropped under the multiple—use screen, coincides with lands unsuitable under Criterion No. 13, Falcon Nests.

TABLE F—2  
ESTIMATED COAL TONNAGE BROUGHT FORTH UNDER THE APPROVED PLAN (STRIPPABLE/UNDERGROUND RESERVES IN MILLIONS OF TONS)

90/130	Total tonnage within maximum coal development potential area.
0/0	Tonnages unacceptable by surface owner consultation.
5/5	Tonnages unsuitable under criterion: No. 11, Eagle Nests, No. 12, Eagle Roosts, No. 13, Falcon Nests
0/0	Tonnages unacceptable by multiple—use screens.
85/125	Total tonnages brought forth for further consideration for leasing

TABLE F—3 ACREAGES COVERED BY UNSUITABILITY CRITERIA NOS. 1 THROUGH 20 DETERMINED SUITABLE UPON EXECUTION OF MITIGATING MEASURES\*

Unsuitability Criterion No.		Acres
3	Roads and Dwellings	10
14	High Interest Federal Species	640
15	High Interest State Species Mule Deer Wintering Range	80
16	100—year Floodplains	1,800
<u>14 &amp; 16</u>		<u>120</u>

\* In addition to the above areas, there are: (1) 60 acres covered by Criterion No. 16 which coincide with lands identified as unsuitable under Criterion No. 11, Eagle Nests; and (2) 80 acres covered by Criterion No. 16 which coincides exclusively with lands identified as unsuitable under Criterion No. 13, Prairie Falcons.

• Note: Due to the USF&WS recently declaring the black—footed ferret extinct south of Interstate Highway 40, all references to prairie dog and black—footed ferret habitat and acreages have been deleted from the Approved Plan.

### 3461.1 (a)(1) Criterion Number 1

All Federal lands included in the following land systems or categories shall be considered unsuitable: National Park System, National Wildlife Refuge System, National System of Trails, National Wilderness Preservation System, National Wild and Scenic Rivers System, National Recreation Areas, lands acquired with money derived from the Land and Water Conservation Fund, National Forests, and Federal lands in incorporated cities, towns, and villages.

There are no Federal lands systems within the SACA; therefore, this criterion does not apply.

### 3461.1(b)(1) Criterion Number 2

Federal lands that are within rights—of—way or easements or within surface leases for residential, commercial, industrial, or other public purposes. Federally—owned surface shall be considered unsuitable.

There are no Federal lands rights—of—way or easements in the maximum coal development potential area; therefore, this criterion does not apply.

### 3461.1(c)(1) Criterion Number 3

Federal lands affected by section 522(e)(4) and (5) of the Surface Mining Control and Reclamation Act of 1977 shall be considered unsuitable. This includes lands within 100 feet of the outside line of the right—of—way of a public road or within 100 feet of a cemetery, or within 300 feet of any public building, school, church, community or institutional building or public park or within 300 feet of an occupied dwelling.

Presently there is only one dwelling located on Federal lands within the area of maximum coal development potential. This dwelling is occupied and is displayed on Unsuitability Criterion Overlay No.1. No cemeteries, including single grave sites or public road rights—of—way, have been identified within the area under review. A legal description of this land is included in the Divide Unit Resource Analysis Addendum (Step 3. Lands, .41).

Exceptions — Lands within the area of maximum coal development potential which are affected by this criterion can be considered suitable for further coal lease consideration with the following stipulations:

1. A lease may be issued for lands for which owners of occupied dwellings have given written permission to mine within 300 feet of their buildings.

### 3461.1(d)(1) Criterion Number 4

Federal lands designated as wilderness study areas shall be considered unsuitable while under review by the Administration and the Congress for possible wilderness designation. For any Federal land which is to be leased or mined prior to completion of the wilderness inventory by the surface management agency, the environmental assessment or impact statement on the lease sale or mine plan shall consider whether the land possesses the characteristics of a wilderness study area. If the finding is affirmative, the land shall be considered unsuitable, unless issuance of noncompetitive coal leases and mining on leases is authorized under the Wilderness Act and the Federal Land Policy and Management Act of 1976.

There are no WSAs in the maximum coal development potential area; therefore, this criterion does not apply.

### 3461.1(e)(1) Criterion Number 5

Scenic Federal lands designated by visual resource management analysis as Class I (an area of outstanding scenic quality or high visual sensitivity) but not currently on the National Register of Natural Landmarks shall be considered unsuitable. A lease may be issued if the surface management agency determines that surface coal mining operations will not significantly diminish or adversely affect the scenic quality of the designated area.

There are no visual resource management (VRM) Class I areas in the maximum coal development potential area; therefore, this criterion does not apply.

3461.1(f)(1) Criterion Number 6

Federal lands under permit by the surface management agency, and being used for scientific studies involving food or fiber production, natural resources, or technology demonstrations and experiments shall be considered unsuitable for the duration of the study, demonstration or experiment, except where mining could be conducted in such a way as to enhance or not jeopardize the purposes of the study, as determined by the surface management agency, or where the principal scientific user or agency gives written concurrence to all or certain methods of mining.

The maximum coal development potential area does not contain lands being utilized for this purpose.

3461.1(g)(1) Criterion Number 7

All publicly and privately owned places on Federal lands which are included in the National Register of Historic Places shall be considered unsuitable. This shall include any areas that the surface management agency determines, after consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer (SHPO), are necessary to protect the inherent values of the property that made it eligible for listing in the National Register.

Although it is interpreted that this also includes privately—owned archaeological sites above Federal coal, no lands within the maximum coal development potential area meet this criterion. Archaeological sites do exist within the suitable area which are significant and which may be eligible for listing on the National Register of Historic Places.

NOTE: These archaeological sites and socio—cultural sites clearly meet the definition of a resource of a unique nature with local or regional importance. These sites are considered under the multiple—use screen.

3461.1(h)(1) Criterion Number 8

Federal lands designated as natural areas or as National Natural Landmarks shall be considered unsuitable.

The maximum coal development potential area does not contain lands designated as natural areas or National Natural Landmarks.

3461.1(i)(1) Criterion Number 9

Federally designated critical habitat for threatened or endangered plant and animal species, and habitat for Federal threatened or endangered species which is determined by the Fish and Wildlife Service and the surface management agency to be of essential value and where the presence of threatened or endangered species has been scientifically documented, shall be considered unsuitable.

At this time, the maximum coal development potential area does not contain Federally designated critical habitat for threatened or endangered (T&E) plant and animal species or habitat for T&E species determined to be of essential value by the Fish and Wildlife Service (FWS) and the surface management agency.

3461.1(i)(1) Criterion Number 10

Federal lands containing habitat determined to be critical or essential for plant or animal species listed by a State pursuant to State law as endangered or threatened shall be considered unsuitable.

At this time, the maximum coal development potential area does not contain Federal lands containing habitat determined to be critical or essential for plant or animal species listed by the State of New Mexico as T&E.

3461.1(k)(1) Criterion Number 11

A bald or golden eagle nest or site on Federal lands that is determined to be active and an appropriate buffer zone of

land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Eagle nesting habitat located within the SACA was surveyed during the summer/fall of 1983. A Raptor Nest Report was initiated for each nest or group of nests located. Tentative buffer zones were identified and are displayed on the Unsuitability Criterion Overlay No. 4. A listing of legal descriptions of these tentative buffer zones is included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46). Following a nesting survey conducted during the spring of 1987, those locations identified as active were retained on the unsuitability criterion overlay. The acreages identified as unsuitable (400 acres) are exhibited in Table F—1.

Exception — The BLM with concurrence from the FWS, has determined that mitigating measures are neither practical nor desirable at this time.

#### 3461.l(l)(1) Criterion Number 12

Bald and golden eagle roost and concentration areas on Federal lands used during migration and wintering shall be considered unsuitable.

Year—round eagle roosting areas have been identified within the maximum coal development potential area and are displayed on the Unsuitability Criterion Overlay No. 4. A listing of legal descriptions of these roosting areas is included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46). The acreages identified as unsuitable (160 acres) under this criterion are exhibited in Table F—1.

Exceptions — The BLM with concurrence from the FWS has determined that mitigating measures are neither practical nor desirable at this time.

#### 3461.l(m)(1) Criterion Number 13

Federal lands containing a falcon (excluding kestrel) cliff nesting site with an active nest and a buffer zone of Federal land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Falcon nesting habitat located within the maximum coal development potential area was surveyed during the summer/fall of 1983. A Raptor Nest Report was initiated for each nest or suspected nest located. Tentative buffer zones were identified and are displayed on the Unsuitability Criterion Overlay No. 4. A listing of legal descriptions of these tentative buffer zones is included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46). Following a nesting survey conducted during the spring of 1987, those locations determined to be active were retained on the unsuitability criterion overlay. The acres identified as unsuitable (480 acres) under this criterion are exhibited in Table F—1.

Additional spring surveys are conducted within the maximum coal development potential area yearly. Results of these surveys may change the amount of Federal mineral estate determined unsuitable because of this criterion.

Exceptions — The BLM, with concurrence from the FWS, has determined that mitigating measures are neither practical nor desirable at this time.

#### 3461.l(n)(1) Criterion Number 14

Federal lands which are high priority habitat for migratory bird species of high Federal interest on a regional or national basis, as determined jointly by the surface management agency and the Fish and Wildlife Service, shall be considered unsuitable.

High priority habitat is defined as an area containing one or more limited environmental factors needed to support a population of at least one of the listed species. All high priority habitat must meet the following criteria:

1. It must be used regularly (use may be limited to one season during the year) by one or more of the listed species.
2. Its availability for uses such as feeding, reproduction, nesting, molting and/or wintering must be either limited or supportive of concentrations of a listed species in the indicated coal region or subregion.
3. It must contain a combination of natural or man—made factors; eg., riparian vegetation, reservoirs, cliff sites, tall buildings, etc.that provide an essential quantity or quality of one or more of the habitat requirements of a listed species; i.e., food, water, cover or space.

In order to assess an area as being unsuitable for all or certain stipulated methods of coal mining, both the “high Federal interest” and the “high priority habitat” aspects of this criterion must be met; eg., an area must support listed species and contain habitat of these species which meet all three of the above indicated habitat criteria.

The areas identified as meeting criterion number 14 are identified on the Unsuitability Overlay No. 4. A description and listing of locations of these areas are included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46). These areas are intermittent wetlands, playas or reservoirs which contain water during the spring and early summer, produce forbs during the summer, and contain water during the fall and winter. These areas are known to be utilized during the spring and fall migrations by: white—faced ibis, western grebe, great blue heron, long—billed curlew and large concentrations of migratory waterfowl which provide a prey base for wintering bald eagles. At this time no Ferruginous hawk nest locations are known to occur on Federal mineral estate within the maximum coal development potential area. Additional surveys will be conducted within the maximum coal development potential area yearly. Results of these surveys may change the amount of Federal mineral estate determined unsuitable because of this criteria.

Exceptions — The 640 acres identified as meeting criterion 14 within the maximum coal development potential area can be considered suitable for further coal lease consideration by applying the following stipulations:

1. Affected wetlands and appropriate drainages sufficient to provide equal or enhanced habitat values will be replaced by the lessee on a site—specific basis.
2. The lessee will consult with the BLM; the BLM will consult with the surface owner, FWS and New Mexico Department of Game and Fish (NMDG&F) prior to alteration of the affected wetland.

#### 3461.1(o)(1) Criterion Number 15

Federal lands which the surface management agency and the State jointly agree are fish and wildlife habitat for resident species of high interest to the State and which are essential for maintaining these priority wildlife species shall be considered unsuitable.

The areas identified under criterion number 14 can also be applicable to criterion 15; in addition, the NMDG&F has identified mule deer and ferruginous hawks. Pronghorn antelope are included under this criterion because of the occurrence of an isolated herd utilizing a restricted habitat on a mesa top in the area.

Areas identified as mule deer winter range within the maximum coal development potential area are also adjacent to or included in the areas covered by criterion 12 — eagle roosting areas. Mule deer wintering range (80 acres) are included under this criterion.

Those areas identified under criterion 14 are included in the exception for that criterion.

Exceptions — The areas identified as prairie dog locations will be suitable for further coal lease consideration by incorporating the following stipulations:

1. Proposed activities in or adjacent to the identified area will be preceded by a complete black-footed ferret inventory of the prairie dog colony.

2. All black-footed ferret inventory and survey procedures conducted by the lessee will be reviewed and approved by BLM in consultation with the FWS and the NMDG&F.

#### 3461.l(p)(l) Criterion Number 16

Federal lands in riverine, coastal and special floodplains (100-year recurrence interval) on which the surface management agency determines that mining could not be undertaken without substantial threat of loss of life or property shall be considered unsuitable for all or certain stipulated methods of coal mining.

The first drainages that were analyzed for 100-year floodplain determination were those that drained at least ten square miles. Watersheds were delineated for all of SACA and tentative floodplain transect locations established. Two or more transects were run for each probable floodplain location using the stadia method. Channel cross sections were drawn and flood stages marked on them. The United States Geological Survey (USGS) method from Water Resources Investigations 82-24, "Techniques for Estimated Flood Discharges for Unregulated Streams in New Mexico", and H. R. Hejl, Jr.'s (USGS) draft paper "Streamflow Characteristics as Related to Basin Characteristics in Strippable Coal—Resource Areas of Northwestern New Mexico" were used to determine the 100-year flood discharge. The resultant discharges computed using the two different methods were very close. Using the Manning's equation and knowing the channel geometry and stage relationship, the 100-year floodplain was then determined and drawn on 7.5 minute topographic maps. The floodplains were later verified with aerial photographs. To accurately determine the 100-year floodplain, USGS said that about 20 floodplain transects per area are needed and the floodplains should be mapped on one-foot contour interval maps. Due to the tight budget, large area, and lack of manpower, it was not possible to delineate the floodplains to that degree of accuracy.

Playas were delineated by aerial photo interpretation, vegetative types, and field observations. Four large detention dams that hold between 55 and 152 acre-feet of water were also considered unsuitable.

Although the 1,800 acres delineated as floodplains are blocked out in 40-acre tracts, the actual floodplain usually represents a much smaller area. Actual floodplain boundaries have been digitized and maps are available for reviewing at the SRA.

Floodplains are displayed on Unsuitability Criteria Overlay No. 5. All of the 100-year occurrence floodplains in the maximum coal development potential area can be mitigated because they do not represent a substantial threat to life or property.

#### 3461.l(a)(l) Criterion Number 17

Federal lands which have been committed by the surface management agency to use as municipal watersheds shall be considered unsuitable.

At this time, the maximum coal development potential area does not contain any municipal watersheds.

#### 3461.l(r)(l) Criterion Number 18

Federal lands with national resource waters, as identified by states in their water quality management plans, and a buffer zone of Federal lands 1/4 mile from the outer edge of the far banks of the water, shall be unsuitable.

At this time, the maximum coal development potential area does not contain lands identified by the State of New Mexico as meeting this criterion.

#### 3461.l(s)(l) Criterion Number 19

Federal lands identified by the surface management agency, in consultation with the State in which they are located, as alluvial valley floors according to the definition in 3400.0-5(a) of this title, the standards in 30 CFR Part 822, the final alluvial valley floor guidelines of the



Office of Surface Mining (OMS) Reclamation and Enforcement when published, and approved State programs under the Surface Mining Control and Reclamation Act of 1977, where mining would interrupt, discontinue, or preclude farming, shall be considered unsuitable. Additionally, when mining Federal land outside an alluvial valley floor would materially damage the quantity or quality of water in surface or underground water systems that would supply alluvial valley floors, the land shall be considered unsuitable.

At this time, the maximum coal development potential area does not contain lands identified as alluvial valley floors (30 CFR Chapter VII).

#### 3461.1(t)(1) Criterion Number 20

Federal lands in a state to which is applicable a criterion (i) proposed by that state, and (ii) adopted by rule making by the Secretary, shall be considered unsuitable.

At this time, the State of New Mexico has not proposed nor has the Secretary adopted any special or additional criterion other than those criterion presented in Parts 2, 3, and 4 of the New Mexico Coal Surface Mining Commission Rule 80—1 which corresponds with segments of the Federal 3461.1 regulations.

#### MULTIPLE—USE CONFLICT ANALYSIS

The multiple—resource use screens are intended to eliminate lands from further consideration for coal leasing if other resources on those lands are determined to be locally important or unique. In general, a multiple—use trade—off is appropriate when one land use; e.g. mining, would be likely to preclude or limit use of other valuable resources not otherwise covered by the 20 unsuitability criteria. The readjustments at this stage in the land—use planning process are made to accommodate unique, site—specific resource values clearly superior to coal but which are not included in the unsuitability criteria. A prime recreation site or campground might be an example.

The present planning effort weighs the effects of the additional multiple—use screens on the areas which have passed the three previously mentioned screens. The results of these analyses are summarized below. It should be noted that additional inventory for cultural resources, raptor nests, etc., could require the reapplication of multiple—use and unsuitability criteria screens at coal activity planning. Under the Approved Plan no acres were declared unacceptable because all multiple—use screens were mitigated. No areas were deleted as a result of applying this screen to the additional 4,000 acres. Those screens which are applied are presented in Table F—1

#### MULTIPLE-USE SCREENING ANALYSIS

##### No.1: Wetlands

Wetlands larger than one acre will considered unacceptable.

DEFINITION: BLM Manual 6740 defines wetlands as follows:

“Permanently wet or intermittently flooded areas where the water table (fresh, saline, or brackish) is at, near, or above the soil surface for extended intervals, where hydric wet soil conditions are normally exhibited, and where water depths generally do not exceed two meters. Vegetation is generally comprised of emergent water—loving forms (hydrophytes) which require at least a periodically saturated soil condition for growth and reproduction. In certain instances vegetation may be completely lacking. Marshes, shallows, swamps, muskegs, lake bogs, and wet meadows are examples of wetlands “

These are poorly drained areas, as a rule having impervious soils (no substantial ground water recharge). They may on occasion be in contact with the groundwater system, but for the most part they receive water from precipitation and overland runoff.

The above definition will be used for the multiple—use screen with the following modification. Marshes, shallows, swamps, and

wet meadows less than one acre will not be considered under this definition. It will not include saltgrass flats associated with intermittent arroyos or small seasonally flooded livestock reservoirs that do not support emergent vegetation.

ANALYSIS: There are no wetlands larger than one acre in either of the areas under consideration. This analysis is based on field inventories.

#### NO. 2: RIPARIAN HABITAT

Riparian Habitat will be considered unacceptable.

DEFINITION: Manual 6740 defines riparian habitat as follows:

A specialized form of wetland restricted to areas along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, also, periodically flooded lake and reservoir shore areas, as well as lakes with stable water levels with characteristic vegetation. This habitat is transitional between true bottomland wetlands and upland terrestrial habitats and, while associated with water courses, may extend inland for considerable distances. Soils of the riparian habitat may not exhibit typical wet soil characteristics of other wetlands. If not, wet soil characteristics will exist close enough to the surface for the water to be used directly by vegetation. This vegetation may range from water-loving hydrophytes (such as pond weeds) through terrestrial forms (such as sycamores, cottonwoods, and willows).”

In these areas soil and soil structure permit groundwater movement both vertically and horizontally. Groundwater recharge can occur.

For the purpose of the multiple—use screen the above definition will be used with the following condition: isolated cottonwood trees, tamarisk stands less than one acre, and desert arroyos with greasewood, rabbitbrush, or fourwing saltbush borders will not be considered as riparian habitat. They are more properly treated as a special habitat feature.

ANALYSIS: Using the above definition, there is no riparian habitat in any of the areas under consideration. This analysis is based on field inventories.

#### NO. 3: PROPOSED THREATENED OR ENDANGERED (T&E) SPECIES

Habitat supporting populations or individuals of species proposed for Federal or State listing as T&E will be considered unacceptable.

ANALYSIS: There are no proposed T&E species within any of the areas under consideration. This analysis is based on field inventories and consultations with the FWS and NMDG&F.

#### NO. 4: FEDERAL LANDS CONTIGUOUS TO THE NATIONAL TRAIL SYSTEM AND THE NATIONAL WILDERNESS SYSTEM

Federal lands within one—half mile of units of the National System of Trails, and the National Wilderness Preservation System, shall be considered unacceptable.

ANALYSIS: There are no Federal land systems within one—half mile of any of the areas under consideration. Therefore, this multiple—use screen will not apply.

#### NO. 5: CLASS II VISUAL RESOURCE MANAGEMENT (VRM) AREAS

Areas that contain VRM Class II objectives shall be considered unacceptable for surface coal mining.

ANALYSIS: There are no coal tracts that lie within areas that contain VRM Class II management objectives.

#### NO. 6: AREAS OF SIGNIFICANT RECREATION USE OR OPPORTUNITY

Special Recreation Management Areas (SRMA) and areas that contain Recreation Opportunity Spectrum (ROS) management objective for the primitive class (see Appendix I in the Proposed Plan), shall be considered unacceptable for surface coal mining.

ANALYSIS: There are no areas with VRM Class II management objectives, SRMAs, or ROS Primitive class management objectives in the maximum coal development potential area.

NO. 7: SOLE—SOURCE AQUIFERS

An area formally designated by the Environmental Protection Agency (EPA) as a sole—source aquifer shall be considered unacceptable.

ANALYSIS: The sole—source aquifer program under the Safe Drinking Water Act permits citizens to petition EPA for designation of an area as a sole—source aquifer if it is the principal water supply. If so designated, EPA reviews all Federally assisted projects which may affect the quality of groundwater in the sole—source aquifer.

There have been no sole—source aquifer designations in the maximum coal development potential area under this program to date.

NO. 8: AIR QUALITY

Lands within 15 miles of air quality Class I Prevention of Significant Deterioration (PSD) areas shall be considered unacceptable.

ANALYSIS: There are no Class I (PSD) areas within or adjacent to the maximum coal development potential area.

NO. 9: RESERVED FEDERAL LANDS

All Federal lands included in the following land systems or categories shall be considered unacceptable: Federal Aviation Administration (FAA) facilities; all site withdrawals (administrative, school, etc.) for Federal agencies and leases acquired under the Recreation and Public Purposes (R&PP) Act.

ANALYSIS: There are no Federal lands within the maximum coal development potential area under consideration which are reserved for FM facilities, site withdrawals for Federal agencies (administrative, school, etc.) or leases acquired under the R&PP Act.

EXCEPTION: A lease may be issued and mining operations approved if, after consultation with the affected Federal agency or lessee, the surface management agency determines that the facility will not be adversely affected by all or certain stipulated methods of coal mining.

NO. 10: RIGHT—OF—WAY WINDOWS OR CORRIDORS

Federal lands which have been committed by the surface management agency to use as rights—of—way windows or corridors shall be considered unacceptable.

ANALYSIS: No Federal lands which have been designated or recommended for designation, as rights—of—way windows or corridors, are within the areas under consideration.

NO. 11: PALEONTOLOGICAL RESOURCES

Any paleontological resources which are type localities for fauna that define regional or larger time—stratigraphic units, and special management areas (SMA) set aside for their paleontological values, shall be considered unacceptable. However, coal mining can be allowed if the authorized officer (in consultation with affected Federal/State agencies) determines that mining activities will enhance and facilitate access and scientific evaluation of paleontological resources.

ANALYSIS: This multiple—use screen does not apply to any areas under consideration with the maximum coal development potential area.

NO. 12: CULTURAL RESOURCE SITES ELIGIBLE FOR INCLUSION ON THE NATIONAL REGISTER OF HISTORIC PLACES.

All properties which have been determined eligible for the National Register of Historic Places and which are of exceptional complexity, or areas of properties which must be considered together to achieve adequate mitigation through data recovery, shall be considered unacceptable. This shall include areas that the surface managing agency determines, after consultation with the SHPO and the Advisory Council on Historic Preservation, are necessary to protect the inherent values of the property that made it eligible for the National Register.

Prior to approval of surface disturbing activities, Class III inventories will be conducted and subsequent mitigation of impacts will be required on all National Register eligible sites. Consultation between BLM,

OSM, and SHPO will occur to determine if newly recorded sites are eligible for inclusion in the National Register. If adequate mitigating measures for impacts to these sites cannot be developed, the sites and appropriate buffer zones will not be surface mined or allowed to be disturbed by underground mining activities.

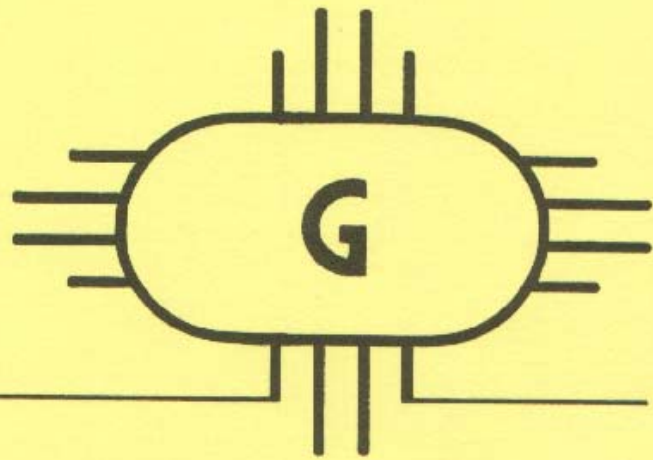
ANALYSIS: No individual sites of extraordinary internal complexity are presently known within the maximum coal development potential area. However, eleven areas of properties which together pose exceptional challenges to adequate mitigation are known. These total 1,340 acres unacceptable for coal mining.

EXCEPTIONS: Coal mining may be allowed if, after consultation with the SHPO and the Advisory Council on Historic Preservation, measures for mitigation of impacts are approved by the surface managing authority with jurisdiction over the site(s).

#### NO. 13: NATIVE AMERICAN AREAS OF CULTURAL SIGNIFICANCE

Federal lands containing specific sites which have been identified as sacred and essential to the practice of traditional Native American religion shall be considered as unacceptable. This shall also include any areas that the surface management agency determines, after consultation with the appropriate tribal representative, as necessary to protect the inherent values of the area and to ensure that the natural character of the area remains unaltered so it may continue to be used for prayer or other religious practices.

ANALYSIS: An overview of Native American traditional use of the original SACA region (Kelly in Camilli et al. n.d.) has shown that this screen may apply to sites, localities, and linear features (trails). No confirmed localities are presently known to lie in the maximum potential coal development area.



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Lands and Minerals Disposal Policy

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South of Horse Springs

## 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 area will closely analyze potential impacts to Federal mineral material development. In addition, all surface estate patents within areas of known coal potential will carry a reservation of surface owner consent rights under the Surface Mining Control and Reclamations Act of 1977.

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

#### 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 within retention zones may be possible if it is clearly determined that it is in the best interest of the public. The following principles will guide the SRA in its land exchange program.

1. The SRA will continue to strive to process mutually benefiting, public interest, land exchanges in a timely and efficient manner.
2. Acquisition, through exchange rather than purchase, of lands or interests in lands required for resource management programs, will always be the preferred method of acquisition as this will reduce the expansion of Federal real estate holdings and help to assure 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 or adjustments 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 such benefiting 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 nonpublic lands containing unique or unusual historic,

cultural, mineral, recreational, scientific, scenic or wildlife habitat values will be pursued when formulating any exchange proposal.

## 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. 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:

- o Such tract because of its location or other characteristics is difficult and uneconomic to manage as part of the public lands, and is not suitable for management by another Federal department or agency; or
- o Such tract was acquired for a specific purpose, and the tract is no longer needed for that or any other Federal purpose; or
- o 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.

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, threatened or endangered (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 environmental assessment (EA). The EA and land report will be used together 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 during the preparation of the land report 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 and/or local governments, adjoining landowners' interests and concerns, public policies, historical uses, and equitable distribution of the land. The SRA 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 will 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 will 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 best be served. Examples include but are not limited to:

- o A tract identified for transfer to State or local governments or nonprofit organizations; or

- o 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
- o 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
- o A tract is surrounded by land in non—Federal ownership and does not have public access; or
- o 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 shall be given 2—years prior notification before their grazing preference may be cancelled in whole or part. A permittee or lessee may unconditionally waive the 2—year prior notification.

The lands may be disposed at any time, provided a condition of the exchange or sale allows the existing grazing user to continue grazing livestock on the land for at least 2 years from the date the 2—year notice is received.

The condition of the disposal will include the same terms and conditions as the permit/lease in regard to numbers, kind of livestock, season—of—use, animal unit months, and maintenance of range improvements. Fees must be the same as the Federal grazing fees.

Grazing permittees/lessees will receive fair market value (less salvage value) for their interest in authorized permanent rangeland improvements located on public lands 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 SRA will continue to issue patents to qualified governmental and nonprofit entities for public parks and recreational sites under the Recreation and Public Purposes (R&PP) Act throughout the life of the RMP. These patents may be issued at less than fair market value as outlined in 43 CFR 2740. Applications for patent of public lands under the R&PP Act will be processed as an SRA priority under the requirements of the National Environmental Policy Act (NEPA) and will always be subject to public review. Current policy dictates that no sanitary landfill sites will be patented in the SRA pursuant to the R&PP Act. 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 will 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 claim(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:

- o The land meets the criteria for disposal as determined through land—use planning, and
- o The land has no “known mineral value” as determined by a BLM geologist or mining engineer, and
- o 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 were 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 will 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 will not be open to further location, and the patentee will receive full title to the involved locatable minerals.

Mining claim locations 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 promulgated. 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 lands proposed for sale are 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) of FLPMA.

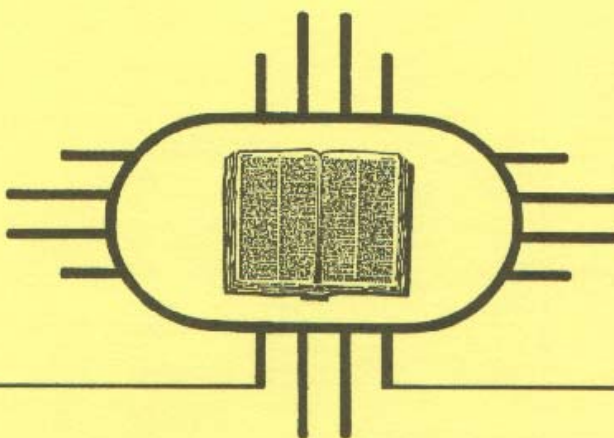
## 2. Exchanges

a. Public lands which do 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 lands have 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.

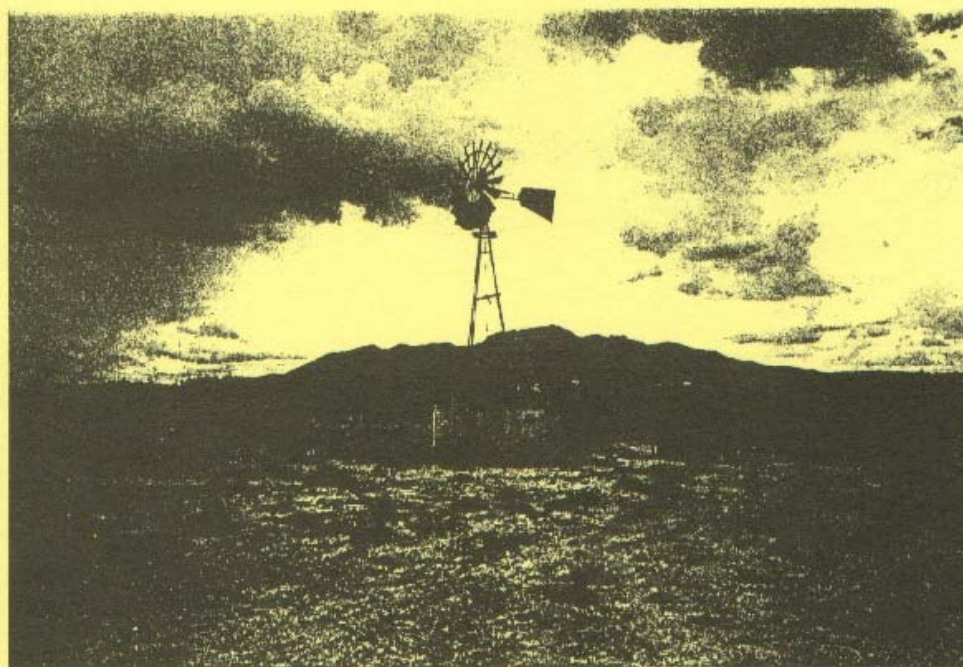
c. If the public lands in an exchange are determined to have “known mineral values” for locatable, leasable, or saleable minerals, it may be in the public interest to cancel the offer, depending upon the significance of the deposits. The leasable minerals alone can be reserved if significant.



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*Glossary*

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Canada Colorado Allotment

# ACRONYMS/ABBREVIATIONS

ACEC	Area of Critical Environmental Concern	NMBMMR	New Mexico Bureau of Mines and Minerals Resources
ACHP	Advisory Council on Historic Preservation	NMDG&F	New Mexico Department of Game and Fish
AIRFA	American Indian Religious Freedom Act	NMEMNRD	New Mexico Energy, Minerals and Natural Resources Department
AMP	Allotment Management Plan	NMIMT	New Mexico Institute of Mining and Technology
ARPA	Archeological Resources Protection Act	NMSHD	New Mexico State Highway Department
AT	Access Tract	NMSO	New Mexico State Office
AUM	Animal Unit Months	NOI	Notice of Intent
BIA	Bureau of Indian Affairs	NRDC	Natural Resources Defense Council
BLM	Bureau of Land Management	ONA	Outstanding Natural Area
CEQ	Council on Environmental Quality	ORV	Off—Road Vehicle
CFR	Code of Federal Regulations	PMOA	Programmatic Memorandum of Agreement
C&MU	Classification and Multiple Use	PRIA	Public Rangeland Improvement Act
CMA	Cooperative Management Agreement	PRLA	Preference Right Lease Application
CRMP	Cultural Resource Management Plan	PSD	Prevention of Significant Deterioration
EA	Environmental Assessment	RAMP	Recreation Area Management Plan
EIS	Environmental Impact Statement	RAP	Resource Area Profile
EMS	Existing Management Situation	R&PP	Recreation and Public Purposes
EPA	Environmental Protection Agency	RMP	Resource Management Plan
ERMA	Extensive Recreation Management Area	RN	Roaded Natural
ES	Environmental Statement	RNA	Research Natural Area
ESA	Endangered Species Act	ROS	Recreation Opportunity Spectrum
ESP	Experimental Stewardship Plan	SACA	San Augustine Coal Area
FM	Federal Aviation Administration	SCORP	Statewide Comprehensive Outdoor Recreation Plan
FLPMA	Federal Land Policy and Management Act	SCS	Soil Conservation Service
FS	Forest Service	SHPO	State Historic Preservation Officer
FWS	Fish and Wildlife Service	SHS	Standard Habitat Site
HMAP	Herd Management Area Plan	SMA	Special Management Area
HMP	Habitat Management Plan	SPM	Semi—Primitive Motorized
IHICS	Integrated Habitat Inventory Classification System	SPNM	Semi—Primitive Nonmotorized
3PA	Joint Powers Agreement	SRA	Socorro Resource Area
KGRA	Known Geothermal Resource Area	SRMA	Special Recreation Management Area
KGS	Known Geological Structure	SRP	Salt River Project
MFP	Management Framework Plan	T&E	Threatened or Endangered
MFPA	Management Framework Plan Amendment	URA	Unit Resource Analysis
MOU	Memorandum of Understanding	USDA	United States Department of Agriculture
MRG	Middle Rio Grande	USD1	United States Department of Interior
MRGORP	Middle Rio Grande Occupancy Resolution Program	USGS	United States Geological Survey
NSA	Management Situation Analysis	VRM	Visual Resource Management
NEPA	National Environmental Policy Act	WHMA	Wild Horse Management Area
NHPA	National Historic Preservation Act	WSA	Wilderness Study Area
NIIMS	National Interagency Incident Management System		

Activity Plan — A site—specific plan for the management of one or more resources; e.g., an Allotment Management Plan. Activity plans implement decisions made in the Resource Management Plan.

Actual Livestock Use — A report of the actual livestock grazing use submitted by the permittee or lessee.

Allotment — An area of land where one or more permittees graze their livestock. An allotment generally consists of public land, but may include parcels of private or State lands as well. An allotment may consist of one pasture or of several pastures. The number of livestock and season of use are stipulated for each allotment.

Allotment Management Plan (AMP) — An activity plan which applies to livestock grazing on public lands prepared in consultation, cooperation, and coordination with the permittee(s), lessee(s), and other involved or affected parties. An AMP prescribes the manner and levels livestock grazing will occur; it describes the type, location, ownership, and contribution of rangeland improvements; it defines the objectives or goals for the activity plan including monitoring.

Allowable Cut — Amount of wood allowed to be cut each year on a sustained—yield basis.

Animal Unit Month (AUM) — A grazing unit consisting of the amount of forage required for one mature cow for one month. The relative numbers of sheep, horses, etc., will be based upon the equivalent amount of forage required for one mature cow.

Area of Critical Environmental Concern (ACEC) — An area within the public lands where special management attention is required: (1) to protect and prevent irreparable damage to important historic, cultural or scenic values, to fish and wildlife resources, or to other natural systems or processes; or (2) to protect life and safety from natural hazards.

Candidate Species — Species identified by the U.S. Fish and Wildlife Service (FWS) as appropriate for listing as threatened or endangered (T&E).

Class of Livestock — Age and/or sex—group of a kind of livestock: for example: cows with calves, yearlings, steers, ewes, ewes with lambs, etc.

Color—of—Title Act of 1928 — Of primary interest to this document is Class 1 of that Act, which specifies that an occupant on Federal land can acquire title to the land if it can be shown that the claimant or the claimant's predecessors in interest had a chain of title, acquired in good faith, going back at least twenty years and had cultivated or otherwise made valuable improvements to the land. Class 2 of the Act allows the Federal Government to transfer title to lands held in good faith prior to January 1, 1901, on which taxes had been paid since that time.

Continental Divide National Scenic Trail Treadway — The actual trail established and marked as the route of the Continental Divide National Scenic Trail. It can exist as part of the Continental Divide National Scenic Trail system only after formal designation by the appropriate agency head and the publishing of notice in the Federal Register.

Demand — In economics, the functional relationship between the price of a given commodity and the quantity that buyers would be willing and able to purchase in a given market during a specified time period.

Ecological Condition — The present composition of the vegetation of an ecological site in relation to the potential natural community. Four condition classes express the relative degree to which the kinds, proportions, and amount of plants resemble the potential natural community usually expressed in a percentage.

Experimental Stewardship Plan (ESP) — A program, authorized by the Public Rangeland Improvement Act (PRIA) of 1978, which provides incentives to or rewards for, holders of grazing permits and leases whose stewardship results in an improvement of the range condition of lands under permit or lease.

This program explores innovative grazing management policies and systems which might provide incentives to improve range conditions.

Federal Land Policy and Management Act of 1976 (FLPMA) — This Act of Congress established public land policy for the management of all lands administered by the BLM. FLPMA specifies several key directions for the BLM, notably that management be on the basis of multiple use and sustained yield; land—use plans be prepared to guide management actions; public lands be managed for the protection, development, and enhancement of resources; public lands generally be retained in Federal ownership; and public participation be included in reaching management decisions.

Fuelwood — Wood used for fuel; firewood.

Grazing Lease — A document authorizing grazing use of public lands lying outside grazing districts. Leases are authorized under Section 15 of the Taylor Grazing Act.

Grazing Permit — A document authorizing grazing use of public lands lying within grazing district boundaries. Permits are authorized under Section 3 of the Taylor Grazing Act.

Grazing Preference — The total number of AUMs of livestock grazing on public lands apportioned and attached to base property owned or controlled by a permittee or lessee.

Grazing System — The systematic sequence of grazing use and nonuse on an allotment to reach identified multiple—use goals or objectives by improving the quality and quantity of the vegetation.

Habitat Management Plan (HMP) — A written and officially approved activity 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.

Intensive Recreation Management Area — A portion of the public land which should receive more intensive recreation management in response to public issues or management

concerns. Management objectives for these areas must be related to reduced resource damage, solving visitor safety and health problems, mitigating conflicts, or providing the public with recreation opportunities not otherwise available.

Kind of Livestock — Kinds of domestic livestock grazing on rangeland. Includes cattle, horses, sheep, goats, or a combination of these animals.

Leasable Minerals — Those minerals or fluids that can be acquired under lease from the Federal Government. These include oil, gas, geothermal, coal, phosphate, sodium, potash, oil shale, sulfur, and all other minerals on acquired lands.

Locatable Minerals — Minerals or mineral materials subject to disposal under the Mining Law of 1872 (as Amended). These generally include metallic minerals of high intrinsic value, such as gold and silver, and other uncommon varieties not subject to lease or sale, such as sodium bentonite, high—calcium limestone, and perlite.

Management Framework Plan (MFP) — A planning decision document that established land—use allocations, coordination guidelines for multiple use, and management objectives for each class of land use or protection for a given planning area. The MFP was the BLM's land—use plan, and was prepared in three steps: (1) resource recommendations, (2) impact analysis and alternative development, and (3) decision making. Since 1982, BLM land—use plans have been developed under an altered planning system and are called Resource Management Plans (RMPs), this document being one example.

Management Situation Analysis (MSA) — An unpublished, companion document to this RMP that provides the background documentation for the development of alternatives. The MSA consists of the Resource Area Profile (RAP), Existing Management Situation (EMS), Existing Resource Situation, and Opportunity Analysis.

Multiple Use — The management of the public lands and their various resource values so that they are used in the combination that

will best meet the present and future needs of the American people. These resources include, but are not limited to, recreation, range, timber, minerals, watershed, wildlife, and fish, as well as natural, scenic, scientific, and historical values. The goal of multiple use is the harmonious and coordinated management of the various resources without permanent impairment of the productivity of the lands and the quality of the environment. Consideration is given to the relative values of the resources, but not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output (see FLPMA).

National Scenic Trail — A trail designated under the National Trail System Act. It must be an extensive trail, located for its outdoor recreational potential, and for the conservation and enjoyment of nationally significant scenic, historic, natural, or cultural qualities in its vicinity.

No Surface Occupancy — A fluid mineral leasing stipulation that prohibits occupancy or disturbance of all or part of the lease surface in order to protect special values. Lessees may exploit the oil and gas or geothermal resources in this lease by directional drilling from sites outside the “no surface occupancy” area.

Off—Road Vehicle (ORV) — Any motorized vehicle capable of or designed for travel on or immediately over natural terrain. Excluded are: (1) any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle when used for an emergency; (3) any vehicle with expressed official approval; (4) vehicles in official use; and (5) combat or combat support vehicles used during a national defense emergency.

#### Off—Road Vehicle (ORV) Designations

Closed — “Closed areas and trails” are designated areas and trails where the use of motorized vehicles (except by authorized users) is permanently or temporarily prohibited.

Limited — “Limited areas and trails” are designated areas and trails where motorized vehicles are subject to restrictions deemed appropriate by an authorized officer. Restrictions may limit the number or types of vehicles allowed, dates and times of use, and similar

matters. Limited areas and trails may be designated for special or intensive use such as organized events and may be subject to, but not limited to, rules set forth in 43 CFR 8341.2. ORV use related to mining claim operations will not be restricted, except by regulations and requirements found in 43 CFR 3809, as amended on March 2, 1983. ORV use performed in conformance with existing leases, permits, rights—of—way stipulations, or other land—use authorizations will not be impinged upon.

Open — “Open areas and trails” are designated areas and trails where motorized vehicles may be operated subject to the operating regulations and vehicle standards set forth in 43 CFR 8341 and BLM Manual 8343.

Patent — As it relates to the public land laws, the instrument (or deed) by which the Federal Government conveys title to the public lands.

Perlite — Volcanic glass having numerous concentric cracks and a higher water content than obsidian. When it is heated to a high temperature, perlite expands to form a light, fluffy material which is used for building plaster aggregate, filter aids, insulation, and soil conditioner.

Public lands — 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, or Eskimos
- lands in which the United States retains the minerals, but surface is private.

Raptors — Birds of prey, such as hawks, owls, and eagles. One of the behavior characteristics of these animals is to return, year after year, to the same nesting area. Accordingly, the nesting sites of these protected species should be retained with minimal human disturbance.

Recreation and Public Purposes Act (R&PP Act)

— An Act which authorizes the Secretary of the Interior, under specific conditions, to sell or lease public domain lands to State and local governments for recreation and other public purposes, or to qualified nonprofit organizations for public or quasi—public purposes, such as recreation, education, and health.

Recreation Opportunity Spectrum (ROS) — A framework for stratifying and defining classes of Outdoor recreation opportunity environments.

Right—of—Way Corridor — A narrow band or strip of land designated as suitable for the placement of linear facilities such as roads, transmission lines, and pipelines.

Riparian Habitat or Area — A zone of transition from the aquatic to terrestrial ecosystems, whose presence is dependent upon surface and/or subsurface water, and which reveals through its existing or potential soil vegetation complex the influence of that water. Riparian habitat may be associated with features such as lakes, reservoirs, estuaries, potholes, springs, bogs, wet meadows, muskegs, and ephemeral, intermittent or perennial streams.

Riprap — Broken rock used for revetment, the protection for bluffs or structures exposed to wave action, foundations, etc. Foundation or wall of broken rock thrown together irregularly.

Saleable Minerals — Common variety mineral materials (sand, gravel, etc.) which are disposed of by sale by the Federal Government under the Material Disposal Act of 1947.

Scenic Quality — The relative worth of a landscape from a visual point—of—view.

Scenic Quality Rating — The relative scenic quality (A, B, or C) assigned to a landscape by applying the scenic quality evaluation key factors. A is the highest rating, B is intermediate, and C is the lowest.

Section 4 Permit — A permit issued by the BLM for the permittee to construct a project on public lands as defined in the Taylor Grazing Act.

Seismic Exploration — The use of seismic techniques, usually involving explosions, to map subsurface geologic structures with the aim of locating economic deposits.

Silviculture — Cultivation of forest trees; art of producing and tending a forest; application of the knowledge of silvics in treatment of a forest; theory and practice of controlling forest establishment, composition, and growth.

Slash — Residue left on ground after tree felling and tending, and/or that residue accumulating there as the result of storm, fire, girdling, or poisoning.

Slash Disposal — Treatment or handling of slash, particularly so as to reduce fire or insect hazard.

Special Management Area (SMA) — An area requiring special management by BLM to protect one or more resource values. An SMA may include nonpublic lands that BLM wishes to acquire or to bring under a Cooperative Management Agreement (CMA) to better manage the valued resource. At a minimum, an activity plan will be prepared for an SMA. SMAs may be given designations under various existing labels, such as ACEC or Research Natural Area (RNA).

Split Estate — Lands where surface and mineral estates have been severed and are under different ownership (i.e., private surface with public minerals).

Stand — A group of growing trees of a particular species in a given 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 lands consistent with multiple use. Amount of resource harvested normally equals the amount grown since the previous harvest.

Threatened and Endangered Species — Plants and animals listed by the U.S. FWS or the State of New Mexico as T&E.

Transmission Line — Any electrical transmission line of 69 kilovolt capacity or greater or any gas line of 6—inch diameter or greater.

Trend — Changes in vegetative and soil characteristics resulting directly from environmental factors, primarily climate and grazing.

Vegetative Land Treatments — Methods used to control the growth and spread of undesirable vegetation. Control can be by chemical (herbicides) or mechanical means or by fire.

Visual Resource Management (VRM) — The system by which BLM classifies and manages the visual resource of the public lands. Based on their scenic qualities, sensitivities, and the distances from which they are viewed, the lands are classified into management units. The system includes actions taken to identify visual values, to establish objectives for managing these values, and to achieve the visual management objectives.

Wetlands — Areas with shallow standing water or seasonal to year—long saturated soils (includes bogs, marshes, and wet meadows).

Wilderness — Definition contained in Section 2(c) of the Wilderness Act of 1964 (78 Stat. 891): 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 untrammelled, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean ... an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or 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) have outstanding opportunities for solitude or a primitive

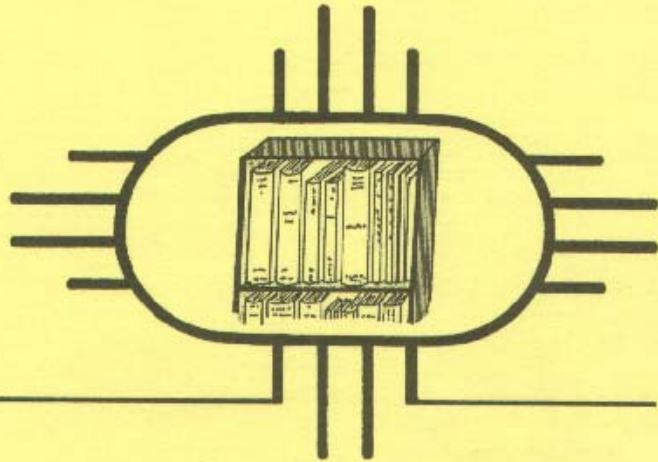
and unconfined type of recreation; (3) has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical values.

Wilderness Management Policy — Policy document prescribing the general objectives, policies, and specific activity guidance applicable to all designated BLM wilderness areas. Specific management objectives, requirements, and decisions implementing administrative practices and visitor activities in individual wilderness areas are developed and described in the wilderness management plan for each unit.

Wilderness Study Area (WSA) — A roadless area or island that has been inventoried and found to have characteristics described in Section 603 of FLPMA and Section 2(c) of the Wilderness Act of 1964.

Withdrawal — Actions which restrict the use of public land and segregate the land from the operation of some or all of the public land or mineral laws. Withdrawals are also used to transfer jurisdiction of management to other Federal agencies.

Woodland — Forest land not capable of producing 20 cubic feet of timber per acre per year; e.g., pinyon—juniper stands.



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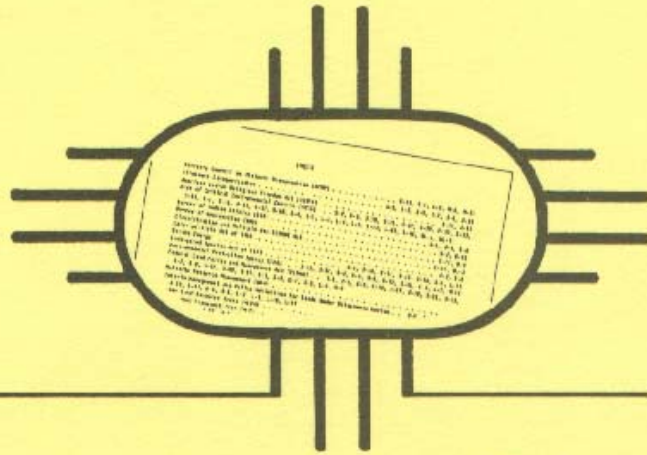


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