

Section 2

Management Program



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

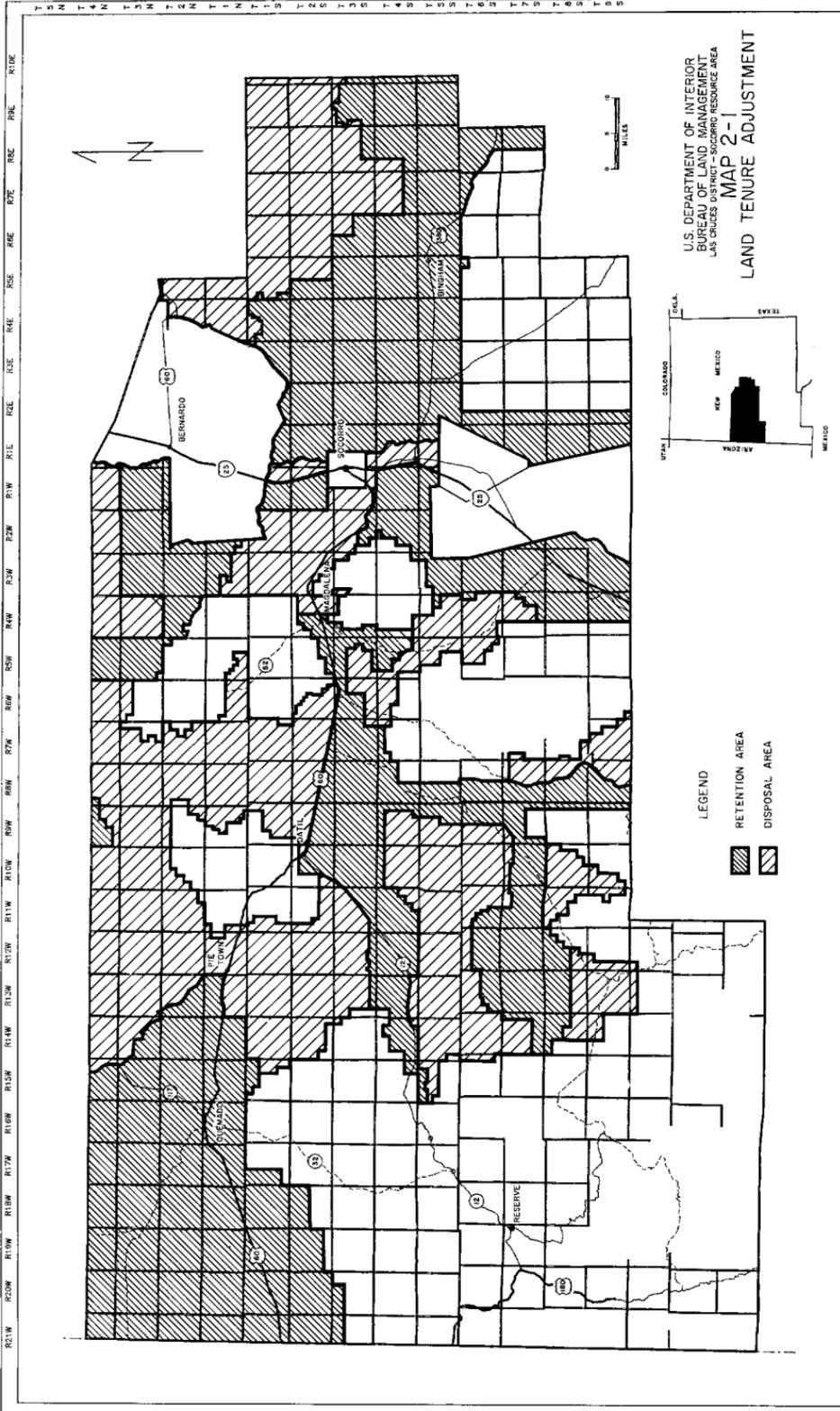
Objective

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.

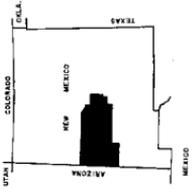
Description

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



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 BUREAU OF LAND MANAGEMENT
 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA
MAP 2-1
LAND TENURE ADJUSTMENT



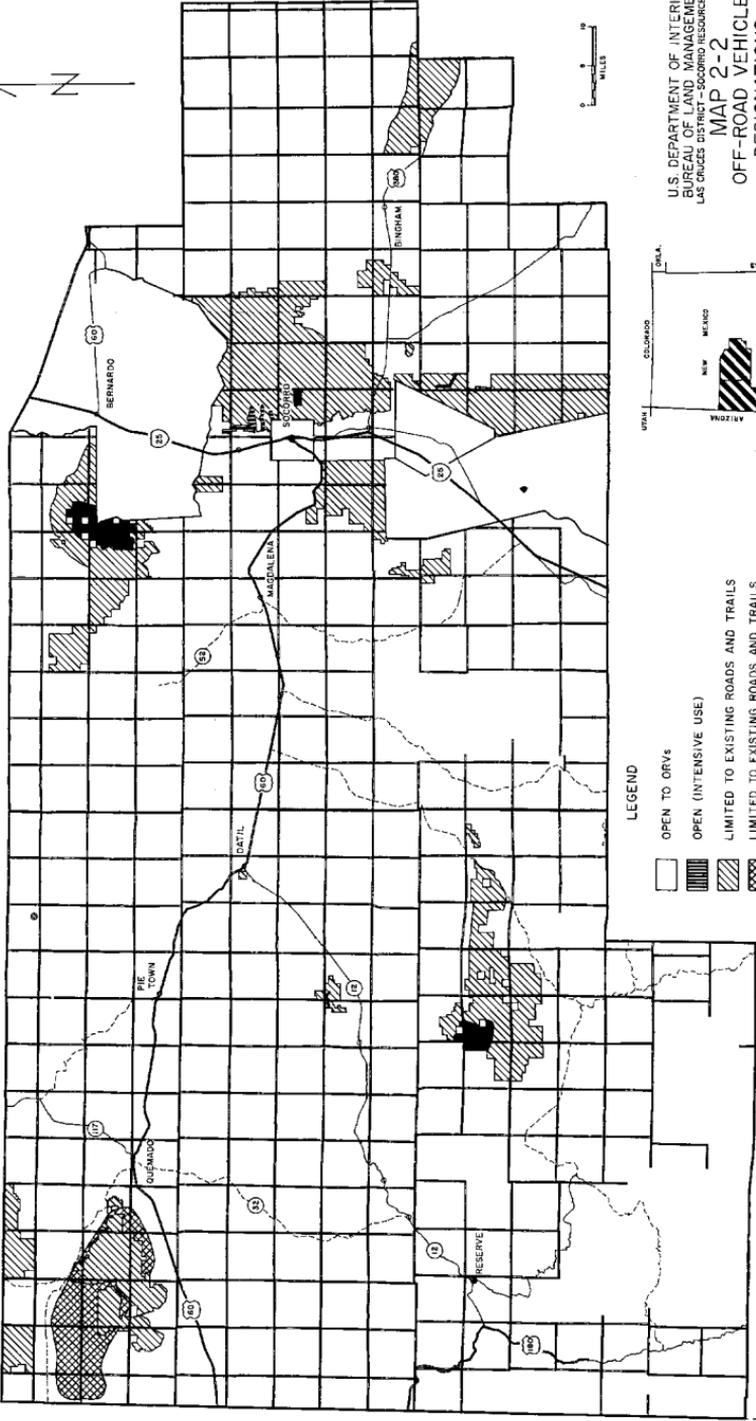
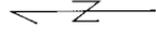
LEGEND

RETENTION AREA 

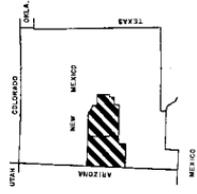
DISPOSAL AREA 

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

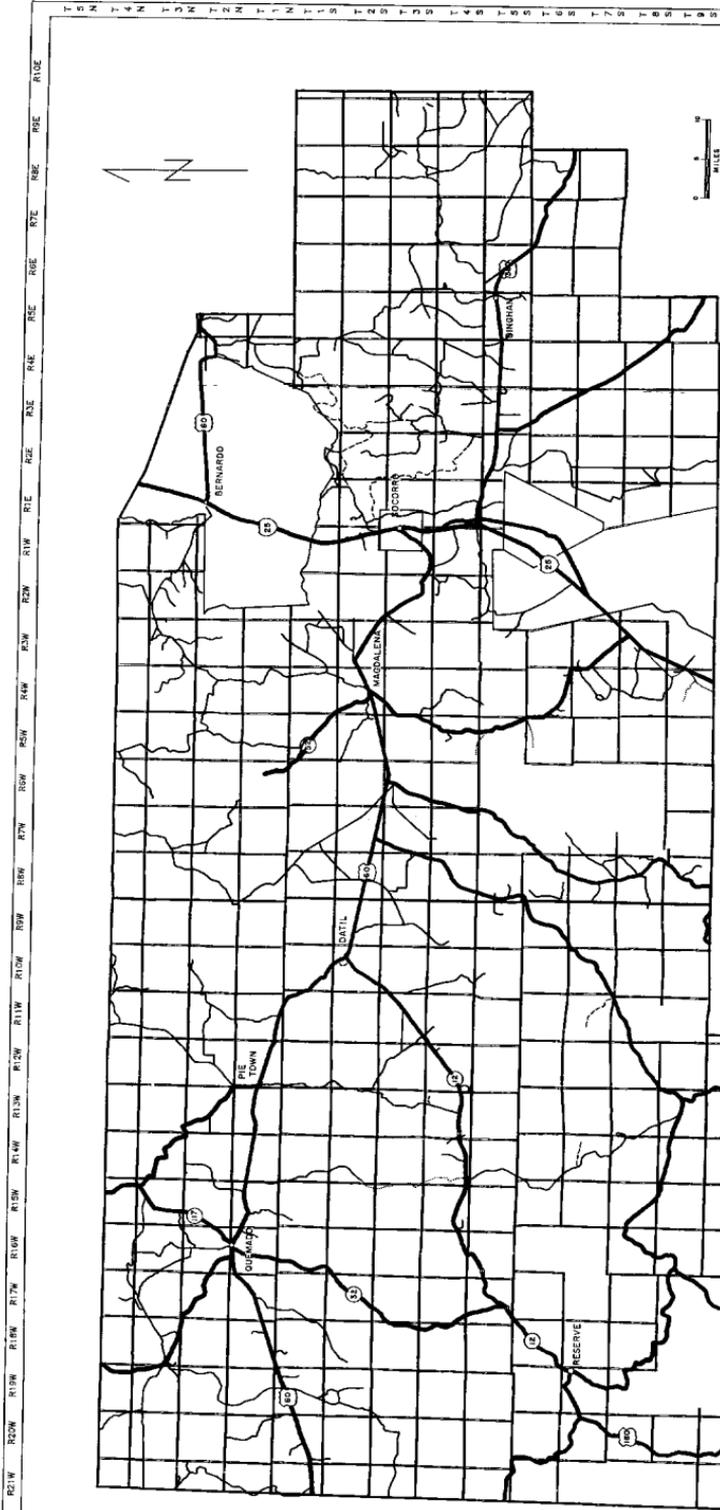
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 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA
MAP 2-2
OFF-ROAD VEHICLE
DESIGNATIONS

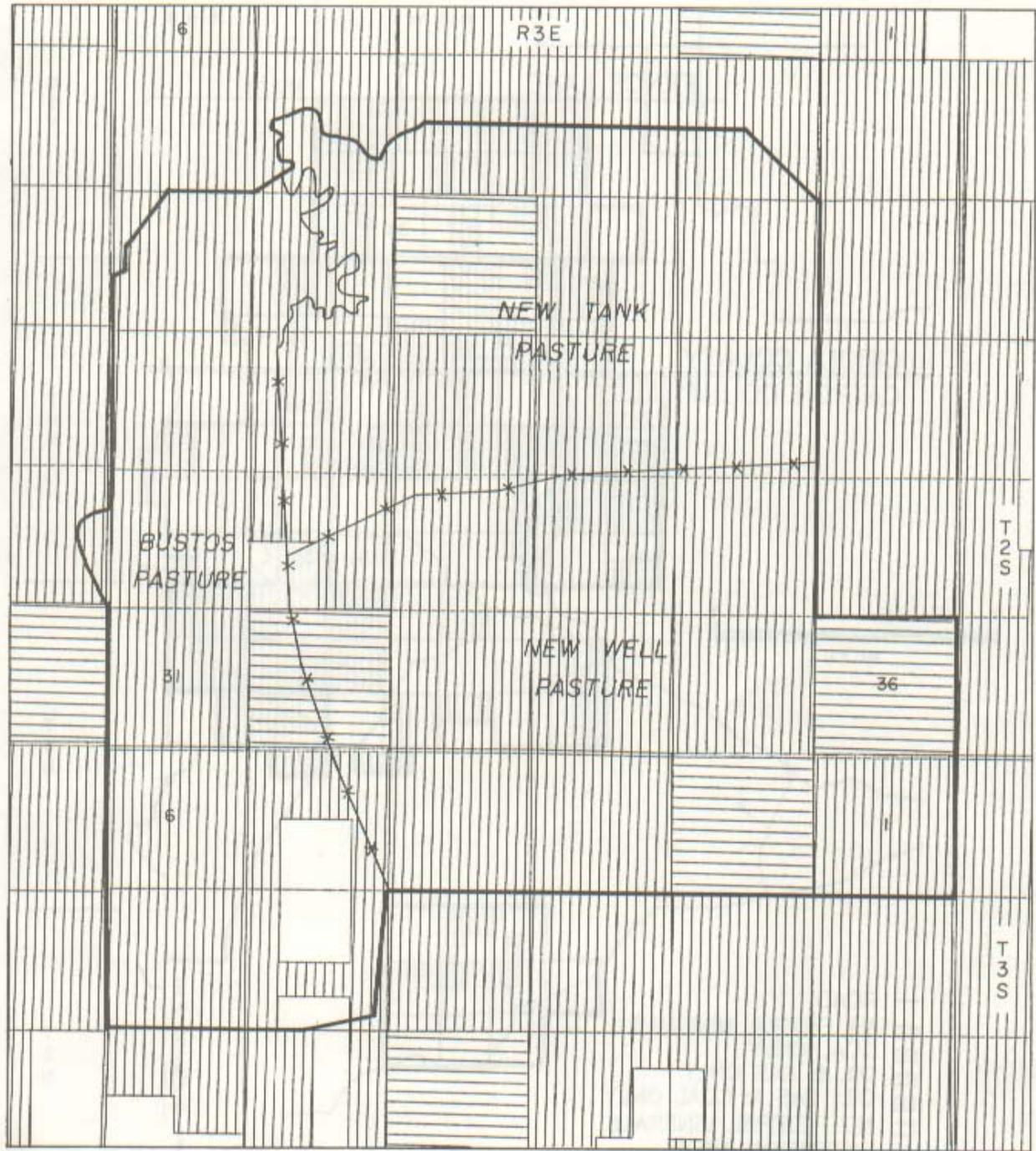


- LEGEND**
- OPEN TO ORVs
 - OPEN (INTENSIVE USE)
 - LIMITED TO EXISTING ROADS AND TRAILS
 - LIMITED TO EXISTING ROADS AND TRAILS
(November 1 - March 31)
 - CLOSED TO ORVs



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 LAS CRUCES DISTRICT-SCOOBRD RESOURCE AREA
MAP 2-3
 EXISTING LEGAL ACCESS

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

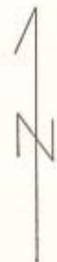


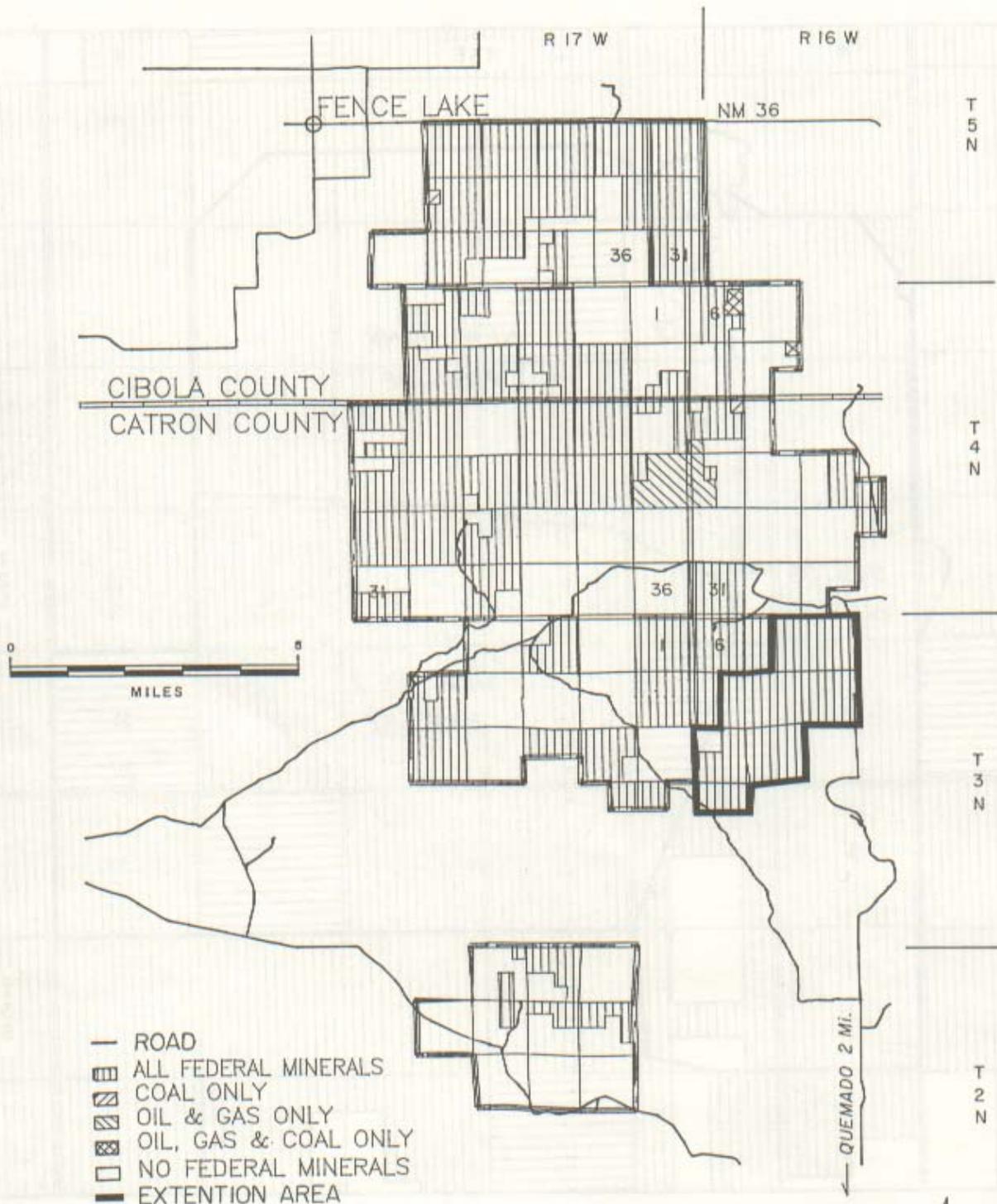
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 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

MAP 2-5

**BORDO ATRAVESADO
 WILD HORSE MANAGEMENT AREA**

- LEGEND**
-  PUBLIC LAND
 -  STATE LAND
 -  PRIVATE LAND

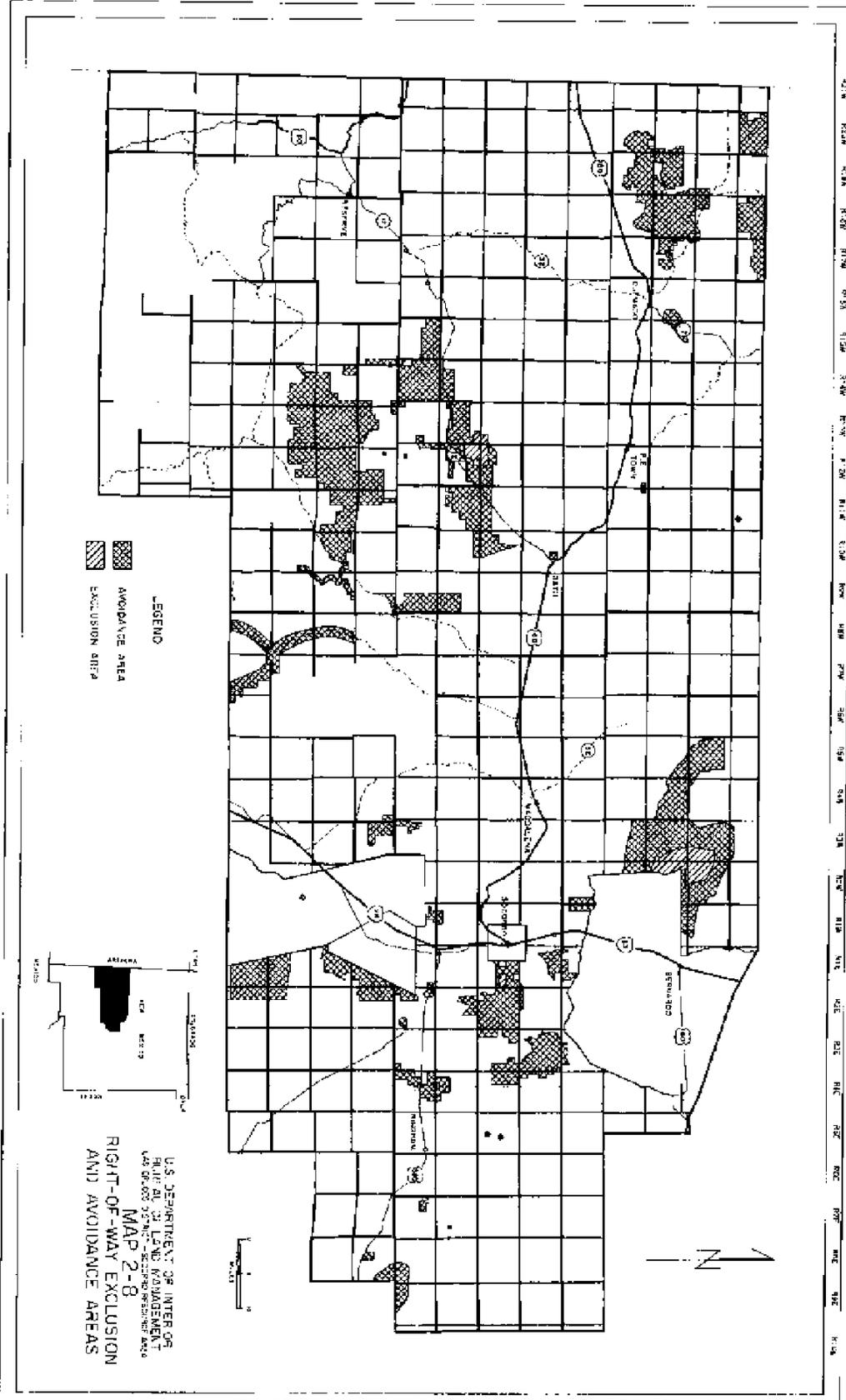




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 LAS CRUCES DISTRICT - SOCORRO RESOURCE AREA

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
SURFACE ESTATE				
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
TOTAL	4,292,890	4,439,370	8,732,260	100.00
MINERAL ESTATE				
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
TOTAL	4,292,890	4,439,370	8,732,260	100.00

* 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—term 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/mi²/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
Mogollon and Anasazi = Pueblo				
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
Mogollon and Anasazi Indicated				
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
Mogollon and Anasazi = Pueblo				
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
Mogollon and Anasazi Indicated				
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