Rio Puerco

Resource Management Plan

NOVEMBER 1986

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ALBUQUERQUE DISTRICT OFFICE
RIO PUERCO RESOURCE AREA

BLM-NM-PT-87-002-4410

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RIO PUERCO
RESOURCE MANAGEMENT PLAN
AND
RECORD OF DECISION

NOVEMBER 1986

PREPARED BY:

U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

ALBUQUERQUE DISTRICT

RIO PUERCO RESOURCE AREA

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Rio Puerco Resource Area
435 Montano N.E.
Albuquerque, New Mexico 87107

IN REPLY REFER TO

1610 (017)

November 1986

Dear Reader:

This document is the culmination of the Rio Puerco Resource Management Plan (RMP) preparation process. It contains both the Final RMP and the Record of Decision (ROD). Although this may mark the completion of the land use planning stage, it denotes the beginning of a very exciting stage, that of implementation.

Signed on January 16, 1986, the ROD for the Rio Puerco RMP records the acceptance of the Proposed RMP as the land use plan for the Rio Puerco Resource Area, and will shape the management direction of its resources for the next twenty years. Since the approval of the ROD, we have begun implementing the RMP.

The RMP portion of this document describes the Plan itself, and is the result of over three years of planning and preparation of an environmental impact statement. You will find the advice and opinions expressed by many of you incorporated throughout the document.

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

Your continuing interest and involvement in BLM's management of the public lands and resources within the Rio Puerco Resource Area will be the key to successful implementation of the RMP. We look forward to our continued partnership in managing your public lands.

Sincerely,

Herrick E. Hanks
Rio Puerco Resource Area
Manager

TABLE OF CONTENTS

LIST OF FIGURES, MAPS, AND TABLES

FIGURES

MAPS

MAP POCKET

TABLES

Record of Decision

RECORD OF DECISION

This document records the decisions reached by the Bureau of Land Management (BLM) for managing 896,490 surface acres of public land and 1,962,753 subsurface acres in the Rio Puerco Resource Area.

DECISION

The decision hereby is to approve the Plan as described in the Proposed Resource Management Plan (RMP)/Final Environmental Impact Statement (EIS) of October 1985, as the land use plan for the Rio Puerco Resource Area. This plan was prepared under the regulations for implementing the Federal Land Policy and Management Act (FLPMA) of 1976 (43 CFR 1600). The environmental impact statement (EIS) was prepared for this plan in compliance with the National Environmental Policy Act (NEPA) of 1969.

THE PROPOSED PLAN AND ALTERNATIVES CONSIDERED

Four alternatives were considered and analyzed in detail in the Draft RMP/EIS. "No Grazing" was initially proposed as an alternative, but was eliminated from detailed analysis as it did not meet the BLM requirements that alternatives be feasible, practical, and implementable. However, environmental analysis for the "No Grazing" alternative was conducted and is displayed in Appendix Q of the Draft RMP/EIS. No other alternatives considered were eliminated from detailed analysis. Each of the four alternatives analyzed provides a set of management objectives and prescriptions which would resolve the seven planning issue questions. Each alternative proposal combined with "Continuing Management Guidance" forms a separate, feasible land use plan to guide management of the Rio Puerco Resource Area public lands in accordance with Federal Land Policy and Management Act requirements for multiple use and sustained yield. The "Continuing Management Guidance" section of the RMP/EIS describes how those resources that are not at issue will be managed in the coming years. The four alternatives are summarized below, while the "Continuing Management Guidance" is located in Chapter 2 of the Proposed RMP/Final EIS.

Proposed Plan (Alternative D)

Theme

Alternative D, the Balanced Management Alternative, is selected as the Plan. Its goal is to resolve the seven issues while providing for a combination of resource uses that will protect important environmental values and sensitive resources, and at the same time allow development of resources which provide commercial goods and services.

Summary of Issue Decisions

Special Management Areas. Twenty-two SMA's totalling 426,636 acres will be managed to protect important resource values. This acreage includes private and State trust land that will be pursued for acquisition or will be managed cooperatively as part of the SMA's through agreements with owners. The twenty-two proposed SMA's include ten Areas of Critical Environmental Concern (ACEC's), three Research Natural Areas (two of which will also be ACEC's), and one National Scenic Trail. The Ignacio Chavez SMA will be managed for a combination of uses including about 1,700 acres which will be open for fuelwood cutting, consistent with the principles of multiple use and sustained yield. In addition, limited greenwood cutting to reduce the invasion of pinyon and juniper into stands of ponderosa pine will be permitted in order to maintain the ponderosa pine stands and to improve wildlife habitat in the SMA. Rights-of-way granted through the area of overlap between the Ojito SMA and the Ojito East rights-of-way window will have special stipulations attached to protect SMA values.

Off-Road Vehicle Designation. Four areas in the Azabache Station, Cabezon Peak, Guadalupe, and Ojito SMA's, two road segments in the Ignacio Chavez SMA, and two in the Ojito SMA, totalling 10,248 acres of public land and 10 miles of road, will be closed to motorized vehicle traffic. Two road segments in the Ojito SMA and three in the Ignacio Chavez SMA, totalling 12 miles, will be limited to authorized users. In

addition to closures and limitations for SMA's, six miles of existing roads and trails will be closed outside of SMA's. Two areas will be designated for specific types of ORV use. One area would be used for trials motorcycle riding, both as a "play-area" and for competitive events. The other area will be designated for competitive dune-buggy events using existing routes. Other motorized vehicle travel in the RPRA will be designated as defined on Map 2-14 in the Proposed RMP/Final EIS. About 124 miles of existing roads and trails will be designated as an ORV recreation trail system. This system will be expanded as needed. More ORV trails will be identified in the RPRA, and a Resource Area-wide Transportation Plan will be developed to identify access needs.

Vegetative Uses. The Plan will provide for a balance of resource uses through a program of improved grazing management. Future changes in management will be developed to resolve resource conflicts. The actual short- and long-term adjustments implemented will be based on current vegetative data and on vegetative monitoring studies. It is estimated that short-term reductions in allowable livestock grazing use would be proposed for six allotments, with no reductions proposed for the remaining allotments. In the long term, livestock grazing use would return to currently allowable levels of use as resource conflicts are resolved as a result of improved grazing management and construction of rangeland improvements.

Land Ownership Adjustments. About 58,000 acres of scattered and isolated tracts of public land within the land ownership adjustment issue area will be considered potentially available for ownership adjustment. Exchange of these public lands for State trust and private lands identified for acquisition as planned actions in SMA's or to benefit other resource management programs will be considered the preferred method of ownership adjustment. To expedite land ownership adjustments, exchanges for State trust land will be processed as a first priority. Exchanges for private lands, a more time-consuming process, will be processed as a second priority. Recreation and Public Purposes Act disposals and public land sales will be considered as acceptable methods of ownership adjustment as third and fourth priorities. The method of disposal--exchange, sale, or Recreation and Public Purposes--for the public lands in the land ownership adjustment issue area will be determined on a case-by-case basis. All public sale actions will be thoroughly examined under the NEPA process, including public participation. The planning criteria will be considered when analyzing public sale actions. As long as any future ownership adjustments conform to the theme of this alternative, such actions will be considered consistent with the RMP.

Fuelwood Supply. Fuelwood will be available to the public through commercial or home-use sales from approximately 9,320 acres of public land. Small additional amounts of fuelwood will also be made available to the public as a result of wildlife habitat improvement projects, rights-of-way clearings, and as dead-and-down wood.

Rights-of-Way Corridors. Rights-of-way corridors will be designated as the preferred locations for future transmission line placements in the Resource Area (see Pocket Map B in the Proposed RMP/Final EIS). In addition to the designation of rights-of-way corridors, rights-of-way windows will be established. Future rights-of-way will be located in Corridor I so as to minimize conflicts with coal resources. This will be accomplished by concentrating transmission lines in the southwestern part of the corridor adjacent to the area identified as acceptable for further consideration for coal leasing. However, any transmission lines located in an area leased for coal can be relocated at the lessee's expense to avoid bypass coal. The rights-of-way windows have been identified in areas where topographic or land ownership constraints make it advantageous to locate transmission lines on public land. Multiple use of the public lands within these windows can continue; however, discretionary developments which would complicate or increase the cost of rights-of-way development will be prohibited. For example, fluid mineral leases issued within the windows will have stipulations attached to minimize conflicts with transmission lines.

Coal Leasing Suitability Assessment. Approximately 8,020 acres of public coal are identified as acceptable for further consideration for coal leasing. The twenty unsuitability criteria have been applied to the area of maximum coal development potential. The area of maximum coal development potential has also been scrutinized

using the multiple use screens. Following surface owner consultation and the application of the unsuitability criteria and multiple use screens, only areas with no known conflicts were brought forward for further consideration.

Alternative A: Continuation of Current Management (No Action Alternative)

Theme

This alternative described the continuation of current management for the resources affected by the issue questions. As with all alternatives, other resources and programs would have continued to be managed as described in the Continuing Management Guidance section of Chapter 2. This alternative provides a baseline for comparison of other alternatives. Since much of the RPRA lacks formal management direction established through comprehensive land use planning, the management direction for this alternative was derived from existing management decisions and guidance such as laws, regulations, and manuals. Like the other alternatives, the Continuation of Current Management Alternative would allow future management of the RPRA to be responsive to changing regulations and policies.

Alternative B: Resource Conservation

Theme

The Resource Conservation Alternative placed primary emphasis on maintaining or improving important environmental values. Commodity or non-renewable resource use would have been permitted only to an extent compatible with this resource conservation emphasis. The goal of this alternative was to change present management direction so that the identified issues were resolved in a manner that placed highest priority on the maintenance or improvement of environmental values.

Alternative C: Resource Production

Theme

The Resource Production Alternative placed primary emphasis on making public land and resources available for use and development. The principles of multiple use and sustained yield would have been observed, and environmental values protected to the extent required by applicable laws, regulations, and policies. The goal of this alternative was to change management direction in the RPRA so that the seven issues were resolved in a manner that generally placed highest priority on the production of resources from the public lands.

MANAGEMENT CONSIDERATIONS

The decision is based on (1) the need to resolve the seven issues identified through the planning process; (2) the input received from public land users, other Federal and State land management agencies, as well as State, local and tribal governments during the 90-day comment period on the Draft RMP/EIS; and (3) the environmental analysis for the alternatives considered in the RMP/EIS.

IMPLEMENTATION AND MITIGATION

The Rio Puerco RMP will provide the framework and guidelines for making management decisions for the Resource Area over the next ten to twenty years. Priorities for implementation of management decisions will be contingent upon program funding levels established through the budget process. Program priorities will shift as budget allocations change in response to new administrative policy, new Departmental direction, or new Bureau goals.

All decisions made under this Plan will require that adequate consideration be given to all resources prior to implementation. All practical measures will be taken to ensure that adverse impacts are mitigated in a manner consistent with those measures identified in the Plan. The Plan mitigating measures will be expanded upon in environmental assessments or environmental impact statements for site-specific actions.

MONITORING

Monitoring will be performed to ensure conformance with the Plan and to indicate how effective these measures are in minimizing environmental impacts. Additional measures to protect the environment may be required as a result of monitoring studies. Individual resource program monitoring will be described in Chapter 2 of the Resource Management Plan.

PUBLIC INVOLVEMENT

The views of the public have been sought throughout the planning and decision making process. Public participation in the process will be summarized in Chapter One of the Resource Management Plan.

An RMP summary update will be prepared every year to inform the public of the progress made in implementing the RMP. The summary will also describe the activity plans to be prepared the following year so interested members of the public can request copies and comment. This will provide the public an opportunity to be involved in the specific land management actions resulting from implementation of this RMP.

January 16, 1986
Date

CONSISTENCY

No inconsistencies with the plans, programs, and policies of other Federal agencies or State and local governments were identified during the RMP process, including the Governor's Consistency Review.

PUBLIC AVAILABILITY OF THIS DOCUMENT

Copies of the Rio Puerco Resource Management Plan are available on request by contacting: Area Manager, Bureau of Land Management, Rio Puerco Resource Area, 435 Montano Road, NE, Albuquerque, New Mexico 87107, Telephone (505) 766-3114 (FTS 474-3114).*

Charles W. Luscher
New Mexico State Director
Bureau of Land Management

*The Rio Puerco Resource Area Office has moved since approval of the Record of Decision. The new address is: 435 Montano Road NE, Albuquerque, New Mexico, 87107. The telephone number remains the same.

Resource Management Plan

Section 1

INTRODUCTION

SECTION 1

INTRODUCTION

PURPOSE

This Rio Puerco Resource Management Plan (RMP) has been prepared to provide a comprehensive framework for managing the public lands and for allocating resources in the Rio Puerco Resource Area (RPRA) during the next ten to twenty years. All resource uses and activities in the RPRA will be consistent with the objectives and decisions described in the RMP. The RMP was prepared in accordance with the requirements of the Federal Land Policy and Management Act (FLPMA) of 1976 and the National Environmental Policy Act (NEPA) of 1969.

The RMP takes the decisions reached to resolve seven key resource issues, along with the management guidance currently directing the decision making for the resource uses and activities which were not at issue, and combines them into a comprehensive management plan to direct the resource management programs of the RPRA. The Plan was prepared in a manner which will ensure that RPRA decision making is consistent with the plans, programs, and policies of other Federal agencies, and State and local governments. Implementation of the Plan decisions will require site-specific resource activity planning and environmental analysis. The public will continue to be informed of the site-specific activity planning through the publication of an annual RMP Program Document. The results of implementation of the Plan will be monitored to determine whether the RMP objectives are being effectively met or whether there is a need to change the Plan.

The Plan also incorporates applicable land use planning decisions contained in the Divide Management Framework Plan (MFP), Ladron MFP, the Rio Grande MFP, the Chaco MFP (USDI, BLM 1983b, 1977, 1979c, 1981b) (see Section 2), and three grazing Environmental Impact Statements (EIS's) prepared by the Bureau of Land Management's Albuquerque and Socorro Districts between 1978 and 1982 (USDI, BLM 1979a, 1982b, 1978b) (see Section 2, Range Program).

This document does not present information on the affected environment or the environmental consequences of the Plan's proposals. As required by NEPA, this information is contained in the RMP/EIS which may be obtained by contacting the RPRA Office.

LOCATION

The planning area, located in central and north-central New Mexico, encompasses 8,620,838 acres, and includes all of Bernalillo, Cibola, Torrance, and Valencia Counties, most of Sandoval County, and small parts of McKinley and Santa Fe Counties. Table 1 shows land status acreage on a county-by-county basis; the Pocket Map illustrates land status within the Rio Puerco Resource Area. This area covers approximately 11 percent of the State's land, but contains 40 percent of the population, concentrated in the Albuquerque metropolitan area. This population density strongly affects the demands placed on the public lands.

The distribution of the public lands is another important influence on land management options. The public lands in the RPRA are fairly well consolidated in Sandoval County, while a "checkerboard" ownership pattern predominates in Cibola and Valencia Counties. The public land in Bernalillo County is located in 2 small blocks, while over 100 small tracts are scattered throughout Torrance County. The planning area includes some public land in McKinley County which is part of the Farmington Resource Area, and some in Santa Fe County which is part of the Taos Resource Area. Agreements between the RPRA and these other Albuquerque District Resource Areas have assigned administrative responsibility for these small acreages to the RPRA.

TABLE 1

RIO PUERCO RESOURCE MANAGEMENT PLAN
PLANNING AREA ACREAGE

County	BLM-Administered Surface Acres	BLM-Administered Surface Percent 1/	Other Surface State	Other Surface Private	Other 2/	County Surface Acreage 3/	BLM Administered Subsurface Only 4/
Bernalillo	9,414	1	32,201	340,779	359,892	742,286	108,800
Cibola 5/	460,947	16	212,844	1,386,227	922,753	2,907,039	570,578
Sandoval (part)	382,995	18	72,069	670,044	1,036,044	2,161,152	549,120
Torrance	42,622	2	299,805	1,593,090	168,070	2,103,587	708,576
McKinley (part)	41,748	90	640	3,796	0	46,184	1,440
Santa Fe (part)	2,660	83	0	559	0	3,219	559
Valencia 5/	33,266	5	25,881	536,803	62,851	657,371	23,680
TOTALS	973,652	11	643,440	4,531,298	2,549,610	8,620,838	1,962,753

1/ This figure represents the percentage which is public land in the part of the county included within the planning area for the Rio Puerco RMP.

2/ This figure includes Indian Reservations and other Federal non-BLM lands.

3/ This figure represents the county surface acreage of all land within the Rio Puerco RMP planning area boundary.

4/ This figure only includes the acreage of the complete mineral estate owned by the U.S. and administered by BLM, beneath private acreage.

5/ These figures were acquired from the Socorro Resource Area Office and modified in October 1986 to reflect completion of the first two phases of the "Navajo Exchange."

PLANNING ISSUES AND CRITERIA

The seven issues resolved through the RMP process were identified based upon the judgement of an interdisciplinary team of resource specialists, interagency consultation, State government input, review by BLM managers, and through extensive discussions with individuals, industry representatives, and public interest groups. The resolution of these issues has been incorporated into the program guidance for each of the programs described in Section 2 of this document.

Resolution of several of the issues was dependent on incomplete information available at the time of RMP preparation. The decisions for these issues provide that future actions based on new data may be approved as long as such actions conform with the goals of the approved RMP and the planning criteria used originally to guide resolution of the issue. For these and other issues, implementation of the RMP decisions relies on future activity planning. The criteria will continue to apply as guidelines for preparation of activity plans. For this reason, the still-applicable issues and criteria are listed below.

1. Special Management Areas

The decision needed to resolve this issue was:

What areas and/or resources, if any, should receive special management attention?

The planning criteria for this issue are:

"Areas containing important historic, cultural, or scenic values; fish and wildlife habitat; or other natural systems or processes of greater than local significance may be considered for designation as Areas of Critical Environmental Concern (ACEC's)."

"Those public lands identified as having natural hazards that are threats to human life, safety, or property may be considered for designation as ACEC's."

"Areas with typical representations of common plant or animal associations; unusual plant or animal associations; threatened or endangered plant or animal associations; threatened or endangered plant or animal species; typical representations of common geologic, soil, or water features; or outstanding or unusual geologic, soil, or water features may be considered for designation as Research Natural Areas."

"Areas along highways, roads, trails, or streams with scenic qualities may be considered for designation as Scenic Areas."

"Areas of unusual natural characteristics where management of recreation activities is necessary to preserve those characteristics may be considered for designation as Outstanding Natural Areas."

"Areas requiring explicit recreation management to achieve the BLM's recreation objectives and to provide specific recreation opportunities may be identified as Intensive Recreation Management Areas."

"Areas which are so unique that it may be more important to manage them for a single use or a combination of specific uses rather than for full multiple use may be considered for special management attention. Examples of possible designations are Chaco Culture Archeological Protection Sites, Crucial Wildlife Habitat, National Natural Landmarks, and Intensive Recreation Management Areas."

2. Off-Road Vehicle (ORV) Designation

The decisions needed to resolve this issue were:

What areas should be designated "open," "closed," or "limited" to ORV use?

What land condition goals or objectives should be attained and maintained to deal with the growing ORV demand on the public land?

The planning criteria for this issue are:

"All public land will be designated 'open' to ORV use unless designated 'closed' or 'limited.'"

"Designation of public lands as suitable for limited ORV use or closed to ORV use will be made to allow for the protection of the public lands, to promote the safety of all users of the public lands, and to minimize the conflicts between the various users of those lands."

"ORV use related to mining claim operations will not be restricted, except by regulations and requirements found in 43 CFR 3809, as amended on March 2, 1983."

"ORV use performed in conformance with existing leases, permits, rights-of-way stipulations, or other land-use authorizations will not be restricted."

"Public lands currently or historically used for organized ORV events may be designated as 'limited' to specific types of ORV use when there are no special restrictions or compelling resource protection needs, user conflicts, or public safety issues to warrant further limiting ORV use."

"Designation for ORV use will consider protection of resources such as valuable wildlife habitat, cultural resource values, wilderness values, watershed, visual quality, recreational values, and other resource uses."

"ORV use will be limited on those public lands where trespassing on non-public land would be encouraged by an 'open' designation."

3. Vegetative Uses

The decision needed to resolve this issue was:

What are the correct levels of vegetative use for livestock, wildlife, and watershed protection?

The planning criteria for this issue are:

"A range inventory has been conducted for the purpose of designating ecological condition for each range site, determining the selective management category, and identifying existing range improvements. [The criteria for selective management category determination are displayed on Table 10 in Section 2.] The grazing allotment selective management categories may be changed based on additional resource data. The selective management categories are described as follows:

a. Maintain (M) category: The range inventory indicates that these public lands are in satisfactory ecological condition and no significant resource conflicts have been identified. The BLM will manage these lands in a manner that will maintain the existing resource condition.

b. Improve (I) category: The range inventory indicates that these public lands are in unsatisfactory ecological condition and/or significant resource conflicts have been identified. The BLM will manage these public lands to improve the ecological condition and/or reduce resource conflicts. These objectives will be accomplished through the intensification of range management and/or reductions in allowable livestock grazing use.

c. Custodial (C) category: The range inventory indicates that these public lands have a low potential for improvement in ecological condition. The BLM will manage these lands to protect existing resource values."

4. Land Ownership Adjustments

The decisions needed to resolve this issue were:

On which lands should ownership be adjusted to facilitate more efficient management?

Which public land should be disposed of by the BLM or identified for further study?

The planning criteria for this issue are:

"Under The Recreation and Public Purposes Act, State, county, municipal, and qualified non-profit organizations will have the opportunity to obtain public lands identified for disposal."

"Public lands may be identified for disposal if they are found to be valuable chiefly for residential, commercial, industrial, or agricultural purposes."

"Public land not identified for disposal will be considered for exchange and Recreation and Public Purposes Act disposals on a case-by-case basis after consultation and coordination with Federal, State, county, and local governments and agencies, and after public and environmental review."

"Where possible, public lands identified for disposal will be exchanged for non-Federal lands that have been identified for acquisition to enhance BLM resource management programs."

"All land identified for disposal will be disposed of at or above fair market value (excluding those lands disposed of under The Recreation and Public Purposes Act and the Color-of-Title Acts)."

"Lands identified for disposal which have no legal public access and only one adjacent landowner will be offered in non-competitive sales at fair market value."

"Valuable wildlife habitat on public land which is otherwise suitable for disposal will be considered for exchange only with State or local agencies or non-profit private organizations with wildlife management responsibilities."

"Those public lands which BLM has determined to have no known value for locatable or saleable minerals will be disposed of only in compliance with Washington Office Instruction Memorandum 84-487" (USDI, BLM 1984a). [See "Policy on Disposal of Lands and Minerals" in "Energy and Minerals," Section 2.]

"Public lands will not be disposed of if they provide access to large blocks of other Federal lands, unless access rights for public uses can be reserved in the patent."

"Public lands will not be disposed of if cultural or paleontological resources of national, State, or regional significance are found upon them and the adverse effects of the disposal action cannot be mitigated at reasonable cost."

"Public lands will not be disposed of if the disposal is contrary to State, county, or local land use plans or zoning ordinances."

"Existing authorized permits, leases, rights-of-way, and licenses will be identified as valid existing rights. All disposal of public lands will be subject to valid existing rights."

"Holders of valid permits or cooperative agreements covered by Section 4 or Section 15 of The Taylor Grazing Act will be reimbursed for financial investments they have made in rangeland improvement projects on public land if the BLM disposes of the land."

"Those public lands which the BLM has determined to meet the requirements for status as Wilderness will not be disposed of until Congress has determined whether they should be designated as Wilderness or returned to multiple use management."

"Public lands included in wilderness interim management areas will be retained in public ownership."

5. Fuelwood Supply

The decisions needed to resolve this issue were:

Which public lands should be designated for sale of fuelwood?

On which public lands will the sale of fuelwood reduce resource conflicts and/or enhance resource production while meeting as much of the expressed demand as possible?

The planning criteria for this issue are:

"Fuelwood products will be made available to the public on a sustained yield basis."

"Fuelwood products will be made available to the public at fair market value."

"Fuelwood products sales will be designed to minimize trespass on non-public lands and, where possible, will be located near population centers."

"Fuelwood will be sold, where possible, in areas where the quality of wildlife habitat will not be degraded, but rather will be enhanced by the sale."

"Fuelwood will be made available from lands which would minimize the deterioration of existing roads, while discouraging the proliferation of new roads and ways."

"Fuelwood will not be made available where erosion problems are severe."

"Roads created for access to fuelwood sale areas will be rehabilitated and abandoned upon completion of the sale, unless considered essential."

"Fuelwood will not be made available in areas where harvesting would degrade or disturb livestock grazing, or the scenic, cultural, historic, recreational, or wilderness values of the area."

"Fuelwood products will be made available first from stands damaged by insects, fire, and/or diseases where practical."

"Fuelwood will be salvaged, where practical, from right-of-way clearings, tree-thinning areas, and chaining and chemically-treated areas."

6. Rights-of-Way Corridors

The decisions needed to resolve this issue were:

Which public lands in the RPRA should be designated as utility corridors to minimize negative environmental consequences from right-of-way development and maximize multiple placements?

What land-use restrictions should be placed on the public lands within the identified corridors?

The planning criteria for this issue are:

"Public lands in which there are now multiple compatible rights-of-way will be considered for corridor designation."

"Potential rights-of-way corridors on public lands which have minimal conflicts with critical resource values (e.g., erosion problem areas) will be favored."

"Identification of rights-of-way corridors will seek to optimize economic efficiency of right-of-way management as balanced by environmental and social concerns."

"Technical, public safety, and national security concerns will be considered in designating corridors."

7. Coal Leasing Suitability Assessment

The decision needed to resolve this issue was:

Which areas should be identified as acceptable for further consideration for coal leasing?

The planning criterion for this issue still applicable to future actions based on this Plan is:

"Multiple use decisions may be made which will eliminate additional coal deposits from further consideration to protect other resource values of a locally important or unique nature not included in the unsuitability criteria."

IMPLEMENTATION

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

This Plan does not repeal valid existing rights on public lands. Valid existing rights are those claims or rights to public land that take precedence over the actions in the Plan. As an example, a mining claim filed prior to the preparation of this Plan in an area where a mineral withdrawal will be initiated may be determined to be valid after the withdrawal. Valid existing rights may be held by other Federal agencies or by private individuals or companies. Valid existing rights may also pertain to oil and gas leases, rights-of-way, and water rights.

Decisions in this Plan will be implemented over a period of years. In most cases, detailed site-specific planning and environmental analysis will be required before an action can be taken.

Priorities have been established for the implementation of decisions. These priorities are intended to guide the order of implementation of those decisions that did not automatically become effective with the approval of the Plan. Priorities will be reviewed annually to help develop the annual work plan (budget) commitments for the coming year. Priorities may be revised based upon new national policies, new Department of the Interior directions, or new BLM goals. The priorities for implementation of decisions are listed in Section 2.

Any person adversely affected by a specific proposed action implementing any portion of this Plan may appeal that action pursuant to 43 CFR 4.400 at the time the action is proposed for implementation.

MONITORING AND EVALUATING THE PLAN

The effects of implementing the Rio Puerco Resource Management Plan will be monitored and evaluated on a periodic basis to assure that the desired results are being achieved. The frequency and standards for monitoring the individual resource programs are described in Section 2. Monitoring and evaluation will determine whether original assumptions were correctly applied and impacts correctly predicted, whether mitigation measures are satisfactory, whether conditions or circumstances have significantiy changed, and whether new data are of significance to the Plan. Monitoring and evaluation will also help to establish long-term use and resource condition trends and provide valuable information for future planning.

MAINTAINING THE PLAN

This Plan will be maintained as necessary to reflect minor changes in data. This maintenance will be limited to refining or documenting a previously approved decision. It will not be used to expand the scope of resource uses or restrictions or to change the terms, conditions, and decisions of the Plan. Maintenance will be documented in supporting records. Formal public involvement will not be necessary to maintain the Plan.

CHANGING THE PLAN

The Plan may be changed, if necessary, through amendment. Results of monitoring and evaluation, new data, and new or revised policies will be examined to determine if there is a need for an amendment. Any changes in circumstances or conditions which affect the scope, terms, or conditions of the Plan may warrant an amendment. in all cases, a proposed action that does not conform with the Plan and warrants further consideration before a Pian revision is scheduled would require an amendment. Generally an amendment is site specific or involves only one or two planning issues. The amendment process is identical to the resource managment planning process, although the scope of information, analysis, and documentation is more limited.

A Plan revision, when necessary, involves the preparation of a new Resource Management Pian for the entire Resource Area.

RELATIONSHIP TO OTHER BLM PLANNING LEVELS AND STUDIES

Development of the Rio Puerco Resource Management Pian has occurred within the

framework of the BLM planning system. The planning system is subdivided into three distinct tiers for operational purposes. The Council on Environmental Quality regulations provide for tiering to aid compliance with the National Environmental Policy Act (40 CFR 1500-1508). The three general tiers in the Bureau of Land Management planning system include: policy planning; land use planning; and activity or program-specific planning. This Plan satisfies the requirements for the land use tier of planning. The activity or program-specific planning tier will be the primary means by which the land use planning decisions are implemented.

PUBLIC INVOVLEMENT AND INTER-GOVERNMENTAL/ INTER-AGENCY COORDINATION

A notice was published in the Federal Register on March 23, 1983 announcing the formal start of the planning process. A preliminary list of issues, together with an explanation of the Rio Puerco planning process was sent to about 2,000 individuals and groups in March 1983. The purpose of the mailing was to identify major issues in the Rio Puerco Resource Area and to invite the public to three public meetings held in April 1983. These three meetings were held to develop issues and planning criteria (see Table 2). In July 1983 a second mailing was sent asking for comments on the proposed planning issues and criteria (USDI, BLM 1983h). After the comments were received, the revised version of the planning issues and criteria was sent out in November 1983 (USDI, BLM 1983g). A tour of the Rio Puerco Resource Area for interested groups was conducted in February 1984. A fourth mailing in June 1984 contained the proposed management guidance and proposed alternatives (USDI, BLM 1984e). Three additional public meetings were held in July 1984 to help develop land use alternatives (see Table 3). A meeting with interested Indian tribes and pueblos was held in September 1984 to discuss Native American concerns. The Bureau of Land Management later met with representatives of Acoma Pueblo and the Canoncito Navajo Band to discuss the Resource Management Plan.

The ninety-day comment period for the Draft RMP began April 1 and ended July 1, 1985. The notice of availability was published in the Federal Register on April 2, 1985. In addition, there were public hearings in Cuba, Albuquerque, Estancia, and Grants to provide the opportunity for oral comments (see Table 4). The public was notified of these hearings in the Federal Register, local newspapers, and on radio and television. The pertinent portions of the public hearings were reprinted in Chapter 5 of the Proposed RMP. Full transcripts are available for public inspection at the RPRA Office in Albuquerque and the Cuba Project Office.

Informal coordination with the public has taken place throughout the planning process through personal contacts, phone calls, and letters.

TABLE 2

PUBLIC MEETINGS FOR ISSUES IDENTIFICATION AND PLANNING CRITERIA

LOCATION	DATE
Albuquerque	April 18, 1983
Cuba	April 19, 1983
Estancia	April 21, 1983

TABLE 3

PUBLIC MEETINGS FOR DEVELOPING LAND USE ALTERNATIVES

LOCATION	DATE
Cuba	July 9, 1984
Albuquerque	July 10, 1984
Estancia	July 12, 1984

TABLE 4

PUBLIC HEARINGS ON THE DRAFT RMP/EIS

LOCATION	DATE	ATTENDANCE
Cuba	May 29, 1985	16
Albuquerque	May 30, 1985	62
Estancia	June 3, 1985	4
Grants	June 4, 1985	10

Comments on the Draft RMP/EIS were requested from the government agencies listed on Table 5 as well as from special interest groups and members of the interested public.

The Proposed Rio Puerco Resource Management Plan and Final Environmental Impact Statement was issued in October, 1985. No protests were received and the Record of Decision approving the Proposed Plan was signed on January 16, 1986 by the BLM New Mexico State Director (see "Record of Decision," this volume).

Continuing Public Participation

The Rio Puerco Resource Area will prepare an RMP Program Document annually. The purpose of this document will be to inform the public of the progress made in implementing the RMP. The document will also describe the activity plans and major environmental analyses to be prepared the following year so interested members of the public can request copies and comment. The Rio Puerco Resource Area hopes that this will enable the public to be involved in the specific land management actions resulting from implementation of this RMP.

CONSISTENCY

The BLM's planning regulations require that Resource Management Plans be "consistent with officially approved or adopted resource-related plans of other Federal agencies, state and local governments, and indian tribes, as long as the guidance and resource-related plans are also consistent with the purposes, policies and programs of Federal law and regulations applicable to public lands...." In order to ensure such consistency, letters were sent to thirty-eight Federal, State, and local agencies and groups (see Table 5). These same agencies and groups received copies of the Draft RMP/EIS and were asked to comment. No inconsistencies have been noted.

DOCUMENT PREPARERS

The Proposed Rio Puerco Resource Management Plan/Final Environmental Impact Statement from which this Final Plan was taken was prepared by an interdisciplinary team of resource specialists. Table 6 lists the names and qualifications of each member.

TABLE 5

DOCUMENT RECIPIENTS

Federal Government

Department of Agriculture

- Soil Conservation Service
- U.S. Forest Service

Department of the Army

- Corps of Engineers

Department of Commerce

Department of the Interior

- Bureau of Indian Affairs
- Bureau of Reclamation
- National Park Service
- Office of Surface Mining, Reclamation and Enforcement
- U.S. Fish and Wildlife Service
- U.S. Geological Survey

Department of Labor

Environmental Protection Agency

Tribal Government

- Santo Domingo Pueblo
- Sandia Pueblo
- Jemez Pueblo
- Isleta Pueblo
- Acoma Pueblo
- Santa Ana Pueblo
- San Felipe Pueblo
- Zia Pueblo
- Cochiti Pueblo
- Laguna Pueblo
- Zuni Pueblo
- Jicarilla Apache Tribe
- Ramah Navajo Band
- Canoncito Navajo Band
- Navajo Nation and Chapters
- All-Indian Pueblo Council

County Commissions and Planning Commissions

- Cibola County
- Valencia County
- Torrance County
- Santa Fe County
- Bernalillo County
- McKinley County
- Sandoval County

State Government

Bureau of Mines and Mineral Resources

Commerce and Industry Department

- Economic Development Division

Department of Finance and Administration

- Planning Division
  - Coordination/Clearinghouse Bureau
- Historic Preservation Bureau
  - State Historic Preservation Officer

Energy and Minerals Department

- Mining and Minerals Division
  - Coal Surface Mining Bureau

Governor Toney Anaya

Health and Environmental Department

- Environmental Improvement Division

Highway Department

Land Office

Natural Resources Department

Department of Game and Fish

State Engineer's Office

Department of Agriculture

TABLE 6

LIST OF PREPARERS

Report Writers/Reviewers

Name	Assignment	Education	Experience
Angela Berger	Recreation, Visual Resources	BS Secondary Education MS Outdoor Planning	BLM - 6 yrs. Outdoor Recreation Planner, 2 yrs. District Wilderness Program Leader, 2 yrs. Supervisory Outdoor Recreation Planner
Don Brewer	Threatened and Endangered Species, Wildlife	BS Wildlife Management	BLM - 7 yrs. Wildlife Biologist, 2 yrs. Range Conservationist
Mike Fisher	Woodland Resources	BS Forest Management	BLM - 8 yrs., USFS - 3 yrs. Fire/Forestry
Kent Hamilton	Social and Economic Factors	BS Agricultural Economics	BLM - 7 yrs., BIA - 16 yrs. Economist and Land Use Planner
Herrick Hanks	Area Manager	BA Anthropology MA Anthropology	BLM - 6 yrs. Area Manager, 8 yrs. Archeologist
David Koehler	Soils, Vegetation	BS Range and Forestry MS Ecosystem Ecology PhD Range Ecology	BLM - 7 yrs., Supervisory Range Conservationist, USFS - 7 yrs., Range Conservationist
Tony Lutonsky	Cultural Resources	BA Anthropology	BLM - 12 yrs. Archeologist
Ron Montagna	Team Leader, Lands	BS Forest Recreation	BLM - 2 yrs. Supervisory Natural Resource Specialist, 2 yrs. Supervisory Realty Specialist, 4 yrs. Realty Specialist, 4 yrs. Natural Resource Specialist
Robert Muller	Lands	BS Forestry MS Recreation Management	BLM - 14 yrs. Realty Specialist
Gretchen Obenauf	Writer/Editor	BA Anthropology MA Anthropology	BLM - 6 yrs., BIA - 1 yr., NPS - 3 yrs. Archeologist
Betty Sladek	Planning Coordinator	BS Forestry MS Planning	BLM - 5 yrs. Community Planner, 6 yrs. Forester
Gene Tatum	Range Resources, Technical Coordinator, Team Leader	BS Range Science	BLM - 2 yrs. Natural Resource Specialist, 6 yrs. Range Conservationist
Jim Turner	Minerals, Geology, Paleontology	BS Geology	BLM - 6 yrs., Bureau of Reclamation - 4 yrs. Geologist
Jerry Wall	Soil, Water, and Air Resources	BS Forest Management MS Forest Soils	BLM - 8 yrs., USFS - 9 yrs. Soil Scientist
Mary Zuschlag	Team Leader	BS Natural Resource Conservation Science	BLM - 7 yrs. Environmental Coordinator, SCS - 2 yrs. Soil Conservationist

Support Personnel

Name	Experience (BLM)	Name	Experience (BLM)
John Arwood	16 yrs. Range Conservationist	Barbara Laskar	8 yrs. Lands Clerk
Bob Bewley	3 yrs. Geographer	Angie Medina	3 yrs. Supervisory Area Clerk
Karen Davis	2 yrs. Range Clerk	Emilio Montoya	14 yrs. Cartographic Technician
Harry DeLong	1 yr. Geologist	Bill Overbaugh	3 yrs. Outdoor Recreation Planner, 1 yr. Recreation Technician
Myrna Finke	3 yrs. Visual Information Specialist, 3 yrs. Cartographic Technician	Carl Sweeden	3 yrs. Cartographic Technician
Janice Hinds	6 yrs. Clerk Typist		

Section 2

PROGRAM GUIDANCE

SECTION 2

PROGRAM GUIDANCE

INTRODUCTION

The Plan described in the Proposed RMP/Final EIS of October, 1985 contains two primary components, "Continuing Management Guidance" and the decisions to resolve the seven planning issues. Each of these components was supported by appendix material, maps, tables, and figures. The "Continuing Management Guidance" and the issue resolution decisions were presented separately in the RMP/EIS for the purposes of environmental analysis. Specifically, only those management decisions resolving the planning issues were considered to be significant actions warranting alternative formulation and analysis of the environmental consequences as required by the National Environmental Policy Act (NEPA).

With the completion of the EIS process and satisfaction of the NEPA requirements, the Affected Environment (Chapter 3) and Environmental Consequences (Chapter 4) portions are no longer applicable to the RMP. In order to streamline the Plan and produce an easier to use version of the RMP, the majority of the information contained in these two chapters is not presented in this document. In addition, the "Continuing Management Guidance" and the decisions which resolved the planning issues, including some of the appendix material, have been combined to form a management guide for decision making in the RPRA. This guide is now referred to as "Program Guidance."

The summary discussion of current resource management in the Rio Puerco Resource Area contained in the RMP/EIS was based in part on the information contained in an unpublished companion document to the RMP, the Management Situation Analysis (MSA). The "Existing Management Situation" section of the MSA is a detailed discussion of the existing management guidance applicable to the RPRA. The major sources of this guidance are laws, regulations, BLM manuals, Department of the Interior manuals, executive orders, BLM Washington Office instruction memorandums, and BLM New Mexico State Office instruction memorandums. In addition, the Proposed Rio Puerco Livestock Grazing Management Program Final Environmental Statement (USDI, BLM 1978b), portions of the East Socorro Grazing Management Environmental Statement (USDI, BLM 1979a), and the West Socorro Rangeland Management Program Environmental Impact Statement (USDI, BLM 1982b), and portions of the Ladron (USDI, BLM 1977), Divide (USDI, BLM 1983b), Chaco (USDI, BLM 1981b), and Rio Grande (USDI, BLM 1979c) Management Framework Plans (see Table 7 and Map 1) provide guidance for the management of parts of the RPRA. The MSA and the detailed guidance it contains for the management of the Rio Puerco Resource Area are considered to be incorporated into this final Plan by reference.

This section contains a description for each resource management program of the program objectives, management guidance, monitoring studies, implementation priorities, and support needs. The defined program objectives are based on BLM Manual, policy, regulation, and legal requirements.

With the exception of the Area of Critical Environmental Concern (ACEC) designations, all decisions made in the RMP will require additional implementation steps. In most cases, the RMP decisions were to develop site-specific activity plans. To ensure public participation and involvement, the following procedures will be completed before new activity plans are implemented. The public will be notified of new areas under consideration for activity plan preparation through the annually published RMP Program Document. The RMP Program Document will contain a description of the site-specific proposal, the resource values in the area under consideration, a map of the area, the public comment procedures for the proposal, and provide an opportunity for members of the public to express interest in participating in preparing the activity plan.

TABLE 7

SUMMARY OF MANAGEMENT FRAMEWORK PLAN DECISIONS

Resource	Decision Number	Summary
DIVIDE MFP		
Watershed	W-1.1	Through consultation, implement watershed treatments on Allotments 205 and 210. Develop watershed plans in Trechado, Governor, Monte Seco, and San Jose watersheds.
Watershed	W-1.5	Identify treatment areas through Section B consultation; treated areas will be rested 1-2 years; treatments done solely in wildlife areas will be in conformance with wildlife recommendations (WL-2.4).
Watershed	W-3.2	Develop drinking water sources at El Malpais Recreation Area/Sandstone Bluffs Overlook and Natural Arch.
Range	RM-1.8	Construct a twenty acre exclosure on each of thirty-three range sites for vegetative condition and trend studies.
Range	RM-2.4	Perform seeding trials in each of thirty-three range sites to determine the potential forage production by reseeding, using a multiple-use approach.
Range	RM-2.5	Maintain existing land treatments to achieve maximum forage production primarily by prescribed burning. Other methods such as herbicide application, tree cutting, and chaining would be considered.
Wildlife	WL-1.2	Cooperate with New Mexico Department of Game and Fish to remove all barbary sheep from public lands in the Divide Planning Area.
Wildlife	WL-2.1	Burn and/or chain 10,000 acres in 50 to 100 acre irregularly-shaped plots of pinyon-juniper. Seed with browse grass forbs.
Wildlife	WL-2.2	Construct rainfall catchments.
Wildlife	WL-2.3	Continue wildlife/range studies to determine habitat capability to support wildlife and livestock numbers. Complete allotment evaluations by 1990.
Wildlife	WL-2.4	Design and implement livestock grazing systems to protect mule deer habitat by scheduling non-use or rest during critical periods in essential winter ranges and fawning areas.
Wildlife	WL-3.1	Construct antelope passes along the western boundary fence of the York Ranch No. 0076 Allotment. Allottee will be consulted prior to any fence modification.
Wildlife	WL-4.2	Construct rainfall catchments to provide water for antelope.
Wildlife	WL-4.3	Seed browse and forbs in 1,000 acre plots.
Wildlife	WL-5.1	Continue wildlife range studies to determine habitat capabilities to support anticipated livestock and wildlife numbers. Complete allotment evaluations by 1990.
Wildlife	WL-5.2	Design livestock grazing systems to enhance antelope habitat by removing livestock in key forb producing areas and kidding grounds.
Wildlife	WL-7.1	Fence springs and associated riparian vegetation.
Wildlife	WL-7.4	Acquire through exchange the riparian/wetland habitat, specifically Cebolla Spring and Laguna Americana.
Wildlife	WL-7.5	Construct reservoirs on public lands to create additional waterfowl and shorebird habitat and to provide livestock waters, contingent on location of feasible sites.

TABLE 7 (Continued)

Resource	Decision Number	Summary
Wildlife	WL-7.6	Designate 81 acres of Bluewater Canyon as ACEC and fence to prevent livestock damage. (Already implemented.)
Forestry	F-2.3	Attempt to acquire, through a Bureau motion exchange process, the private and State lands in the Chain of Craters Area. The preferred method of acquisition would be through the exchange process. Acquisition through direct purchase is not anticipated. Establishment of total estates (surface and subsurface) will be a priority for the lands identified for acquisition by exchange.
Forestry	F-3.1	Establish three forest and four woodland monitoring areas in the Chain of Craters area and Mertz Ranch.
Forestry	F-4.1	Lay out and open commercial and individual firewood cutting areas in the following areas: Sand Canyon--individual use, dead wood; Cebolla Canyon--commercial use, green wood; Chain of Craters--commercial and individual use, green wood. The amount cut each year will be on a sustained yield basis; volume will be dependent on approved activity plans. Land treatments identified in RM-2.5, WL-2.1, and W-1.5 will take precedence over fuelwood management.
Forestry	F-4.2	Conduct commercial Christmas tree sales in the Cebolla Canyon area. The number will be dependent on approved activity plan. Land treatments identified in RM-2.3, RM-2.5, WL-2.1, and W-1.5 will take precedence over fuelwood management.
Forestry	F-4.3	Lay out other forest product sale areas in the following areas where at least 1,000 of the associated products would be available per year for individual or commercial sales. Area — Product Sand Canyon — Fence Posts Cebolla Canyon — Wildlings Land treatments identified in 2.5, WL-2.1, and W-1.5 will take precedence over fuelwood management.
Forestry	F-4.4	Cruise and mark ponderosa pine. Salvage and mortality timber sales as demand arises, the volume will be determined during activity planning, in the following areas: Chain of Craters — North Pasture Cebolla Canyon — Sandy Hill Land treatments identified in RM-2.5, WL-2.1, and W-1.5 will take precedence over fuelwood management.
Recreation	R-1.2	Retain all public lands with a B or higher Recreation Inventory System (RIS) rating in public ownership, specifically along Highway 117, Big Hole in the Wall, Chain of Craters, and Bluewater Canyon.
Recreation (ORV)	R-5.2	Close Bluewater ACEC to ORV use. (Already implemented.)
Recreation	R-6.2	Redevelop the Sandstone Bluffs Recreation Area, to include visitor contact station, picnic tables, barbecue grill, macadam surfacing of road area (already implemented), hiking trails, and interpretive signs.
Recreation	R-6.3	Construct a parking area, day use interpretive site, and loop trail at Natural Arch site.

TABLE 7 (Continued)

Resource	Decision Number	Summary
Recreation	R-6.4	Attempt to enter into a cooperative agreement with the Pueblo de Acoma for routing patrols and surveillance of the El Malpais area.
Recreation	R-6.5	Complete a descriptive brochure and interpretive areas for each quality geologic feature in Divide Planning area: El Malpais lava flow, Chain of Craters, and Zuni Salt Lake. (Pamphlets are now available for El Malpais and Chain of Craters.)
Recreation	R-7.1	Prohibit sale of commercial or home-use firewood permits, timber, or Christmas trees in Bluewater Canyon. (Already implemented.)
Recreation	R-9.1	Construct an interpretive area/scenic overlook with display at the rim of Bluewater Canyon.
Recreation	R-10.2	Develop a series of loop trails around Sandstone Bluffs and Natural Arch.
Recreation	R-14.1	Acquire private lands in Cebolleta Canyon (through exchange) and begin a stabilization, interpretation, and surveillance program of cultural resources in the Canyon.
Recreation	R-14.3	Attempt to acquire private lands within sensitive areas in Big Hole in the Wall, Chain of Craters, and Bluewater Canyon.
Recreation	R-14.4	Develop primitive campgrounds at Big Hole in the Wall.
Recreation	R-15.5	Close the Dominguez-Escalante trailhead/parking lot. (Already implemented.) The remainder of this decision will not be implemented.
Lands	L-1.1	Make 600 acres of land available for disposal within the extraterritorial boundaries of Grants and Milan.
Lands	L-1.2	Make available for disposal or Land Use Authorization consideration about 200 acres of small, isolated tracts near Belen, Los Lunas, and Aragon, which are suited for urban and suburban expansion, but are not part of the Rio Grande Occupancy Resolution Program acreage.
Lands	L-2.1	Make 480 acres, surrounded by Laguna Indian Reservation lands, available for disposal or Land Use Authorization consideration.
Lands	L-3.1	Make two tracts of public land available for disposal with the first option to Grants Municipal School System as school sites.
Lands	L-3.2	Make two 40 acre sites available for disposal with first option to the Valencia Board of County Commissioners. Make about 46 acres available for disposal for residential development near Los Lunas.
Lands	L-3.3	Provide 720 acres under R&PP to Grants and San Fidel.
Lands	L-4.2	Establish a north-south right-of-way corridor for future ROW needs, which will follow the two existing Tuscon Power and Electric 345 kV lines. (Already implemented.)
Lands	L-5.1	Dispose of an estimated 300 acres of public land near Los Lunas and Aragon which are located within the Rio Grande Occupancy Resolution Program area by 1995. Title transfer will be to those people who qualify under the provisions of the Color-of-Title Act of 1928.
Lands	L-6.1	Retain surface ownership of all lands in the San Augustine Coal Area that have the potential for surface coal mining. Dispose of the remainder of the isolated tracts. Lands identified are subject to change as the coal resource is further delineated.

TABLE 7 (Continued)

Resource	Decision Number	Summary
		The preferred method of disposal would be by exchange, although disposal by sale or other appropriate means is acceptable. Establishment of total estates will be a priority for the lands identified for exchange.
LADRON MFP		
Watershed	W-1.2	Allocate sufficient live vegetation and litter through grazing management to increase average ground cover on seven Phase One watershed areas in the East Socorro ES area.
Watershed	W-2.1	Develop and implement watershed activity plans on the watersheds in the Ladron Planning Unit, in order of the Phase One priority rankings.
Watershed	W-2.2	Maintain water control structures 0454, 0470, 0429, 0431, and 0428 and any other structure that becomes a safety hazard.
Watershed	W-3.2	Participate in a cooperative plan with the Valencia County Commissioners to minimize watershed damage in road maintenance programs.
Wildlife	WL-1.1	Develop inverted umbrella type water catchments primarily for the benefit of deer.
Wildlife	WL-2.1	Install and fence ground level waters where needed on new pipelines.
Wildlife	WL-4.2	Acquire the Arroyo Salado and manage for wildlife.
Wildlife	WL-4.4	Acquire Ponia Creek riparian habitat.
Wildlife	WL-4.5	Acquire approximately 19,500 acres of private and State land in the planning unit that is valuable wildlife habitat.
Wildlife	WL-4.6	Obtain permanent legal access to public lands for improved wildlife management.
Forestry	F-1.2	Evaluate any land and vegetative treatments as well as vegetative and forestry sales which may be proposed on areas of pinyon-juniper having a moderate or higher erosion classification. Allow only projects which create no significant adverse disturbance to watershed conditions.
Forestry	F-2.1	Allow sales of firewood as well as other forestry vegetative sales on all areas of pinyon-juniper having a slight or low erosion classification.
Recreation	R-2.1	Abandon and rehabilitate the old CCC road located in Petaca Pinta area.
Recreation	R-2.2	Rehabilitate the Lacey W. Seis #1 and Seis #2 detention dams.
Recreation	R-5.1	Formulate a comprehensive interpretive plan on recreation resources, including four scenic observation points.
Lands	L-1.1	Designate utility corridors, to the extent practical or feasible, along existing powerline and pipeline rights-of-way in the eastern portion of the planning unit. (Already implemented.)
Lands	L-3.1	Request the Bureau of Reclamation to review the powersite withdrawal along the Rio Puerco in FY 79 to see if it is needed. If not, ask the Bureau of Reclamation to relinquish the withdrawal. (This withdrawal is being reviewed.)

TABLE 7 (Continued)

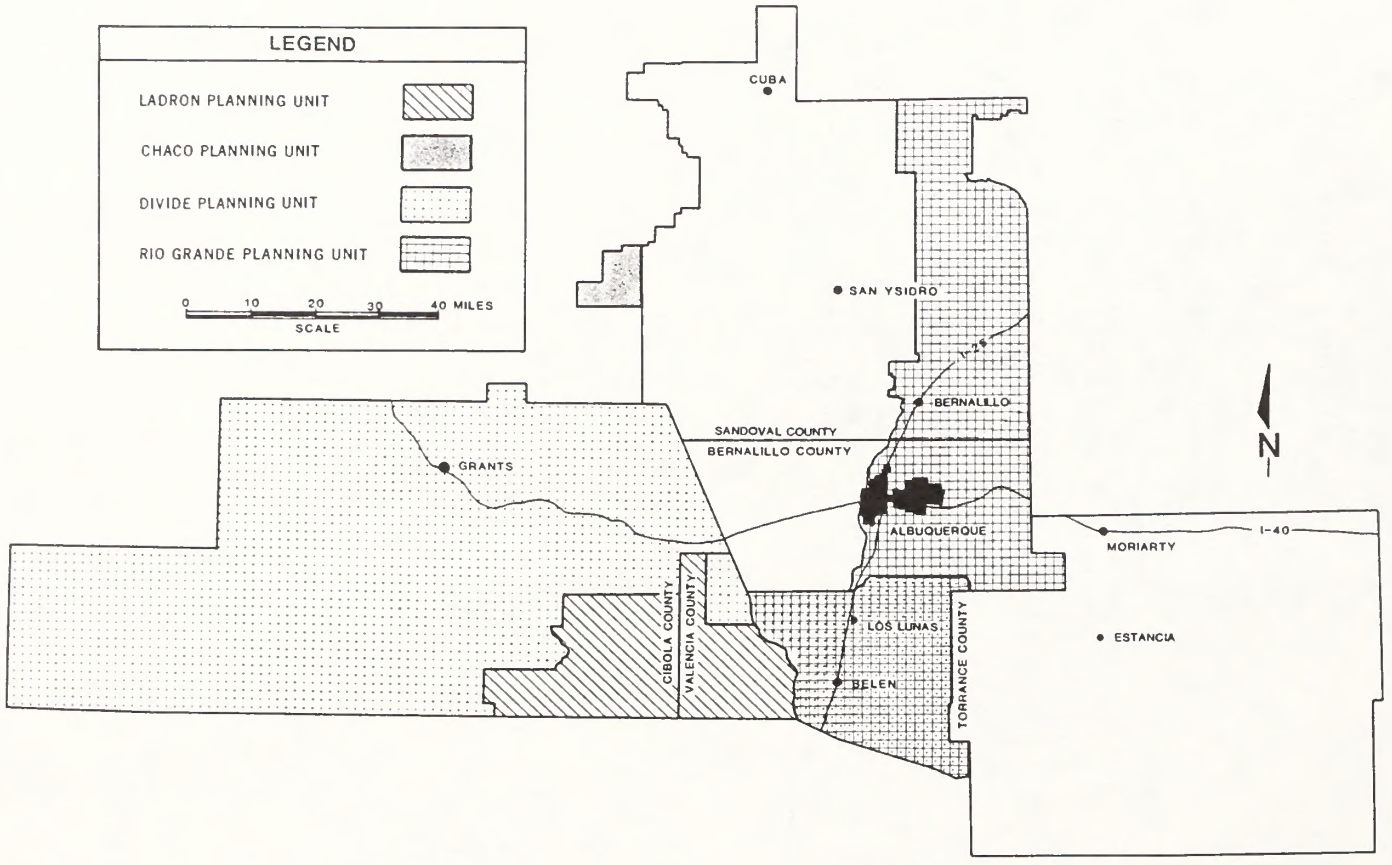
Resource	Decision Number	Summary
RIO GRANDE MFP		
Wildlife	WL-5.3	Maintain quail and other small game habitat in present condition and where appropriate develop waters.
Lands	L-4.1	Offer through exchange first to the U.S. Forest Service all parcels in T. 6 and 7 N., R. 3, 4, and 5 E., then to other interested parties.
Lands	L-6.1	All unauthorized occupancies on public lands in the planning unit will be mitigated by one of the following alternatives, based upon whether the public land occupied is or is not specifically identified and determined available for transfer from Federal ownership to other uses: PART A - Any occupancy established on public lands identified for transfer to other than Federal ownership will be mitigated by one of the following alternatives as appropriate: 1. Those occupants who possess a strong land title which indicates tenure and some type of title conveyance purchased in good faith and with full intent that the land described was in fact held in prior private ownership, and can meet the other criteria of the Color-of-Title Act, will be granted a title under that authority. 2. Those occupants who possess some land title, evidence tenure, a record of regular tax payments, and some type of title conveyance purchased in good faith prior to May 15, 1979 and with full intent that the land described was in fact held in prior private ownership, will be considered for direct sale, at fair market value of the claimed tract. PART B - Any occupancy established on public lands in the planning unit not identified for disposal or transfer to other than Federal ownership, will be resolved and dealt with by one of the following alternatives as appropriate: 1. Those occupants who meet the established criteria of the Color-of-Title Act will be granted a title under that authority. 2. Those occupants who do not meet the established criteria of the Color-of-Title Act, but who have lived at least ten years on the occupied land, may be granted up to a 20-year lease, not to exceed the life of the lessee. Upon expiration of the lease, the continued occupancy shall terminate unless the lessee negotiates a new lease with the Bureau. PART C - Any occupancy established on public lands in the planning unit after May 15, 1975, whether or not the lease is identified for transfer from Federal ownership, will be considered to be in trespass and subject to lawful eviction procedures. PART D - Unoccupied lands as of May 15, 1975 identified for transfer to other than Federal ownership will be sold under the R&PP Act or competitive sale at no less than the fair market value.
CHACO MFP		
Minerals	M-2.1	Maintain free of encumbrances those lands with federally owned surface in and around Known Geologic Structures (KGS's), and areas identified as "prospectively valuable for oil and gas" except where high value surface resources have been designated in this planning document as needing special consideration and protection. In these special areas, oil and gas exploration and development can occur if consistent with the requirements, stipulations, provisions, or restrictions of the Management Framework Plan decisions or Management Plan for that high value surface resource. Consistent with Minerals Decision M-1.1, where KGS's overlap coal resources, oil and gas production will be given priority. This is reflected in the wording of the Decision:

TABLE 7 (Concluded)

Resource	Decision Number	Summary
		"Category G--Overlap of Known Geologic Structures (KGS's) with medium to high potential coal resources. Carry forward for further consideration for leasing, but postpone coal leasing in producing oil and gas fields until (BLM) has determined that coal development will not interfere with the economic recovery of oil and gas."
Minerals	M-1.1	Carry forward as suitable for further consideration for leasing areas identified on the Chaco coal map; and drop from consideration those areas so designated. (The Johnson Trading Post Tract will be considered for leasing. The Chico Wash Tract would be considered for leasing only if additional coal drilling information is obtained, and additional cultural resource inventories are completed. These are the only two tracts recommended as suitable for further consideration for leasing in the Chaco MFP which are in the RPRA.)
Watershed	W-1.3	Develop coal lease stipulations or other methods for BLM secural of water wells used for reclamation or energy development after lease abandonment.
Wildlife	WL-1.2	Allow no rodent control on public lands near active eagle nests.
Forestry	F-2.1	Prohibit sales of ponderosa pine wildlings and Christmas trees. Allow harvest of mature trees for sanitation purposes. Seedbed preparation, fuel reduction, and thinning of ponderosa pine stands is also advocated.

MAP 1

EXISTING MANAGEMENT FRAMEWORK PLANNING UNITS



An Environmental Assessment (EA) will be prepared for each activity plan. All project and activity level plans will consider Native American religious freedom. The scheduled dates for EA preparation for activity plans will be published in the annual RMP Program Document. The proposed action considered in the EA will be the management objectives, including planned actions, described in the activity plan. A Draft EA will be prepared for each proposal and forwarded to individuals who responded to the RMP Program Document request for expressions of public interest.

A Final EA will be prepared for each activity plan which will include public comments and the BLM responses to the comments. A Record of Decision will be issued specifying the decision reached on the activity plan proposal. All NEPA requirements for environmental analysis will be followed, as will all BLM Manual, regulation, and policy requirements.

The Plan decisions will be implemented over a period of years and are linked to the BLM budget process. Priorities have been established to guide the order of implementation. These priorities will be reviewed annually to help develop the annual work plan commitments for the coming year and will be published in the annual RMP Program Document. The priorities may be revised based upon new administrative policy, new Departmental direction, or new Bureau goals.

A "Monitoring Studies" section is included in the narrative for each individual resource program. This section identifies the existing monitoring studies which will continue, as well as studies which will need to be implemented. Resource program monitoring will be used to evaluate the effectiveness of management in accomplishing the RMP objectives. Monitoring at the resource program level can also be used as a tool for the initiation of Plan maintenance.

ENERGY AND MINERALS

Program Objectives

It is the policy of the BLM to make mineral resources available for disposal and to encourage development of these resources to meet national, regional, and local needs, consistent with national objectives of an adequate supply of minerals at reasonable market prices. At the same time, the BLM strives to assure that mineral development is carried out in a manner which minimizes environmental damage and provides for the reclamation of lands affected.

Management Guidance

Oil and Gas Leasing

As a general rule, all of the public lands not managed under the BLM Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b) (see Map 18) are available for oil and gas exploration, leasing, and development. The leasing process begins when an interested party applies for an oil and gas lease at the BLM New Mexico State Office (NMSO) in Santa Fe. Leases may be acquired non-competitively, either over-the-counter or through simultaneous lease drawing, or competitively through the submission of bids. Competitive leasing is required for lands situated within the boundaries of a Known Geologic Structure (KGS).

Upon receipt of a lease application in the NMSO, the Mineral Leasing Unit reviews a catalog of master title plats to determine suitability for leasing. If the area is open to leasing, the plats are examined to determine whether additional environmental protection has been stipulated. When the lease is reviewed, it is assumed that the area will be developed and that the impacts described in the Northern New Mexico Oil and Gas Environmental Analysis Record (USDI, BLM 1974a) will result.

Lease Terms and Conditions. The BLM combined oil and gas offer and lease form, Form 3100-11, covers a wide range of the standard stipulations. The lease terms and conditions cover subjects such as bonding, rentals, royalties, inspections, safety, protection of the environment, protection of surface resources, and improvements. Section 6 of the lease terms establishes the general requirements for conduct of operations. This section provides authority for modification to siting, design of facilities, timing of

operations, and specifications for interim and final reclamation measures to minimize adverse environmental impacts. It specifically requires that the lessee contact the lessor prior to disturbing the surface and specifies that the lessee may be required to complete minor inventories or short-term special studies. Section 6 was intended to render many lease attachments unnecessary, such as the Surface Disturbance Notice and the standard Cultural Resources Stipulation.

Special stipulations are conditions of lease issuance which provide additional, more stringent environmental protection by allowing for denial of operations within the terms of the lease contract. Without stipulations, operations can be modified but not denied (except under certain specific, nondiscretionary statutes). Stipulations will be used whenever mitigating measures to be enforced by the United States will deprive a lessee of lease rights granted. Because of this effect on lease rights, lessees must be made aware of and acknowledge all stipulations prior to leasing.

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

The content and accurate wording of stipulations is important since stipulations become part of the lease contract. If the stipulations are ambiguous, potential lessees will be uncertain as to the conditions of the lease. Also, if poorly written, the BLM may fail to retain, within the terms of the lease, the right to deny operations. Therefore, to the extent feasible, stipulations are to specify the reason for the stipulation, the lands involved, and the probable effect of the stipulations on lease activities. Stipulations should also include a provision for waiver in the event that circumstances or relative resource values change, or in the event that the lessee demonstrates that operations can be conducted without causing unacceptable impacts.

Six stipulations were approved for use in the RPRA as a result of the RMP process. The New Mexico State Office has developed one stipulation for BLM lands under wilderness review. These seven stipulations are listed on Table 8. Map 2 shows townships containing areas covered by these stipulations.

Geothermal Leasing

Although authorized under separate statute and implemented by different regulations, geothermal resource leasing is virtually identical to oil and gas leasing. The same sequence of activities and permitting actions is followed regardless of whether the commodity is oil and gas or geothermal fluids. Site-specific decisions regarding the attachment of appropriate stipulations will continue to be based on guidelines contained in the Technical Report and Environmental Analysis Record for Proposed Geothermal Leasing of Cabezon, San Ysidro, and Santa Ana Mesa Country (USDI, BLM 1976b).

Leasable Mineral Restrictions

The following summary of restrictions resulting from the RMP process ensures continuation of resource uses and activities

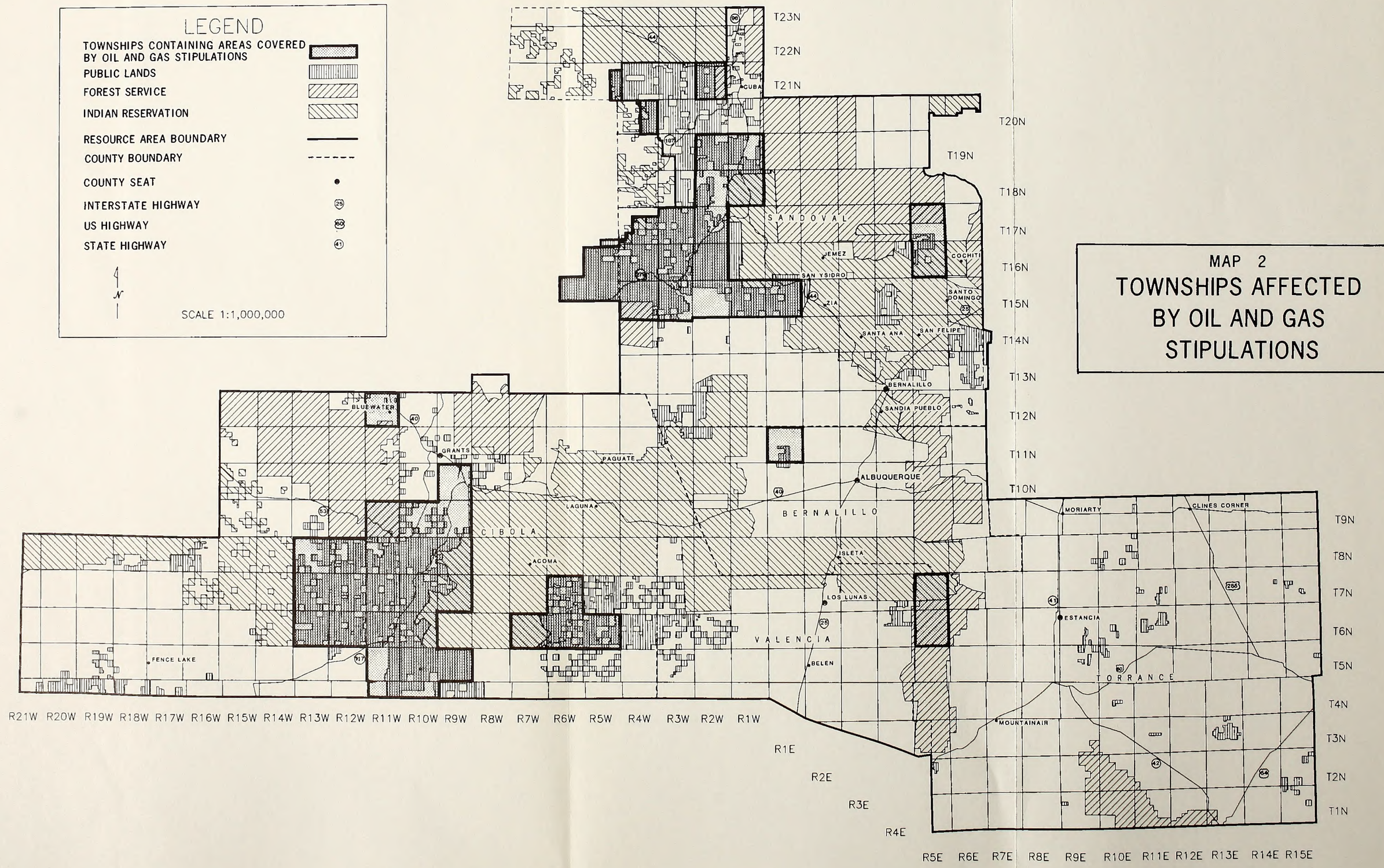
RIO PUERCO RESOURCE AREA

LEGEND

- TOWNSHIPS CONTAINING AREAS COVERED BY OIL AND GAS STIPULATIONS
- PUBLIC LANDS
- FOREST SERVICE
- INDIAN RESERVATION
- RESOURCE AREA BOUNDARY
- COUNTY BOUNDARY
- COUNTY SEAT
- INTERSTATE HIGHWAY
- US HIGHWAY
- STATE HIGHWAY

N

SCALE 1:1,000,000



MAP 2

TOWNSHIPS AFFECTED BY OIL AND GAS STIPULATIONS

TABLE 8

RIO PUERCO OIL AND GAS STIPULATIONS

Rio Puerco 1

In order to protect important seasonal wildlife habitat, exploration, drilling and other development activity will be allowed only during the period from July 2 to January 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer of the Bureau of Land Management. Lands within the leased area to which this stipulation applies are described as follows: (description would be attached to lease)

Rio Puerco 2

In order to protect important seasonal wildlife habitat, exploration, drilling and other development activity will be allowed only during the period from May 15 to November 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer of the Bureau of Land Management. Lands within the leased area to which this stipulation applies are described as follows: (description would be attached to lease)

Rio Puerco 3

No occupancy or other activity on the surface of the following described lands is allowed in order to protect cultural resources and aviation facilities: (description would be attached to lease)

Rio Puerco 4

The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes, or require special attention to prevent damage to surface resources. 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 Bureau of Land Management 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 operations of producing oil and gas wells.

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

Reason for Restriction: Presence of Southern Union Gas' Las Milpas gas storage facility.

Duration of Restriction: Year-round.

Prior to acceptance of this stipulation the prospective lessee is encouraged to contact the Bureau of Land Management for further information regarding the restrictive nature of this stipulation.

Rio Puerco 5

The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes, or require special attention to prevent damage to surface resources. 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 Bureau of Land Management 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 operations of producing oil and gas wells.

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

Reason for Restriction: Designated Area of Critical Environmental Concern.

Duration of Restriction: Year-round.

Prior to acceptance of this stipulation the prospective lessee is encouraged to contact the Bureau of Land Management for further information regarding the restrictive nature of this stipulation.

Rio Puerco 6

The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes, or require special attention to prevent damage to surface resources. 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 Bureau of Land Management 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 operations of producing oil and gas wells.

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

Reason for Restriction: Potential or known cultural resource site, eligible for inclusion in the National Register of Historic Places.

Duration of Restriction: Year-round.

Prior to acceptance of this stipulation the prospective lessee is encouraged to contact the Bureau of Land Management for further information regarding the restrictive nature of this stipulation.

New Mexico 7

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

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

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

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

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

TABLE 8 (Concluded)

(c) When the activity is terminated, and after any needed reclamation is complete, the area's wilderness values must not have been degraded so far, compared with the area's values for other purposes, as to significantly constrain the Secretary's recommendation with respect to the area's suitability or nonsuitability for preservation as Wilderness. The wilderness values to be considered are those mentioned in Section 2(c) of The Wilderness Act, including naturalness, outstanding opportunities for solitude or for primitive and unconfined recreation and ecological, geological or other features of scientific, educational, scenic, or historical value. If all or any part of the area included within the leasehold estate is formally designated by Congress as Wilderness, exploration and development operations taking place or to take place on the part of the lease will remain subject to the requirements of this stipulation, except as modified by the Act of Congress designating the land as Wilderness. If Congress does not specify in such act how existing leases like this one will be managed, then the provisions of The Wilderness Act of 1964 will apply, as implemented by rules and regulations promulgated by the Department of the Interior.

within the Special Management Areas and rights-of-way windows which could be impacted by unrestrained mineral lease development. These restrictions are not applicable to coal leasing.

1. Leasable minerals will be withdrawn in these Special Management Areas: Pelon Watershed, 858 acres; San Luis Mesa Raptor Area (Arroyo Empedrado Watershed), 640 acres; Guadalupe Ruin and Community, 485 acres; Elk Springs (Juana Lopez Research Natural Area), 40 acres; Ojito (Querencia Watershed), 640 acres; and Ball Ranch, 1,278 acres.

2. The rights-of-way windows (see Map 20) will not be open to leasing.

3. The seasonal occupancy stipulations (see Table 8) will be applied to these SMA's: San Luis Mesa Raptor Area (Rio Puerco 1), 8,364 acres; and Elk Springs (Rio Puerco 2), 9,682 acres.

4. The no surface occupancy stipulation (Rio Puerco 3) will be applied to these SMA's: Jones Canyon, 649 acres; Azabache Station, 80 acres; Big Bead Mesa, 311 acres; Bluewater Canyon, 89 acres; and Canon Tapia, 906 acres. In addition, 1,400 acres occupied by the City of Albuquerque's Double Eagle II Airport are covered by this stipulation.

5. The Las Milpas gas storage stipulation (Rio Puerco 4) will be applied to 7,680 acres in the Ojito SMA.

6. The Area of Critical Environmental Concern stipulation (Rio Puerco 5) will be applied to the following SMA's: Torrejon Fossil Fauna, 2,981 acres; San Luis Mesa Raptor Area, 8,364 acres; Cabezon Peak, 5,053 acres; Elk Springs, 9,682 acres; Tent Rocks, 4,119 acres; Ojito, 11,590 acres; Pronoun Cave Complex, 938 acres; and Bluewater Canyon, 89 acres.

7. The cultural resource stipulation (Rio Puerco 6) will be applied to 2,274 acres in the Headcut Prehistoric Community SMA.

8. The New Mexico Wilderness stipulation (New Mexico 7) will be applied to the following Wilderness Study Areas: Cabezon, 8,159 acres; Empedrado, 9,007 acres; Ignacio Chavez, 33,264 acres; Chamisa, 13,692 acres; La Lena, 10,438 acres; Manzano, 881 acres; Ojito, 10,903 acres; Petaca Pinta, 11,668 acres; Rimrock, 29,818 acres; Sand Canyon, 8,543 acres; Little Rimrock, 9,920 acres; Pinyon, 12,365 acres; and the El Malpais Wilderness Instant Study Area, 157,640 acres.

All or portions of several SMA's are protected by two or more of the Rio Puerco stipulations, the NMSO Wilderness stipulation, or a withdrawal action. In each of these cases, the more restrictive measure will be applied. All of the Special Management Areas are also subject to the terms of the lease.

Coal Management

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

The Secretary of the Interior may not hold a lease sale unless the lands containing the coal deposits have been included in a comprehensive land use plan and unless the sale is compatible with, and subject to, any relevant stipulations, guidelines, and standards set out in the plan. By regulation, the comprehensive land use plan must contain an estimate of the amount of coal recoverable by either surface or underground mining operations.

The major land use planning decision concerning the coal resource in this RMP is the identification of areas acceptable for further consideration for leasing.

Essentially, the RMP defines areas that will be carried forward for activity planning. This post-RMP planning will identify, rank, analyze, select, and schedule tracts for lease sale. The area carried forward for further consideration for coal leasing is shown on Map 3.

The area studied for coal development potential is located roughly between Chico Wash and Cuba. Several other coal fields exist in the Rio Puerco RMP area for which lack of available data and time prevented a detailed analysis of coal development potential. None of these other coal fields is felt to meet the threshold criteria established for areas having maximum coal development potential.

The development potential and suitability for leasing of several tracts in the eastern and southeastern portions of the San Juan Basin Coal Region was addressed in the Chaco MFP (USDI, BLM 1981b) and the San Juan River Regional Coal Environmental Impact Statement (USDI, BLM 1984d). Two of these tracts, Johnson Trading Post and Chico Wash South, are either partially or completely within the Rio Puerco Planning Area (see Map 4). The Johnson Trading Post Tract was recommended for leasing under the target alternative, but was not recommended under the minimum surface owner conflict alternative. The Chico Wash South Tract, however, would be considered for leasing only if additional coal drilling data are obtained and when additional cultural resource inventories are completed.

A portion of the RPRA in Cibola County lies within the Salt Lake Coal Field of the San Augustine Coal Area (see Map 4). The forthcoming Socorro Resource Area RMP will determine the suitability of this portion of the San Augustine Coal Area for further consideration for leasing. Considering logical mining units, it is appropriate that the suitability for leasing of this small portion of the RPRA be determined in the Socorro Resource Area RMP.

The criterion for surface mineable coal development potential is a limit of 250 feet or less of overburden on a stratigraphic interval known to contain a coal bed of at least 2.3 feet of inferred thickness. The criterion for underground mineable coal is less than 1,500 feet of overburden on a seam thicker than 5 feet.

The identification of areas acceptable for further consideration for leasing to resolve the Coal Leasing Suitability Assessment issue was accomplished through the application of a screening procedure consisting of the following criteria:

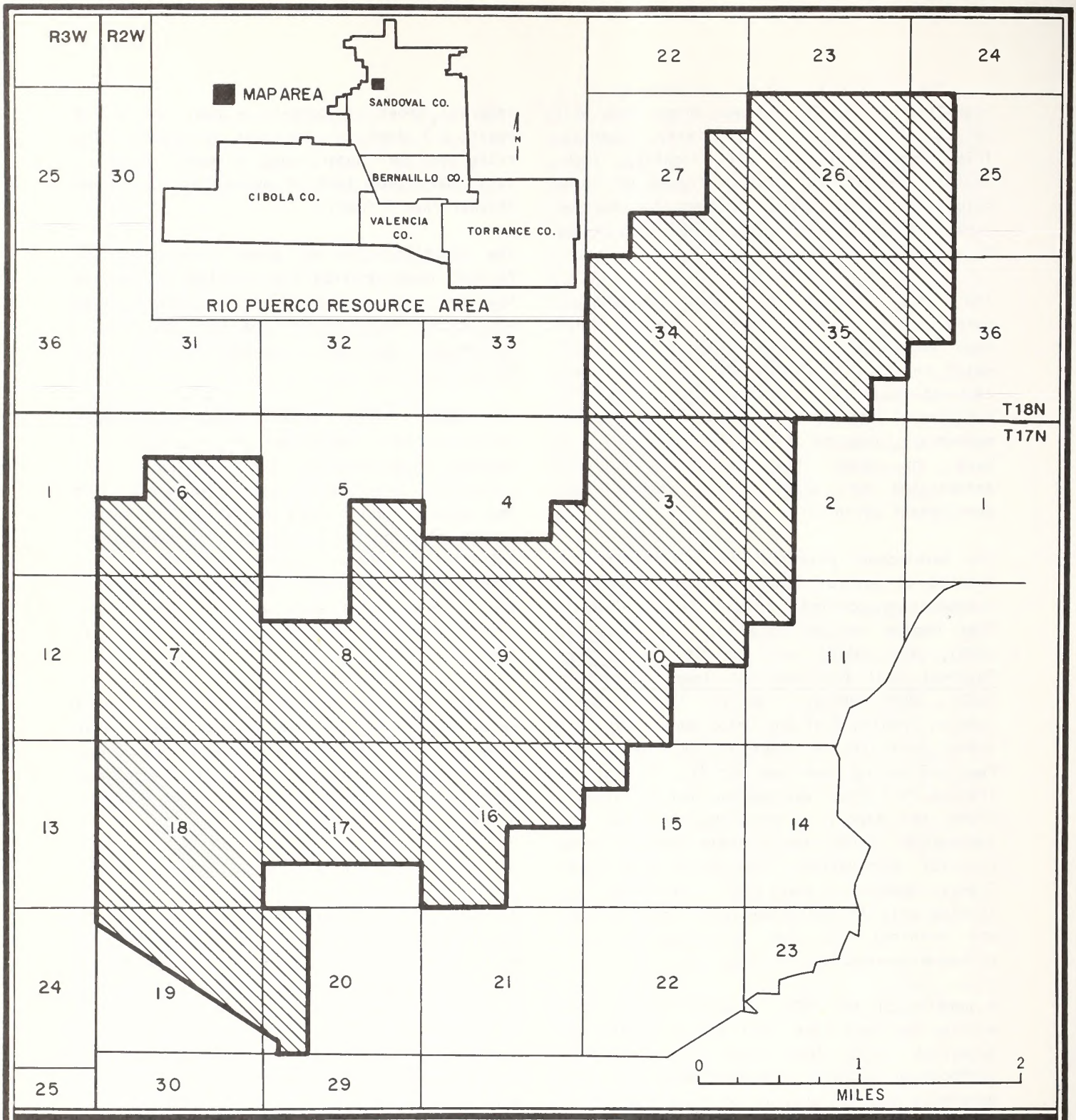
1. Only those areas with development potential were identified as acceptable for further consideration for leasing. Coal companies, State and local governments, and the general public were encouraged to submit information for use in determining development potential. Where such information was determined to indicate development potential for an area, that area was included in the land use planning for evaluation for coal leasing.

2. The BLM reviewed the public lands which were determined to have maximum development potential to assess where there are areas unsuitable for all or certain stipulated methods of mining using the twenty unsuitability criteria (43 CFR 3461.1).

3. Multiple land use decisions were applied.

4. The BLM also consulted with all surface owners whose lands overlie coal deposits with maximum development potential to determine their preference for or against mining by other than underground mining techniques.

The twenty unsuitability criteria, multiple use screens, and surface owner consultation were applied only to the area of maximum coal development potential. After this analysis, 8,020 acres in the area of maximum development potential were accepted for further consideration for leasing (see Map 3). This area contains approximately 100 million tons of coal recoverable by surface mining methods, nearly all of which are Federally owned. Four resource categories were identified which could ultimately be affected by surface mining. These categories are:



MAP 3

AREA CARRIED FORWARD FOR FURTHER CONSIDERATION FOR COAL LEASING

AREA CARRIED FORWARD FOR FURTHER CONSIDERATION FOR COAL LEASING

N

RIO PUERCO RESOURCE AREA

LEGEND

- POTENTIAL COAL LEASE AREAS IN THE RIO PUERCO RESOURCE AREA
- PUBLIC LANDS
- FOREST SERVICE
- INDIAN RESERVATION
- RESOURCE AREA BOUNDARY
- COUNTY BOUNDARY
- COUNTY SEAT
- INTERSTATE HIGHWAY
- US HIGHWAY
- STATE HIGHWAY

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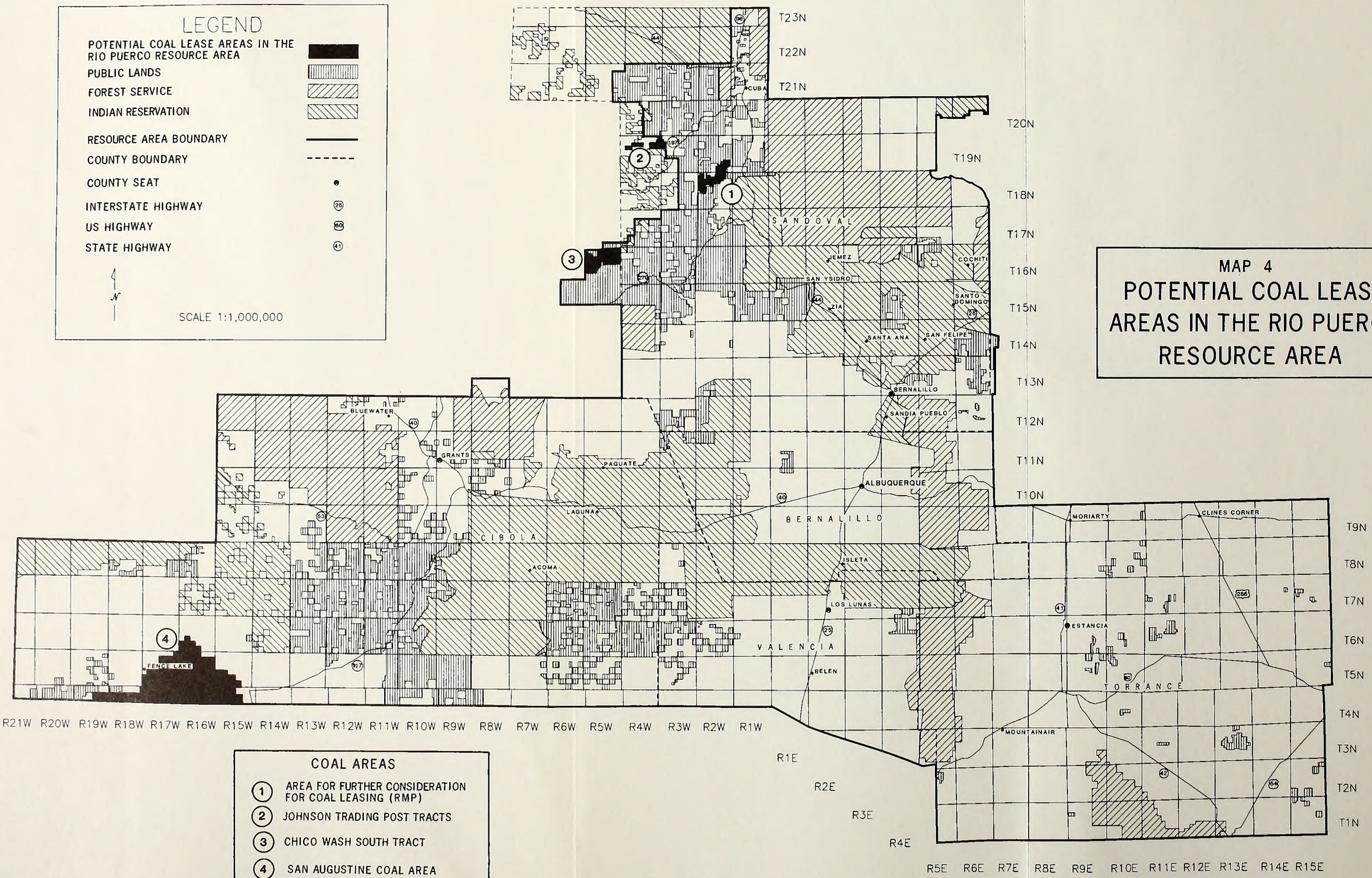


COAL AREAS

1. AREA FOR FURTHER CONSIDERATION FOR COAL LEASING (RMP)
2. JOHNSON TRADING POST TRACTS
3. CHICO WASH SOUTH TRACT
4. SAN AUGUSTINE COAL AREA

MAP 4

POTENTIAL COAL LEASE AREAS IN THE RIO PUERCO RESOURCE AREA

1. Cultural resource sites eligible for inclusion on the National Register of Historic Places but in areas which have been determined to be suitable for leasing;

2. Rights-of-way windows and corridors designated to establish protection for future rights-of-way associated with pipeline and electrical transmission line construction;

3. Areas of significant recreational use, and Class II or higher Visual Resource Management (VRM) areas;

4. Existing Allotment Management Plans.

Although no publicly-owned sites listed on the National Register of Historic Places have yet been found within the area of maximum coal development potential, a cultural resource survey of the area carried forward for further consideration for leasing will be required during activity planning to identify and eliminate from further consideration for leasing those sites eligible for the National Register of Historic Places. Federal laws dealing with cultural resources would also be followed during the course of any mining activity. Under Federal laws (36 CFR 60.6 and 800, and 43 CFR 3461), significant sites, those determined to be eligible for inclusion on the National Register of Historic Places must be considered prior to approval of a mine plan. Determinations of eligibility for the Register are made in consultation with the Advisory Council on Historic Preservation and the New Mexico State Historic Preservation Officer.

The second resource value to be considered is the identification of rights-of-way corridors and windows (see Maps 5 and 20). The identification of rights-of-way corridors and protection windows through the area will necessitate the attachment of stipulations to future coal leases and rights-of-way permits.

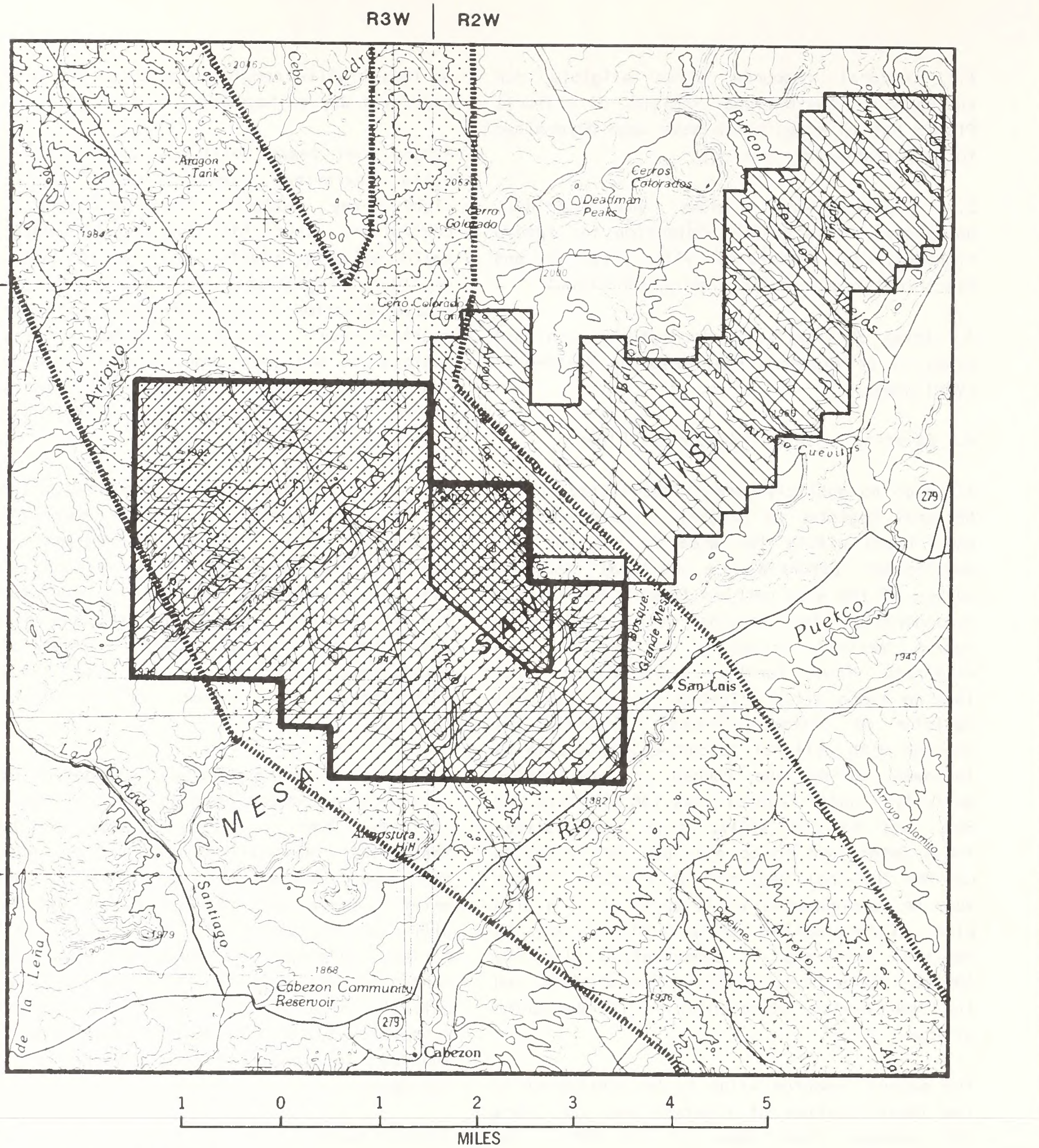
Future rights-of-way construction within the area of maximum development potential will be restricted to the existing corridor, with new construction initially restricted to the southwestern margin of the corridor (see Map 5). New rights-of-way will be phased so that subsequent construction will progress to the northeast while remaining as close to existing rights-of-way as feasible.

Future coal leases will be issued subject to valid existing rights. For any new right-of-way within the corridor, the controlling date for the establishment of valid existing rights will be the date of corridor designation. This means that a coal lessee directed to recover coal from beneath rights-of-way permitted after corridor designation will bear the cost of relocation. The valid existing right lease condition will afford the protection required for future rights-of-way construction.

As a result of the multiple-resource analysis, no locally important or unique recreational values or Visual Resource Management areas considered to have values clearly superior to coal were identified. Therefore, recreational or VRM resource values did not cause any of the lands having maximum near-future development potential to be classified as unacceptable for further consideration for leasing.

Similarly, existing Allotment Management Plans will have no impact on proposed coal leasing. If and when coal is mined, Allotment Management Plans will be modified to show the decreased availability of forage. Under existing laws and regulations, mined lands will be reclaimed at the conclusion of mining. Site-specific impact analyses will be conducted both prior to leasing (during activity planning) and prior to mine plan approval. Suitability for reclamation will be analyzed in subsequent environmental analysis documents.

Identification of an area for further consideration for leasing allows this area to be included in a complex activity planning process which will delineate the actual coal tracts if the need occurs within the next twenty years. An environmental impact statement would be prepared assessing the coal tracts for leasing and a group of coal tracts would be selected for lease sale. After tracts are leased, but before mining occurs, a mine plan would be prepared and another more detailed environmental analysis completed. The 8,020 acres found acceptable for further



MAP 5
OVERLAP OF RMP COAL AREA AND RIGHTS-OF-WAY CORRIDOR AND WINDOW

RIGHTS-OF-WAY WINDOW

RIGHTS-OF-WAY CORRIDOR

AREA CARRIED FORWARD FOR FURTHER CONSIDERATION FOR COAL LEASING

consideration will not be considered in a regional EIS for leasing until the San Juan Coal Region tracts have been leased.

MFP Decisions. Two of the minerals decisions from the Chaco MFP are being carried forward into this RMP:

1. Carry forward as suitable for further consideration for leasing areas identified on the Chaco coal map; and drop from consideration those areas so designated (Decision M-1.1).

2. Maintain free of encumbrances those lands with federally-owned surface in and around Known Geologic Structures (KGS's), and areas identified as prospectively valuable for oil and gas except where high value surface resources have been designated in this planning document as needing special consideration and protection. In these special areas, oil and gas exploration and development can occur if consistent with the requirements, stipulations, provisions, or restrictions of the Management Framework Plan decisions or Management Plan for that high value surface resource. Consistent with Minerals Decision M-1.1, where KGS's overlap coal resources, oil and gas production will be given priority. This is reflected in the wording of the Decision: Category G-Overlap of Known Geologic Structures with medium to high potential coal resources. Carry forward for further consideration for leasing, but postpone coal leasing in producing oil and gas fields until [BLM] has determined that coal development will not interfere with the economic recovery of oil and gas. (Decision 2.1).

Common Variety Mineral Materials

Applications for the removal of common variety mineral materials, including sand and gravel, will continue to be processed on a case-by-case basis. Permit stipulations to protect important surface values will be based on interdisciplinary review of the environmental impacts of each request. The environmental impacts associated with the sale of carbonaceous shale (humates) and stipulations to mititate those impacts have been addressed in an environmental analysis record entitled Humate Sales in Northern Sandoval County (USDI, BLM 1976a).

Mineral Material Sales Restrictions. The following restrictions will be applied to ensure the continuation of resource uses and activities which would be impaired by mineral materials sales.

1. Saleable minerals will be withdrawn on the following SMA's: Pelon Watershed, 858 acres; San Luis Mesa Raptor Area (Arroyo Empedrado Watershed), 640 acres; Azabache Station, 80 acres; Big Bead Mesa, 311 acres; Guadalupe Ruin and Community, 485 acres; Elk Springs, 40 acres; Ojito (Querencia Watershed), 640 acres; and Ball Ranch, 1,278 acres.

2. In the following SMA's, mineral materials sales will be allowed only under exceptional circumstances: Torreon Fossil Fauna, 2,981 acres; Historic Homesteads, 16 acres; Canon Jarido, 1,803 acres; Jones Canyon, 649 acres; Headcut Prehistoric Community, 2,274 acres; San Luis Mesa Raptor Area, 8,369 acres; Cabezon Peak, 5,053 acres; Ignacio Chavez, 43,134 acres; Canon Tapia, 906 acres; Elk Springs, 9,682 acres; Tent Rocks, 10,504 acres; Ojito, 11,590 acres; Pronoun Cave Complex, 938 acres; Continental Divide Trail, 715 acres; 1870's Wagon Trail, 630 acres; El Malpais, 162,838 acres; and Petaca Pinta, 5,363 acres; and Bluewater Canyon, 89 acres.

Locatable Minerals

All public land is open to mineral entry and development unless previously withdrawn. Mineral exploration and development on public land is regulated under 43 CFR 3800 to prevent unnecessary and undue degradation of the land.

Locatable Minerals Restrictions. The following restrictions were developed to ensure continuation of resource uses and activities which would be impacted by unrestrained locatable mineral development.

Locatable minerals will be withdrawn on the following SMA's: Pelon Watershed, 858 acres; Jones Canyon, 649 acres; San Luis Mesa Raptor Area (Arroyo Empedrado Watershed), 640 acres; Azabache Station, 80 acres; Big Bead Mesa, 311 acres; Guadalupe Ruin and Community, 485

acres; Elk Springs, 40 acres; Ojito, 7,480 acres; and Ball Ranch, 1,278 acres.

Policy on Disposal of Lands and Minerals

Generally, a mining claim of record under Section 314 of FLPMA prevents an exchange or sale. Experience has revealed that, under certain circumstances, it may be appropriate to dispose of land and minerals under Sections 203, 206, and 209 of FLPMA. subject to existing mining claims.

it is the policy of the Bureau of Land Management to avoid splitting ownership of surface estate and mineral estate. If there are "known mineral values," as defined in 43 CFR 2720.0-5, and the land is under mining claim, the surface should be retained in Federal ownership, or the mining claim(s) examined for validity, and contested if appropriate, if there is compelling pubiic interest to do so.

In most cases, the BLM will conduct a validity examination and, if appropriate, initiate contest action against the mining claim(s) prior to disposal whenever feasible. However, when it is not feasible to administratively determine the validity of mining claims encumbering the land, the BLM may proceed with the sale or exchange of both the surface and mineral estate, subject to the existing mining claim(s), if:

1. The land meets the criteria for disposal as determined through land use pianning, and

2. The land has no "known mineral value" as determined by a BLM geologist or mining engineer, and

3. The prospective patentee is willing to accept defeasibie title, preserving whatever rights the mining claimant may have. Conveyance of the surface and minerai estate would be subject to "existing mining claim(s)," allowing the mining ciaimant to apply for and receive full fee patent if a valid discovery were made prior to the date of transfer under Sections 203, 206, or 209, or alternatively, receive patent to the mineral estate only if discovery were made after the original conveyance.

Although a mineral examination to determine the validity of the claim is not required, a "mineral value" determination must be made following a field reconnaissance by a BLM mineral examiner. If professional judgement concludes that the land does not contain "known mineral vaiues," the surface and subsurface estate may be conveyed, subject to the existing mining claim(s).

The BLM will proceed with a sale or exchange only after reasonabie efforts have been made to secure relinquishment of the mining claim(s). If the mining claimant opposes the action, the Notice of Realty Action (NORA) protest procedures would appiy.

For a direct sale or an exchange, the proponent must be informed early and fully of the potential title conflicts and rights of the mining claimant under the law. The BLM should then proceed only if these conditions are acceptable to the proponent. For a proposed competitive sale, the fieid office must carefully consider the effect on saie price, likelihood of success, and interests to be served if the sale is made subject to the rights of the mining claimant. If it is clearly in the public interest to proceed, the BLM must secure purchaser waiver of any liability against the United States in the event of subsequent title litigation.

The FLPMA patentee is believed to have standing to bring private contest (43 CFR 4.450) against the mining claim(s). Should he or she do so, the burden is upon that person to prove lack of discovery. if successful or if the claims are abandoned or relinquished, the land would not be open to further location, in that the mineral estate would not have been reserved by the Federal government.

Mining claim locations and minerai leases for lands in which the surface title has passed under FLPMA disposal authority may be made oniy after regulations providing for such locations or leasing have been promulgated. Because these regulations have not as yet been issued, lands disposed of under FLPMA are subject to de facto withdrawal.

All minerals must be reserved if the Federal lands are conveyed out of Federal ownership

pursuant to FLPMA disposal authority, except in the limited instances that follow:

1. Sales

   a. If the public lands proposed for sale are determined to have "known mineral values" for locatable, leasable, or saleable minerals, one of the following courses of action may be taken:

   (1) Reject the offer to purchase or cancel the offer of sale.

   (2) Dispose of the surface estate and reserve all of the mineral interests to the United States.

   (3) Dispose of the surface and convey all or part of the mineral interests under terms set forth in Section 209(b) of FLPMA.

   b. If the lands have no "known mineral values," the mineral interests will be disposed of simultaneously with the disposal of the surface estate under authority of Section 209(b) of FLPMA.

2. Exchanges

   a. Public lands which do not have "known mineral values" may be offered in exchange without any mineral reservation. This will apply whether or not the non-Federal party in an exchange controls the minerals under his or her land.

   b. If the public lands have some potential for mineral development, reserving the mineral interests is not mandatory as long as the values can be equalized by the payment of money and so long as the payment does not exceed 25 percent of the total value of the land.

   In any case, normally it is desirable to keep surface and mineral ownership together in an exchange, whenever possible, to eliminate future problems associated with split estate ownership.

   c. If the public lands in an exchange are determined to have "known mineral values" for locatable, leasable, or saleable minerals, it may be in the public interest to cancel the offer, depending upon the significance of the deposits. The leasable minerals alone can be reserved if significant.

Other Mineral Management Responsibilities

The RPRA is responsible for management of public minerals on split-estate lands and public minerals where the surface is administered by another Federal agency. The RPRA also carries out Federal trust responsibility on Indian lands.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Energy and Minerals Program:

"Those public lands identified as having natural hazards that are threats to human life, safety, or property may be considered for designation as ACEC's."

"ORV use related to mining claim operations will not be restricted, except by regulations and requirements found in 43 CFR 3809, as amended on March 2, 1983."

"ORV use performed in conformance with existing leases, permits, rights-of-way stipulations, or other land-use authorizations will not be restricted."

"Those public lands which BLM has determined to have no known value for locatable or saleable minerals will be disposed of only in compliance with Washington Office Instruction Memorandum 84-487" (USDI, BLM 1984a) (see "Policy on Disposal of Lands and Minerals," above in this section).

"Existing authorized permits, leases, rights-of-way, and licenses will be identified as valid existing rights. All disposal of public land will be subject to valid existing rights."

Monitoring Studies

Exploration, development, and production of oil and gas, coal, and minerals on the public

lands are closely monitored by the BLM to ensure compliance with Federal surface protection regulations for the minimization of environmental damage. Quarterly inspections are conducted on producing sites, and operators are informed of existing or the potential for environmental problems resulting from their operations. When problems are discovered, additional inspections are conducted to make certain that these problems are corrected and do not recur. Once mineral or energy resource activity ceases, reclamation work is examined to ensure a return of the surface to an acceptable state.

Implementation Priorities

Energy and mineral priorities are determined by public and private demand. Permits, notices, applications, and sales are handled on a case-by-case basis and in the order in which they were submitted.

Support Needs

Fire Management

No support needs from the Fire Management Program have been identified and none are anticipated in the future.

Access, Transportation, and Rights-of-Way

Access to mineral material sale areas across private or State land will be identified as a support need on a case-by-case basis.

Cadastral Survey

No support needs from the Cadastral Survey Program have been identified. Future activity plans may identify need for cadastral survey.

GEOLOGY AND PALEONTOLOGY

Program Objectives

The management objectives for paleontological and geological resources are designed to protect important environmentally sensitive values while allowing development of mineral resources. These objectives also include provisions for scientific collection and research, recreational and hobby collecting, and educational or interpretive activities.

Geological and paleontological resources are important to many users of the public lands. Their management affects members of the educational and scientific communities, rock hounds and collectors, the minerals industry, and the general public.

Important geological resources occurring in the Rio Puerco Resource Area include the reference section of the Juana Lopez Member of the Mancos Shale (Elk Springs SMA), the breached anticline near San Ysidro (Ojito SMA), the volcanic tuff formations which form Tent Rocks (Tent Rocks SMA), and a wide variety of igneous, metamorphic, and sedimentary minerals.

Paleontological resources are nonrenewable and provide information on the evolution of life on earth. These resources are easily destroyed, and once lost, may never again be available for study. A few of the important paleontological areas occurring in the RPRA are the Pronoun Cave Complex (Pronoun Cave Complex SMA), the San Jose Formation north of Cuba, Torreon Wash, and the Morrison Formation southwest of San Ysidro.

Management Guidance

The Geological and Paleontological Resource Management Program in the RPRA:

1. Develops activity plans which carry out the objectives of this RMP, or other approved land use plan, for the protection of those geological or paleontological resources considered to be of significant scientific interest.

2. Reviews proposed actions from competing land use programs to avoid or mitigate impacts to scientifically significant geological and paleontological resources.

3. Evaluates all permit applications both for mineral extraction and for scientific study in

areas where significant fossils or geological values may be involved, and develops appropriate stipulations for resource protection.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Geological and Paleontological Resources Program:

"Those public lands identified as having natural hazards that are threats to human life, safety, or property may be considered for designation as ACEC's."

"Areas with...typical representations of common geologic...features; or outstanding or unusual geologic...features may be considered for designation as Research Natural Areas."

"Areas which are so unique that it may be more important to manage them for a single use or a combination of specific uses rather than for full multiple use may be considered for special management attention. Examples of possible designations are...National Natural Landmarks...."

"ORV use performed in conformance with existing leases, permits, rights-of-way stipulations, or other land-use authoriziations will not be restricted."

"Designation for ORV use will consider protection of resources such as...cultural resource values...and other resource uses." [Paleontological resources will be considered under this criterion.]

"Public lands will not be disposed of if...paleontological resources of national, State, or regional significance are found upon them and the adverse effects of the disposal action cannot be mitigated at reasonable cost."

"Fuelwood will not be made available in areas where harvesting would degrade or disturb...cultural [or] historic...values of the area." [Paleontological resources will be considered under this criterion.]

Monitoring Studies

Compliance inspections will be conducted on all activities involving valuable geological and paleontological resources. Activity plans for other resource values, and for each Special Management Area, will be examined and monitored to ensure that geological and paleontological resources are protected from unnecessary or undue degradation.

Implementation Priorities

Participation in the formulation of activity plans will be an integral part of managing geological and paleontological resource values. The Paleontological Program will take the lead in developing activity plans for the Torrejon Fossil Fauna and Pronoun Cave Complex SMA's. In addition, the Paleontological Program will participate in the formulation of activity plans for the Tent Rocks, Ojito, and Elk Springs SMA's. Proposed actions from completing land use programs will continue to be reviewed, and permit applications will continue to be processed as received.

Support Needs

Fire Management

No support needs from the Fire Management Program have been identified and none are anticipated in the future.

Access, Transportation, and Rights-of-Way

Access needs for current SMA's are identified in the SMA section at the end of this chapter. Additional access needs may be identified as activity plans are prepared for current SMA's or as more SMA's are identified.

Cadastral Survey

Cadastral survey needs for current SMA's are identified in the SMA section. Additional survey needs may be identified as activity

plans are prepared for current SMA's or as more SMA's are identified.

SOIL, WATER, AND AIR

Program Objectives

The Soil, Water, and Air Program will continue to provide support to other resource activities in the RPRA. The Program will also continue to emphasize protection, maintenance, and enhancement of the soil, water, and air resources.

Management Guidance

Soil

Participation with the USDA Soil Conservation Service in the National Cooperative Soil Survey will continue. Evaluation and updating of older soil surveys will continue as needed to provide a current data base. Detailed soil surveys for individual projects will be conducted as needed.

Water

Control of erosion and sediment production from public lands remains a high priority management goal. Therefore, emphasis will be placed on continuing the following watershed activities:

Rio Puerco Hydrology Study. This program is designed to measure runoff and sediment production from three types of grazing systems. This is part of a program to evaluate whether management objectives are being met within the Rio Puerco Grazing ES area (USDI, BLM 1978b). The three watersheds, Pelon (Pelon SMA), Querencia (Ojito SMA), and Arroyo Empedrado (San Luis Mesa Raptor Area SMA), in the Hydrology Study were determined through resolution of the RMP Special Management Area issue to contain resource values and/or uses that warrant special management attention. The Special Management Area section at the end of this chapter contains a description of these values and uses, the management objectives for the areas, and management actions planned to accomplish the objectives.

Dam Safety Program. The first phase of the Dam Safety Program is an inventory of the dams in the Albuquerque District, assessing the condition of each structure. The second phase includes the development of a maintenance and rehabilitation schedule for all structures, and preparation of Emergency Action Plans for High Hazard dams (those dams for which dam failure represents a threat to life or property).

Soil and Hydrology Research. The BLM is partially funding the USDA Forest Service Rocky Mountain Forest and Range Experiment Station at Albuquerque to conduct research on soil organic matter, sediment yield, soil compaction, and the hydrologic effects of grazing on runoff and sediment yield within the Rio Puerco Grazing ES area.

Water Use Inventory and Water Rights Program. This program will continue to identify and quantify water needs for public lands. The Water Use Inventory is scheduled for completion by the end of Fiscal Year 1987 (FY 87).

Watershed Activity Plans. Development of comprehensive watershed plans by 1990 for the Governor, Trechado, Monte Seco, and San Jose watersheds is specified in the Divide MFP (USDI, BLM 1983b). The Ladron MFP (USDI, BLM 1977) calls for reduction of erosion through grazing management, development of water control structures, and reduction in erosion related to vehicular travel. Reduction of erosion through implementation of Allotment Management Plans (AMP's) on allotments suitable for intensive management is expected because of increased vegetative cover.

MFP Decisions Carried Forward. The watershed decisions carried forward from the Divide, Ladron, and Chaco MFP's into the RMP are summarized as follows:

Divide MFP	W-1.1	Develop watershed plans in Trechado, Governor, Monte Seco, and San Jose watersheds.
	W-1.5	Identify treatment areas through Section 8 consultation; treated

		areas will be rested 1-2 years; treatments done solely in wildlife areas will be in conformance with wildlife recommendations (WL-2.4).
	W-3.2	Develop drinking water sources at El Malpais Recreation Area/Sandstone Bluffs Overlook and Natural Arch.
Ladron MFP	W-1.2	Allocate sufficient live vegetation and litter through grazing management to increase average ground cover on 7 Phase One watershed areas in the East Socorro ES area.
	W-2.1	Develop and implement watershed activity plans on the watersheds in the Ladron Planning Unit, in order of the Phase One priority rankings.
	W-2.2	Maintain water control structures 0454, 0470, 0429, 0431, and 0428 and any other structure that becomes a safety hazard.
	W-3.2	Participate in a cooperative plan with the Valencia County Commissioners to minimize watershed damage in road maintenance programs.
Chaco MFP	W-1.3	Develop coal lease stipulations or other methods for BLM acquisition of water wells used for reclamation or energy development after lease abandonment.

Within the Rio Puerco Grazing ES area, modification of existing Allotment Management Plans to adequately address watershed problems is preferred to development of a separate watershed activity plan. Those allotments without AMP's, but containing areas identified in the ES as having either a critical or severe watershed condition, will have watershed activity plans developed. This direction was provided in the Rio Puerco Watershed Management Plan (USDI, BLM 1974b) and the Rio Puerco Special Project Evaluation Report (USDI, BLM 1972).

Some areas of public lands have never had a watershed inventory or a watershed activity plan developed. This includes lands in Torrance and Bernalillo Counties and those public lands in the southwest corner of Sandoval County adjacent to Cibola County. Recent range surveys have identified gully erosion areas and watershed activity plans will be developed. In Torrance County the effort in watershed inventory and activity planning will be limited to those lands not identified as suitable for disposal in this RMP.

A broad watershed activity plan will be developed for the entire RPRA using the existing plans and data, consolidating the various decision documents, and setting priorities for project level planning in the Watershed Program.

Air

Cooperation and participation in the National Atmospheric Deposition Program will continue with data collection from the acid rain gauge in Cuba. These data are part of a national air quality information base.

Prevention and 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 process. Activities such as road construction and mining have dust abatement programs as part of their permits or contracts.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Soil, Water, and Air Program:

"Those public lands identified as having natural hazards that are threats to human life, safety, or property may be considered for designation as ACEC's."

"Areas with...typical representations of common geologic, soil, or water features; or outstanding or unusual geologic, soil, or water features may be considered for designation as Research Natural Areas."

"Designation for ORV use will consider protection of resources such as... watershed...."

"Public lands in contiguous blocks but with serious erosion problems will be disposed of only under the Recreation and Public Purposes Act or the non-discretionary Color-of-Title Act."

"Fuelwood will not be made available where erosion problems are severe."

"Potential right-of-way corridors on public lands which have minimal conflicts with critical resource values (e.g., erosion problem areas...) will be favored."

Monitoring Studies

The Soil, Water, and Air Program relies on monitoring studies data provided by USDA Forest Service Rocky Mountain Forest and Range Experiment Station research projects as well as data collected by RPRA personnel. The RPRA Soil, Water, and Air specialist conducts the Rio Puerco Hydrology Study to evaluate the effects of improved grazing management on soils and erosion. The program specialist determines erosion rates utilizing data from the Southwest Interagency Committee site method transects for the purposes of monitoring watershed rehabilitation plans and to assist in the identification of watersheds requiring rehabilitation. Water quality (pH, alkalinity, conductivity, and temperature) will be monitored by the program specialist as part of the water rights and use inventory, currently being conducted in the RPRA. Data will continue to be collected from the acid range gauge located in Cuba, for the National Atmospheric Deposition Program.

Precipitation and vegetative cover data collected for the Rio Puerco Resource Area range monitoring studies will continue to be utilized for the Soil, Water, and Air Program. Precipitation data are used by the program specialist in the calculation of surface runoff predictions. Vegetative cover data are used by the program specialist to assist in the monitoring of soil and erosion condition on those "I" management category grazing allotments containing critical watersheds (high surface runoff and sediment yield).

The USDA Forest Service Rocky Mountain Forest and Range Experiment Station is conducting research in the RPRA which will provide valuable information to assist the program specialists in the evaluation and monitoring of Resource Area watersheds.

Implementation Priorities

1. Continue the water rights and use inventory scheduled for completion in Fiscal Year 87.

2. Develop a broad watershed activity plan for the entire RPRA using the existing plans and data, consolidating the various decision documents, and setting priorities for project level planning in the Watershed Program. Continue the development and implementation of watershed rehabilitation plans for priority watersheds, which also includes the identification of existing detention and retention dams in the priority watersheds requiring maintenance.

3. Continue to cooperate and participate, as needed, with the USDA Forest Service Rocky Mountain Forest and Range Experiment Station regarding the research projects scheduled for completion in 1989.

4. Continue to collect acid rain gauge data for the National Atmospheric Deposition Program.

5. Continue to coordinate with the United States Geological Survey regarding the benchmark runoff and sediment monitoring station located in the RPRA.

6. Continue to coordinate and cooperate with the Soil Conservation Service in the update of RPRA soil surveys.

Support Needs

Fire Management

Watershed activity plans or Allotment Management Plans may call for prescribed burning to improve watershed condition.

Access, Transportation, and Rights-of-Way

Easement acquisition needs will be identified as necessary.

Cadastral Survey

No cadastral survey needs have been identified at this time.

RANGE

Program Objectives

The primary objective of the Range Program is to ensure that grazing management for each allotment in the RPRA is suited to the environmental conditions and resource uses found on the allotment. Vegetative inventory and monitoring studies data are used to evaluate the need for changes in allotment grazing management. Changes in grazing management will result in long-term improvement in vegetative condition for wildlife habitat and watershed protection as well as for livestock grazing use.

Management Guidance

The Grazing Program in the RPRA is authorized by The Taylor Grazing Act of 1934, The Federal Land Policy and Management Act of 1976, The Public Rangelands Improvement Act of 1978, and The Bankhead-Jones Farm Tenant Act of 1937. In addition to issuance of grazing permits and leases, unauthorized use detection and abatement, allotment supervision, and other actions authorized by the previously mentioned legislation, three grazing environmental impact statements (USDI, BLM 1979a, 1978b, 1982b) have been completed and approved in compliance with the Final Judgement of the National Resources Defense Council (NRDC) v. Morton law suit, Civil No. 1983-73 (see Map 6). The environmental statements provide further program guidance through proposed actions and management objectives for approximately 758,942 acres of public land within the RPRA. In addition, the remaining approximately 124,824 acres of public land not covered by grazing EIS's were analyzed in the RMP Vegetative Uses Issue, also in compliance with the NRDC v. Morton Final Judgement.

The RPRA's three approved livestock grazing EIS's have been incorporated into this RMP to provide a comprehensive program for managing the range resources in the RPRA. The EIS decision documents provide the basis for the issuance of grazing decisions for these three areas.

Several site-specific grazing decisions from the Divide Management Framework Plan were incorporated into this RMP. These decisions are summarized as follows:

RM-1.8 Construct a twenty acre exclosure on each of thirty-three range sites for vegetative condition and trend studies.

RM-2.4 Perform seeding trials in each of thirty-three range sites to determine the potential forage production by reseeding, using a multiple-use approach.

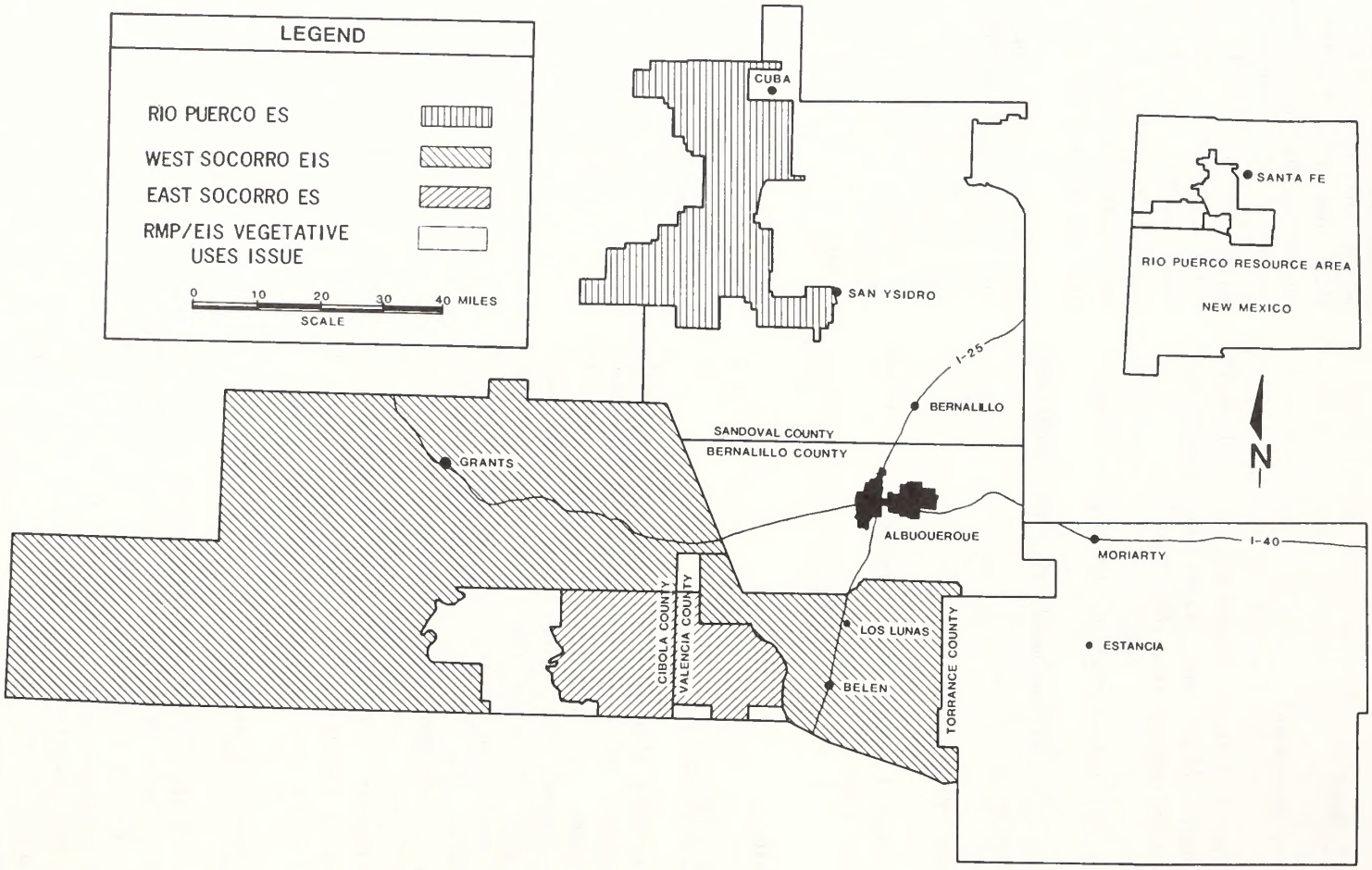
RM-2.5 Maintain existing land treatments to achieve maximum forage production, primarily by prescribed burning. Other methods such as herbicide application, tree cutting, and chaining would be considered.

Vegetative Uses Issue

The resolution of the RMP Vegetative Uses Issue provided for a balance of resource uses on approximately 124,824 acres of public land through implementation of improved grazing

MAP 6

EXISTING GRAZING EIS AREAS



management. Future changes in management will be developed in cooperation with all RPRA specialists to resolve the resource conflicts identified on Table 9. It is estimated that short-term reductions will be proposed for six allotments, with no reductions proposed for the remaining allotments. In the long term, livestock grazing use will return to currently allowable levels of use as resource conflicts are resolved as a result of improved grazing management. The actual short- and long-term adjustments implemented will be based on current vegetative data and vegetative monitoring studies.

Selective Management Categorization

All grazing allotments in the RPRA have been placed into one of three selective management categories. The purpose of this categorization process is to focus management on those allotments where changes could produce cost-effective improvement in resource conditions. The "M" (Maintain) category allotments are already in acceptable ecological condition and have no significant resource conflicts. The "C" (Custodial) allotments have no significant resource conflicts nor potential for cost-effective improvement in ecological condition. The "I" (Improve) allotments are in unacceptable ecological condition and/or have significant resource conflicts. Criteria for determination of allotment selective management category are displayed on Table 10.

This Plan provides for implementation of management and/or reductions in allowable livestock grazing use on the "I" category allotments that would ensure improvement in ecological condition to acceptable levels, the provision of forage needs for livestock grazing use and wildlife habitat, and improvement in watershed conditions.

In addition, selective management categories will be changed in the future as ecological conditions improve and resource conflicts are resolved for the "I" allotments. Selective management categories also can be changed for the "M" allotments if resource conflicts are identified, and for the "C" allotments if technical advances would allow for cost-effective change in resource conditions. Any "M" or "C" allotments which are converted to the "I" category will be managed in accordance with the objectives of the Rio Puerco RMP.

Grazing Decisions

Grazing decisions are issued to implement changes in grazing management and adjustments in allowable livestock grazing use. The grazing decision process has been initiated for the three grazing environmental statement areas. Upon completion of the intensive vegetative monitoring studies, the decision making process associated with the implementation of these documents will be complete. Long-term studies, vegetative monitoring studies, and established baseline data will be used to evaluate the effectiveness of the grazing management changes and adjustments in allowable livestock grazing use implemented by grazing decision. As a result of long-term study, evaluation, or increased demands resulting in resource conflicts, the grazing decision process can again be initiated.

The following narrative describes how the grazing decision making process will be initiated and conducted for those allotments in the RMP Vegetative Uses Issue Area. This same process is being followed to complete the initiated decision making for those allotments outside the Issue Area.

Implementation is being conducted in accordance with Section 8 of the 1978 Public Rangelands Improvement Act which requires consultation, coordination, and cooperation with all affected and interested parties. The "M" and "C" category allottees have been notified by letter of their selective management category and the implications of this categorization. All "I" category allottees have been issued grazing decisions. These grazing decisions specify the allotment objectives, initial stocking levels, and management changes agreed upon in consultation, the type of monitoring studies to be conducted, and how inventory and monitoring data will be used to adjust stocking levels.

TABLE 9

RESOURCE CONFLICTS FOR "I" ALLOTMENTS
IN THE RMP VEGETATIVE USES ISSUE AREA

Allotment Number	Name	Conflicts*
0110	Agua Salado	1, 3
0111	Canada Alamos	1, 3, 4
0112	Pino Spring	1, 3, 4
0113	Cocina	1, 3, 4
0116	Canada del Ojo	1, 3, 4
0122	Tent Rocks	1, 4
0123	Peralta	1, 4
0124	Santa Ana Mesa	1, 4
0066	La Jara	1, 2, 4

* Identified Resource Conflicts:
1. Noncritical big game, small game, and non-game habitat
2. Critical big game habitat (elk winter range)
3. Critical Watershed Area (high surface runoff and sediment yields)
4. Unacceptable ecological condition (present levels of livestock grazing use may exceed allowable vegetative production)

TABLE 10

RIO PUERCO RESOURCE AREA
ALLOTMENT CATEGORIZATION CRITERIA

Category M (Maintain)	Category I (Improve)	Category C (Custodial)
An allotment must meet conditions 1, 2, & 3 or 1, 2, & 4 (below):	An allotment must meet any one of the following 3 conditions:	An allotment must meet all of the following conditions:
1. Has no significant resource conflicts.	1. Has a potentially significant resource conflict.	1. Has no significant resource conflict.
AND	OR	AND
2. Has only a moderate potential for improvement in forage production.	2. Has a high potential for improvement in forage production and a range condition rating of 50 or less.	2. Has a low potential for improvement in forage production.
AND	OR	
3. Has a range condition rating of 38 to 51 and an improving range trend.	3. Has a range condition rating of 50 or less and a static or declining range trend.	OTHER CONSIDERATIONS Contains less than 30% public land or less than 1,540 acres public land.
OR		
4. Has a range condition of 51 or higher and a static or improving range trend.	OTHER CONSIDERATIONS Contains 30% or more public land or more than 1,540 acres public land.	
OTHER CONSIDERATIONS Contains 30% or more public land or more than 1,540 acres public land.		

NOTE: Any parcel of public land, regardless of size, with an identified significant resource conflict, will qualify for the "I" category.

Allotment-Specific Management Actions for the Improve (I) Category

Each "I" allotment either has resource conflicts or has an ecological condition rating which requires change in grazing management and/or allowable livestock grazing use. Management actions for these allotments will be consistent with the objectives established in the appropriate grazing environmental statement or through the resolution of the RMP Vegetative Uses issue.

Implementing Changes in Allotment Management

Specific management prescriptions to resolve the identified resource conflicts will continue to be developed in Allotment Management Plans (AMP's). These AMP's will be prepared in consultation, cooperation, and coordination with the affected allottees and/or other affected parties in accordance with Section 8 of The Public Rangelands Improvement Act of 1978, and with input from other RPRA specialists to ensure that all resource needs are considered. The manner and extent to which livestock grazing use will be conducted and managed will be specified in these AMP's, and will be consistent with the objectives of the RMP.

Livestock Grazing Management and Use Adjustments. Adjustments are made by changing one or more of the following: the kind or class of livestock grazing on the allotment, the season of use, the Animal Unit Months (AUM's) authorized for grazing, and/or the pattern of grazing. Generally, the changes in AUM's available for livestock grazing use are applicable to the "I" allotments; however, use adjustment will continue for the "M" and "C" allotments in response to changes in resource demands and conditions.

The final determination of the livestock grazing use adjustments needed will be based on a program of systematic vegetative monitoring studies as well as the current vegetative data base. BLM Instruction Memorandums WO-82-292, WO-82-650, and NM-82-280 (USDI, BLM 1982c, 1982e, 1982f) discuss the application of the vegetative monitoring studies in more detail.

Vegetative monitoring studies will also be used to evaluate the changes in resource condition resulting from grazing management practices and to evaluate the effectiveness of changes in grazing management to resolve the identified resource conflicts.

The changes in AUM's allocated for livestock grazing use can be implemented either through documented mutual agreement with the affected allottee or by grazing decision. Adjustments through mutual agreement may be implemented after the public review period of the Resource Area Rangeland Program Summary portion of the annual RMP Program Document. Adjustments implemented by grazing decision will be based on consultation with the affected allottee and will be in accordance with the guidance in the Federal regulations (43 CFR 4110.3-3). The regulations specify that permanent increases and decreases in allocations of livestock forage "shall be implemented over a five-year period...."

Rangeland Improvements. Typical rangeland improvements and the general procedures to be followed in implementing them are described below. Future rangeland improvements will be designed and constructed to meet the management objectives proposed in the RMP. The extent, location, and timing of such actions would depend on the improvements needed for each allotment, allottee contributions, and BLM funding capability, and would be developed with consideration for other resource uses. All rangeland improvements will be developed in accordance with BLM Instruction Memorandum WO-83-2.

All allotments for which rangeland improvement funds are to be spent will be subjected to economic analysis. This analysis will be used to develop a final priority ranking of allotments for the commitment of the range improvement funds needed to implement AMP's. In general, the highest priority for implementation will be assigned to those improvements for which the total anticipated benefits exceed the costs.

The following is a discussion of typical design features and construction practices for the rangeland improvements and treatments which will be considered when implementing this RMP. There are many special design features not specifically discussed here that can be made part of a project's design. One example of a special design feature would be the use of a specific color of fence post to blend with the surrounding environment and thereby mitigate some of the visual impact of the fence. These mitigating design features will be developed, if needed, for individual projects at the time an environmental assessment is written.

Fences will be constructed to divide allotments into pastures and to control livestock. Most fences will be of three or four wires with steel posts spaced sixteen and one-half feet apart with intermediate wire stays. Where fences could impair the movement of wildlife, they will be no more than forty-two inches in height and the top two strands will be at least twelve inches apart, with the bottom wire smooth and at least sixteen inches above the ground. Where appropriate on key big game areas, the top wire will also be smooth. Existing fences which create wildlife movement problems will be modified. Proposed fence lines will not be bladed or scraped. Gates or cattleguards will be installed where fences cross existing roads.

Springs will be developed or redeveloped using a backhoe to install a buried collection system, usually consisting of a perforated pipe and a collection box. Collection boxes are normally made of fiberglass with a cover and a fitting to which a delivery pipe is connected. A short pipeline will be installed to deliver water to a trough for use by livestock and wildlife. Normally the spring area will be fenced to exclude livestock following development.

Wherever possible, water pipelines will be buried. The trench will be excavated with a backhoe, ditchwitch, ripper tooth, or with similar equipment. The pipe will be placed in the trench and the excavated material used as backfill. Flexible or rigid plastic will be used depending on the system design. Pipelines will have water tanks spaced as needed to meet management objectives.

Well locations will be selected based on well site investigations which will predict the depth to reliable aquifers. All applicable State laws and regulations applying to the development of ground water will be observed, including water rights acquisition.

Burning is normally proposed to reduce the amount of big sagebrush. Burning will normally be done during April-May or September-October, depending on the specific prescription written for each area, desired results, weather, and moisture conditions. Burn plans will be developed for each burn in cooperation with the Fire Management Program.

Most of the sites to be plowed and seeded are in poor or fair vegetative condition and have a low potential for improvement under other management practices. Most of the existing vegetation will be eliminated during seedbed preparation, and the site will be seeded with species adapted to the site. The final selection of species to be seeded will depend on the planned use of the site and the management objectives for the allotment. Seed will be drilled wherever possible.

Interseeding differs from plowing and seeding in that existing vegetation is not eliminated during seedbed preparation. Desirable plant species are interseeded with existing vegetation. A range drill will be used to interseed strips. Broadcast seedings might be used as well. Species to be seeded will be selected to meet management objectives developed for the allotment.

Poisonous or noxious plants are controlled where spot infestations occur. In addition, the BLM cooperates with other affected landowners in controlling infestations on relatively large areas. Chemical control will conform to all applicable State and Federal regulations. Biological controls will also be considered where practical. Mechanical controls (chaining, cabling, and pushing) can be used for areas where juniper is considered

to be a noxious plant, but this method is not a preferred means of control.

The following standard procedures will be followed in the construction of all management facilities and for vegetation manipulations.

1. Specific projects will be assessed individually through environmental assessments to determine whether they would have adverse environmental impacts.

2. Roads or trails will not normally be constructed to new construction or project sites. Use of existing roads and trails will be encouraged.

3. To comply with the National Historic Preservation Act of 1966, 36 CFR 800, and Executive Order 11593, all areas where ground is to be disturbed by range developments will be inventoried for prehistoric and historic features. Where feasible, all cultural resources located by this inventory will be avoided. The results of the inventory and recommendations for eligibility for the National Register of Historic Places will be forwarded to the New Mexico State Historic Preservation Officer for comment.

If cultural resources are found to be eligible for the National Register and cannot be avoided, a determination of the effect of the project on the resource(s), including appropriate mitigating measures if necessary, will be done in consultation with the New Mexico State Historic Preservation Officer and the Advisory Council on Historic Preservation. No action affecting the resource will be taken until the Advisory Council has had the opportunity to comment.

If buried cultural remains are encountered during construction, the operator will temporarily discontinue construction until the BLM has evaluated the discovery and determined the appropriate action.

4. No action will be taken by the BLM that could jeopardize the continued existence of any Federally-listed threatened or endangered plant or animal species. An endangered species clearance with the U.S. Fish and Wildlife Service (FWS) will be required before any part of the proposal or alternatives is implemented that could affect an endangered species or its habitat.

In situations where data are insufficient to make an assessment of proposed actions, surveys of potential habitats will be made before a decision is made to take any action that could affect threatened or endangered species. Should the BLM determine that there could be an effect on a Federally-listed species, formal consultation with the FWS will be initiated. In the interim period before formal consultation, the BLM will not take any action that would make an irreversible or irretrievable commitment of resources that would foreclose the consideration of modifications or alternatives to the proposed action. If the FWS opinion indicates that the action would be likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat, the action will be abandoned or altered as necessary. All procedures thus described are in compliance with BLM Manual, Section 6840.

The BLM also will comply with any State laws applying to animal or plant species identified by the State of New Mexico as being threatened or endangered (in addition to the Federally-listed species).

5. All wilderness values will be protected on lands under wilderness review or study. Guidelines in the Interim Management Policy (USDI, BLM 1979b) will be followed for all Wilderness Study Areas and the El Malpais Instant Study Area. No impairing projects will be allowed in these areas.

6. All actions will consider the BLM's Visual Resource Management criteria.

7. Wildlife escape devices will be installed and maintained in water troughs.

8. In Crucial Wildlife Habitat (e.g., winter ranges, fawning/calving areas), construction work on projects will be scheduled during seasons when the animals are not concentrated in order to avoid or minimize disturbances.

9. After construction, any disturbed areas will be revegetated with a mixture of grasses, forbs, and shrubs as appropriate for the specific site.

10. Analysis of cost effectiveness will be done on an Allotment Management Plan basis prior to the installation of any management facility or land treatment.

11. All areas where vegetative manipulations occur will be totally rested from grazing for at least two growing seasons following treatment.

12. Vegetative manipulation projects will be done in irregular patterns, thus creating more edge than would strip and block manipulation, with islands of vegetation left for cover.

13. Consultation with the New Mexico Game and Fish Department is required prior to job survey, design, and accomplishment in accordance with the existing Memorandum of Understanding between the New Mexico Game and Fish Department and BLM.

14. Chemical treatment consists of applying approved chemicals to control noxious or poisonous plants. Before chemicals are applied, the Bureau of Land Management will comply with Department of the Interior regulations. All chemical applications will be preceded by an approved Pesticide Use Proposal. All applications of pesticides will be under the supervision of a certified pesticide specialist. All applications will be carried out in compliance with the New Mexico pesticide laws.

Grazing Systems. Grazing systems will continue to be implemented to reduce resource conflicts and improve ecological condition. The type of system to be implemented will be based on consideration of the following factors: the degree and type of resource conflicts; resource characteristics, including vegetation potential and water availability; allottee needs; and implementation costs. Typical grazing systems available for consideration are described as follows:

1. "Rest-rotation" grazing is a grazing system under which grazing is deferred on various parts of an allotment during succeeding years, and the deferred parts are allowed complete rest for one or more years (Society for Range Management 1974). The allotment is divided into pastures, usually with comparable grazing capacities. Each pasture is systematically grazed and rested so that livestock production and other resource values are provided for, while the vegetation cover is simultaneously maintained or improved. This practice provides greater protection of the soil resource against wind and water erosion (Johnson 1965; Hormay 1970; Ratliff, Reppert, and McConnen 1972; Ratliff and Reppert 1974). Any of several rest-rotation grazing systems may be used, depending upon the objectives for the allotment and the number of pastures.

2. "Deferred rotation grazing" is the discontinuance of grazing on different parts of an allotment in succeeding years. This allows each pasture to rest successively during the growing season to permit seed production, establishment of seedlings, and restoration of plant vigor (Society for Range Management 1974). One or more pastures are grazed during the spring, while the remaining one or more pastures are rested until after seed ripening of key species, and then grazed. Deferred rotation grazing differs from rest-rotation grazing in that no yearlong rest is provided.

3. "Deferred grazing" is the discontinuance of grazing by livestock on an area for a specified period of time during the growing season. Under this system, grazing would begin after key plants have reached an advanced stage of development in their annual growth cycle. The growing season rest provided by this system promotes plant reproduction, establishment of new plants, or restoration of the vigor of old plants (American Society of Range Management 1964).

4. "Alternate grazing" is grazing by livestock every other season, with the area being rested in the alternate year. Stoddard, Smith, and Box (1975) describe the system:

> Rotation grazing, or alternate grazing, involves subdividing the range into units and regrazing one range unit, then

another, in regular succession. The rotation system of grazing is based upon the assumption that animals in large numbers make more uniform use of the forage, and that a rest from grazing is beneficial to the plant, even though it must support a greater number of animals in the shorter time during which it is grazed. Certainly, proper rotation grazing results in more uniform utilization. Large numbers of animals in small units are forced to spread over the entire area and to use the available forage more uniformly. Trampling is reduced because animals are held on small areas where feed is more abundant, and hence less travel is necessary.

5. "Short-duration, high-intensity" grazing permits short-duration grazing with a higher rate than would be considered normal. The purpose of this type of system is to obtain uniform use of all plants, desirable and undesirable alike, and to prevent regrazing on regrowth of the most desirable plants. This system allows desirable plants to compete for nutrients on an equal basis with less desirable plants.

Tracts Unleased for Grazing

Approximately 11,817 acres of unleased public land generally will remain available for consideration for authorized grazing in accordance with the BLM grazing regulations (43 CFR 4110 and 43 CFR 4130). A grazing lease authorizes the use of public lands outside grazing districts under Section 15 of The Taylor Grazing Act for the purpose of grazing livestock only. Any of these public lands leased for grazing in the future will be managed in accordance with the objectives of the approved RMP. However, an estimated 7,092 public acres in Torrance County are unsuitable for livestock grazing use and are expected to remain unleased.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Range Resources Program:

"ORV use performed in conformance with existing leases, permits, rights-of-way stipulations, or other land-use authorizations will not be restricted."

"A range inventory has been conducted for the purpose of designating ecological condition for each range site, determining the selective management category, and identifying existing range improvements. [The criteria for selective management category determination are displayed on Table 10 above.] The grazing allotment selective management categories may be changed based on additional resource data. The selective management categories are described as follows:

a. Maintain (M) category: The range inventory indicates that these public lands are in satisfactory ecological condition and no significant resource conflicts have been identified. The BLM will manage these lands in a manner that will maintain the existing resource condition.

b. Improve (I) category: The range inventory indicates that these public lands are in unsatisfactory ecological condition and/or significant resource conflicts have been identified. The BLM will manage these public lands to improve the ecological condition and/or reduce resource conflicts. These objectives will be accomplished through the intensification of range management and/or reductions in allowable livestock grazing use.

c. Custodial (C) category: The range inventory indicates that these public lands have a low potential for improvement in ecological condition. The BLM will manage these lands to protect existing resource values."

"Existing authorized permits, leases, rights-of-way, and licenses will be identified as valid existing rights. All disposal of public lands will be subject to valid existing rights."

"Holders of valid permits or cooperative agreements covered by Section 4 or Section 15 of The Taylor Grazing Act will be reimbursed for financial investments they have made in rangeland improvements on public land if the BLM disposes of the land."

"Fuelwood will not be made available in areas where harvesting would degrade or disturb livestock grazing...."

Monitoring Studies

All vegetative monitoring studies are to be conducted in accordance with the guidance set forth in the RPRA monitoring plan, Monitoring Rio Puerco Resource Area Rangelands. The monitoring plan describes two different types of vegetative studies: (1) intensive studies for the collection of vegetative data to define needed changes in grazing management and adjustment in allowable livestock grazing use, and (2) long-term studies to evaluate management effectiveness.

The intensive studies are conducted on the "I" selective management category allotments. These studies are usually conducted for five years and are, therefore, considered to be short-term studies. Percent vegetative utilization, precipitation, and actual use data are typically collected each year. In addition, trend studies, consisting of vegetative frequency, density, cover, and species composition, are conducted two or three times during the five years. The collected data are evaluated in accordance with the Rio Puerco Range Studies Evaluation Manual providing the necessary information to formulate a grazing decision to change grazing management and/or adjust allowable livestock grazing use. Intensive studies can continue beyond five years if identified as needed in the allotment grazing decision.

Long-term studies designed to assess the effectiveness of allotment grazing management will be conducted on all allotments. These studies will consist of ecological condition and trend studies collected and maintained on a continuing basis in accordance with The Public Rangelands Improvement Act of 1978. Ecological condition data are usually collected for the first time during vegetative inventories. Ecological condition data are needed for initial determination of or for change in selective management category, and also provide the baseline data for the establishment of additional studies. Ecological condition data should be collected approximately every ten years with priority for collection given to the "I" and "M" category allotments. Trend studies will continue after the completion of the intensive studies, with data collection occurring approximately every five years. Trend studies indicate directional shifts (upward, downward, or static) in the vegetative community resulting from grazing management and/or environmental factors which will eventually result in corresponding change in ecological condition. Priority for the collection of trend data will also be given to "I" and "M" allotments.

In addition, the United States Department of Agriculture Forest Service Rocky Mountain Forest and Range Experiment Station is conducting a ten year environmental study which concludes in 1989 on the Rio Puerco Grazing Environmental Statement Area. A cooperative agreement between the Bureau of Land Management and the Experiment Station details the types of studies being conducted in this area. The cooperative agreement is updated yearly to reflect changes in data needs, completion of certain data needs, and changes in funding. The results of these studies will be used to support the RPRA monitoring studies in the grazing management decision making process.

Implementation Priorities

1. Continue routine range administration functions, including issuance of permits, leases and bills, transfers, and other day-to-day business.

2. Continue to develop and issue grazing decisions to implement the three grazing EIS's and the RMP Vegetative Uses issue resolution.

3. Continue short- and long-term monitoring studies, including USDA Forest Service Rocky Mountain Forest and Range Experiment Station vegetative studies.

4. Continue to develop and implement grazing plans in accordance with the three grazing EIS's and the RMP Vegetative Uses Issue resolution.

5. Continue use supervision, and unauthorized use detection and abatement.

6. Implement Divide MFP decisions carried forward.

Support Needs

Fire Management

Prescribed burns may be conducted to control shrub invasion into grassland areas.

Access, Transportation, and Rights-of-Way

Access acquisition for allotments with no legal access will be identified as necessary on a continuing basis.

Cadastral Survey

No cadastral survey needs have been identified at this time.

WILDLIFE

Program Objectives

It is the responsibility of the RPRA to identify opportunities to maintain, improve, and expand wildlife habitat on the public lands for both consumptive and non-consumptive use and identify portions of the wildlife resource deserving special attention.

Management Guidance

National legislation such as FLPMA, The Endangered Species Act of 1973, The Public Rangelands Improvement Act of 1978, and The Sikes Act of 1960, 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. In addition, wildlife decisions from the Divide, Ladron, Rio Grande, and Chaco MFP's have been carried forward. These decisions are summarized on Table II.

Inventories

The RPRA maintains a current inventory of wildlife habitat and species occurrence with an emphasis on threatened and endangered plants and animals. This information is used in land use planning, habitat management, and multiple use decisions. All actions in the RPRA are reviewed and given site-specific analysis during the environmental assessment process to determine whether the action will affect a threatened, endangered, or rare species, wetland, or riparian area. Also considered are impacts to resident species' habitat or habitat improvement projects and compatibility with the New Mexico Department of Game and Fish Comprehensive Wildlife Plan (N.M. Department of Game and Fish 1980). Conservation measures will continue to be taken to protect rare plants listed by the New Mexico Heritage Program (1983). All range 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 so as to cause the least resistance to wildlife movement.

Animal Damage Control

Animal damage control activities on public lands in the RPRA are guided by Department of the Interior policy and the annual Animal Damage Control Plan for the Albuquerque District prepared jointly by the U.S. Department of Agriculture (USDA) and the BLM. The USDA has overall responsibility for the program and supervises all control activities. The BLM has approval responsibility for the specific control actions on public land.

Habitat Management

The Upper Rio Puerco, Ojo del Espiritu Santo Grant, and El Malpais Habitat Management Plans (USDI, BLM 1981f, 1978c, 1981d) and the

TABLE II

SUMMARY OF WILDLIFE MANAGEMENT FRAMEWORK PLAN DECISIONS

Document	Decision Number	Summary
Divide MFP	WL-1.2	Cooperate with New Mexico Department of Game and Fish to remove all barbary sheep from public lands in the Divide Planning Area.
	WL-2.1	Burn and/or chain 10,000 acres in 50 to 100 acre irregularly-shaped plots of pinyon-juniper. Seed with browse grass forbs.
	WL-2.2	Construct rainfall catchments.
	WL-2.3	Continue wildlife/range studies to determine habitat capability to support wildlife and livestock numbers. Complete allotment evaluations by 1990.
	WL-2.4	Design and implement livestock grazing systems to protect mule deer habitat by scheduling non-use or rest during critical periods in essential winter ranges and fawning areas.
	WL-3.1	Construct antelope passes along the western boundary fence of the York Ranch No. 0076 Allotment. Allottee will be consulted prior to any fence modification.
	WL-4.2	Construct rainfall catchments to provide water for antelope.
	WL-4.3	Seed browse and forbs in 1,000 acre plots.
	WL-5.1	Continue wildlife range studies to determine habitat capabilities to support anticipated livestock and wildlife numbers. Complete allotment evaluations by 1990.
	WL-5.2	Design livestock grazing systems to enhance antelope habitat by removing livestock in key forb producing areas and kidding grounds.
	WL-7.1	Fence springs and associated riparian vegetation.
	WL-7.4	Acquire through exchange the riparian/wetland habitat, specifically Cebolla Spring and Laguna Americana.
	WL-7.5	Construct reservoirs on public lands to create additional waterfowl and shorebird habitat and to provide livestock waters, contingent on location of feasible sites.
	WL-7.6	Designate 89 acres of Bluewater Canyon as ACEC and fence to prevent livestock damage. (Already implemented.)
Ladron MFP	WL-1.1	Develop inverted umbrella type water catchments primarily for the benefit of deer.
	WL-2.1	Install and fence ground level waters where needed on new pipelines.
	WL-4.2	Acquire the Arroyo Salado and manage for wildlife.
	WL-4.4	Acquire Ponia Creek riparian habitat.
	WL-4.5	Acquire approximately 19,500 acres of private and State land in the planning unit that is valuable wildlife habitat.
	WL-4.6	Obtain permanent legal access to public lands for improved wildlife management.
Rio Grande MFP	WL-5.3	Maintain quail and other small game habitat in present condition and where appropriate develop waters.
Chaco MFP	WL-1.2	Allow no rodent control on public lands near active eagle nests.

Bluewater Canyon Action Plan (USDI, BLM 1983d) covering 534,932 acres of public land are being implemented in the RPRA. Projects will be developed as identified in the HMP's as funding becomes available. Completed projects which continue to meet wildlife habitat objectives will be maintained. HMP's will be revised as needed to reflect changes in policy or accommodate changes in wildlife range.

As a result of the resolution of the RMP Special Management Area (SMA) Issue, nine areas in addition to the previously designated Bluewater Canyon ACEC/SMA were identified as containing significant wildlife habitat values or features which warrant special management attention. These nine areas are located in the following SMA's: Canon Jarido, Jones Canyon, San Luis Mesa Raptor Area, Ignacio Chavez, Elk Springs, Tent Rocks, Ojito, El Malpais, and Petaca Pinta. In addition, three SMA's, Cabezon, Ojito, and Ball Ranch, will provide protection for rare plants. These twelve SMA's also contain other resource values that warrant special management attention. The SMA summaries at the end of this section describe the resource values contained, the management objectives, and the planned management actions to accomplish the objectives for each SMA.

Support to Other Programs

Support to other programs will consist of facilitating compliance with The Endangered Species Act and making mitigation and multiple use recommendations regarding management decisions and actions made in other programs.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Wildlife Program:

"Areas containing important...fish and wildlife habitat; or other natural systems or processes of greater than local significance may be considered for designation as Areas of Critical Environmental Concern."

"Areas with typical representations of common plant or animal associations; unusual plant or animal associations; threatened or endangered plant or animal associations; threatened or endangered plant or animal species...may be considered for designation as Research Natural Areas."

"Areas of unusual natural characteristics where management of recreation activities is necessary to preserve those characteristics may be considered for designation as Outstanding Natural Areas."

"Areas which are so unique that it may be more important to manage them for a single use or a combination of specific uses rather than for full multiple use may be considered for special management attention. Examples of possible designations are...Crucial Wildlife Habitat...."

"Designation for ORV use will consider protection of resources such as valuable wildlife habitat...."

"Valuable wildlife habitat on public land which is otherwise suitable for disposal will be considered for exchange only with State or local agencies or non-profit private organizations with wildlife management responsibilities."

"Fuelwood will be sold, where possible, in areas where the quality of wildlife habitat will not be degraded, but rather will be enhanced by the sale."

"Potential rights-of-way corridors on public lands which have minimal conflicts with critical resource values (e.g.,...valuable wildlife areas...) will be favored."

"Multiple use decisions may be made which will eliminate additional coal deposits from further consideration to protect other resource values of a locally important or unique nature not included in the unsuitability criteria."

Monitoring Studies

Monitoring efforts within the Wildlife Program will be divided between the Upper Rio Puerco area and the public lands in Cibola and Valencia Counties. Monitoring in Cibola

County will receive somewhat greater emphasis than that in the Upper Rio Puerco. Wildlife monitoring in support of other programs will receive attention and priority defined by BLM policy and management decisions appropriate to the action. This could require the monitoring workload outside the Wildlife Program to exceed that within the Wildlife Program. For example, monitoring in support of the coal program in some years or seasons could override priorities within the Wildlife Program.

Monitoring is a normal component of BLM HMP's. Monitoring of existing activity plans will be evaluated and revised if necessary. Significant changes in BLM monitoring policy since July 1983 are expected to require a formal systematic evaluation of all wildlife habitat monitoring.

Monitoring independent of HMP's will continue as needed and will also be evaluated and revised as needed. Monitoring related to the Rio Puerco Range and Wildlife Programs in areas not warranting a HMP but requiring some management action or project work will continue.

Implementation Priorities

1. Continue to review site-specific environmental assessments to ensure that adequate protection or mitigation is provided for all threatened or endangered species, and to ensure compliance with all Federal and State statutes and regulations.

2. Participate with the USDA in the preparation of the annual Animal Damage Control Plan for the RPRA.

3. Participate in activity and project level planning for the implementation of the RMP to ensure that wildlife habitat values are adequately addressed.

4. Continue to implement site-specific and project level proposals, including monitoring studies, contained in the El Malpais HMP.

5. Develop the Cebolla HMP.

6. Participate in the development of activity plans for the following SMA's: Canon Jarido, Jones Canyon, San Luis Mesa Raptor Area, Cabezon Peak, Ignacio Chavez, Elk Springs, Tent Rocks, Ojito, Ball Ranch, El Malpais, and Petaca Pinta.

7. Continue to implement site-specific and project level proposals, including monitoring studies, contained in the Upper Rio Puerco HMP.

8. Evaluate the Ojo del Espiritu Santo Grant HMP and revise as needed.

9. Continue cooperative monitoring studies with the RPRA range staff for areas not covered by HMP's.

Support Needs

Fire Management

Prescribed burns may be conducted to improve wildlife habitat as identified in Habitat Management Plans. The Upper Rio Puerco HMP calls for prescribed burns. Divide MFP Decision WL-2.1 calls for prescribed burns or chainings.

Access, Transporation, and Rights-of-Way

Ladron MFP Decision WL-4.6 calls for permanent legal access to public lands to be obtained for improved wildlife management. Specific needs will be identified in the future.

Cadastral Survey

No specific cadastral survey needs have been identified to date. The El Malpais HMP states that cadastral survey may be necessary in this area.

WOODLAND RESOURCES

Program Objectives

The Woodland Resources Program in the RPRA consists of managing limited ponderosa pine stands and more extensive pinyon-juniper woodlands. The long-term objective for

ponderosa pine management in the RPRA is to increase reproduction and stand vigor, as well as to reduce encroachment of pinyon-juniper into the ponderosa pine stands. The long-term objectives for the woodland (pinyon-juniper) management program in the RPRA are to establish and maintain healthy stands producing fuelwood on a sustained yield basis in established woodland management areas, to reduce unauthorized cutting, and to manage stands with consideration for other forest and woodland product yields.

Management Guidance

Congress has mandated through FLPMA that the forestry and woodland program be managed on the basis of multiple use and sustained yield. The Material Disposal Act of 1947, as amended, establishes the authority under which the BLM disposes of timber and other forest products.

The Ladron, Chaco, and Divide MFP's (USDI, BLM 1977, 1981b, 1983b) established woodland and timber management goals for the public land in Valencia and Cibola Counties. These decisions have been incorporated into this RMP and will be implemented during the activity planning phase. Table 12 is a summary of these MFP decisions. The areas specified in these decisions are currently in Wilderness Study Areas. These decisions will be implemented only if the WSA's are not designated as Wilderness and are returned to multiple use management.

Ponderosa Pine

Providing for the long-term maintenance of the ponderosa pine stands is a goal of the program. Since existing ponderosa pine is managed for enhancement and protection of the stands, rather than the maximization of forest products, no specific allowable cut goals have been established for this species in the RPRA. All forestry practices currently being implemented in the RPRA are in conformance with standard silvicultural practices and the 1981 environmental assessment Timber Management Plan (USDI, BLM 1981e), covering the BLM Albuquerque and Socorro Districts.

In addition to the guidelines contained in the Timber Management Plan, other silvicultural practices are currently being implemented in the RPRA. Season of harvest may be varied to minimize conflicts with other resources. Slash is disposed of in a manner conducive to revegetation and protection of the site. Slash burning complies with State of New Mexico air quality regulations. Harvest cuts are laid out in such a manner as to reduce the risk of windthrow. A snag management program is being implemented to enhance bird habitat. All activity plans developed for forestry and woodlands products are examined through the environmental analysis process and are subject to public review and participation.

Pinyon-Juniper

The main guideline document for the woodland (pinyon-juniper) program is the Public Domain Woodlands Management Policy Statement (USDI, BLM 1982g). The pinyon-juniper woodlands within the RPRA are managed on a sustained yield basis. However, in some cases pinyon-juniper woodlands are harvested so as to prevent the reestablishment of the stand in order to promote other resource management objectives. For example, pinyon-juniper woodland has been intentionally reduced in the past to develop wildlife habitat and promote the growth of ponderosa pine stands.

Active management of pinyon-juniper woodlands is a new concept that is being addressed in New Mexico not only by the BLM but by all Federal and State agencies, as well as by private individuals. Information is being gathered through cooperative inventory programs. Once this information is available and with adequate mapping and aerial photographs to coordinate initial efforts, a logical program will be devised. Until reliable data are obtained with intensive field check, goals will remain general in nature. Sustained yield can be calculated given the number of years and volume per acre to be cut, with a given rotation period.

As a result of the proximity of the RPRA to Albuquerque, New Mexico's major population center, fuelwood demands have and will

TABLE 12

SUMMARY OF WOODLAND RESOURCES MANAGEMENT FRAMEWORK PLAN DECISIONS

Document	Decision Number	Summary
Divide MFP	F-2.3	Attempt to acquire, through a Bureau motion exchange process, the private and State lands in the Chain of Craters area. The preferred method of acquisition would be through the exchange process. Acquisiton through direct purchase is not anticipated. Establishment of total estates (surface and subsurface) will be a priority for the lands identified for acquisition by exchange.
	F-3.1	Establish three forest and four woodland monitoring areas in the Chain of Craters area and Mertz Ranch.
	F-4.1	Lay out and open commercial and individual firewood cutting area in the following areas: Sand Canyon--individual use, dead wood; Cebolla Canyon--commercial use, green wood; Chain of Craters--commercial and individual use, green wood. The amount cut each year will be on a sustained yield basis; volume will be dependent on approved activity plans. Land treatments identified in RM-2.5, WL-2.1, and W-1.5 will take precedence over fuelwood management.
	F-4.2	Conduct commercial Christmas tree sales in the Cebolla Canyon area. The number will be dependent on approved activity plan. Land treatments identified in RM-2.3, RM-2.5, WL-2.1, and W-1.5 will take precedence over fuelwood management.
	F-4.3	Lay out other forest product sale areas in the following areas where at least 1,000 of the associated products would be available per year for individual or commercial sales. Area: Sand Canyon, Cebolla Canyon — Product: Fence Posts, Wildlings Land treatments identified in 2.5, WL-2.1, and W-1.5 will take precedence over fuelwood management.
	F-4.4	Cruise and mark ponderosa pine. Salvage and mortality timber sales as demand arises, the volume will be determined during activity planning, in the following areas: Chain of Craters, Cebolla Canyon, North Pasture, Sandy Hill
Ladron MFP	F-1.2	Evaluate any land and vegetative treatments as well as vegetative and forestry sales which may be proposed on areas of pinyon-juniper having a moderate or higher erosion classification. Allow only projects which create no significant adverse disturbance to watershed conditions.
	F-2.1	Allow sales of firewood as well as other forestry vegetative sales on all areas of pinyon-juniper having a slight or low erosion classification.
Chaco MFP	F-2.1	Prohibit sales of ponderosa pine wildlings and Christmas trees. Allow harvest of mature trees for sanitation purposes. Seedbed preparation, fuel reduction, and thinning of ponderosa pine stands is also advocated.

continue to increase. Some rural residents also depend on the RPRA public lands to provide fuelwood their traditional heating and cooking needs. Based on inventories of woodlands in the RPRA, fuelwood cutting can occur on a sustained yield basis to help meet some of the demand for fuelwood.

In addition to the areas identified in the MFP decisions (see Table 12), fuelwood will be available to the public through commercial or home-use sales from approximately 9,320 acres of public land as result of the resolution of the RMP Fuelwood Supply Issue (see Map 7). About 1,700 acres in the Ignacio Chavez SMA, in the area between the current Ignacio Chavez and Chamisa Wilderness Study Areas, will be available for fuelwood management as part of the 9,320 acres. Limited greenwood cutting to reduce the invasion of pinyon and juniper into stands of ponderosa pine will be permitted to maintain the ponderosa pine and to improve wildlife habitat on 17,300 acres of the Ignacio Chavez SMA. If other resource objectives identify the need for forestry support during activity planning, silvicultural practices can be applied to this area. Small additional amounts of fuelwood will also be made available to the public as a result of wildlife habitat improvement projects, ponderosa pine stand maintenance projects, right-of-way clearings, and as dead-and-down wood outside of the Ignacio Chavez SMA.

Designation of fuelwood cutting areas will be consistent with other resource values, and could be used to improve wildlife habitat. Providing more fuelwood cutting areas could help to reduce the amount of trespass woodcutting. Cutting pinyon and juniper could also help maintain ponderosa pine stands. This type of woodland management would allow a reasonable harvest of firewood while protecting or enhancing other resource values.

The fuelwood cutting areas will be inventoried and sampled to help determine the allowable cut. After these areas are inventoried, a detailed site-specific plan and environmental assessment will be completed which will implement a permit system, appropriate fees, allowable cut, clean-up enforcement, and a monitoring plan. The public will then be notified in the local news media of the fuelwood cutting areas and requirements.

The first priority sources for fuelwood supply in the RPRA are, when practical, dead-and-down wood from chainings and chemically-treated areas, right-of-way clearings, and tree-thinning areas. Greenwood areas are utilized last. Specific silvicultural standards are established at the activity planning stage and are prepared on a site-specific basis. The silvicultural standards are consistent with acceptable methods for the species and site. Slash treatment follows the same guidelines identified for the ponderosa pine program.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Woodland Resources Program:

"Areas with typical representations of common plant...associations; unusual plant... associations...may be considered for designation as Research Natural Areas."

"Existing authorized permits, leases, rights-of-way, and licenses will be identified as valid existing rights. All disposal of public lands will be subject to valid existing rights."

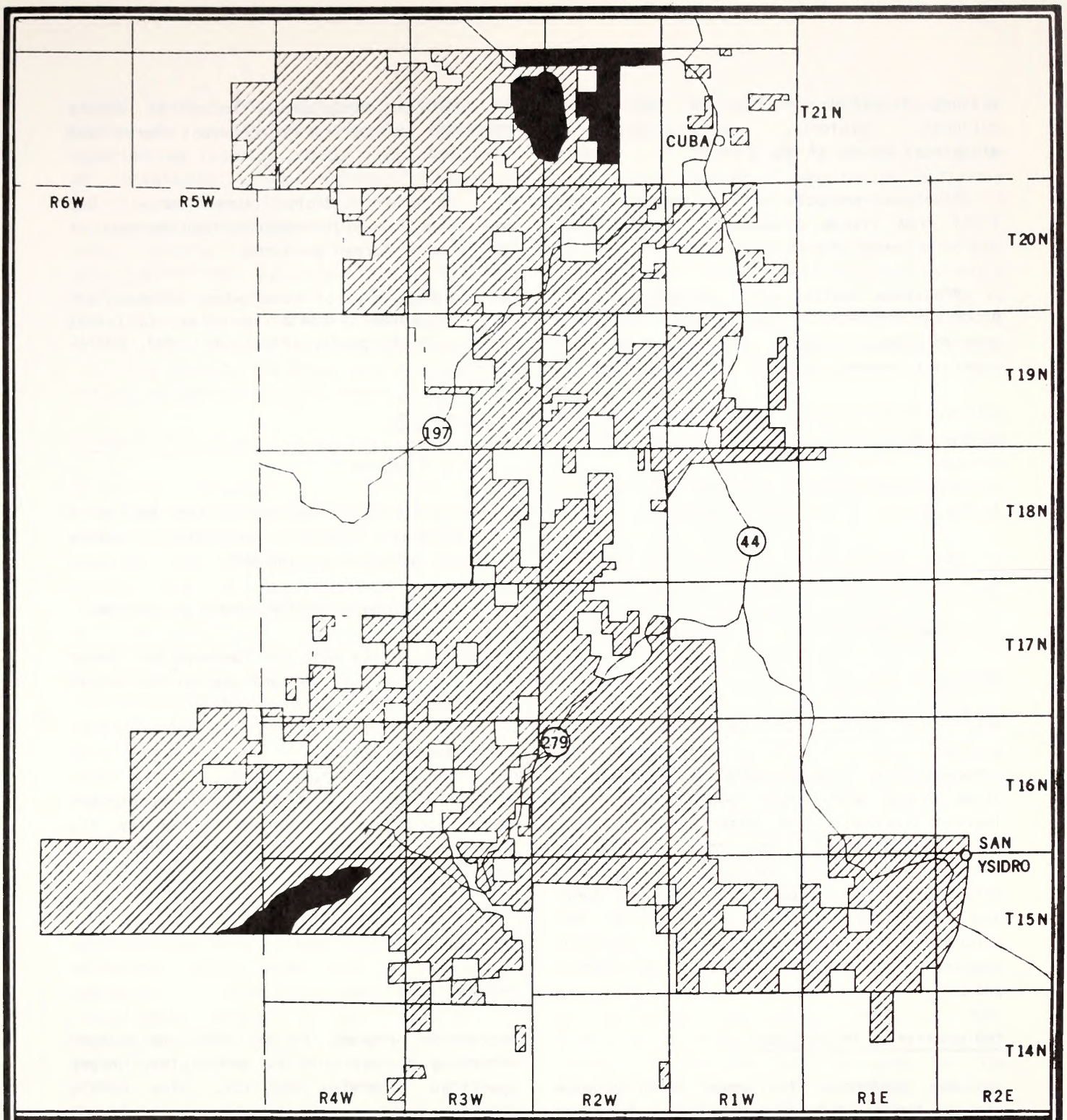
"Fuelwood will be sold, where possible, in areas where the quality of wildlife habitat will not be degraded, but rather will be enhanced by the sale."

"Fuelwood will be made available from lands which would minimize the deterioration of existing roads, while discouraging the proliferation of new roads and ways."

"Fuelwood will not be made available where erosion problems are severe."

"Roads created for access to fuelwood sale areas will be rehabilitated and abandoned upon completion of the sale, unless considered essential."

"Fuelwood will not be made available in areas where harvesting would degrade or



MAP 7
FUELWOOD SUPPLY

PUBLIC LAND

WOODCUTTING AREA

NORTH

0 5 10 MILES

SCALE

disturb livestock grazing, or the scenic, cultural, historic, recreational, or wilderness values of the area."

"Fuelwood products will be made available first from stands damaged by insects, fire, and/or diseases where practical."

"Fuelwood will be salvaged, where practical, from right-of-way clearings, tree-thinning areas, and chaining and chemically-treated areas."

"Fuelwood products will be made available to the public on a sustained yield basis."

"Fuelwood products will be made available to the public at fair market value."

"Fuelwood products sales will be designed to minimize trespass on non-public lands and, where possible, will be located near population centers."

Monitoring Studies

Monitoring studies are being conducted to evaluate the success of ponderosa pine reforestations (e.g., mortality studies) in those areas which have been harvested to improve ponderosa pine habitat (stand vigor and reproduction). Compliance checks are conducted in fuelwood and timber sale areas to ensure adherence to permit or contract terms and conditions. Patrol, surveillance, and enforcement actions will be conducted to deter unauthorized harvest of woodland and forest products.

Implementation Priorities

1. Map ponderosa pine areas which require harvest for habitat improvement, and determine allowable cuts.

2. Map fuelwood areas for harvest and determine allowable cuts.

3. Develop contracts for timber and commercial fuelwood sales in accordance with accepted BLM procedures and conduct sales.

4. Issue home use fuelwood permits in accordance with accepted BLM procedures.

5. Perform compliance checks to ensure adherence to permit or contract terms and conditions.

6. Conduct patrol, surveillance, and enforcement to deter unauthorized harvest of woodland and forest products.

7. Conduct sales of other minor woodland and forest products (vegetative sales, Christmas trees, fence posts, etc.) to meet public demand.

Support Needs

Fire Management

Prescribed burning may be called for as a silvicultural treatment in activity plans prepared in support of the RMP.

Access, Transportation, and Rights-of-Way

Site-specific planning for fuelwood and timber sales may call for easement acquisition across non-Federal land.

Cadastral Survey

Cadastral survey of several small parcels has been requested to positively identify the boundaries of public land prior to timber and fuelwood sale actions.

RECREATION★

Program Objectives

Recreation programs in the RPRA are managed according to multiple use principles, unless specified otherwise by law. The RPRA's primary goal is to ensure the continued availability of outdoor recreation opportunities which are not readily available from other sources. Recreation use is managed to protect the health and safety of users, to protect natural and cultural resource values, and to promote public use and enjoyment of the

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★For the purposes of this Plan, Wilderness, Off-Road Vehicles, and Visual Resource Management are treated as programs separate from the Recreation Program.

public lands. RPRA management priority is given to undeveloped areas currentiy experiencing resource damage, user conflicts, or threatening visitor safety. Management priority is also given to those areas where use exceeds current capacity and to areas near urban centers. Additionally, unique and/or scenic attractions adjoining heavily travelled highways are managed on a priority basis. Other priorities are preservation and protection of natural and cultural resources, including scenic, historic, and archeological values, and primitive environments.

Management Guidance

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 assure compatibility of projects with recreation management objectives. The decisions incorporated into the RMP from the Divide and Ladron Management Framework Plans (MFP's) will also continue to be implemented at the project level planning stage. These MFP decisions are summarized on Table 13.

As a result of the resolution of the RMP Special Management Area (SMA) Issue, fifteen areas have been identified as containing important and valuable recreation values and opportunities which warrant special management attention. These areas will be managed to emphasize scientific, interpretive, educational, and/or a full spectrum of recreation opportunities (Roaded Natural to Primitive). These fifteen areas are located within the following SMA's: Historic Homesteads, Canon Jarido, Jones Canyon, Azabache Station, Cabezon Peak, Ignacio Chavez, Elk Springs, Tent Rocks, Ojito, Pronoun Cave Complex, Continental Divide Trail, 1870's Wagon Road Trail, El Malpais, Petaca Pinta, and Bluewater Canyon. Additional information concerning these areas is contained under "Special Management Areas" at the end of this section.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Recreation Program:

"Areas of unusual natural characteristics where management of recreation activities is necessary to preserve those characteristics may be considered for designation as Outstanding Natural Areas."

"Areas requiring explicit recreation management to achieve the BLM's recreation objectives and to provide specific recreation opportunities may be identified as Intensive Recreation Management Areas."

"Areas which are so unique that it may be more important to manage them for a single use or a combination of specific uses rather than for full multiple use may be considered for special management attention. Examples of possible designations include...National Natural Landmarks and Intensive Recreation Management Areas."

"Designation for ORV use will consider protection for resources such as... recreational values...."

"Fuelwood will not be made available in areas where harvesting would degrade or disturb...recreational...values of an area."

Recreation Opportunity Spectrum

A Recreation Opportunity Spectrum (ROS) inventory was conducted for the RPRA. The ROS survey provides the baseline data for the assessment of impacts on recreation resources at the program level planning stage and was used to identify recreation opportunities that warranted consideration in the RMP Special Management Area Issue.

The Recreation Opportunity Spectrum (BLM Manual 8320) provides a framework for stratifying and defining classes of outdoor recreation opportunity environments. As

TABLE 13

SUMMARY OF RECREATION MANAGEMENT FRAMEWORK PLAN DECISIONS

Document	Decision Number	Summary
Divide MFP	R-1.2	Retain all public lands with a B or higher Recreation Inventory System (RIS) rating in public ownership, specifically along Highway 117, Big Hole in the Wall, Chain of Craters, and Bluewater Canyon.
	R-5.2	Close Bluewater Canyon ACEC to ORV use. (Already implemented.)
	R-6.2	Redevelop the Sandstone Bluffs Recreation Area, to include visitor contact station, picnic tables, barbecue grill, macadam surfacing of road area (already implemented), hiking trails, and interpretive signs.
	R-6.3	Construct a parking area, day use interpretive site, and loop trail at Natural Arch site.
	R-6.4	Attempt to enter into a cooperative agreement with the Pueblo de Acoma for routing patrols and surveillance of the El Malpais area.
	R-6.5	Complete a descriptive brochure and interpretive areas for each quality geologic feature in Divide Planning Area: El Malpais lava flow, Chain of Craters, and Zuni Salt Lake. (Pamphlets are now available for El Malpais and Chain of Craters.)
	R-7.1	Prohibit sale of commercial or home-use firewood permits, timber, or Christmas trees in Bluewater Canyon. (Already implemented.)
	R-9.1	Construct an interpretive area/scenic overlook with display at the rim of Bluewater Canyon.
	R-10.2	Develop a series of loop trails around Sandstone Bluffs and Natural Arch.
	R-14.1	Acquire private lands in Cebolleta Canyon (through exchange) and begin a stabilization, interpretation, and surveillance program of cultural resources in the Canyon.
	R-14.3	Attempt to acquire private lands within sensitive areas in Big Hole in the Wall, Chain of Craters, and Bluewater Canyon.
	R-14.4	Develop primitive campgrounds at Big Hole in the Wall.
	R-15.5	Close the Dominguez-Escalante trailhead/parking lot (already implemented). The remainder of this decision will not be implemented.
Ladron MFP	R-2.1	Abandon and rehabilitate the old CCC road located in the Petaca Pinta area.
	R-2.2	Rehabilitate the Lacey W. Sels #1 and Sels #2 detention dams.
	R-5.1	Formulate a comprehensive interpretive plan on recreation resources, including four scenic observation points.

conceived, the ROS has application to all lands, regardless of ownership or jurisdiction.

Recreation opportunities can be expressed in terms of three principal components: the activity, the setting, and the experience. Possible mixes of activities, settings, and recreation experience have been arranged along a spectrum or continuum, ranging from primitive to urban (see Table 14). Rural and Urban recreation opportunities are not relevant to the public land in the RPRA and are not discussed here. ROS management objectives for the four zones in the RPRA are defined below.

1. The "Primitive" zone is managed to be essentially free from evidence of man, man-induced restrictions, and controls. Motorized vehicle use within the area is not permitted. The area is managed to maintain an extremely high probability of experiencing isolation from the sights and sounds of others (not more than three to six group encounters per day), independence, closeness to nature, self-reliance through the application of backcountry skills, and an environment that offers a high degree of challenge and risk. Backcountry use levels and management of renewable resources are dependent on maintaining natural ecosystems and primitive experience levels. The consumption of renewable resources is subject to the protection of backcountry recreational values. Grazing is allowed, subject to restrictions placed on the use of motorized vehicles. Recreational activities occurring in this zone include backpacking, hiking, camping, swimming, horseback riding, and nature study. Frequency of managerial contact with users is very low.

2. "Semi-Primitive Non-Motorized" areas are managed to be largely free from the evidence of man, man-induced restrictions, and controls. Motorized vehicle use is prohibited. Limited facilities for the administration of livestock and visitor use are allowed, but off-site administration is encouraged. Project designs should stress protection of natural values. Areas are managed to maintain a good probability of experiencing minimum contact with others, self-reliance through the application of backcountry skills, and an environment that offers a degree of risk and challenge. Backcountry use levels and management of renewable resources are dependent on maintaining ecosystems comparable to naturally-occurring ecosystems. The consumption of renewable resources is subject to the protection of backcountry recreational values. Grazing is allowed, subject to restrictions placed on use of motorized vehicles. Facilities associated with grazing are limited to those necessary for maintaining existing numbers, adequate distribution, and seasons of use, consistent with the allotment management plans. Recreational activities occurring in this zone include climbing, backpacking, hiking, picnicking, viewing scenery, camping, horseback riding, and nature study. Frequency of managerial contact with users is low.

3. "Semi-Primitive Motorized" areas are managed to provide a predominantly natural or naturally-appearing environment. Evidence of man, restrictions, and controls are present but subtle. Motorized vehicle use is permitted. Concentration of users is low, but there is often evidence of other users. On-site interpretive facilities, low standard roads and trails, trailheads, and signing should stress the natural environment in their design and be the minimum necessary to achieve objectives. The consumption of natural resources is allowed. In the review of plans of operations, utility corridors, rights-of-way, and other surface-disturbing projects, effort is taken to reduce their impacts on the natural environment. Recreational activities occurring in this zone include car camping, ORV touring, backpacking, hiking, horseback riding, nature study, and viewing scenery. Frequency of managerial contact with visitors is low to moderate on trails and primitive roads.

4. "Roaded Natural" areas are managed to provide a naturally-appearing environment with moderate evidences of the sights and sounds of man. Motorized use is permitted. Concentration of users is moderate with evidence of other users prevalent. Resource modification and utilization practices are

TABLE 14

SETTING OPPORTUNITY

	Primitive	Semi-Primitive Non-Motorized	Semi-Primitive Motorized	Roaded Natural	Rural	Urban
Remoteness Criteria	At least 3 miles from all roads or railroads.	At least 1/2 mile from all roads or railroads.	Within 1/2 mile of primitive roads and at least 1/2 mile from better than primitive roads.	Within 1/2 mile of better than primitive roads or railroads.	No distance criteria	No distance criteria
Size Criteria	5000 acres*	2500 acres*	2500 acres	No size criteria.	No size criteria.	No size criteria.
Evidence of Human Use	Unmodified natural environment; surface disturbance rare and small; trails OK--no roads; structures small and rare.	Setting may have subtle modifications; surface disturbance limited and small; little or no evidence of primitive roads or motorized use; small isolated structures may be present.	Setting may have subtle modifications; surface disturbance limited and small; primitive roads and motorized use is present; small isolated structures may be present.	Moderate evidence of human modification harmonious with landscape; surface modification common; roads and highways present; structures scattered and visually subordinate; recreation facilities small and rustic.	Setting substantially modified; surface modifications typical; roads and highways present; cultivated lands common; structures readily apparent, small dominant clusters, developed recreation facilities.	Natural setting. subordinate to cultural modified landscape; surface modification extensive; roads, highways, parking areas for intensive use; structures and complexes dominant--towns, industry, resorts, etc.
Social Setting	Less than 6 parties encountered on trail per day; less than 3 parties visible at campsite; little evidence of previous recreation use.	6-10 parties encountered on trail per day; less than 6 parties visible at campsite; limited evidence of previous recreation use.	Low to moderate frequency of contact.	Frequency of contact is moderate in developed sites and on roads; low to moderate elsewhere.	Frequency of contact is moderate to high in developed sites and on roads and trails; moderate elsewhere.	Large numbers of users on-site and in nearby areas.
Managerial Setting	No on-site controls--only off-site; on site facilities resource protection only; no facilities for user convenience or safety.	Off-site controls preferred--on-site controls subtle; facilities are avoided but may be provided for resource protection or user safety.	On-site controls present but subtle; facilities for resource protection and user safety; law enforcement occasionally visible.	On-site controls noticeable but harmonious with natural environment; rustic facilities for user convenience and resource protection; law enforcement occasionally visible.	On-site controls obvious and numerous; facilities widely available for user convenience, safety, special activities, and resource protection. Law enforcement moderately visible.	On-site controls numerous; facilities for intensive use and special activities provided; law enforcement highly visible.

* May be smaller if adjacent to semi-primitive non-motorized class.

** May be smaller if adjacent to primitive class.

evident, but harmonize with the natural environment. Development of facilities for motorized use is provided for in any proposed construction standards and design of facilities. Placement of rights-of-way, utility corridors, management facilities, and other surface-disturbing activities would be favored in this zone over placement in Primitive or Semi-Primitive Non-Motorized zones when applicable. The consumption of natural resources is allowed except at any proposed or developed trailheads, developed recreation areas, and geological features interpreted as major themes. Recreational activities occurring in this zone include organized camping (developed recreational facilities), ORV touring, picnicking, trailer camping, rockhounding, nature study, and viewing of historical and prehistoric resources. Staging areas for backcountry use and for interpretation of geological features occur in this zone. Frequency of managerial contact with visitors is moderate to high.

Map 8 illustrates the recreation opportunities currently inventoried for the RPRA. Maps 9, 10, and 11 illustrate how recreation opportunities in the RPRA are shifting because of the road closures and limitations resulting from implementation of this Plan.

Monitoring Studies

Collection of visitor use data is essential for program evaluation to ensure that management of recreation resources is responsive to public needs and demands. The RPRA road inventory will continue to be updated to assess the resulting influences and changes in ROS categorizations. ROS category objectives will continue to be considered at the activity plan/environmental assessment stage and appropriate compliance actions will be taken to evaluate the success of recreation requirements. Patrol, surveillance, and enforcement will be used to determine unauthorized activities which would impact recreation opportunities.

Implementation Priorities

1. Continue to implement those MFP decisions which are not affected by the wilderness study process or which are consistent with the Bureau of Land Management's Wilderness Interim Management Policy.

2. Assist in the development of activity plans for the following Special Management Areas to ensure that ROS category and other recreation objectives are met: Historic Homesteads, Canon Jarido, Jones Canyon, Azabache Station, Cabezon Peak, Ignacio Chavez, Elk Springs, Tent Rocks, Ojito, Pronoun Cave Complex, Continental Divide Trail, 1870's Wagon Road Trail, El Malpais, and Petaca Pinta.

3. Ensure that ROS category objectives are considered in the activity plan/environmental assessment process.

4. Update road inventory and assess the resulting influences and changes in ROS categorizations.

5. Collect visitor use data.

Support Needs

Fire Management

No support needs from the Fire Management Program have been identified and none are anticipated.

Access, Transportation, and Rights-of-Way

Acquisition of access is identified as a support need for recreation SMA's. These needs are listed at the end of this section in the individual SMA summaries.

Cadastral Survey

Cadastral survey needs for recreation SMA's are listed at the end of this chapter in the individual SMA sections.

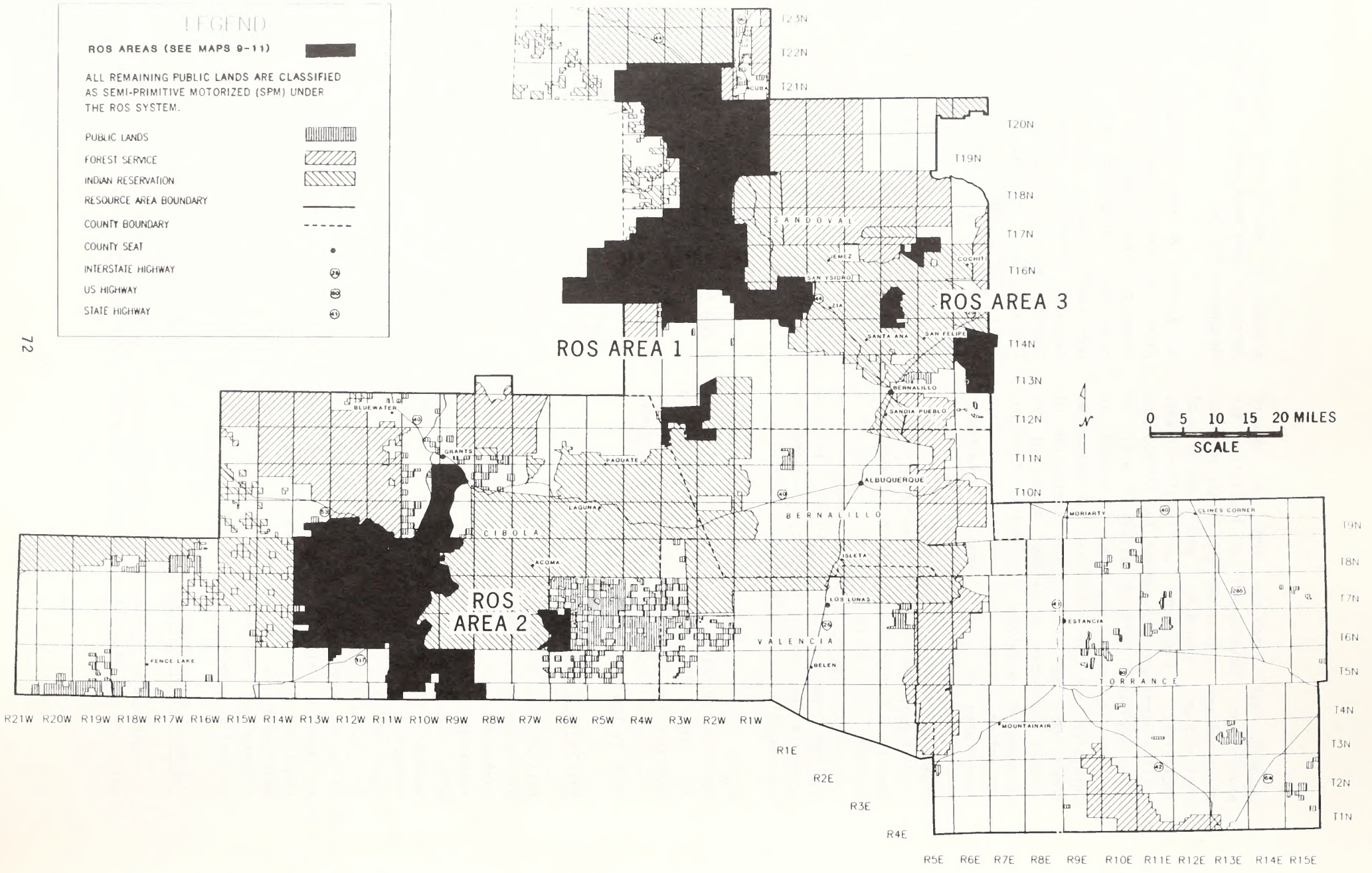
VISUAL RESOURCES

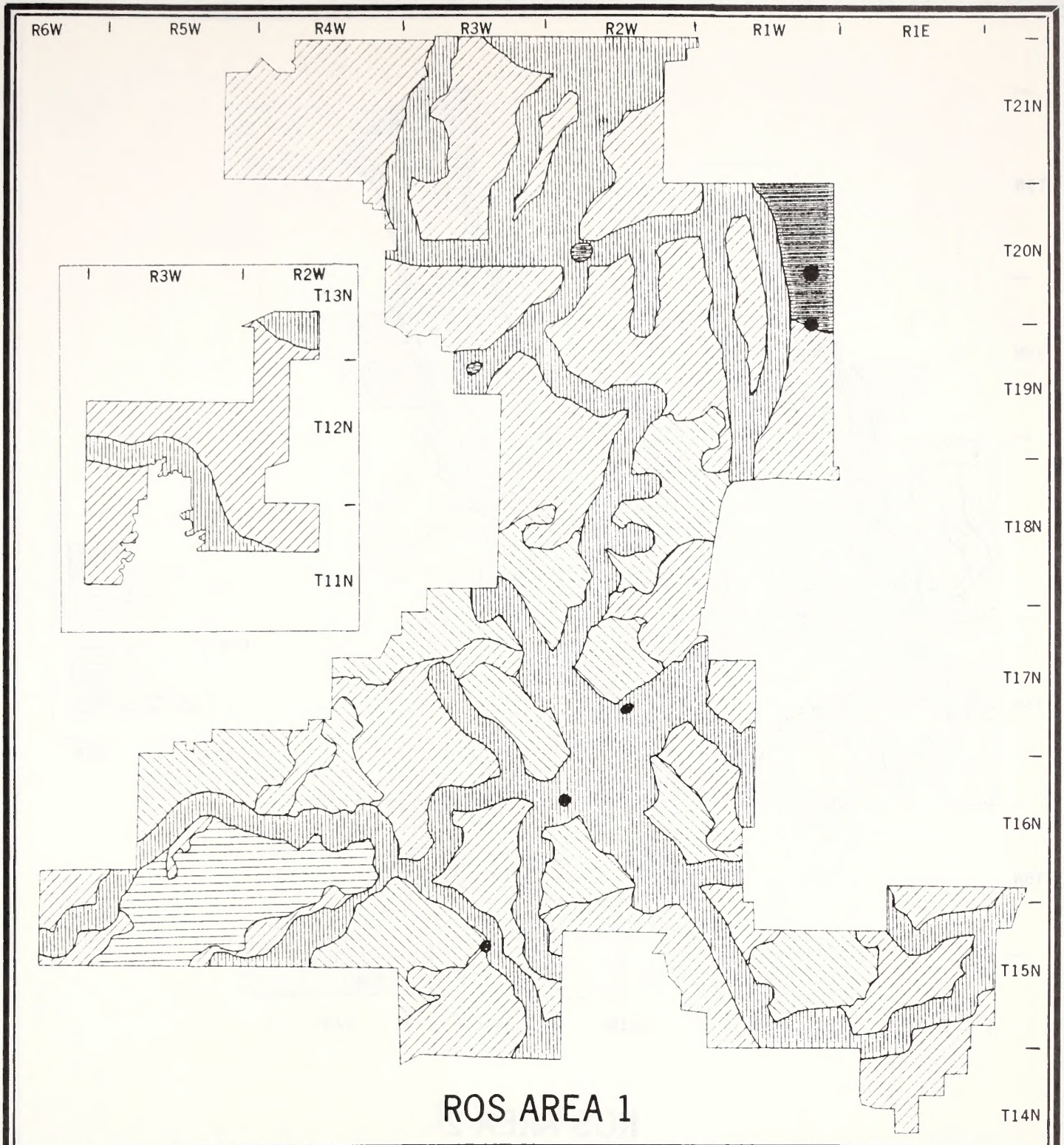
Program Objectives

Visual resources will be managed to protect the quality of the scenic values of the RPRA

MAP 8

RECREATION OPPORTUNITY SPECTRUM (ROS) GENERAL LOCATION MAP



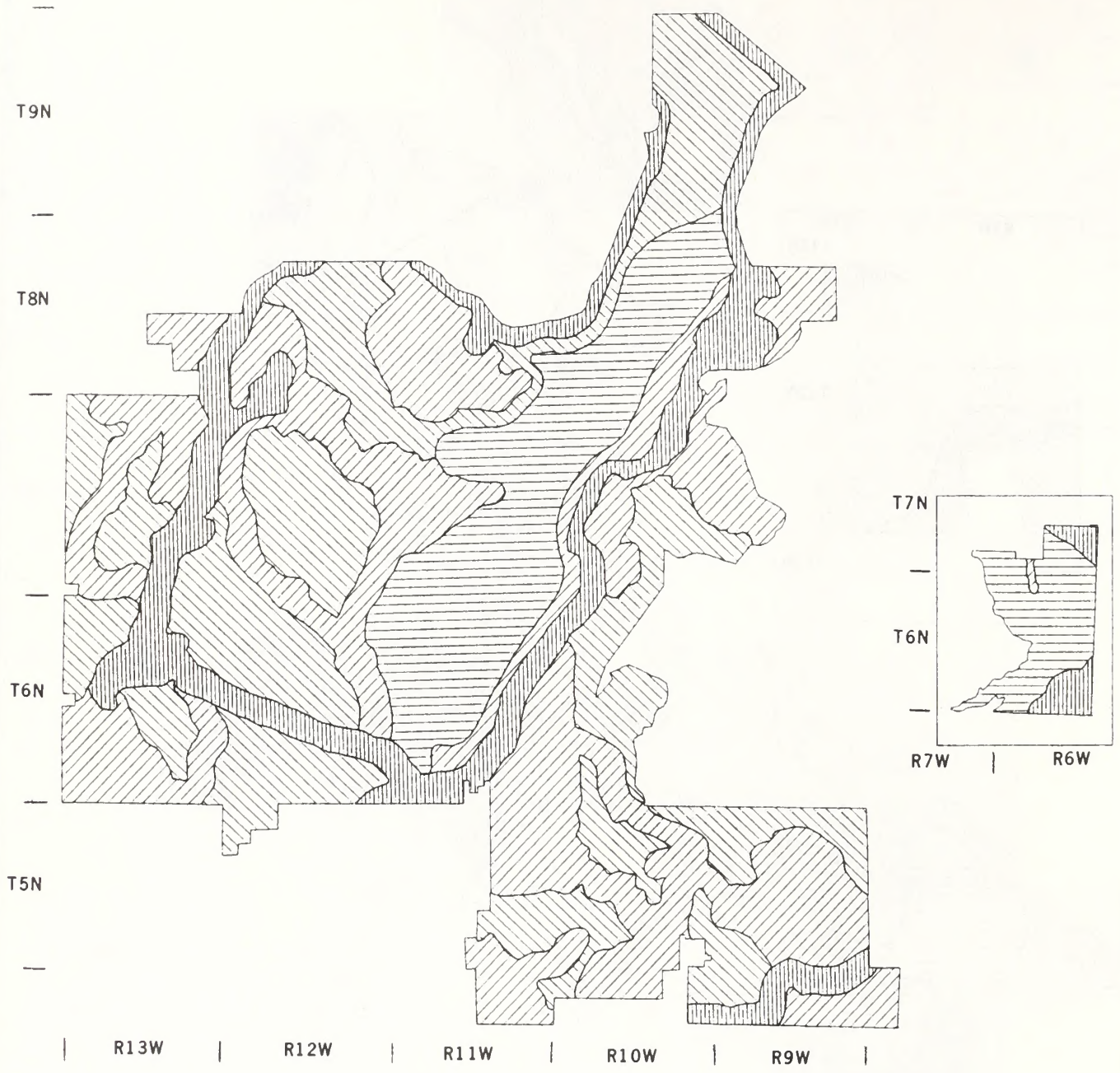


MAP 9
RECREATION OPPORTUNITY SPECTRUM INVENTORY

URBAN
RURAL
ROADED NATURAL
SEMI-PRIMITIVE MOTORIZED
SEMI-PRIMITIVE NON-MOTORIZED
PRIMITIVE

N

0 5 10 MILES
SCALE



ROS AREA 2

MAP 10
RECREATION OPPORTUNITY SPECTRUM INVENTORY

ROADED NATURAL

SEMI-PRIMITIVE MOTORIZED

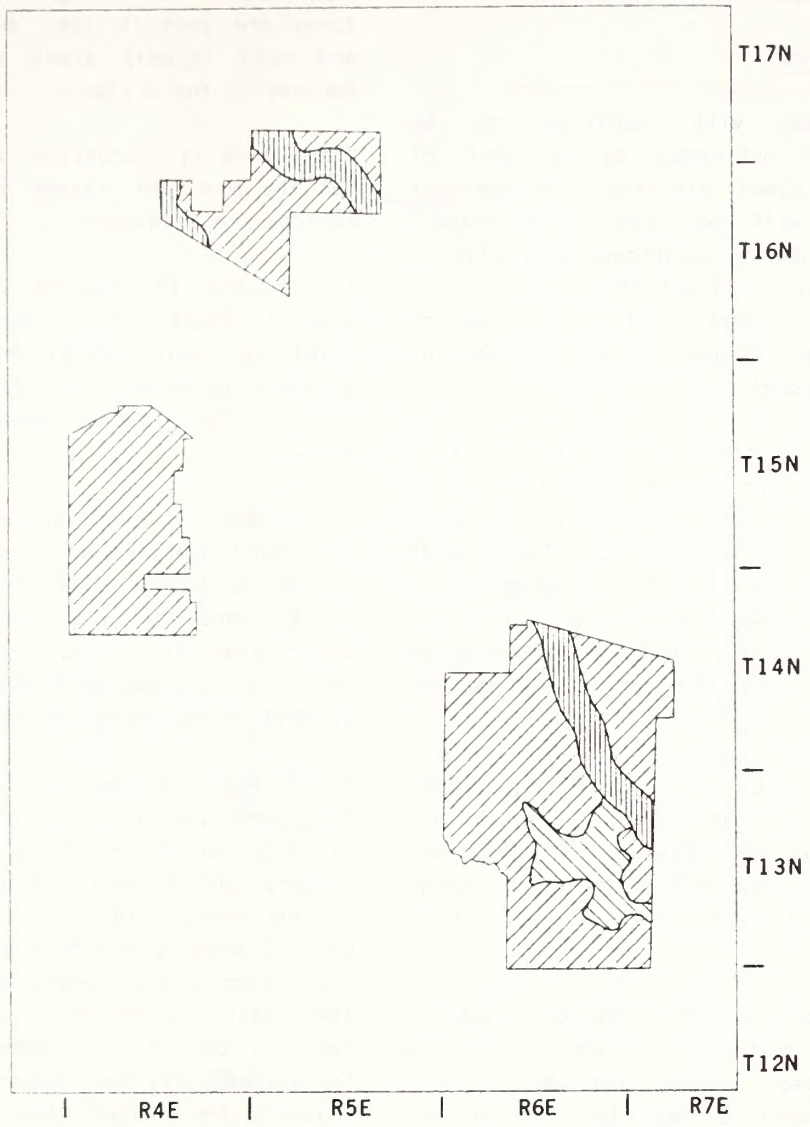
SEMI-PRIMITIVE NON-MOTORIZED

PRIMITIVE

N

0 5 10 MILES

SCALE



ROS AREA 3

MAP 11
RECREATION OPPORTUNITY SPECTRUM INVENTORY

ROADED NATURAL

SEMI-PRIMITIVE MOTORIZED

SEMI-PRIMITIVE NON-MOTORIZED

N

0 5 10 MILES

SCALE

public lands. Unique and/or scenic attractions adjoining heavily travelled highways are managed on a priority basis.

Management Guidance

Visual resources will continue to be inventoried and evaluated as a part of activity and project planning. A contrast rating process will be used as a project assessment tool during environmental review of affected areas. Stipulations will be established as appropriate to assure compatibility of projects with management objectives for visual resources.

Visual Resource Management (VRM) class ratings have been determined for the majority of the RPRA (see Map 12). These rating classes provide the data needed to assess the impacts to visual resources at the program level planning stage and were also used to identify areas containing scenic values which warranted consideration in the RMP Special Management Area Issue.

Ratings from scenic quality classes, visual sensitivity levels, and distance zones are combined to form VRM classes. A VRM class identifies the suggested degrees of human modification that should be allowed in a certain landscape.

Scenic quality classes are rated for landform, water, color, vegetation, intrusions, and uniqueness. These elements are combined and the area is classified as Class A, unique, outstanding features; Class B, outstanding features common to the physiographic region; or Class C, features common to the physiographic region.

Sensitivity levels are determined on the basis of frequency of travel through an area, use of the area, and public knowledge of the area. These elements are rated and the area is assigned a high, medium, or low sensitivity level.

Distance zones are placed in three categories: foreground/middleground zone, background zone, and seldom seen zone. The foreground/middleground zone is closest to the viewer and requires more attention and consideration in management decisions because of the great detail that can be seen in the landscape. The background and seldom seen zones are seen in less detail by the viewer and most impacts blend with the landscape because of the distance.

The following discussion defines the criteria for the four VRM classes and how visual class ratings are developed.

1. "Class I" applies only to classified special areas, e.g., Roadless, Wilderness, Primitive, and Natural Areas. This quality standard is established through legislation or policy. Only natural ecological changes are allowed.

2. "Class II" contains landscapes with Class A scenery quality, or Class B scenery quality in the foreground/middleground zone with high visual sensitivity. Changes in any of the basic elements (form, line, color, texture) caused by a management activity should not be evident in the characteristic landscape.

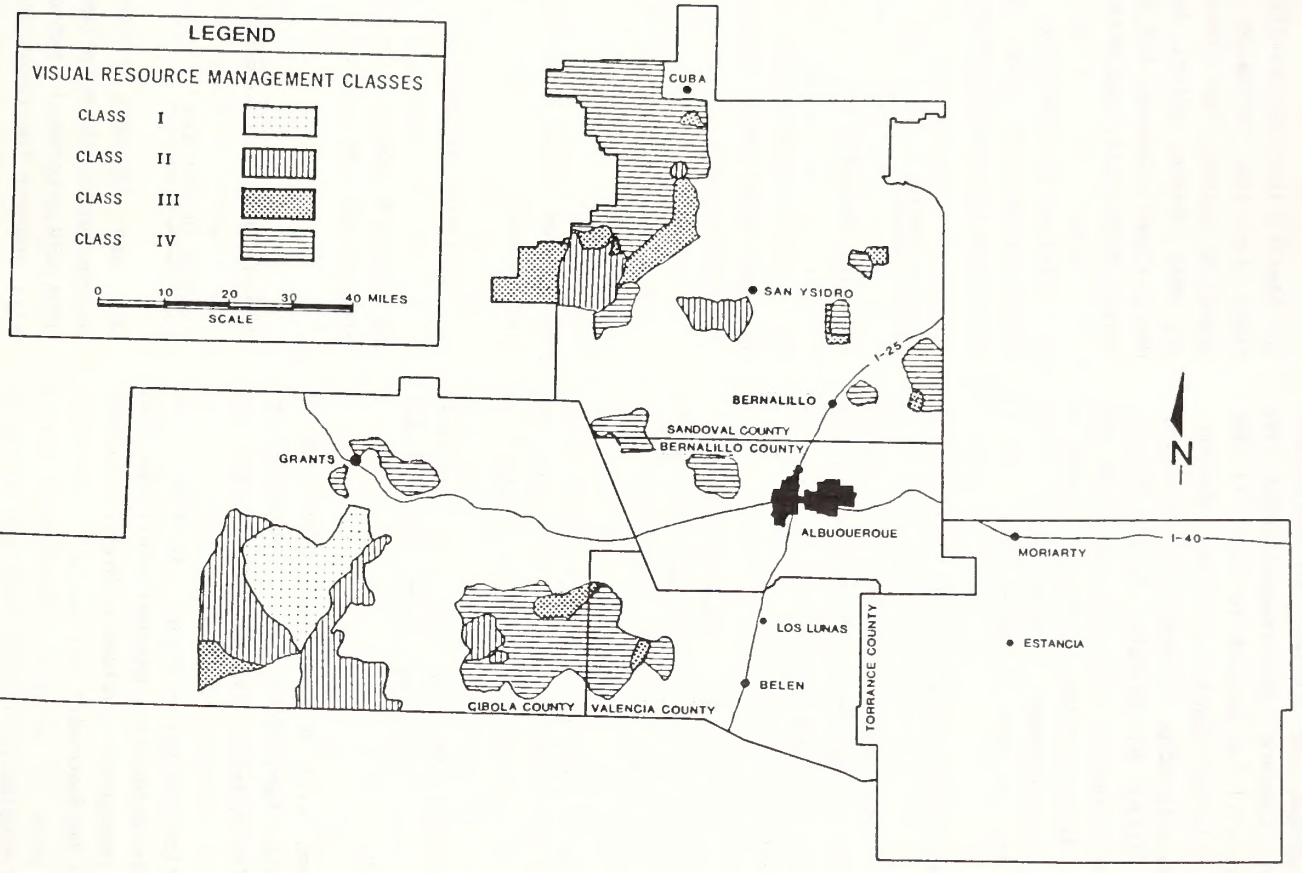
3. "Class III" contains landscapes with Class B scenery quality and high visual sensitivity in the background zone, or with Class B scenery quality and medium visual sensitivity in the foreground/middleground zone, or with Class C scenery and high visual sensitivity in the foreground/middleground zone. Changes in the basic elements (form, line, color, texture) caused by a management activity may be evident in the characteristic landscape; however, the changes should remain subordinate to the visual strength of the existing character.

4. "Class IV" contains landscapes with Class B scenery quality and high visual sensitivity in the seldom seen visual zone, or with Class B scenery quality and medium or low visual sensitivity in the background or seldom seen zones, or with Class C scenery quality (except with high sensitivity in the foreground/middleground zone). Changes may subordinate the original composition and character but must reflect what could be a natural occurrence within the characteristic landscape.

Areas designated by Congress as Wilderness will be subject to Class I VRM guidelines

MAP 12

VISUAL RESOURCE MANAGEMENT



unless specified otherwise in the legislation designating an area as Wilderness. Wilderness Study Areas have been placed in an interim Class II category. The following listed areas designated as Intensive Recreation Special Management Areas or Areas of Critical Environmental Concern for recreational or scenic values will be subject to Class II VRM guidelines: Canon Jarido, Jones Canyon, Cabezon Peak, Ignacio Chavez, Elk Springs, Tent Rocks, Ojito, El Malpais, Petaca Pinta, and Bluewater Canyon. The SMA summaries at the end of this section contain a general description, management objectives, and planned actions for each of these areas.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Visual Resources Program:

"Areas containing important...scenic values...may be considered for designation as Areas of Critical Environmental Concern."

"Areas along highways, roads, trails, or streams with scenic qualities may be considered for designation as Scenic Areas."

"Designation for ORV use will consider protection of resources such as...visual quality...."

"Fuelwood will not be made available in areas where harvesting would degrade or disturb...the scenic...values of the area."

"Potential rights-of-way corridors on public lands which have minimal conflicts with critical resource values (e.g.,...scenic areas) will be favored."

Monitoring Studies

No specific studies will be needed for Visual Resources. Patrol, surveillance, and enforcement will be used to deter unauthorized activities which would impact visual quality. Visual resource quality requirements will continue to be considered at the activity plan/environmental assessment stage, and appropriate compliance actions will be taken to evaluate the success of the visual requirements.

Implementation Priorities

1. Assist in the development of activity plans for the following Special Management Areas to ensure that Class II VRM guidelines are met: Canon Jarido, Jones Canyon, Cabezon Peak, Ignacio Chavez, Elk Springs, Tent Rocks, Ojito, El Malpais, and Petaca Pinta.

2. Continue to inventory, evaluate, and apply stipulations at the activity planning/ environmental assessment and project level.

Support Needs

Fire Management

No support needs from the Fire Management Program have been identified and none are anticipated.

Access, Transportation, and Rights-of-Way (ATROW)

No support needs from the ATROW Program are anticipated.

Cadastral Survey

No support needs from the Cadastral Survey Program are anticipated.

OFF-ROAD VEHICLES (ORV'S)

Program Objectives

ORV use includes recreational as well as non-recreational motorized vehicle use. The RPRA ORV program is managed in a manner which will protect the resources of the public land, promote safety of all users of those lands, and minimize conflicts among various users of the public lands.

Management Guidance

One ORV decision was incorporated into the RMP from the Divide Management Framework Plan.

Decision R-5.2 calls for closing the Bluewater Canyon ACEC to ORV use. This decision has already been implemented.

ORV Issue Resolution

The resolution of this issue provided for the establishment of "open," "closed," and "limited" motorized vehicle use designations for the RPRA. "Closed areas and trails" are designated areas and trails where the use of motorized vehicles (except by authorized users) is permanently or temporarily prohibited. "Open areas and trails" are designated areas and trails where motorized vehicles may be operated subject to the operating regulations and vehicle standards set forth at 43 CFR 8341 and 8343. "Limited areas and trails" are designated areas and trails where the use of motorized vehicles is subject to restrictions deemed appropriate by an authorized officer. Restrictions may limit the number or types of vehicles allowed, dates and times of use, and similar matters. Limited areas and trails may be designated for special or intensive use such as organized events and may be subject to, but not limited to, rules set forth in 43 CFR 8341.2. ORV use performed in conformance with existing leases, permits, rights-of-way stipulations, or other land-use authorizations will not be impinged upon. Motorized vehicle use on most of the areas designated as "limited" by the Rio Puerco RMP will be limited to existing roads and trails.

Criteria for Resolution of ORV Issue as Exceptions. The following exceptions to these designations were established as criteria for resolution of this issue:

"Use of military, fire, emergency, or law enforcement vehicles being used for emergency purposes; vehicles whose use is expressly authorized by the authorized officer, or otherwise officially approved; vehicles in official use; and combat or combat support vehicles when used in times of national defense emergencies is excluded and will not be affected by 'closed' or 'limited' designations."

"ORV use related to mining claim operations will not be restricted, except by regulations and requirements found in 43 CFR 3809, as amended on March 2, 1983."

"ORV use peformed in conformance with existing leases, permits, rights-of-way stipulations, or other land-use authorizations will not be restricted."

"Public lands currently or historically used for organized ORV events may be designated as 'limited' to specific types of ORV use when there are no special restrictions or compelling resource protection needs, user conflicts, or public safety issues to warrant further limiting ORV use."

Basis for ORV Issue Resolution. This issue was the most controversial of those considered in the RMP, eliciting a wide diversity of public interests and concerns. The comments received on the Draft RMP/EIS ranged from support of restrictive ORV management from State and Federal land management agencies and private individuals and groups to concerns that ORV recreation use demands were not being provided for. Recreational ORV use emerged as a significant topic within the larger RMP issue of ORV designations.

The most direct and immediate impact from increased, unrestricted ORV use would be to the soils in the RPRA. The Rio Puerco Valley and contiguous lands have been widely publicized as constituting perhaps the most dramatic example of human-caused desertification in the western United States. Overgrazing and other human-related events caused these lands to be denuded of protective vegetation in the late nineteenth and early twentieth centuries. Subsequent erosion stripped the topsoil and exposed unstable subsoils. The surface soil material for the entire Rio Puerco Grazing ES area has been rated by the Soil Conservation Service (1968) as having severe to highly severe erosion potential. Rio Puerco soils have textural, structural, and chemical properties which make them extremely fragile and vulnerable to disturbance.

Most soil erosion problem areas in the RPRA lie within the Rio Puerco Watershed. The Rio Puerco Watershed has long been recognized as

one of the highest sediment producing areas for its size in the United States. Water erosion in the deep, fine-textured alluvial soils and soft sedimentary rocks generally produces deep, straight-walled gullies. The less noticeable forces of sheet erosion have reduced or eliminated topsoil over large areas since the turn of the century. Recent range inventories have noted severe gullying and sheet erosion on public lands in the southern portion of Sandoval County.

Any use or activity which increases surface disturbance can disrupt or reverse the natural processes of secondary succession which are presently moving the area toward greater stability. It has been well documented that unrestricted ORV use could create new erosion problems.

Two basic soil responses to ORV use have been identified. First, sandy and gravelly soils are susceptible to direct quarrying by ORV's, and loss of vegetation causes rapid rill and gully erosion. The second type of response occurs with more clay-rich soils which are typical of the Rio Puerco Grazing ES area. These types of soils are less sensitive to direct mechanical displacement by ORV's, but have higher erosion rates compared to natural conditions. In addition, ORV use on clay-rich soils produces strong surface sealing thereby reducing infiltration, and increasing runoff and gully development.

Casual off-road vehicle use is least damaging to the following desert soils: coppice soils, which have high organic matter content and aggregate ability which prevent soil movement; desert pavement, which has a gravel- and rock-mulched surface; and unstable and unvegetated sands, which migrate according to prevailing winds. None of these soils occurs on public land in the RPRA. Many of the still-active arroyos and gullies are said to have originated from wagon roads and other wheeled traffic. The present and recent strategies for stabilizing the soil surface require maximizing the protection afforded by vegetation, algal crusts (cryptogamic soils), and surface litter. A single vehicle pass in arid and semiarid areas is commonly sufficient to destroy the natural barriers to erosion. Numerous researchers have documented the reduction of protective vegetation due to casual use.

Damage may not become apparent for years or even decades after the original disturbance. Soils of desert ecosystems do not recover from compaction for about a century. If erosion occurs, however, the recovery time is much longer. Recovery of perennial plant communities requires time frames measured in millenia in some desert ecosystems.

The use of ORV's on arid lands is reported to accelerate the amount and frequency of water runoff, sheet-wash erosion, and sediment yield.

The soils in much of the RPRA are not compatible with "open" ORV designations. In addition to accelerated erosion, continued "open" ORV use would eventually result in irretrievable and/or irreversible commitments of other public land resources. Vegetative vigor and productivity would decline, resulting in the loss of vegetative cover for watershed protection and nongame/small game wildlife habitat, and resulting in declines in forage available for big game wildlife habitat and livestock grazing use. Uncontrolled expansion of ORV trail networks would result in a decline in the acreage available for undeveloped recreation opportunities, would provide increased access to cultural resources resulting in increased vandalism and theft, and would provide additional access that would facilitate theft of woodland and forest products. In addition, accelerated erosion would expose more cultural resources to the deleterious effects of wind and water.

In conclusion, the ORV Issue resolution provides a balance of resource uses and management which will protect the resources of the public lands, promote safety of all users of those lands, and minimize conflicts among the various uses of those lands, while meeting the FLPMA requirements of sustained yield and multiple use management. The majority of ORV uses will be provided to the public, including recreational use.

Much of the "open" ORV areas in Cibola, Valencia, and Torrance County (see "Off-Road

Vehicle Designations" below) are in scattered or checkerboard parcels of land for which access is difficult due to intermingled private and State lands. The BLM believes this access problem will limit the off-road vehicle use of these lands. If monitoring shows that these lands have begun to become overused the BLM will limit use of these areas to existing roads and trails.

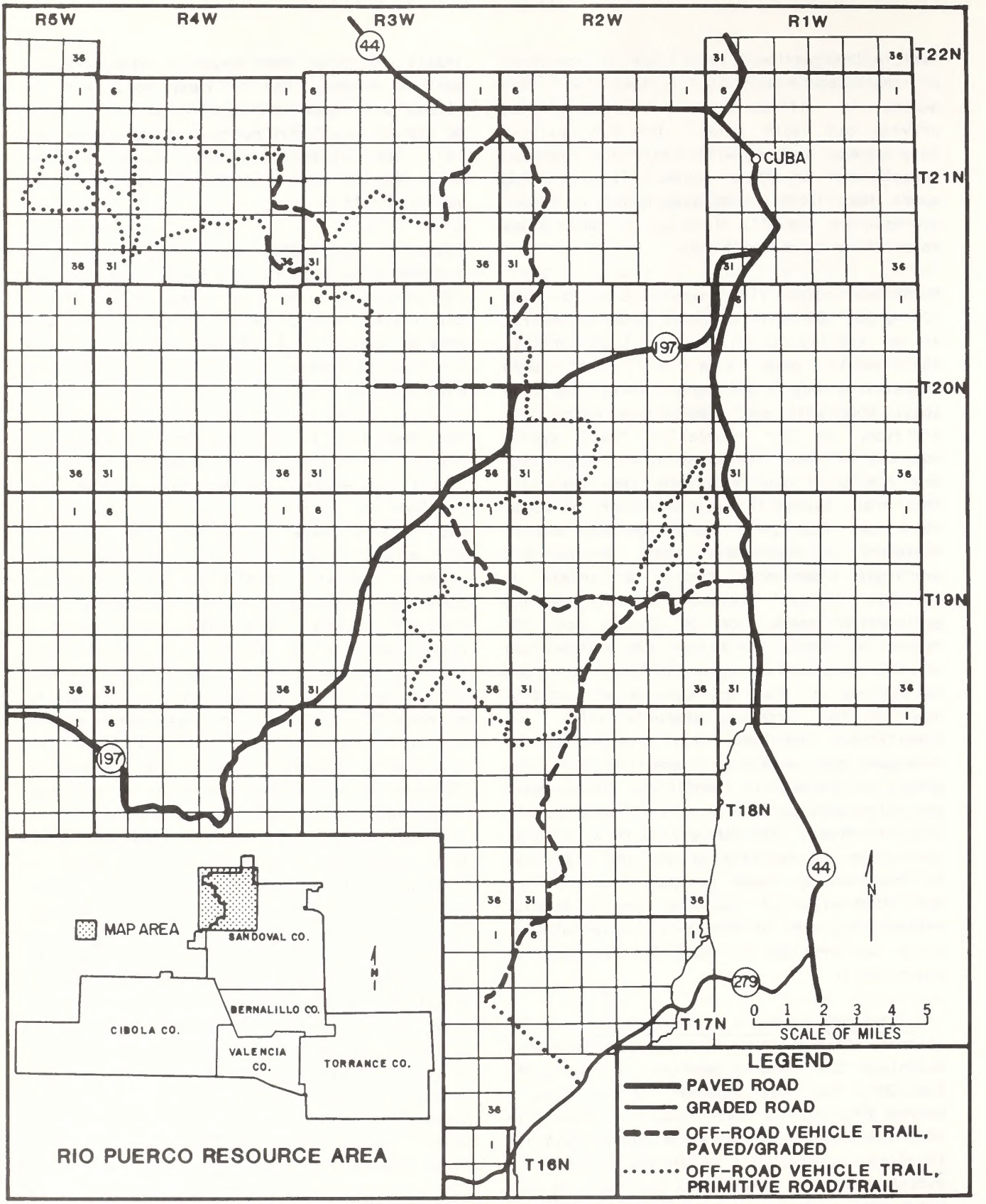
Permitted competitive events such as the "Oh-My-God 100" will continue to be authorized as not limited to existing roads and trails. The trials bike area will meet both competitive and play needs, while the dune buggy area will meet competitive needs. In addition, an ORV recreation trail system composed of about 124 miles of existing roads and trails is now available (see Map 13). This trail system includes a variety of route conditions from primitive to graded, and is designed to acommodate both day-use and overnight experiences through a variety of terrain. It will accommodate both play and exploration needs for a variety of ORV recreation types. To ensure the continuation of ORV recreation opportunities, no road maintenance or road improvements will modify the system route characteristics or conditions. Additional trail systems can be developed and managed in cooperation with user groups as the need is identified. These would be designed to serve a variety of skill levels and user types. The BLM will work with local user groups to identify an open ORV play area if requested by these groups. The RPRA has over 1500 miles of roads and trails already inventoried, many of them extremely primitive, which can provide for most ORV recreational experiences.

Off-Road Vehicle Designations. The Azabache Station SMA, Cabezon Peak ACEC/SMA, Guadalupe SMA, and a portion of the Ojito ACEC/SMA, two road segments in the Ignacio Chavez SMA, and two road segments in the Ojito SMA, totalling 10,248 acres of public land and 10 miles of road, will be closed to motorized vehicle traffic. Two road segments in the Ojito SMA and three in the Ignacio Chavez SMA, totalling twelve miles, will be limited to authorized users (see Maps 29, 30, 31, 34, and 37). In addition to closures and limitations for SMA's, six miles of existing roads and trails in three road segments outside SMA's will be closed. One of these roads will be closed and rehabilitated; the other two will be closed to all but authorized users (see Map 14). The existing Bluewater Canyon ACEC/SMA (see Map 44) remains closed to motorized vehicle traffic.

Vehicular use within Wilderness Study Areas and the Wilderness Instant Study Area (see Map 18) continues to be limited to existing roads and trails. Cross-country travel is allowed only by permit. If Congress designates these areas as "Wilderness," they will be closed to motorized vehicle use.

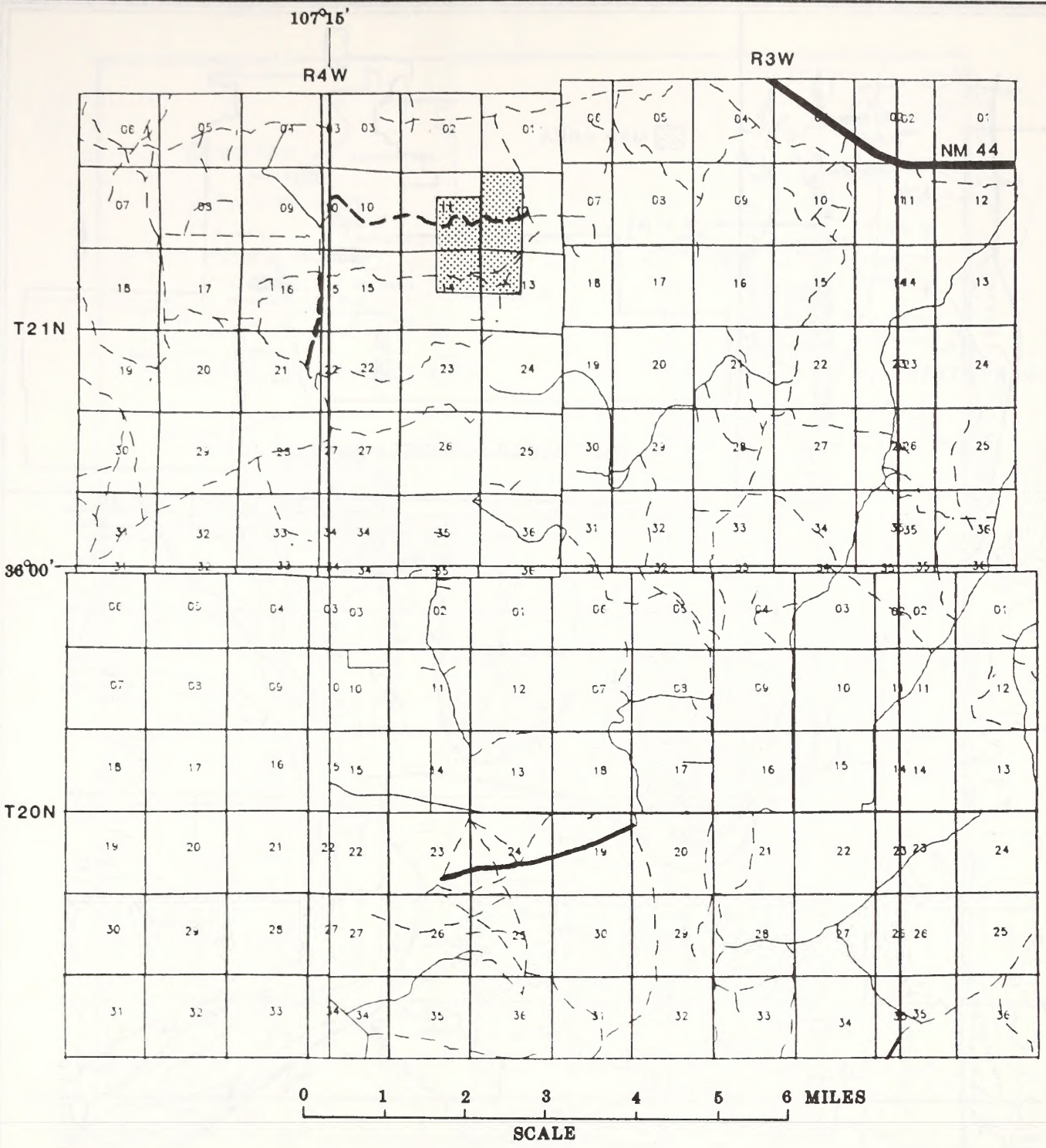
One area will be used for trials motorcycle riding, both as a "play-area" and for competitive events (see Map 15). Another area has been designated for competitive dune buggy events using existing routes (see Map 16). This area will be available for use four times a year; BLM will consider other competitive dune buggy event areas on a permit basis. The BLM will attempt to acquire access to this area; approximately two miles of private land must be crossed to reach the area. The BLM will work with local user groups to identify an open ORV play area if requested by these groups. Other motorized vehicle travel in the Rio Puerco Resource Area is designated as shown on Map 17. About 124 miles of existing roads and trails have been designated as an ORV recreation trail system (see Map 13). This system can be expanded in the future. A site plan, to be prepared with full public participation, will consider expansion of the trail system, access, facilities, and maps and brochures. The ORV recreation trail (Map 13) was designed to avoid as much private land as possible. Easements through private land will have to be obtained during site-specific planning in order to utilize any routes crossing private land. If these cannot be acquired, the trail will be rerouted. Competitive event courses for motorcycle use will be identified in the RPRA with input from local user groups.

All organized commercial and competitive ORV events will be examined through the environmental analysis process on a case-by-case basis. Permit stipulations for the various approved events are designed to



MAP 13

OFF-ROAD VEHICLE TRAIL SYSTEM



MAP 14
ROAD CLOSURES OUTSIDE SPECIAL MANAGEMENT AREAS

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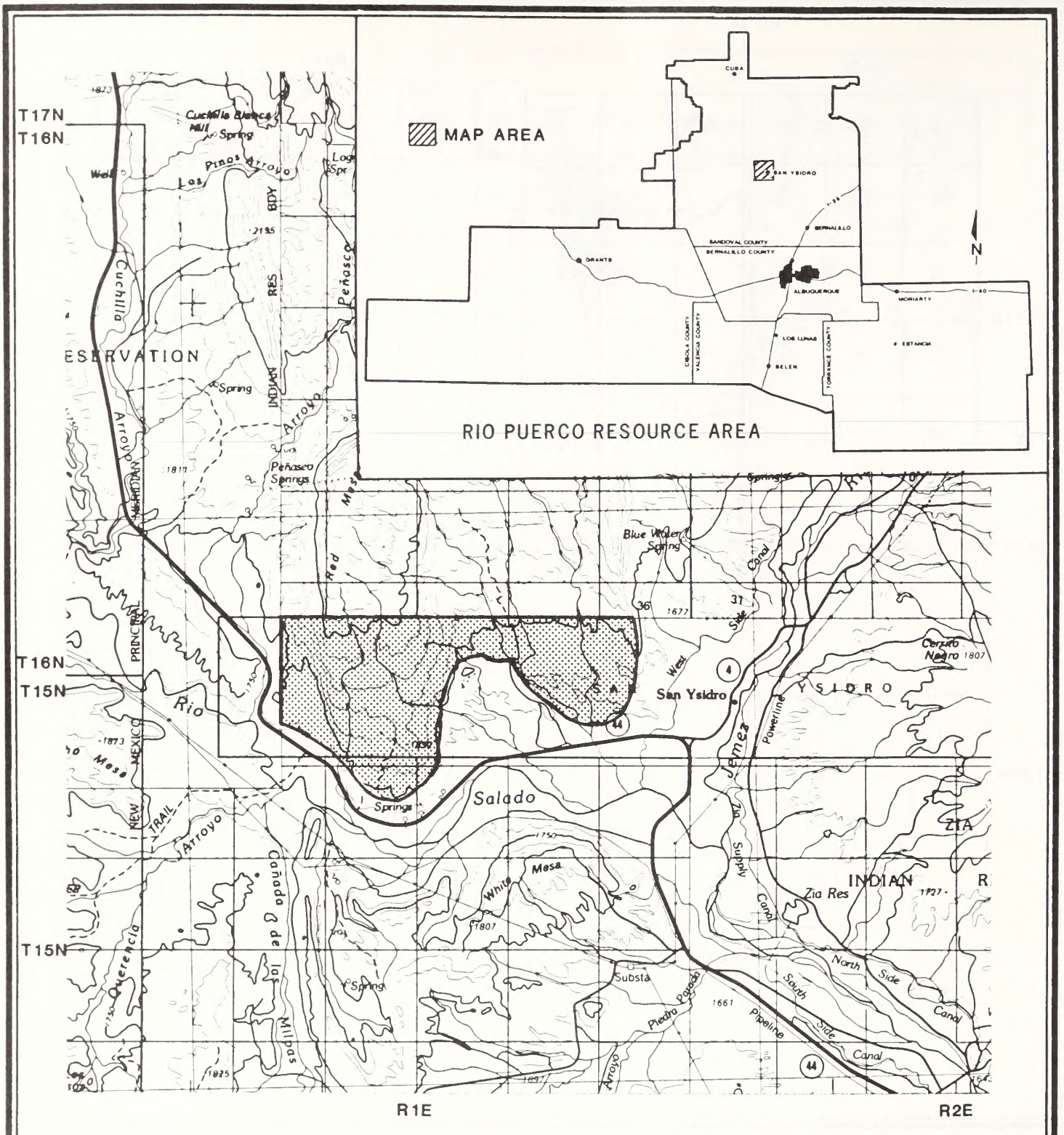
ROAD CLOSURE FOR REHABILITATION

ROAD CLOSURES

PELON WATERSHED SMA



MAP 15

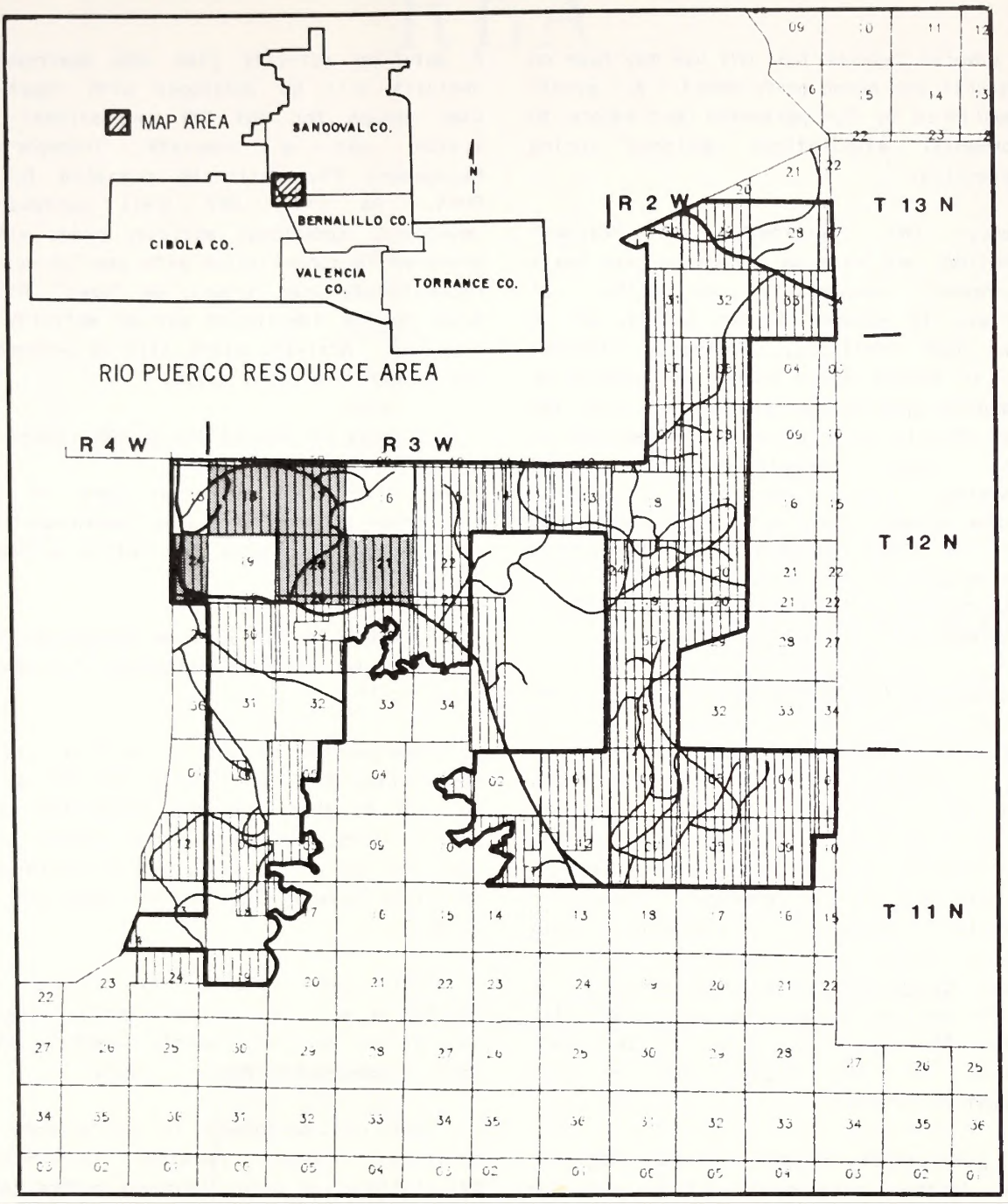
SAN YSIDRO MOTORCYCLE TRIALS AREA

N

TRIALS AREA

0 1 2 3 4 MILES

SCALE



MAP 16
COMPETITIVE DUNE BUGGY EVENT AREA

SURFACE OWNERSHIP

BLM

PRIVATE

N

COMPETITIVE DUNE BUGGY EVENT STUDY AREA

COMPETITIVE DUNE BUGGY EVENT AREA

GRADED ROAD

PRIMITIVE TRAIL

limit adverse impacts that ORV use may have on the natural and human environment. All events are monitored by BLM personnel and adhere to environmental stipulations designed during site planning.

Emergency ORV "limited" or "closed" designations are made on a case-by-case basis to prevent unnecessary degradation of resources, to ensure visitor safety, or to resolve user conflicts. Emergency closures remain in effect until either an interim or standard designation can be made, or until the adverse effects are eliminated and measures to prevent their recurrence have been implemented. Interim designations are used when the normal planning schedule does not permit the timely resolution of ORV-related issues through the RMP process.

Implementation of ORV Designations

As required by the ORV regulations and the BLM 8342 Manual, designation orders will be published in the Federal Register for the "open," "limited," and "closed" ORV designations described in this document. Prior to the Federal Register publication, public information materials will be prepared and a sign plan will be developed. The public information materials, including news releases, maps, and brochures, will be provided to notify public land users of the RPRA ORV designations. The sign plan will describe the types of signs to be used, locations of the signs, and a sign installation schedule.

After publication of the Federal Register notice further management action will be implemented to ensure that RMP ORV decisions are followed. The sign plan will be implemented with initial emphasis for signing in the SMA's and "limited" and "closed" areas. A monitoring plan will be developed for the "open" areas to monitor and evaluate the impacts of motorized vehicle use in these areas. Patrol and surveillance will be conducted in the restricted areas to deter unauthorized motorized vehicle use in these areas. The SMA's will recieve top priority for patrol and surveillance activities.

A detailed activity plan and environmental analysis will be developed with input from user groups for the ORV recreational trail system and a complete Transportation Management Plan will be prepared for the RPRA. As other ORV trail systems are developed, additional activity plans will be prepared in consultation with user groups. If requested by user groups, an "open" ORV play area may be identified and an activity plan prepared. Activity plans will be prepared on ORV competitive event areas.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the ORV Program:

"All public land will be designated 'open' to ORV use unless designated 'closed' or 'limited.'"

"Designation of public lands as suitable for limited ORV use or closed to ORV use will be made to allow for the protection of the public lands, to promote the safety of all users of the public land, and to minimize the conflicts between the various users of those lands."

"ORV use related to mining claim operations will not be restricted, except by regulations and requirements found in 43 CFR 3809, as amended on March 2, 1983."

"ORV use performed in conformance with existing leases, permits, rights-of-way stipulations, or other land-use authorizations will not be restricted."

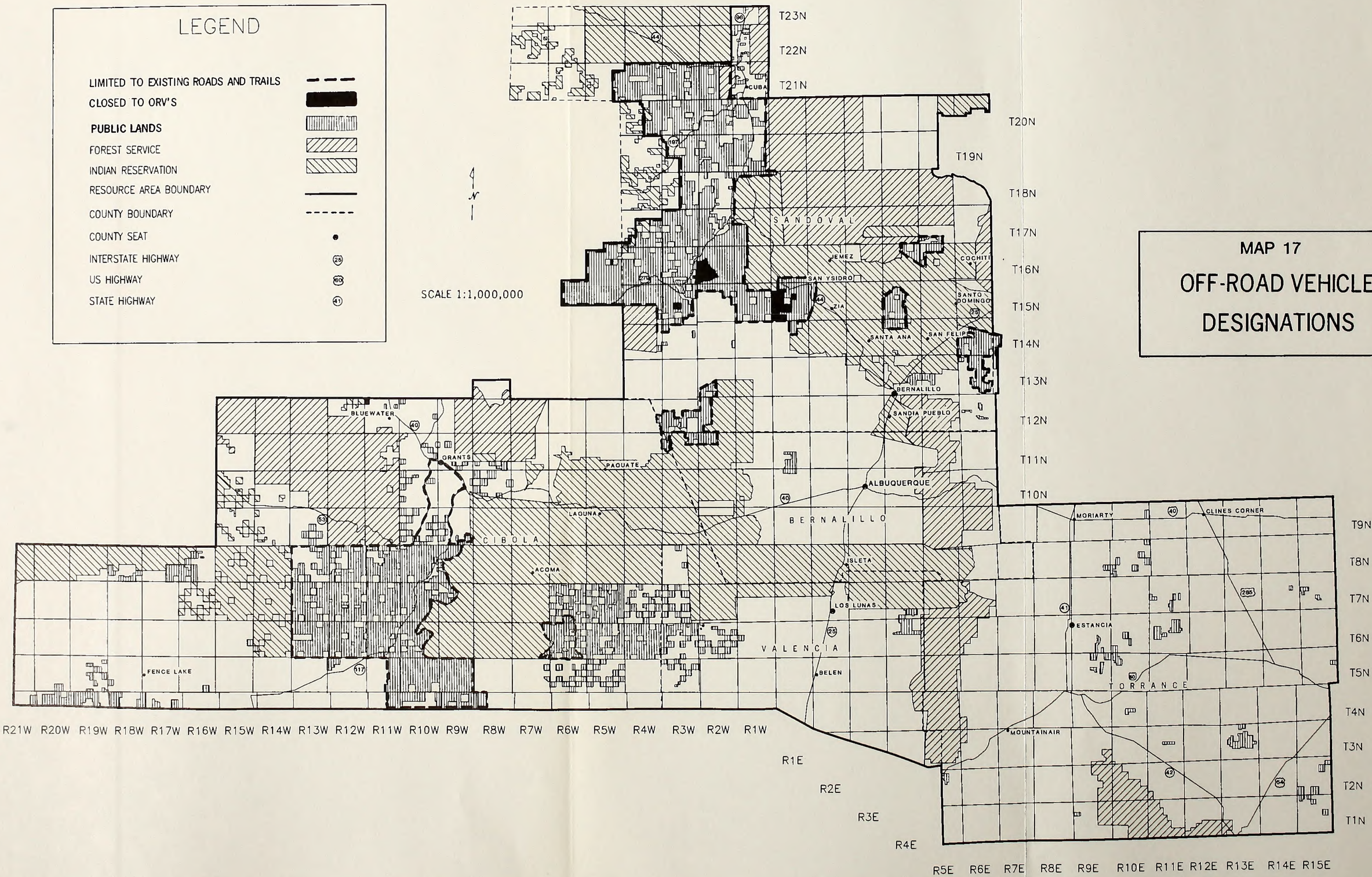
"Public lands currently or historically used for organized ORV events may be designated as 'limited' to specific types of ORV use when there are no special restrictions or compelling resource protection needs, user conflicts, or public safety issues to warrant further limiting ORV use."

"Designation for ORV use will consider protection of resources such as valuable

RIO PUERCO RESOURCE AREA

LEGEND

- LIMITED TO EXISTING ROADS AND TRAILS
- CLOSED TO ORV'S
- PUBLIC LANDS
- FOREST SERVICE
- INDIAN RESERVATION
- RESOURCE AREA BOUNDARY
- COUNTY BOUNDARY
- COUNTY SEAT
- INTERSTATE HIGHWAY
- US HIGHWAY
- STATE HIGHWAY



MAP 17

OFF-ROAD VEHICLE DESIGNATIONS

wildlife habitat, cultural resource values, wilderness values, watershed, visual quality, recreational values, and other resource uses."

"ORV use will be limited on those public lands where trespassing on non-public land would be encouraged by an "open" designation."

Monitoring Studies

Monitoring studies needs will vary with the individual area designations. Those areas which are "limited" or "closed" to motorized vehicle use will require patrol, surveillance, and enforcement actions to ensure compliance with the designations. Organized events will be monitored by BLM personnel and will adhere to environmental stipulations designed during site planning.

The areas designated as "open" to motorized vehicle use will require detailed monitoring studies. A monitoring studies plan will be developed for these areas which will specify the types of studies needed to determine whether undue and unnecessary degradation is occurring as a result of motorized vehicle use. Monitoring of ORV use will be the first level of studies defined in the monitoring studies plan. Use studies will aid in determining areas of concentrated use and to initiate site-specific studies.

Implementation Priorities

1. Prepare sign plan and public information materials, including news releases and brochures, describing the ORV designations.

2. Prepare a Federal Register notice announcing the ORV designations.

3. Initiate signing program for the ORV "limited" and "closed" areas. Initiate signing program for Special Management Areas, with highest priority for El Malpais, Ojito, and Tent Rocks. Place signs on race course after annual Oh-My-God 100 race reminding participants that the area is once again limited to existing roads and trails.

4. Develop a monitoring plan for the "open" areas.

Support Needs

Fire Management

No support needs from the Fire Management Program have been identified and none are anticipated.

Access, Transportation, and Rights-of-Way

Acquisition of legal access to the Competitive Dune Buggy Event Area has been identified as a support need in the resolution of the ORV issue. The ORV recreation trail system includes private land. Easements across this land must be acquired, or the trail rerouted. Additional easement needs will be identified as needed to meet changing public demand.

Cadastral Survey

No support needs from the Cadastral Survey Program are anticipated.

WILDERNESS

Program Objectives

The objectives of the Wilderness Program in the RPRA are to manage the twelve Wilderness Study Areas and one Wilderness Instant Study Area in compliance with the BLM Interim Management Policy; any areas designated as Wilderness will be managed in compliance with the Wilderness Management Policy.

Management Guidance

Wilderness resources in the RPRA have been inventoried using the BLM Wilderness Inventory Handbook (USDI, BLM 1978a) and are currently being managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b). This management emphasis will continue until Congress decides which lands are suitable or unsuitable for Wilderness designation.

The RPRA manages twelve Wilderness Study Areas (WSA's) and one Wilderness Instant Study Area (ISA) (see Map 18). See Table 15 for a summary of current status and recommendations

TABLE 15

WILDERNESS STUDY AREAS CURRENTLY MANAGED UNDER "INTERIM MANAGEMENT POLICY AND GUIDELINES FOR LANDS UNDER WILDERNESS REVIEW"

Name	Current Wilderness Recommendation	Current Status*
Cabezon	Suitable for Wilderness	Wilderness Study Area
Empedrado	Suitable for Wilderness	Wilderness Study Area
Ignacio Chavez	Suitable for Wilderness**	Wilderness Study Area
Chamisa	Suitable for Wilderness**	Wilderness Study Area
La Lena	Suitable for Wilderness	Wilderness Study Area
Manzano	Suitable for Wilderness	Wilderness Study Area
Ojito	Suitable for Wilderness	Wilderness Study Area
Petaca Pinta	Suitable for Wilderness***	Wilderness Study Area
Rimrock	Suitable for Wilderness	Wilderness Study Area
Sand Canyon	Suitable for Wilderness**	Wilderness Study Area
Little Rimrock	Suitable for Wilderness**	Wilderness Study Area
Pinyon	Suitable for Wilderness**	Wilderness Study Area
El Malpais	Suitable for Wilderness	Instant Study Area****

*All Wilderness Study Areas have been analyzed in the Revised New Mexico Statewide Wilderness Draft EIS except for El Malpais which was analyzed in the Draft Environmental Impact Statement and Wilderness Study Report for Wilderness Designation of El Malpais (USDI, BLM 1981c).

**The current recommendation is an amended boundary alternative that includes additional acreage not currently under Wilderness Study Area status.

***The current recommendation is an amended boundary alternative that would drop a small amount of the Wilderness Study Area from wilderness designation.

****Instant Study Areas are public land areas, formally designated as Natural or Primitive Areas prior to November 1, 1975, which were automatically designated as Wilderness Study Areas.

RIO PUERCO RESOURCE AREA

LEGEND

- WILDERNESS INTERIM MGMT. AREAS
- PUBLIC LANDS
- FOREST SERVICE
- INDIAN RESERVATION
- RESOURCE AREA BOUNDARY
- COUNTY BOUNDARY
- COUNTY SEAT
- INTERSTATE HIGHWAY
- US HIGHWAY
- STATE HIGHWAY

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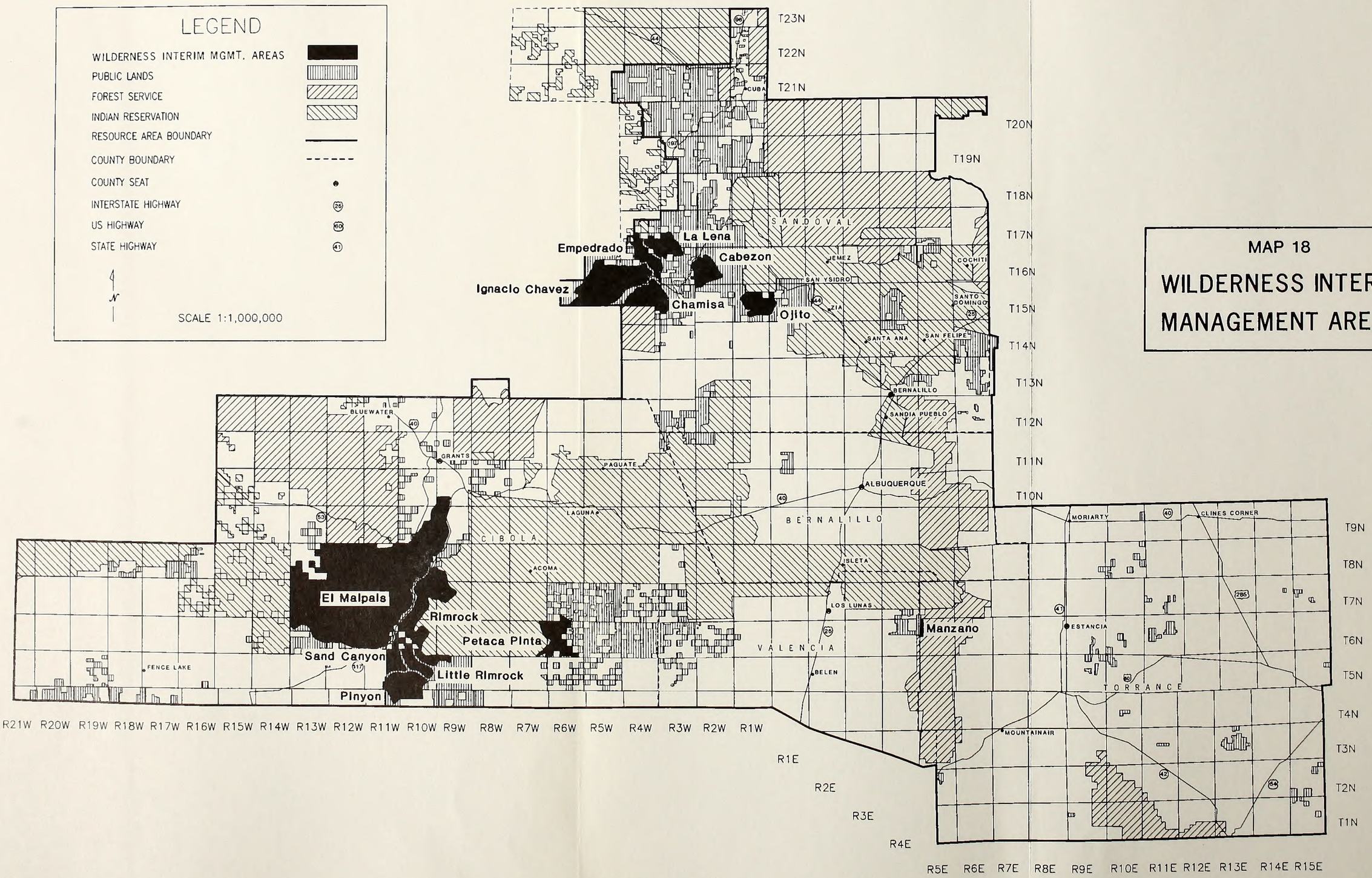


MAP 18

WILDERNESS INTERIM MANAGEMENT AREAS

for the WSA's and the El Malpais Wilderness ISA.

The task of assessing Wilderness suitability is being completed for the public lands in New Mexico on an accelerated, Statewide basis and is occurring entirely outside of the RMP process. A revised Statewide Wilderness Study Draft EIS was released during September 1986. The Final EIS will be incorporated into a wilderness study package to be submitted through the Department of the Interior to the President by October 21, 1991. The President will have two years to review the document and forward it to Congress for final review and approval. Any acreage designated by Congress as Wilderness will become part of the National Wilderness System and be managed under the Wilderness Management Policy (USDI, BLM 1981g).

The Rio Puerco RMP makes no assumptions concerning the final outcome of the New Mexico State Wilderness Study. All recommendations made through the RMP concerning lands currently being managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b) are confined to the identified RMP issues. Lands for which the RMP makes recommendations will continue under wilderness interim management until Congress makes a decision on whether they will be designated as Wilderness. Any areas not designated would then be managed under the RMP.

Additional Designations

Portions of El Malpais were previously designated as an Outstanding Natural Area, a Natural Environmental Area, and as a National Natural Landmark. These designations overlap with the El Malpais Wilderness Instant Study Area.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Wilderness Program:

"Designation for ORV use will consider protection of resources such as...wilderness values...."

"Those public lands which the BLM has determined to meet the requirements for status as Wilderness will not be disposed of until Congress has determined whether they should be designated as Wilderness or returned to multiple use management."

"Fuelwood will not be made available in areas where harvesting would degrade or disturb...the...wilderness values of the area."

"Public lands included in wilderness interim management areas will be retained in public ownership."

Monitoring Studies

The RPRA has an active program of patrol for the WSA's and ISA which is designed to monitor compliance with the BLM Interim Management Policy. This patrol program is detailed in the Interim Management Plan for each WSA. If any of these areas are designated as Wilderness, the Wilderness Management Plan prepared at that time will specify any monitoring studies necessary.

Implementation Priorities

The RPRA will continue to protect the WSA's and ISA under the Interim Management Policy. Special emphasis is currently being placed on the cluster of WSA's/ISA in the Malpais area near Grants. If any of the WSA's or the ISA are designated as Wilderness, implementation priorities will be formulated at that time.

Support Needs

Fire Management

No Fire Management support needs have been identified under interim management. Any needs under Wilderness designation will be specified in the Wilderness Management Plans.

Access, Transportation, and Rights-of-Way (ATROW)

No ATROW needs have been identified under interim management. Two of the WSA's have no legal access. These WSA's are contained in SMA's; their access needs have been identified at the end of this section in the SMA

summaries. If any of the WSA's or the ISA are designated as Wilderness, ATROW needs will be identified in the Wilderness Management Plans.

Cadastral Survey

No Cadastral Survey needs have been identified at this time. If any of these areas are designated as Wilderness, it is likely that Cadastral Survey needs will be identified in the Wilderness Management Plans.

CULTURAL RESOURCES

Program Objectives

The RPRA manages cultural resources on the public lands in a manner that protects and provides for the proper use of those resources. Cultural resources include archeological, historic, and socio-cultural properties. The degree of management is commensurate with the scientific or socio-cultural values of the resource, the degree of threat, and the resource's vulnerability. Under this concept, the RPRA attempts to protect a representative sample of the full array of cultural resources, both prehistoric and historic, found on BLM-administered land.

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

Management Guidance

Inventory and Evaluation

The BLM undertakes and maintains a cultural resource inventory for all Bureau-administered lands. These inventories are categorized into three classes: Class I--Existing inventory or literature search, Class II--Sampling field inventory (all sampled units are inventoried to Class III standards), and Class III--Intensive field inventory. A Class III inventory is usually required before any surface disturbance may occur. In most cases, areas of BLM-initiated projects are inventoried by BLM archeologists. Areas to be disturbed by actions authorized by BLM such as right-of-way construction or oil and gas exploration are inventoried by archeologists under contract to the applicant. These archeologists work under permits issued by BLM and their reports are submitted to BLM for approval.

The RPRA 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.

Nominations

The BLM prepares and submits nominations of priority cultural resource properties located on the public lands to the National Register of Historic Places. BLM also coordinates with other agencies and organizations in nominating cultural resources eligible for inclusion in various other Federal, State, and local cultural resource registry systems.

Cultural Resource Management Plans

The RPRA is currently implementing two Cultural Resource Management Plans (CRMP's), for the Guadalupe Ruin and Candelaria Ruin Chacoan outliers (USDI, BLM 1981a). Future CRMP's will be developed for the Special Management Areas identified in this RMP which have cultural resource management goals. Other CRMP's for specific cultural resource properties may also be developed if the management objectives are consistent with the approved RMP.

Protection and Utilization

The RPRA's Cultural Resources Program protects cultural resources on a limited basis through the application of both administrative and physical measures as necessitated by the cultural resource's scientific and socio-cultural value, vulnerability, and degree of threat. Interim protection will focus primarily on a patrol and surveillance effort, conducted on an irregular basis, until

specific cultural resource management objectives are developed. An active program of signing cultural resource properties under threat of active or potential vandalism will continue.

The BLM issues cultural resource use permits for cultural resource inventory, collection, and excavation on public land. The RPRA uses these permits as a tool for managing the scientific use of cultural resources. In addition, cultural resources will continue to be made available for scientific and socio-cultural use, consistent with the specific use and protection objectives for the resource.

Native American Religious Freedom

All project and activity level plans will consider Native American religious freedom. The annual RMP Program Document will be used to notify Native Americans of upcoming projects which may be of concern to them, and to encourage their involvement in such projects.

Compliance

The BLM takes into account the effects of its actions or authorizations on cultural resources. Adverse impacts to cultural resources are avoided whenever possible or practical. When adverse impacts caused by BLM projects or BLM-authorized actions cannot be avoided, mitigation may be conducted. The nature of mitigation implemented depends upon the impact, and the scientific and socio-cultural values of the resource involved. As required, these actions are coordinated with the State Historic Preservation Officer and the National Advisory Council on Historic Preservation.

Management Strategy

The major cultural resource program input into the RMP process defined and formulated use allocation recommendations for specific cultural resource Special Management Areas, specifying long-term management goals for the use and maintenance of the resource base, and identifying, where appropriate, specific types of actions required for implementation. Management goals appropriate to the land use planning level are general in nature and normally do not call for specific on-the-ground actions. Therefore, the RPRA uses a management strategy which consists of three elements. These elements are "Cultural Resource Site Classes," "Cultural Resource Management Goal System," and "Cultural Resource Use Categories" (see Figure 1). Collectively, these three elements provide the vehicle to determine the appropriate use of all cultural resources within the RPRA. Each of these three elements is discussed in detail below.

Cultural Resource Site Classes. These are general classes of cultural resource sites in which all known and projected prehistoric and historic sites in the RPRA can be placed. These consist of four chronological classes that roughly parallel traditional Southwestern cultural distinctions, and an "Unknown" class. These classes are as follows: (1) Paleoindian (approximately 9500 B.C. to 5500 B.C.)--primarily characterized by big game hunting (mastodon, mammoth, and a now extinct form of bison). This hunting subsistence pattern is reflected in a complex series of distinct stone projectile points and related stone tool assemblages; (2) Archaic (5500 B.C. to A.D. 400)--primarily characterized by the hunting of small game and gathering of vegetable foods with a shift late in the period to the beginnings of farming; (3) Pueblo (A.D. 400 to 1539, the year Spanish explorers first arrived)--characterized by the appearance of basketmaking early in the period, then pottery making, and later an increased emphasis on farming; (4) Historic (A.D. 1540 to present) characterized by Spanish colonization, Mexican influence, and Hispanic and Anglo development; and (5) an Unknown class which contains sites from all of the other classes which have no associated diagnostic materials which would allow assignment to one of the other classes (see Table 16).

Cultural Resource Management Goal System. The goal categories defined by the RPRA are consistent with program directives calling for management for scientific and socio-cultural

FIGURE 1
PLANNING FOR CULTURAL RESOURCES

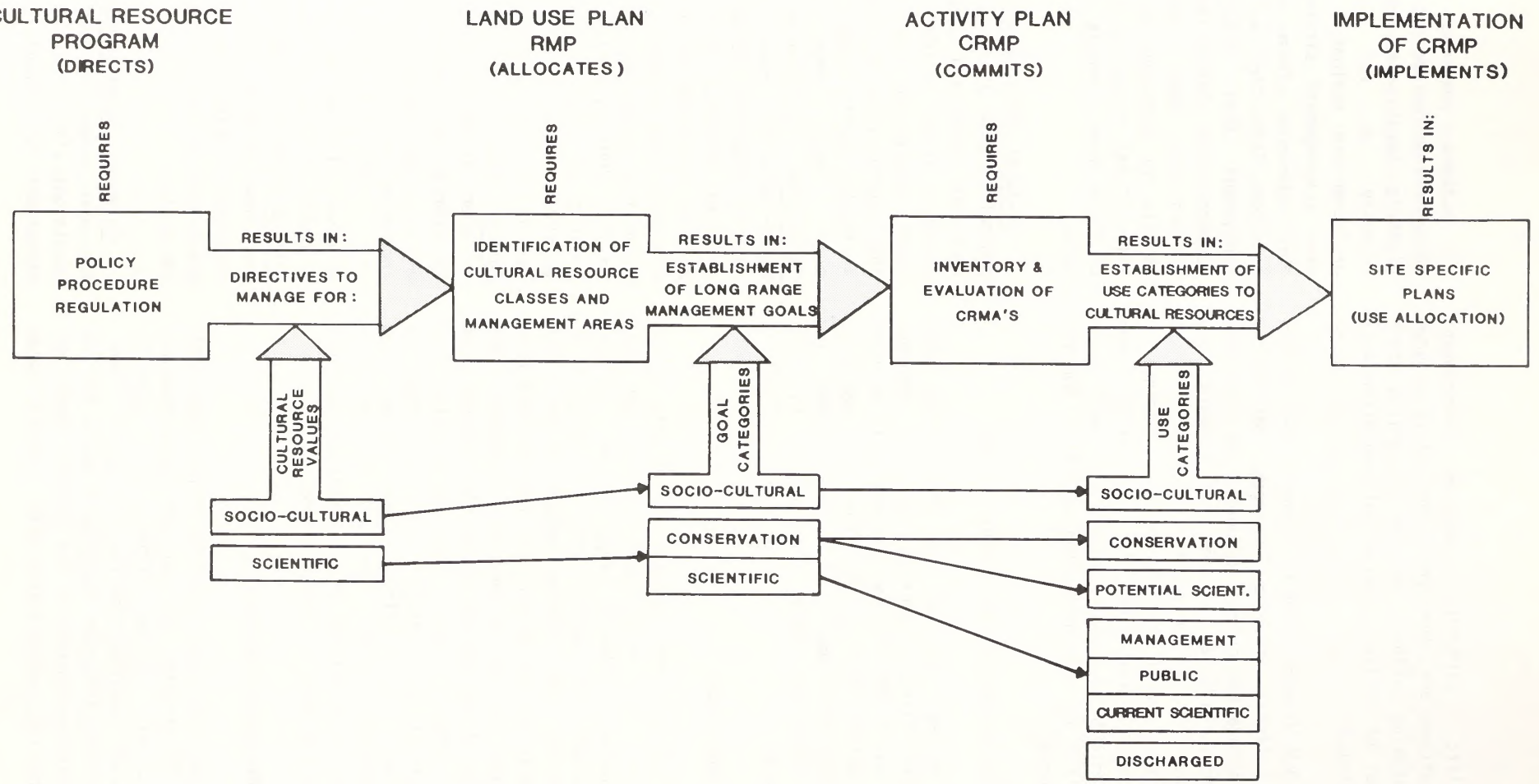


TABLE 16

SITE CLASSIFICATION MANAGEMENT GOAL SUMMARY

Site Classification Type	Summary	Management for Socio-Cultural Considerations	Management for Conservation	Management for Scientific Value	Rationale
PaleoIndian (2%)	Little known Little understood Poorly represented in inventory	*	So little is known about PaleoIndian sites in New Mexico that a conservation goal orientation is most appropriate	In order to evaluate such sites, this goal category is necessary	So little is known that any site in this class should receive special attention. This class not well represented by known sites.
Archaic (26%)	Poorly known Well represented in inventory	*	A substantial percentage of this class of site must be "conserved" until more sophisticated analysis techniques are available.	In order to evaluate such sites, this goal category is necessary.	This class is well represented but poorly understood. Traditionally a class "lumped" together because of a lack of diagnostic materials, but undoubtedly comprising a full time range of materials.
Pueblo (57%)	Poorly known Well represented in inventory	*	A substantial percentage of this class of site must be "conserved" until more sophisticated analysis techniques are available.	In order to evaluate such sites, this goal category is necessary.	This class is well represented with some "traditional" understanding. This class will contain sites falling into all three major goal categories.
Historic (7%)	Well known Well represented in inventory	*	Very few sites of this class are likely to fit into this goal category.	Some Scientific and/or historic value contained in these sites.	The scientific goal category will allow sites in this class to remain suitable for both scientific and public uses.
Unknown (8%)	Should diminish as more information and new identification techniques are developed.	*	Very few sites of this class are likely to fit into this goal category.	This class of site has a full range potential suggesting this goal category is appropriate since range of uses is possible.	As information becomes available every reasonable effort should be made to assign such a site to one of the other classes. In the interim, treatment in the scientific goal category will allow maximum flexibility yet provide for adequate protection.

* Any site identified as having socio-cultural value regardless of class will fall within this goal category. Many such sites will contain multiple components, that is sites from other time periods that also contain socio-cultural values. Such sites/locations will be managed for both values.

values. Three goal categories have been incorporated into this planning effort: (1) Management for Socio-Cultural Considerations, (2) Management for Conservation, and (3) Management for Scientific Value (see Table 16).

1. The goal of the "Management for Socio-Cultural Considerations" category is the management of sites, locations, features, and objects identified as having attributes which contribute to maintaining the heritage, belief systems, folkways, and existence of a social and/or cultural group. Considerations for management in this category also include access to and maintenance of locations, sites, features, and objects of traditional religious or spiritual value; use and possession of sacred objects; and the freedom to worship through ceremonials and other traditional rites.

2. The goal of the "Management for Conservation" category is the management of areas, sites, locations, districts, or features by removing them from consideration for scientific or historic study which would result in their physical alteration. Properties managed under this goal could also possess one or more of these attributes: uniqueness or relative scarcity of type, class, condition, or affiliation; research potential that surpasses current state of the art; or singular historic importance or architectural interest. Such cultural resource properties would remain in this category until specified provisions are met in the future.

3. The goal of the "Management for Scientific Value" category is the management of cultural properties so that they would remain suitable for consideration as the subject of scientific or historical study utilizing research techniques currently available. Such study could, if warranted by an approved research design, result in the controlled physical alteration of that property. A cultural property in this category need not necessarily be conserved in consideration of an approved research or data recovery (mitigation) proposal. Management under this category could allow controlled experimental study which could also result in physical alteration to the property. This work could be performed by the BLM or other entities concerned with the management of cultural properties for purposes of obtaining specific information leading to a better understanding of kinds and rates of natural or human-caused deterioration, effectiveness of protection measures, and similar lines of inquiry which would ultimately aid in the management of cultural resources.

Cultural Resource Use Category System. In addition to the use allocation recommendations made through Management Goal Category assignment during the land use planning (RMP) stages, another vital step occurs during the next, more specific planning stage, the Cultural Resource Management Plan or activity plan. This step or allocation commitment comes after the completion of the RMP which established the general management goals for a particular site or, more commonly, combination of sites. The activity plan based on comprehensive inventory and analysis will commit specific actions and assign, as part of the activity planning process, each site to one or more of the following use categories:

1. "Current Scientific Use" means that a cultural property is the subject of an ongoing scientific or historical study or project, under permit, at the time of evaluation; upon completion of that study or project, the cultural property will be assigned to one of the other use categories.

2. "Potential Scientific Use" means that a cultural property is presently eligible for consideration as the subject of scientific or historical study utilizing research techniques currently available, including study which would result in its physical alteration, and it need not be conserved in the face of an appropriate research or data recovery (mitigation) proposal.

3. "Conservation for Future Use" means that because of scarcity of similar cultural

properties, a research potential that surpasses the current state of the art, singular historic importance or architectural interest, or comparable reasons, a cultural property is not presently eligible for consideration as the subject of scientific or historical study which would result in its physical alteration, that it is worthy of segregation from other land or resource uses which would threaten the maintenance of its present condition, and that it will remain in this use category until specified provisions are met in the future.

4. "Management Use" means that a cultural property is eligible for controlled experimental study which would result in its physical alteration, to be conducted by the BLM or other entities concerned with the management of cultural properties, for purposes of obtaining specific information leading to a better understanding of kinds and rates of natural or human-caused deterioration, effectiveness of protection measures, and similar lines of inquiry which would ultimately aid in the management of cultural properties.

5. "Socio-Cultural Use" means that a cultural resource is perceived by a specified social and/or cultural group as having attributes which contribute to maintaining the heritage or existence of that group, and is to be managed in a way that takes those attributes into account, as applicable.

6. "Public Use" means that a cultural property is eligible for consideration as an interpretive exhibit-in-place, a subject of supervised participation in scientific or historical study, a subject of unsupervised collecting under permit, or related educational and recreational uses by members of the general public.

7. "Discharged Use" means that a cultural property, previously qualified for assignment to any of the first six categories, no longer possesses the qualifying characteristics for that use or for assignment to an alternative use, that records pertaining to it represent its only remaining importance, and that its location no longer presents a management constraint for competing land uses.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Cultural Resources Program:

"Areas containing important historic [or] cultural...values may be considered for designation as Areas of Critical Environmental Concern."

"Areas which are so unique that it may be more important to manage them for a single use or a combination of specific uses rather than for full multiple use may be considered for special management attention. Examples of possible designations are Chaco Culture Archeological Protection Sites...."

"Designation for ORV use will consider protection of resources such as...cultural resource values...."

"Public lands will not be disposed of if cultural...resources of national, State, or regional significance are found on them and the adverse effects of the disposal action cannot be mitigated at reasonable cost."

"Fuelwood will not be made available in areas where harvesting would degrade or disturb...the...cultural...values of the area."

"Multiple use decisions may be made which will eliminate additional coal deposits from further consideration to protect other resources of a locally important or unique nature not included in the unsuitability criteria."

Monitoring Studies

The RPRA is currently monitoring the Cultural Resource Management Plans for Guadalupe Ruin and Candelaria Ruin. The Joint Management Plan for the Chaco Archeological Protection Site System (NPS 1984) calls for the RPRA to monitor the San Mateo Site on private land.

No general monitoring studies are being conducted for cultural resources in the RPRA. Compliance is more typically the tool used to identify impacts to cultural resources. In addition, patrol, surveillance, and enforcement actions are conducted to ensure the protection of cultural resources from unauthorized activities.

Implementation Priorities

1. Prepare CRMP's for the two cultural resource ACEC's (Canon Tapia and Jones Canyon). Prepare cultural resource component for the El Malpais SMA activity plan. Prepare cultural resource input to other ACEC activity plans. Prepare CRMP for Big Bead Mesa National Historic Landmark/SMA. Expand existing CRMP for Guadalupe Ruin to cover entire Guadalupe Ruin and Community SMA. Prepare cultural resource components for all other SMA activity plans with identified cultural resource values (Historic Homesteads, Canon Jarido, Headcut Prehistoric Community, and Azabache Station). Prepare cultural resource input to all other SMA activity plans.

2. Continue implementation (including monitoring) of existing CRMP's (currently Guadalupe Ruin and Candelaria Ruin).

3. Continue compliance/support program. Perform surveys as needed; review out-of-house survey reports as received; maintain site and survey inventory file and maps; issue permits for inventory, collection, and excavation.

4. Continue patrol and surveillance program. Continue signing program.

Support Needs

Fire Management

No support needs from the Fire Management Program have been identified and none are anticipated.

Access, Transportation, and Rights-of-Way (ATROW)

No support needs to the Cultural Resource Program from the ATROW Program have been identified. Such needs may be identified in the future. ATROW needs for cultural resource SMA's are identified at the end of this section in the SMA summaries.

Cadastral Survey

Need for cadastral survey of several cultural resource SMA's is identified at the end of this section in the SMA summaries

LANDS AND REALTY

Program Objectives

This program attempts to consolidate the public land in a manner which will improve resource manageability, while considering the public interest on a local, regional, and national basis. Land ownership adjustments by such means as exchanges, sales, and occupancy resolution will be the mechanism used to achieve this objective. Processing of Recreation and Public Purpose Act (R&PP) applications, rights-of-way applications, and Land Use Authorization applications, as well as withdrawal reviews is also the responsibility of this program. All resource values and uses are considered and environmental impacts analyzed prior to the issuance of R&PP leases and patents, and Land Use Authorization permits and/or leases. Right-of-way applicants are encouraged to utilize designated corridors and windows to reduce adverse environmental impacts.

Management Guidance

Public Land Exchanges

The RPRA has an active land exchange program. All exchange proposals are examined in conformance with NEPA requirements, including extensive public review. The RPRA is currently concentrating its exchange efforts in Cibola and Valencia Counties under decisions contained in the Ladron, Rio Grande, and Divide Management Framework Plans (MFP's) (USDI, BLM 1977, 1979c, 1983b). The Lands and Realty Program MFP decisions carried forward in this RMP are summarized on Table 17. Divide MFP Decision L-6.1 identifies scattered and isolated tracts of public land in the San Augustine Coal Area for retention pending coal

TABLE 17

SUMMARY OF LANDS AND REALTY MANAGEMENT FRAMEWORK PLAN DECISIONS

Document	Decision Number	Summary
Divide MFP	L-1.1	Make 600 acres of land available for disposal within the extraterritorial boundaries of Grants and Milan.
	L-1.2	Make available for disposal or Land Use Authorization consideration about 200 acres of small, isolated tracts near Belen, Los Lunas, and Aragon, which are suited for urban and suburban expansion, but are not part of the Rio Grande Occupancy Resolution Program acreage.
	L-2.1	Make 480 acres, surrounded by Laguna Indian Reservation lands, available for disposal or Land Use Authorization consideration.
	L-3.1	Make two tracts of public land available for disposal with the first option to Grants Municipal School System as school sites.
	L-3.2	Make two 40 acre sites available for disposal with first option to the Valencia Board of County Commissioners. Make about 46 acres available for disposal for residential development near Los Lunas.
	L-3.3	Provide 720 acres under R&PP to Grants and San Fidel.
	L-4.2	Establish a north-south right-of-way corridor for future ROW needs, which will follow the two existing Tucson Power and Electric 345 kV lines. (Already implemented.)
	L-5.1	Dispose of an estimated 300 acres of public land near Los Lunas and Aragon which are located within the Rio Grande Occupancy Resolution Program area by 1995. Title transfer will be to those people who qualify under the provisions of The Color-of-Title Act of 1928.
	L-6.1	Retain surface ownership of all lands in the San Augustine Coal Area that have the potential for surface coal mining. Dispose of the remainder of the isolated tracts. Lands identified are subject to change as the coal resource is further delineated. The preferred method of disposal would be by exchange, although disposal by sale or other appropriate means is acceptable. Establishment of total estates will be a priority for the lands identified for exchange.
Ladron MFP	L-1.1	Designate utility corridors, to the extent practical or feasible, along existing powerline and pipeline rights-of-way in the eastern portion of the planning unit. (Already implemented.)
	L-3.1	Request the Bureau of Reclamation to review the powersite withdrawal along the Rio Puerco in FY 79 to see if it is needed. If not, ask the Bureau of Reclamation to relinquish the withdrawal. (This withdrawal is being reviewed.)
Rio Grande MFP	L-4.1	Offer through exchange first to the U.S. Forest Service all parcels in T.6 and 7 N., R. 3, 4, and 5 E., then to other interested parties.
	L-6.1	All unauthorized occupancies on public lands in the planning unit will be mitigated by one of the following alternatives, based upon whether the public land occupied is or is not specifically identified and determined available for transfer from Federal ownership to other uses: PART A - Any occupancy established on public lands identified for transfer to other than Federal ownership will be mitigated by one of the following alternatives as appropriate: 1. Those occupants who possess a strong land title which indicates tenure and some type of title conveyance purchased in good faith and with full intent that the land described was in fact held in prior private ownership, and can meet the other criteria of The Color-of-Title Act, will be granted a title under that authority.

TABLE 17 (Concluded)

Document	Decision Number	Summary
		2. Those occupants who possess some land title, evidence tenure, a record of regular tax payments, and some type of title conveyance purchased in good faith prior to May 15, 1979 and with full intent that the land described was in fact held in prior private ownership, will be considered for direct sale, at fair market value of the claimed tract. PART B - Any occupancy established on public lands in the planning unit not identified for disposal or transfer to other than Federal ownership, will be resolved and dealt with by one of the following alternatives as appropriate: 1. Those occupants who meet the established criteria of The Color-of-Title Act will be granted a title under that authority. 2. Those occupants who do not meet the established criteria of The Color-of- Title Act, but who have lived at least ten years on the occupied land, may be granted up to a 20-year lease, not to exceed the life of the lessee. Upon expiration of the lease, the continued occupancy shall terminate unless the lessee negotiates a new lease with the Bureau. PART C - Any occupancy established on public lands in the planning unit after May 15, 1975, whether or not the lease is identified for transfer from Federal ownership, will be considered to be in trespass and subject to lawful eviction procedures. PART D - Unoccupied lands as of May 15, 1975 identified for transfer to other than Federal ownership will be sold under the R&PP Act or competitive sale at no less than the fair market value.

suitability assessment. A portion of the San Augustine Coal Area in the RPRA will be assessed in the forthcoming Socorro RMP (see Map 4). The coal development potential of the remaining parcels of the San Augustine Coal Area in the RPRA (see Table 18) was not considered in the Rio Puerco RMP due to lack of data and time. However, none of these parcels is felt to meet the threshold criteria established for areas having maximum coal development potential. These parcels will be considered available for disposal, with a mineral resource assessment required prior to disposition.

On October 3, 1984, the BLM State Director for New Mexico and the New Mexico State Commissioner of Public Lands signed a Memorandum of Understanding to establish a comprehensive, long-term Statewide land exchange program between BLM and the State of New Mexico (USDI, BLM 1984f). The objectives of this program are (1) to improve the land management potential of both State and Federal lands, (2) eliminate unnecessary Federal and State conflicts generated by existing ownership patterns, (3) facilitate the management of State and BLM lands by substantially realigning the scattered State and BLM sections to create solid block or consolidated land ownership, and (4) develop procedures that are most expeditious and cost effective.

RMP Land Ownership Adjustments Issue

In addition to the lands identified for disposal in the Ladron, Rio Grande, and Divide MFP's, about 58,000 acres of scattered and isolated public land (see Table 19 and Map 19) were identified as potentially available for disposal in the resolution of Land Ownership Adjustments Issue. Exchange of these public lands for State trust and private lands identified for acquisition as planned actions in SMA's or to benefit other resource management programs is considered the preferred method of ownership adjustment. To expedite land ownership adjustments, exchanges for State trust lands will be processed as a first priority, with exchanges for private lands, a more time-consuming process, a second priority. Recreation and Public Purposes Act disposals and public land sales will be considered as acceptable methods of ownership adjustment as third and fourth priorities. All public sale actions and exchanges will be thoroughly examined under the environmental analysis process, including public participation. The planning criteria will be considered when analyzing public sale actions and exchanges.

TABLE 18

SAN AUGUSTINE COAL AREA LANDS IN THE RPRA CONSIDERED POTENTIALLY AVAILABLE FOR DISPOSAL

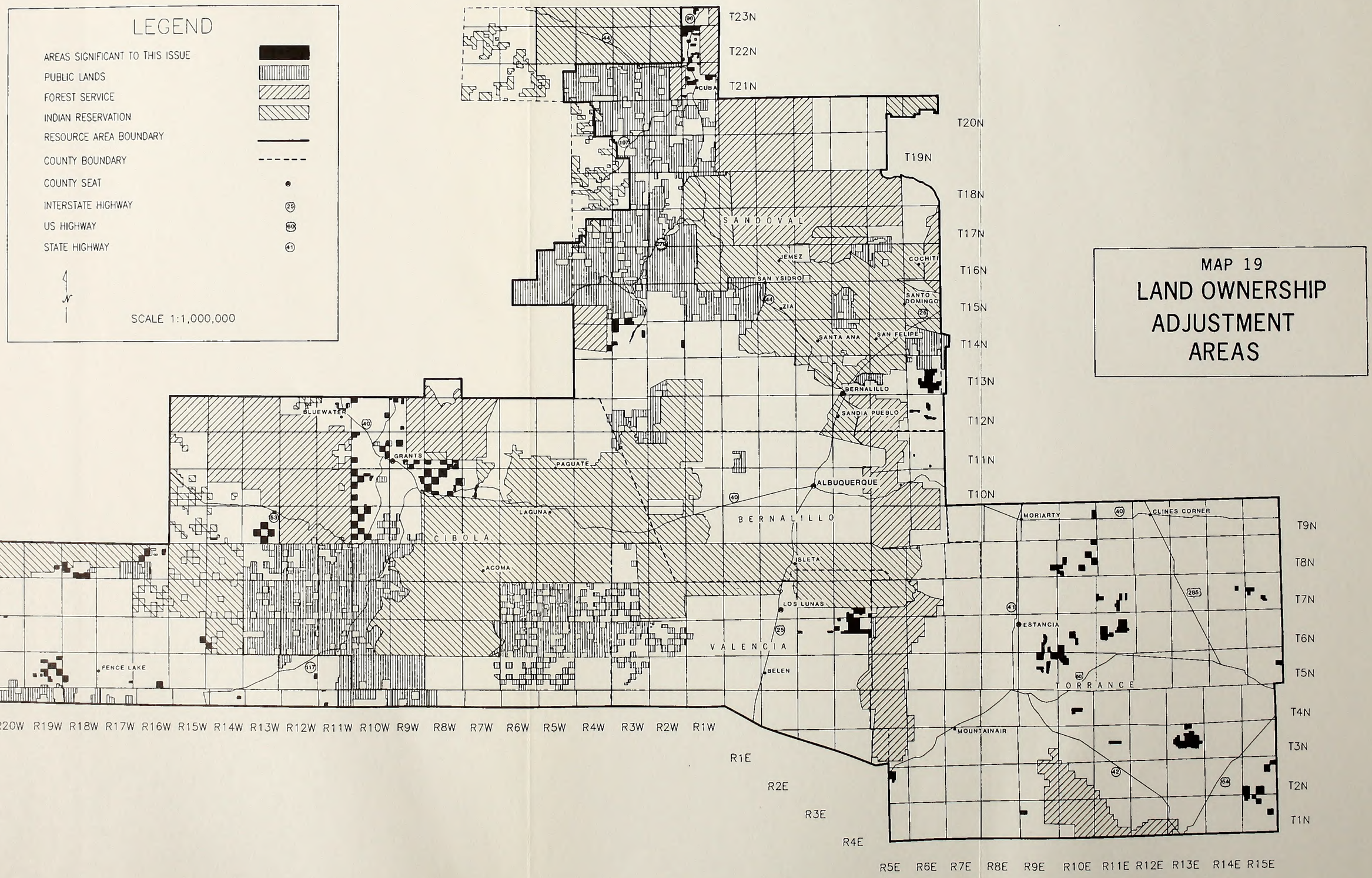
T. 4 N., R. 10 W., Section 12, SW1/4 SW1/4
T. 4 N., R. 11 W., Section 8, SW1/4
T. 5 N., R. 18 W., Section 30, All
T. 5 N., R. 19 W., Section 10, S1/2
T. 5 N., R. 19 W., Section 12, N1/2
T. 5 N., R. 19 W., Section 14, All
T. 5 N., R. 19 W., Section 20, SE1/4
T. 5 N., R. 19 W., Section 22, E1/2
T. 5 N., R. 19 W., Section 22, N1/2 NW1/4
T. 5 N., R. 19 W., Section 22, W1/2 SW1/4
T. 5 N., R. 19 W., Section 24, All
T. 5 N., R. 19 W., Section 26, SW1/4
T. 5 N., R. 19 W., Section 26, W1/2 NW1/4
T. 8 N., R. 16 W., Section 9, All
T. 8 N., R. 16 W., Section 12, W1/2
T. 8 N., R. 16 W., Section 17, All
T. 8 N., R. 16 W., Section 28, E1/2 E1/2
T. 10 N., R. 8 W., Section 4, All
T. 10 N., R. 8 W., Section 6, All
T. 10 N., R. 8 W., Section 8, All
T. 10 N., R. 8 W., Section 18, All
T. 10 N., R. 8 W., Section 20, N1/2 N1/2
T. 10 N., R. 8 W., Section 20, Lots 1-4
T. 10 N., R. 9 W., Section 12, E1/2
T. 10 N., R. 9 W., Section 12, N1/2 NW1/4
T. 10 N., R. 9 W., Section 12, SE1/4 NW1/4
T. 10 N., R. 9 W., Section 12, NE1/4 SW1/4
T. 11 N., R. 7 W., Sec. 30, All but E1/2 NE1/4
T. 11 N., R. 8 W., Section 26, All but SW1/4
T. 11 N., R. 8 W., Section 28, All
T. 11 N., R. 8 W., Sec. 30, All but E1/2 E1/2
T. 11 N., R. 8 W., Section 34, SW1/4 SW1/4
T. 11 N., R. 8 W., Section 34, NE1/4
T. 11 N., R. 8 W., Section 34, NW1/4 less SW1/4 NW1/4
T. 11 N., R. 9 W., Section 26, All
T. 11 N., R. 9 W., Section 34, E1/2
T. 11 N., R. 9 W., Section 34, S1/2 SW1/4
T. 11 N., R. 9 W., Section 35, W1/2 W1/2

TABLE 19

PUBLIC LANDS IDENTIFIED IN THE RIO PUERCO RMP
AS POTENTIALLY SUITABLE
FOR DISPOSAL OR FOR FURTHER STUDY

Township	Range (NMPM)	Public Lands Identified as Potentially Suitable for Disposal	Public Lands Identified for Further Study for Disposal
1 North	8 East	X	
1 North	9 East	X	
1 North	13 East	X	
1 North	15 East	X	
2 North	5 East	X	
2 North	11 East	X	
2 North	12 East	X	
2 North	14 East	X	
2 North	15 East	X	
3 North	5 East		X
3 North	6 East	X	
3 North	8 East	X	
3 North	10 East	X	
3 North	11 East	X	
3 North	12 East	X	
3 North	13 East		X
3 North	17 East	X	
4 North	8 East	X	
4 North	9 East		X
4 North	10 East	X	
4 North	14 East	X	
5 North	7 East		X
5 North	9 East		X
5 North	10 East		X
5 North	12 East		X
5 North	13 East		X
5 North	14 East		X
5 North	15 East		X
6 North	9 East		X
6 North	10 East	X	
6 North	11 East	X	
6 North	14 East	X	
6 North	15 East	X	
7 North	6 East	X	
7 North	7 East	X	
7 North	10 East	X	
7 North	11 East	X	
7 North	14 East	X	
7 North	15 East	X	
8 North	9 East	X	
8 North	10 East	X	
9 North	9 East	X	
9 North	10 East	X	
10 North	5 East	X	
10 North	6 East	X	
11 North	8 East	X	
12 North	6 East	X	
14 North	2 West	X	
14 North	3 West	X	
14 North	4 West	X	
21 North	1 West	X	
22 North	1 West		X
23 North	1 West		X

RIO PUERCO RESOURCE AREA



MAP 19
LAND OWNERSHIP
ADJUSTMENT
AREAS

All public lands (surface and/or subsurface estate) not identified for disposal will be retained in Federal ownership, unless exchanged to consolidate Federal lands (e.g., a BLM/State of New Mexico exchange to block up both BLM-administered land and State land within a specific county). A specific example of this type of exchange would be the checkerboard lands in Cibola and Valencia Counties located in T. 5, 6, and 7 N.; R. 2, 3, 4, 5, and 6 W. which would be available for exchange to consolidate the Federal ownership of these lands.

It has not been feasible to identify all of the State and private lands whose acquisition would benefit BLM resource management programs. As they are identified in the future, their acquisition will be examined through the environmental analysis process, including full public involvement. As long as any future ownership adjustments conform to the theme of the approved RMP, such actions will be considered consistent with the RMP.

After an exchange is initiated with an interested party, the BLM must determine whether the exchange is in the public interest. If this is found to be the case, a land report and environmental assessment will be prepared, including detailed inventories of the public land for cultural resources, and threatened, endangered, or rare species. An appraisal of both parcels will be completed to ensure that economic values of the lands are equal and a cadastral survey of the parcels will be completed if necessary. The conveyance documents will be prepared, including any patent reservations to protect valid existing rights such as rights-of-way. Grazing allottees will be given a two-year notice of cancellation of their grazing licenses. After a final exchange agreement is reached, the titles to the land will be exchanged.

If public land is sold rather than exchanged, the same steps will be followed except that land surrounded by holdings of a single landowner can be sold directly to that landowner at fair market value. If there are two or more interested parties, the land will be offered competitively using sealed bids. Only bids of at least fair market value will be considered to be acceptable.

The National Park Service has expressed an interest in acquiring any archeological sites on public land in Torrance County which are related to Salinas National Monument, and especially those sites which relate to use of the salt lakes. Direct transfer of land in Torrance County to the National Park Service or other such agency will be considered if the transfer would provide for the protection of cultural and paleontological resources of National, State, regional, or local significance, the protection of valuable wildlife habitat, and the protection of other natural resource values. In addition, the lands identified for disposal may be used as "trading stock" to acquire important cultural resource sites for the Monument. The lands which are identified for further study for disposal on Table 18 were placed in that category at the request of Salinas National Monument.

Exchanges and land sales are slow, complex processes. Land ownership adjustments is considered to be a long-term program.

Public Land Withdrawals

It is the policy of the BLM to keep the public lands open for public use and enjoyment. However, there are conditions which warrant the removal or withdrawal of certain public lands from general use. Through withdrawal of these public lands, public safety is guaranteed or integrity of special uses is assured. For instance, saleable minerals can be sold only from lands unencumbered by mining claims. In some cases the minerals under a mineral material sale area may be withdrawn to protect the sale area. The other typical use of mineral withdrawals in the RPRA is to protect values within Special Management Areas. Planned actions in this RMP call for mineral withdrawals on all or portions of nine SMA's.

Secretarial Orders have been used in the RPRA to withdraw public lands from general use by transferring management responsibility to other Department of the Interior agencies,

such as the Bureau of Indian Affairs (BIA) and the Bureau of Reclamation. Public lands have been transferred by Executive Order to agencies outside of the Department of the Interior such as the Department of Agriculture Forest Service, the Department of Defense, and the Federal Aviation Administration. In such cases, both the lands and responsibility for their management are transferred.

Withdrawals to the BIA for the purpose of benefitting Indian groups will be used only for segregating the land from operation of the other land and mining laws in preparation for the processing of a land exchange or sale. Such withdrawals will not be used for transferring management responsibility.

In an effort to keep as much of the public land open to the widest variety of uses, the RPRA reviews all existing withdrawals on a periodic basis. Such review ensures that the reasons for the restrictions are still valid and that the smallest acreage possible is included in withdrawal status.

Indian Land Claims

The Canoncito Navajo, and Zia, Santa Ana, Santo Domingo, San Felipe, and Acoma Pueblos have all expressed interest in acquiring certain tracts of public land because of aboriginal use or for the purpose of improving their economies. Such tracts can be transferred to pueblos and tribes through land exchanges, sales, or direct transfers via Congressional legislation. The BLM cannot support direct transfers without considering the resource values lost to the general public. Consequently, a land exchange is usually the preferred method of transfer since resource values lost in the transfer are replaced by other values that will benefit the general public. Less desirable than an exchange, but more favorable than a direct transfer, is a public land sale since sale at least benefits the general public by returning the money collected from the sale to the United States Treasury.

This approach is not only consistent with FLPMA, but it also agrees with the Indian Land Consolidation Act of 1983 (96 Stat. 2515). When an Indian exchange or sale proposal is determined to be in the public interest, then a cooperative agreement may be used to aid in implementing the proposal.

Rio Grande Occupancy Resolution Program

The Rio Grande Management Framework Plan (MFP) (USDI, BLM 1979c) identified unauthorized occupancy on public land along the Rio Grande as one of the major problems affecting the BLM's management effort. Over the years, land titles had become hopelessly tangled, with pieces of public land being sold with private land in private transactions, usually inadvertently. This eventually led to a serious problem of clouded titles which prevented individual land owners from obtaining home improvement loans and title insurance. BLM management options were also severely restricted since private dwellings and improvements encumbering public lands preclude public use.

As a result of the MFP decisions, the Rio Grande Occupancy Resolution Program (RGORP) was initiated in June 1979 to resolve unauthorized occupancy within the program area. These MFP decisions are summarized on Table 17. Disposals under the RGORP are normally made under The Color-of-Title Act of 1928, as amended, The Color-of-Title Act of 1932, and The Act of December 12, 1908. If the Color-of-Title Acts do not apply to a particular occupancy, then Sections 203 and 302 of The Federal Land Policy and Management Act of 1976 or The Recreation and Public Purposes Act of 1926, as amended, may be used.

As the unauthorized occupancy problem in the Albuquerque area is resolved, the program emphasis in the RPRA will shift to public lands within the town of Bernalillo, and then to the rural areas of Valencia County. The entire RGORP in the RPRA is tentatively scheduled for completion in 1988.

Sales of Public Lands

The RPRA 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 environmental analysis process and are subject to public participation and review.

Recreation and Public Purposes

Under the Recreation and Public Purposes (R&PP) Act, the RPRA has the authority to lease or patent public land to governmental and non-profit entities for public parks, building sites, and sanitary landfills at less than fair market value. Applications for use of public lands under the R&PP Act are processed as a RPRA priority. Such applications are processed under the requirements of NEPA and are subject to public review. The R&PP decisions brought forward from MFP's are summarized on Table 17.

Rights-of-Way

The RPRA grants rights-of-way, leases, and permits to qualified individuals, businesses, and governmental entities for the use of the public lands. These rights-of-way are issued so as to protect natural and cultural resources associated with the public lands and adjacent lands. Rights-of-way are issued to promote the maximum utilization of existing rights-of-way, including joint use whenever possible. All right-of-way actions are coordinated, to the fullest extent possible, with Federal, State and local government agencies, adjacent land owners, and interested individuals and groups. All right-of-way applications are analyzed on a case-by-case basis.

Rights-of-Way Corridors

Rights-of-way corridors are designated to prevent haphazard right-of-way placement and reduce adverse environmental impacts. Designated corridors also decrease the repeated analysis of alternative routes during the environmental analysis process. Consolidating rights-of-way also assists utility companies by providing an area in which transmission line placement is the primary use. In addition to the rights-of-way corridors designated by the RMP, rights-of-way corridors were designated through sections of Cibola and Valencia Counties by the Divide and Ladron MFP's (USDI, BLM 1983b, 1977) (see Table 17 and Map 20).

Rights-of-way corridors and windows were designated in the resolution of the RMP Rights-of-Way Corridors Issue as the preferred locations for future transmission line placements in the northern portion of the RPRA (see Map 20). The rights-of-way windows were identified in areas where topographic or land ownership constraints make it advantageous to locate transmission lines on public land. For the most part, the windows lie within the rights-of-way corridors identified on Map 20. Multiple use of the public lands within these windows will continue; however, discretionary developments which would complicate or increase the cost of right-of-way development will be prohibited. A portion of the Ojito East rights-of-way window overlaps the Ojito SMA (see Map 37). Special stipulations will be attached to any right-of-way granted in this area of overlap to provide protection for the SMA's resource values. Special stipulations will be attached to any fluid mineral leases in the windows to minimize conflicts in these critical placement areas.

Future rights-of-way developments in Corridor #1 (see Maps 5 and 20) will be situated to minimize conflicts with coal resources. This will be accomplished by requiring the placement of future transmission lines in the southwestern portion of the corridor, and by placing them as close to each other as safety and technology allow. The coal leasing area will therefore be avoided until this portion of the corridor is saturated with transmission lines. Also, coal leases issued within Corridor #1 will have special stipulations attached which would make the lessee financially responsible for the relocation of any right-of-way that would create bypass coal.

The RPRA lies between New Mexico's major population center and the State's major power generation and natural gas production area. Consolidation of rights-of-way in Corridor #1 will help limit the impacts to other resources and landowners. Placement of Corridor #2 north of Placitas will help to eliminate

conflicts with private landowners in the Las Huertas Valley. The corridors chosen are along existing transmission lines and generally avoid sensitive areas. Special stipulations will be attached to rights-of-way in the Ojito area to protect the resource values in the Ojito SMA.

Implementation of the rights-of-way corridor program will be based on applications for rights-of-way. The BLM will then ensure that transmission lines are constructed within existing corridors unless there are compelling reasons not to. Construction of additional transmission lines will require site-specific environmental analysis. If transmission lines are not constructed within the existing corridors, the environmental analysis must discuss in detail the reasons for not using the corridor.

Criteria for Resolution of RMP Issues

Several of the criteria used to guide resolution of the RMP issues remain applicable as management guidance for future actions in the Lands and Realty Program:

"ORV use performed in conformance with existing leases, permits, rights-of-way stipulations, or other land use authorizations will not be restricted."

"Under The Recreation and Public Purposes Act, State, county, municipal, and qualified non-profit organizations will have the opportunity to obtain public lands identified for disposal."

"Public lands may be identified for disposal if they are found to be valuable chiefly for residential, commercial, industrial, or agricultural purposes."

"Where possible, public lands identified for disposal will be exchanged for non-Federal lands that have been identified for acquisition to enhance BLM resource management programs."

"Public land not identified for disposal will be considered for exchange and Recreation and Public Purposes Act disposals on a case-by-case basis after consultation and coordination with Federal, State, county, and local governments and agencies, and after public and environmental review."

"All land identified for disposal will be disposed of at or above fair market value (excluding those lands disposed of under The Recreation and Public Purposes Act and the Color-of-Title Acts)."

"Lands identified for disposal which have no legal public access and only one adjacent landowner will be offered in non-competitive sales at fair market value."

"Valuable wildlife habitat on public land which is otherwise suitable for disposal will be considered for exchange only with State or local agencies or non-profit private organizations with wildlife management responsibilities."

"Those public lands which BLM has determined to have no known value for locatable or saleable minerals will be disposed of only in compliance with Washington Office Instruction Memorandum 84-487" (USDI, BLM 1984a) (see "Policy on Disposal of Lands and Minerals," in "Energy and Minerals," this chapter).

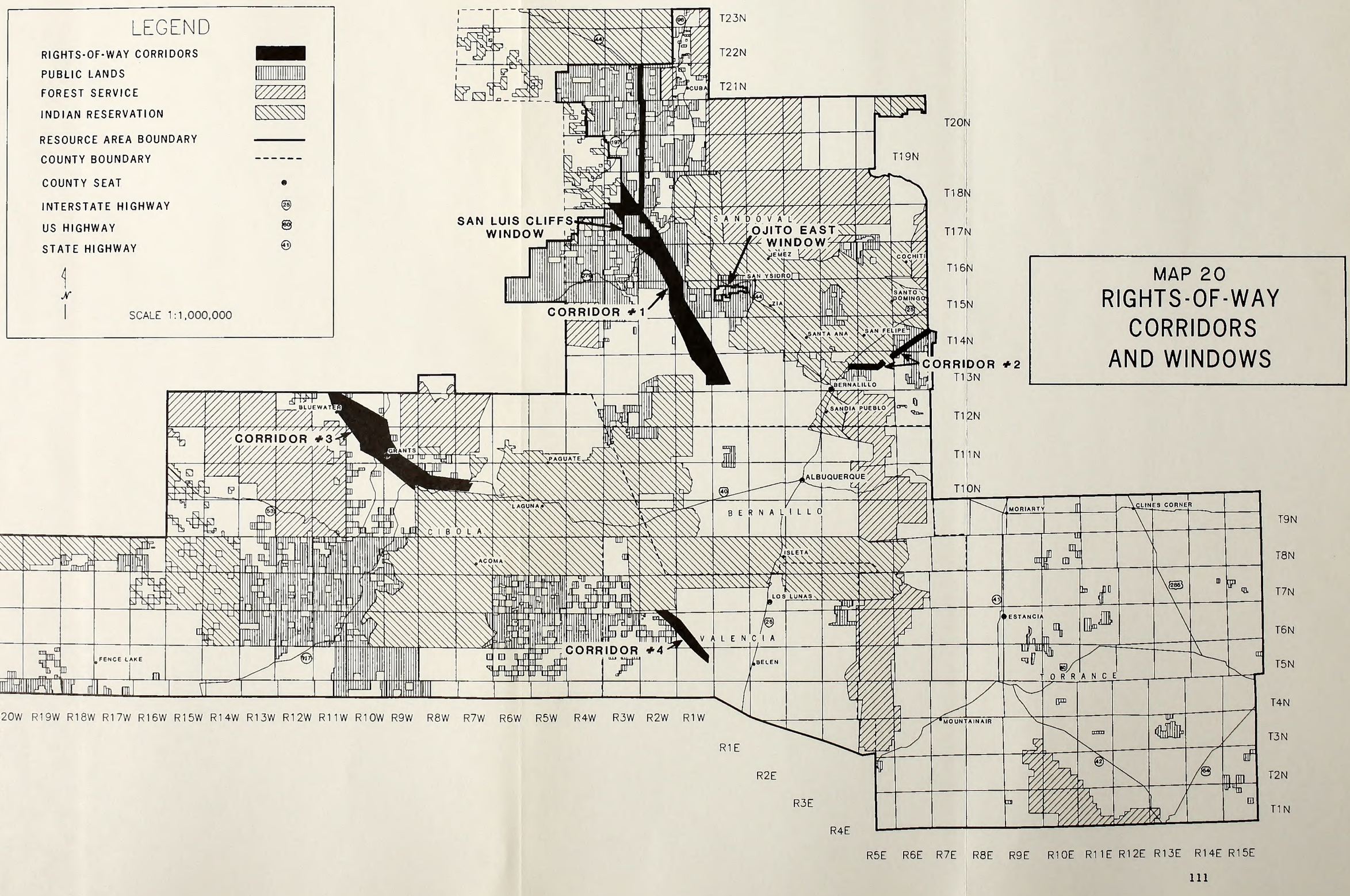
"Public lands in contiguous blocks but with serious erosion problems will be disposed of only under the Recreation and Public Purposes Act or the non-discretionary Color-of-Title Act."

"Public lands will not be disposed of if they provide access to large blocks of other Federal lands, unless access rights for public uses can be reserved in the patent."

"Public lands will not be disposed of if cultural or paleontological resources of national, State, or regional significance are found upon them and the adverse effects of the disposal action cannot be mitigated at reasonable cost."

"Public lands will not be disposed of if the disposal is contrary to State, county, or local land use plans or zoning ordinances."

RIO PUERCO RESOURCE AREA



MAP 20
RIGHTS-OF-WAY
CORRIDORS
AND WINDOWS

"Existing authorized permits, leases, rights-of-way, and licenses will be identified as valid existing rights. All disposal of public lands will be subject to valid existing rights."

"Holders of valid permits or cooperative agreements covered by Section 4 and Section 15 of The Taylor Grazing Act will be reimbursed for financial investments they have made in rangeland improvement projects on public land if the BLM disposes of the land."

"Those public lands which the BLM has determined to meet the requirements for status as Wilderness will not be disposed of until Congress has determined whether they should be designated as Wilderness or returned to multiple use management."

"Public lands included in wilderness interim management areas will be retained in public ownership."

"Fuelwood will be salvaged, where practical, from right-of-way clearings...."

"Public lands in which there are now multiple compatible rights-of-way will be considered for corridor designation."

"Potential rights-of-way corridors on public lands which have minimal conflicts with critical resource values (e.g., erosion problem areas, valuable wildlife areas, and scenic areas) will be favored."

"Identification of rights-of-way corridors will seek to optimize economic efficiency of right-of-way management as balanced by environmental and social concerns."

"Technical, public safety, and national security concerns will be considered in designating corridors."

Monitoring Studies

Monitoring studies for the Lands and Realty Program consist primarily of compliance checks and inspections. Recreation and Public Purposes lease and Land Use permit sites are checked to ensure adherence to permit or lease terms and conditions. Rights-of-way are inspected for proof of construction or relinquishment. Unauthorized land uses are also inspected by this program to ensure cessation of unauthorized activities and ensure that prescribed reclamation procedures, where required, are followed.

Implementation Priorities

1. Complete Rio Grande Occupancy Resolution Program.

2. Process right-of-way applications as received.

3. Complete exchange with the New Mexico and Arizona Land Company to acquire mineral estate in the El Malpais Wilderness Instant Study Area (NZ Exchange).

4. Acquire through exchange the identified State lands located in the Special Management Areas (SMA's). The El Malpais SMA is the first priority for State land acquisition.

5. Acquire the identified private lands located in the SMA's. Exchange is the preferred means of acquisition and the El Malpais SMA is the first priority for private land acquisition.

6. Dispose of lands identified as suitable for disposal. Exchange is the preferred method of disposal.

7. Process Recreation and Public Purposes Act applications as received.

8. Process Land Use permit applications as received.

9. Process withdrawals. Mineral withdrawals in the SMA's are the first priority (see the SMA summaries at the end of this section).

10. Perform compliance checks as needed.

Support Needs

Fire Management

No Fire Management support needs have been identified at this time and none are anticipated in the future.

Access, Transportation, and Rights-of-Way

The Lands Program in the RPRA initiates all requests for rights-of-way and easements which are not in support of individual resource programs.

Cadastral Survey

Cadastral survey has been identifled as a support need for the Rio Grande Occupancy Resolution Program. It is likely that other support to the Lands Program from the Cadastral Survey Program will be identified in the future.

SUPPORT PROGRAMS

To help accomplish the objectives of its resource management programs, the BLM has three support programs: Fire Management; Access, Transportation, and Rights-of-Way (ATROW); and Cadastral Survey.

Fire Management

Program Objectives

The objective of the Fire Management Program 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.

Management Guidance

The RPRA will continue to participate in the "Joint Powers Agreement" between the State of New Mexico and the United States Departments of Agriculture and the Interior. This agreement provides for mutual wildland fire assistance among the participating agencies. The RPRA is covered by the Cibola and Santa Fe Operating Units established under this agreement.

The RPRA will continue to carry out the BLM's suppression policy of initial attack of all wildfires on or threatening public lands with the objective being to contain the fire during the first burning period. This policy is followed unless altered in the Normal Fire Year Plan. Fires will be suppressed on all non-public lands in the RPRA initial attack zone.

BLM policy provides for limited fire suppression action in areas where the expense associated with the usual suppression procedures is not warranted. BLM determines the appropriate response to a wildland fire based upon suppression difficulty, the resource values threatened, and hazards to fire crews. The need for limited suppression areas is normally identified by the Fire Management Officer with the concurrence of the various resource specialists. Crew safety along with economic factors are normally the principal objectives in designating an area for limited suppression.

The El Malpais Outstanding Natural Area (ONA) is the only limited suppression area in the RPRA. Under the limited suppression designation approved in 1976, all fires within the El Malpais ONA are monitored by qualified fire management personnel. Each fire is evaluated and those determined to be threats to life and/or property, or to have the potential to cause excessive resource damage are suppressed.

The RPRA has a prescribed burning program. Prescribed burns are conducted as part of range, woodlands, wildlife, and watershed protection and/or improvement projects. These burns are analyzed on a project-by-project basis in compliance with NEPA. All prescribed burns are the result of various approved Allotment Management Plans, Habitat Management Plans, or Watershed Protection Plans.

Criteria for Resolution of RMP Issues. Two of the criteria used to guide resolution of the RMP issues remain applicable as

management guidance for future actions in the Fire Management Program:

"Roads created for access to fuelwood sale areas will be rehabilitated and abandoned upon completion of the sale, unless considered essential."

"Fuelwood products will be made available first from stands damaged by...fire...where practical."

Monitoring Studies

Monitoring studies following prescribed burns are conducted by the resource program which requested the burn.

Implementation Priorities

The RPRA as well as the other two resource areas in the Albuquerque District each prioritize their prescribed burning needs. These requests are submitted to the District Fire Management Program which prioritizes these requests for the District as a whole based on resource needs.

Access, Transportation, and Rights-of-Way (ATROW)

Program Objectives

The objective of the BLM New Mexico State ATROW Program is processing of ATROW requests in a timely manner.

Management Guidance

The RPRA has an active access acquisition program to facilitate management of the public lands and their use by the general public. The need to acquire legal access across certain private lands in Sandoval County was identified in the 1978 Proposed Rio Puerco Livestock Grazing Management Program Environmental Statement (USDI, BLM 1978b).

Various activity plans are being developed to implement the Divide MFP (USDI, BLM 1983b). These activity plans will identify specific locations where legal access needs to be acquired. As the activity plans are approved, the required access needs will be prioritized by the RPRA, as described by the Area-wide Transportation Management Plan.

As part of the resolution of the Off-Road Vehicle Issue the BLM will attempt to acquire access to the Competitive Dune Buggy Event Area. Approximately two miles of private land must be crossed to reach this area. The ORV recreation trail (see Map 13) was designed to avoid as much private land as possible. An easement through private land will have to be obtained during site-specific planning in order to utilize any routes crossing private land. If this cannot be acquired, the trail will be rerouted. Future activity plans prepared to implement this RMP may result in identification of other access needs.

Transportation Management Plan

The Rio Puerco Resource Area will prepare a Transportation Management Plan during Fiscal Year 87. This Plan will identify the specific transportation management actions to be implemented to accomplish the objectives of the RMP. The RPRA road inventory will be incorporated into the Transportation Management Plan and will be updated as new information becomes available. In addition, ATROW needs will be incorporated into the Transportation Management Plan. Priorities for implementation of the Transportation Management Plan will be specified in the annual RMP Program Document. All NEPA requirements will be complied with prior to implementing specific actions.

Monitoring Studies

No monitoring studies are necessary for the ATROW Program.

Implementation Priorities

The RPRA prioritizes its ATROW requests for submission to the Albuquerque District. The District then combines these requests with those of the other two resource areas and prioritizes them on the basis of program and resource needs.

Cadastral Survey

Program Objectives

The Cadastral Survey Program is responsible for the creation, reestablishment, marking, and definition of boundaries of the public lands, in addition to preparation and interpretation of the survey records.

Management Guidance

Cadastral surveys will continue to be conducted in support of resource management programs. Survey requirements and priorities will be determined on a yearly basis as a part of the annual budget process.

The major use of the Cadastral Survey Program in the RPRA is in support of the Rio Grande Occupancy Resolution Program. In addition, cadastral survey has been identified as a support need for the activity plans to be prepared for several of the SMA's designated in this RMP. As activity plans are prepared to implement other RMP issue decisions, other needs for cadastral survey may be identified.

Monitoring Studies

No monitoring studies are necessary for the Cadastral Survey Program.

Implementation Priorities

The RPRA prioritizes its Cadastral Survey requests based on program and resource needs. These priorities are combined in the Albuquerque District with the requests of the other two resource areas and sent to the BLM New Mexico State Office to be combined with the requests of the other three districts.

SPECIAL MANAGEMENT AREAS

Program Objectives

Special management consideration is provided to areas within the RPRA which contain important recreational, natural, scientific, cultural, and scenic values. The resource features in these areas require more management attention than can be provided through existing management programs. With completion of the RMP process, twenty-three areas (see Map 21) containing special resource values have been identified and management goals and objectives established for each area (see Table 20 and the individual SMA discussions below). As additional resource information becomes available, new areas containing unique, sensitive, or important resource values can be identified as SMA's. These areas can be designated as Areas of Critical Environmental Concern (ACEC's), Research Natural Areas (RNA's), intensive Recreation Management Areas, other recognized formal designations, or simply as "Special Management Areas" as required to ensure protection of identified resource values. For each SMA (including formal designations) detailed management plans (activity plans) describing allowable uses and activities will be prepared. Typically, surface disturbing activities such as mineral development will be restricted in a manner which will protect the resource values contained in each SMA. All management actions undertaken within the SMA's must be consistent with objectives for the area.

Management Guidance

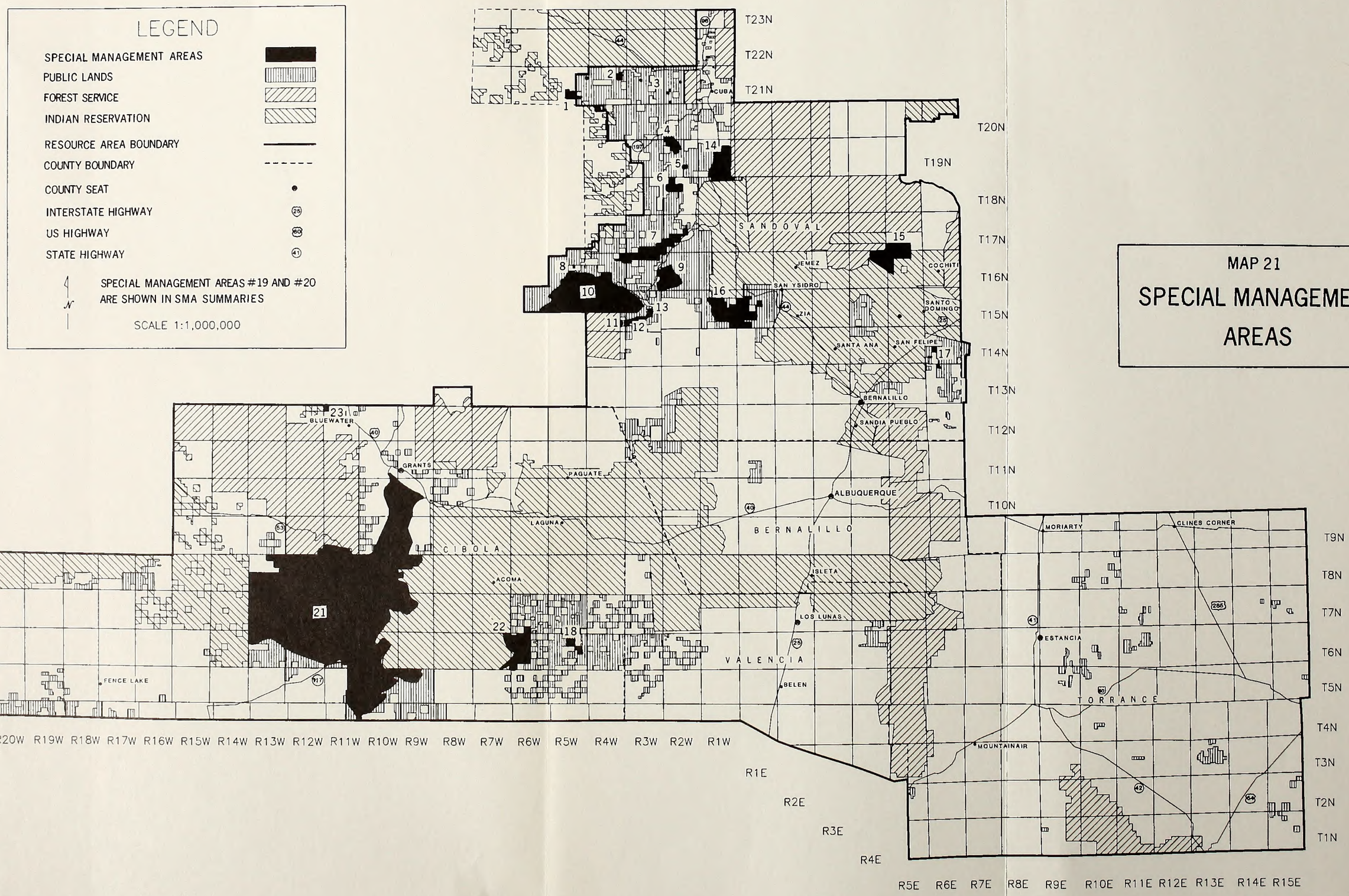
Special Management Area Identification

Twenty-three areas in the RPRA have been identified as SMA's (see Map 21). The resolution of the RMP SMA issue provided for the establishment of twenty-two SMA's. One additional SMA, Bluewater Canyon, was carried forward in the RMP from the Divide MFP.

The SMA's were established based on the resource information available at the time of RMP preparation. It may not have been possible in the RMP process to identify all areas in the RPRA which have characteristics or values warranting special management consideration. New SMA's can be established in the future and management goals and objectives developed to ensure the protection of each new SMA's special resource values.

The following planning criteria were used as a guide in the RMP process for the

RIO PUERCO RESOURCE AREA



MAP 21

SPECIAL MANAGEMENT AREAS

TABLE 20

SPECIAL MANAGEMENT AREAS*

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
1	Torrejon Fossil Fauna	Listed as type locality by the American Museum Novitates	2,981	Designate as ACEC** to protect Torrejon Fauna for scientific study	Activity plan*** Limit motorized vehicle use to existing roads and trails***	
2	Pelon Watershed	Part of Rio Puerco Hydrology Study	858	Develop as SMA to protect Rio Puerco Hydrology Study	Activity plan Withdraw minerals*** No surface disturbance*** Limit motorized vehicle use to existing roads and trails No surface occupancy (fluid minerals)***, ****	
3	Historic Homesteads	None	16	Develop as SMA for recreational and cultural values	Activity plan	
4	Canon Jarido	None	1,803	Develop as SMA for recreational, scenic, and cultural values, and wildlife habitat	Activity plan Limit motorized vehicle use to existing roads and trails No surface disturbance	
5	Jones Canyon	None	649	Designate as ACEC to protect cultural, recreational, and scenic values, and riparian habitat	Activity plan No surface disturbance Acquire non-public lands Withdraw locatable minerals Limit motorized vehicle use to existing roads and trails Allow no surface occupancy (fluid minerals)****	Survey ATROW Land Acquisition

TABLE 20 (Continued)

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
6	Headcut Prehistoric Community	None	2,274	Develop as SMA for cultural values	Activity plan Limit motorized vehicle use to existing roads and trails Acquire non-public lands	Survey ATROW Land Acquisition
7	San Luis Mesa Raptor Area	Portions are part of Rio Puerco Hydrology Study Portions are part of La Lena Wilderness Study Area	10,447	Designate as ACEC to protect raptor nesting habitat and Rio Puerco Hydrology Study (Empedrado Watershed)	Activity plan No surface disturbing activities Feb. 1-July 1 No surface disturbance in watershed area Limit motorized vehicle use to existing roads and trails Withdraw all minerals in Empedrado Watershed Study Area No surface occupancy (fluid minerals) Feb. 1-July 1****	
8	Azabache Station	Not brought forward for further consideration for leasing due to multiple-use considerations--Chaco MFP	80	Develop as SMA for recreational and cultural values	Activity plan Allow no surface occupancy (fluid minerals)**** Withdraw locatable and saleable minerals Close to motorized vehicle use***	
9	Cabezon Peak	Cabezon Wilderness Study Area	5,765	Designate as ACEC to protect recreational, scenic, and sociocultural values, and rare plant habitat	Activity plan No surface disturbance Close to motorized vehicle use Acquire non-public lands	Survey Land Acquisition

TABLE 20 (Continued)

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
10	Ignacio Chavez	Ignacio Chavez and Chamisa Wilderness Study Areas	43,182	Develop as SMA for recreational and scenic values, wildlife habitat, woodland products, and ponderosa pine regeneration	Activity plan Fuelwood harvest will be allowed in portions of the SMA if no Wilderness designation occurs The area will be managed for recreation experience No surface disturbance Limit motorized vehicle use to existing roads and trails Standard fluid mineral lease stipulations will be determined during activity planning Close certain roads Acquire non-public lands	Survey Land Acquisition
11	Big Bead Mesa	National Historic Landmark	311	Develop as SMA for cultural values	Activity plan Allow no surface occupancy (fluid minerals)**** Limit motorized vehicle use to existing roads and trails Withdraw locatable and saleable minerals	Survey ATROW
12	Canon Tapia	None	1,093	Designate as ACEC to protect cultural values	Activity plan Acquire non-public lands Allow no surface occupancy (fluid minerals)****	Survey ATROW Land Acquisition
13	Guadalupe Ruin and Community	State and National Registers of Historic Places	487	Develop as SMA for cultural values	Activity plan Close to motorized vehicle use within 40 acre fenced area; limit remainder to existing roads and trails Withdraw all minerals****	

TABLE 20 (Continued)

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
14	Elk Springs	New Mexico Comprehensive Wildlife Plan critical big-game range Juana Lopez stratigraphic member is recognized by USGS as a reference section	10,300	Designate as ACEC to protect elk and deer winter range, alleviate big game depredation on private lands, and protect recreational and scenic values Designate 40 acres as a Research Natural Area to protect paleontological values (Juana Lopez member)	Activity plan Acquire non-public lands Limit motorized vehicle use to existing roads and trails with seasonal restrictions Allow no surface disturbance No surface disturbing activities associated with fluid mineral development Nov. 16-May 14**** Allow no surface disturbance in Research Natural Area Withdraw all minerals on Research Natural Area No surface occupancy (fluid minerals) in Research Natural Area****	Survey ATROW Land Acquisition
15	Tent Rocks	None	11,743	Develop as SMA to protect wildlife habitat Designate a portion as ACEC to protect geological, recreational and scenic values	Activity plan Develop agreements with private landowners*** Limit motorized vehicle use to existing roads and trails No surface disturbance Develop water and rehabilitate grassland parks	

TABLE 20 (Continued)

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
16	Ojito	Portions are part of Ojito Wilderness Study Area Portions are part of Rio Puerco Hydrology Study	13,657	Designate as ACEC to reduce geological hazard (Las Milpas Gas Storage) and to protect geological, paleontological, cultural, recreational, and scenic values, wildlife and rare plant habitat, and Rio Puerco Hydrology Study (Querencia Watershed)	Activity plans Acquire non-public land No surface disturbance Limit motorized vehicle use to existing roads and trails Close certain roads Close to motorized vehicle use in watershed area and Las Milpas pipeline and well areas Withdraw locatable minerals in the Las Milpas Gas Storage Area Withdraw all minerals in the Querencia Watershed Study Area No surface occupancy (fluid minerals) in Querencia Watershed Study Area****	Survey Land Acquisition
17	Ball Ranch	The Nature Conservancy is currently negotiating a conservation easement on the Ball private land	1,278	Designate as ACEC/ Research Natural Area to protect rare plant habitat and paleontological values	Activity plan Limit motorized vehicle use to existing roads and trails No surface disturbance Withdraw all minerals	
18	Pronoun Cave Complex	None	1,194	Designate as ACEC/ Research Natural Area to protect paleontological, recreational, and cultural values	Activity plan Develop agreement with New Mexico Museum of Natural History Limit motorized vehicle use to existing roads	
19	Continental Divide Trail	Part of National Trail System	715	Manage as a National Trail	Activity plan	
20	1870's Wagon Road Trail	None	630	Develop as SMA for recreational values	Activity plan Develop agreement with State of New Mexico	

TABLE 20 (Concluded)

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
21	El Malpais	National Natural Landmark, Outstanding Natural Area. Natural Environmental Area, Wilderness Instant Study Area, Sand Canyon, Rimrock, Little Rimrock and Pinyon Wilderness Study Areas, Candelaria Ruin and Community Chaco Outlier Archeological Protection Site	302,611	Develop as SMA for cultural, recreational, and scenic values, and wildlife habitat	Activity plans Limit motorized vehicle use to existing roads and trails Acquire mineral estate	Mineral Appraisal Land Acquisition
22	Petaca Pinta	Portions are part of Petaca Pinta Wilderness Study Area	13,789	Develop as SMA for recreational and scenic values, and wildlife habitat	Activity plan Limit motorized vehicle use to existing roads and trails Acquire mineral estate	
23	Bluewater Canyon	Designated as ACEC by Divide MFP	89	Manage as SMA/ACEC for wildlife, visual, and recreational values	Activity plan**** Close to motorized vehicle use**** Close to grazing below rim**** Allow no surface occupancy**** Allow no surface disturbance**** Acquire non-public lands	Land Acquisition

* Areas of Critical Environmental Concern (ACEC's), Research Natural Areas, National Trails, and Special Management Areas (SMA's) are considered together as SMA's in this RMP.

** A plan of operations and EA is required for any surface disturbing activity located in an ACEC, thus affording additional protection for the area. If not designated as an ACEC, up to five acres of surface disturbance each year in each project area*** is authorized by law without assessment of environmental impacts. All ACEC's proposed by the RMP/EIS have now been formally designated.

*** See glossary for explanation of these terms as used in this RMP/EIS.

**** Already completed.

identification of areas containing resource values which warranted special management consideration. These criteria will also be used to guide selection of future SMA's.

"Areas containing important historic, cultural, or scenic values; fish and wildlife habitat; or other natural systems or processes of greater than local significance may be considered for designation as Areas of Critical Environmental Concern."

"Those public lands identified as having natural hazards that are threats to human life, safety, or property may be considered for designation as ACEC's."

"Areas with typical representations of common plant or animal associations; unusual plant or animal associations; threatened or endangered plant or animal associations; threatened or endangered plant or animal species; typical representations of common geologic, soil, or water features; or outstanding or unusual geologic, soil, or water features may be considered for designation as Research Natural Areas."

"Areas along highways, roads, trails or streams with scenic qualities may be considered for designation as Scenic Areas."

"Areas of unusual natural characteristics where management of recreation activities is necessary to preserve those characteristics may be considered for designation as Outstanding Natural Areas."

"Areas requiring explicit recreation management to achieve the BLM's recreation objectives and to provide specific recreation opportunities may be identified as Intensive Recreation Management Areas."

"Areas which are so unique that it may be more important to manage them for a single use or a combination of specific uses rather than for full multiple use may be considered for special management attention. Examples of possible designations are Chaco Culture Archeological Protection Sites, Crucial Wildlife Habitat, National Natural Landmarks, and Intensive Recreation Management Areas."

The resolution of this issue provided for establishment of twenty-two SMA's totaling 426,636 acres (see Table 20 and the individual SMA discussions below). This acreage includes private and State trust land that has been proposed in the RMP for acquisition or proposed for management as part of the SMA's through cooperative management with the owner. The twenty-two SMA's include ten ACEC's, three Research Natural Areas (two of which are also ACEC's), and one National Trail. Parts of the proposed El Malpais SMA had already been designated as an Outstanding Natural Area, a Natural Environmental Area, and a National Natural Landmark. In addition to the twenty-two SMA's established by the RMP, Bluewater Canyon had been previously designated as an ACEC as prescribed by Divide MFP Decision WL-7.6. The continued implementation of the Bluewater Canyon Action Plan will provide for the protection of important and sensitive resource values contained in this area.

Eight of the SMA's contain public land which is being considered in the Wilderness review process (Continental Divide Trail, El Malpais, Petaca Pinta, Cabezon Peak, 1870's Wagon Road Trail, Ignacio Chavez, Ojito, and San Luis Mesa Raptor Area SMA's). These lands will be managed as required by the "Interim Management Policy and Guidelines for Lands Under Wilderness Review" until Congressional decisions are reached on Wilderness designation.

No significant resource conflicts were identified in any of the Special Management Areas. The management objectives of these areas are generally consistent with multiple resource management.

Detailed activity plans describing allowable use and activities will be prepared for each SMA. Typically, surface disturbing activities such as mineral development will be restricted in a manner which will protect the resource values in each SMA. All management actions

and resource uses allowed within the SMA's must be consistent with the goals and objectives for the area. The public will be invited to participate in activity plan development or review through the annually published RMP Program Document.

An environmental assessment (EA) will be prepared for each SMA activity plan. The scheduled dates for EA preparation will be published in the annual RMP Program Document. The proposed action considered in the EA will be the management prescriptions, facilities, monitoring, and enforcement facilities proposed by the activity plan. All project and activity level plans will consider Native American religious freedom. The Draft EA will be sent to individuals who responded to the RMP Program Document request for expressions of public interest.

A Final EA will be prepared including public comments and the BLM responses to the comments. A Record of Decision will be issued concluding the environmental assessment process and will specify the decision reached on the activity plan. All NEPA requirements for environmental analysis will be followed.

It has not been possible to identify all potential SMA's. Other areas may be identified in the future as SMA's if such an action is consistent with the planning criteria and with the goals of the approved Plan. To ensure public participation and involvement, the following procedures will be completed before new SMA's are established. The public will be notified of new areas under consideration for SMA status through the annual RMP Program Document. The RMP Program Document will contain a description of the resource values in the area under consideration, a map of the area, the public comment procedures for the proposal, and provide an opportunity for members of the public to express interest in participation in the designation process.

A Draft EA will be prepared for each proposed SMA with the scheduled dates for preparation published in the annual RMP Program Document. The proposed action considered in the EA will be the management objectives, including planned actions, for the area under consideration. All project and activity level plans will consider Native American religious freedom. The Draft EA will be forwarded to individuals who responded to the RMP Program Document request for expressions of public interest.

A Final EA will be prepared including public comments and the BLM responses to the comments. A Record of Decision will be issued concluding the environmental assessment process and will specify the decision reached on the area considered for SMA status. All NEPA requirements for environmental analysis will be followed.

New SMA's may also be considered for formally recognized designations such as Area of Environmental Concern, Research Natural Area, or Intensive Recreation Management Area. All BLM Manual, regulation, and policy requirements for these formal designations will be followed. For example, a Federal Register notice will be published announcing the designation of any new ACEC's.

Monitoring Studies

The activity plan prepared for each SMA will specify the monitoring studies needed.

Implementation Priorities

An activity plan and environmental analysis describing the management prescriptions, facilities, monitoring, and enforcement requirements will be prepared for each Special Management Area. The Rio Puerco Resource Area will prioritize the SMA's and prepare activity plans over a period of several years. First priority will be given to the ten ACEC's and the El Malpais SMA. Funding for monitoring, enforcement, and construction of improvements will be requested in the budget process. Improvements will be constructed as funds are allocated.

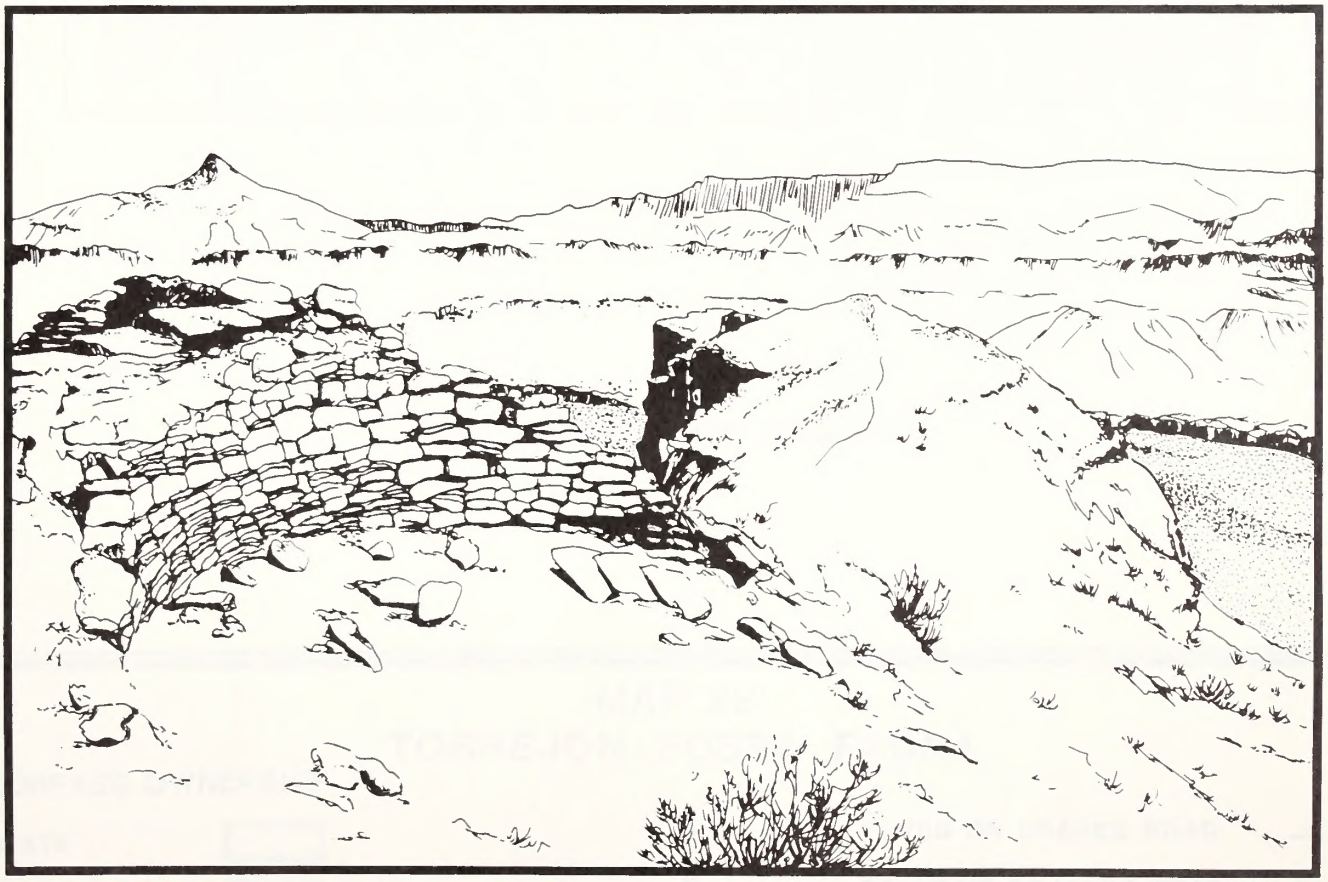
Support Needs

Support needs are identified in the SMA summaries below. Additional support needs may be identified when activity plans are prepared.

SMA Summaries

The following sections provide a general description, discussion of special values, and outline of the management objectives for each of the twenty-three SMA's in the RPRA (see Map 21). These SMA's are listed below in the order presented.

1. Torrejon Fossil Fauna
2. Pelon Watershed
3. Historic Homesteads
4. Canon Jarido
5. Jones Canyon
6. Headcut Prehistoric Community
7. San Luis Mesa Raptor Area
8. Azabache Station
9. Cabezon Peak
10. Ignacio Chavez
11. Big Bead Mesa
12. Canon Tapia
13. Guadalupe Ruin and Community
14. Elk Springs
15. Tent Rocks
16. Ojito
17. Ball Ranch
18. Pronoun Cave Complex
19. Continental Divide Trail
20. 1870's Wagon Road Trail
21. El Malpais
22. Petaca Pinta
23. Bluewater Canyon



1. Torrejon Fossil Fauna

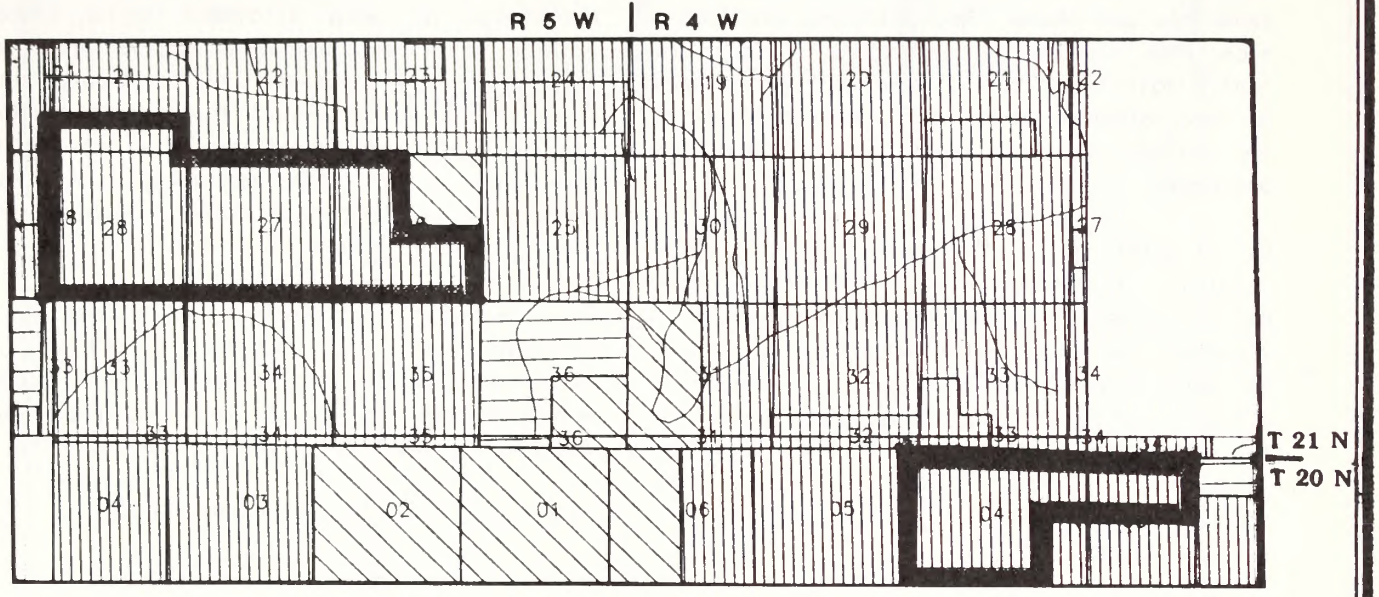
General Description. Numerous authors, including Matthew (1937) and Wood and others (1941), have identified the area near the head of Torrejon Wash as a major collecting area for fossil mammals (see Map 22). Wood and others formally defined this area as the type locality for the Torrejon Fauna in an article in Volume 52 of the Bulletin of the Geological Society of America (Wood, et al. 1941).

A type locality is an important paleontological feature in that it represents the place at which a fossil assemblage is typically displayed and from which it derives its name. Type specimens of the Torrejon Fauna were originally recognized and described from this locale; thus the area represents a unique and irreplaceable resource.

Management Objectives. The goal of special management for the Torrejon Fauna Type Locality is to protect the area for scientific study. Access for scientific study will be maintained while unnecessary and undue degradation associated with mineral development will be prohibited.

The planned actions include: (1) Designate as an Area of Critical Environmental Concern (already implemented); (2) Develop an activity plan; (3) Limit motorized vehicle use to existing roads and trails.

No support needs have been identified.



0 1 2 3 MILES

SCALE

MAP 22
TORREJON FOSSIL FAUNA

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE
- INDIAN

N

- PAVED OR GRADED ROAD
- PRIMITIVE ROAD OR TRAIL
- SMA BOUNDARY

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS

2. Pelon Watershed

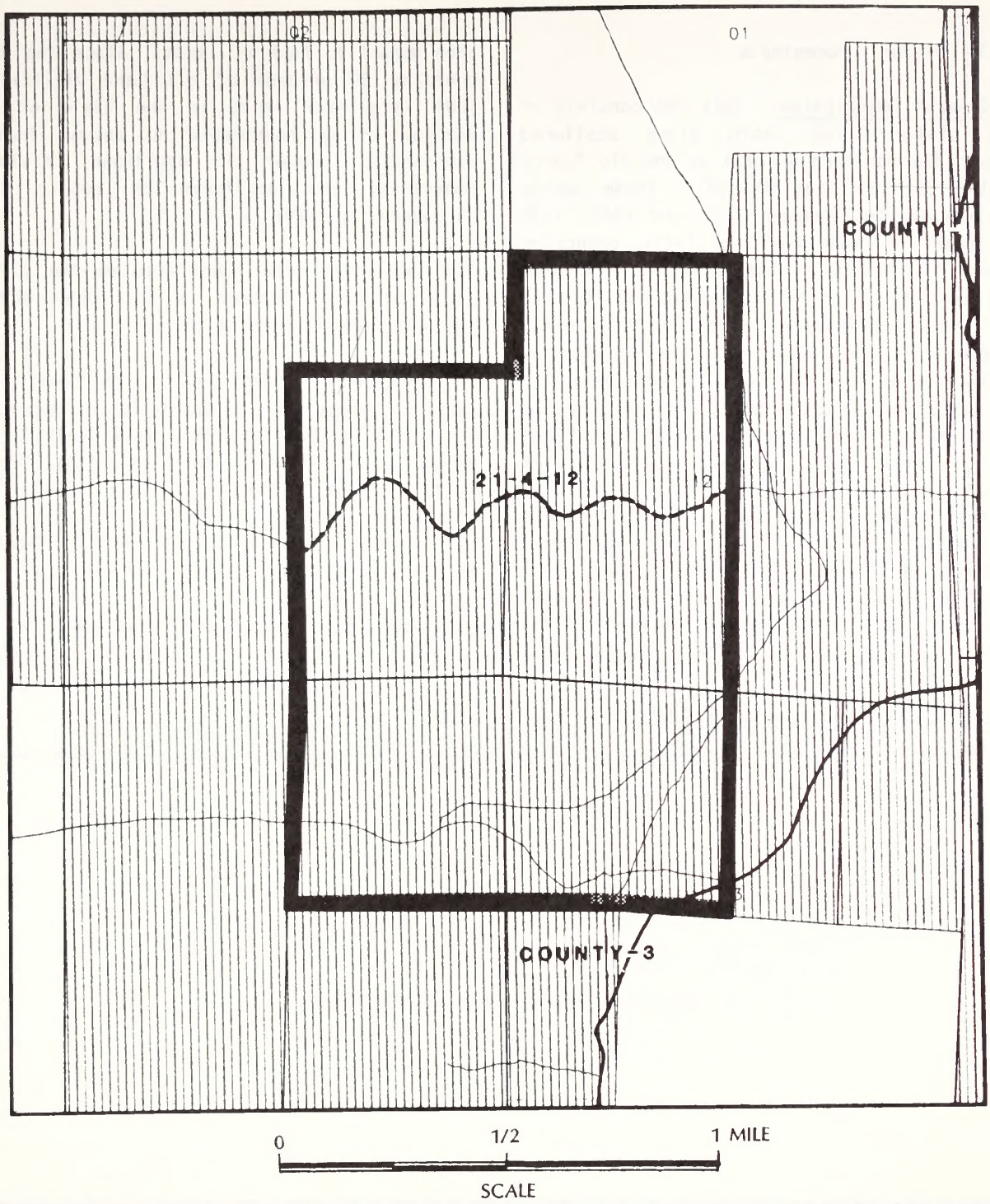
General Description. The Pelon Watershed, part of the Rio Puerco Hydrology Study, is approximately 858 acres in size (see Map 23). Elevations range from 7120 to 7228 feet. Soils range from moderately fine textured in alluvial deposits to both coarse and fine textures on colluvial material derived from sandstone and shale. Rock outcrops are common along the rim of the watershed. Slopes are gentle to rolling in the lower and center part of the watershed but become very steep along the rim and below the sandstone and shale rock outcrops.

On alluvial soils the vegetation typically consists of western wheatgrass, blue grama, galleta grass, bottlebrush squirreltail, sand dropseed, and big sagebrush. A woodland type is more typical on the upper slopes with pinyon, juniper, Indian ricegrass, blue grama, big sagebrush, mountain mahogany, antelope bitterbrush, Gambel's oak, and yucca the dominant species.

Management Objectives. The objectives for all three watersheds in the Rio Puerco Watershed Study (Pelon, Empedrado, and Querencia) are to monitor hydrologic responses to the Rio Puerco grazing management programs. Only through such monitoring can a determination be made whether the goals of the Rio Puerco Grazing ES (USDI, BLM 1978b) are being met. These goals include increasing the percentage of each allotment in a stable erosion condition, improving vegetative cover to reduce soil losses, and reducing peak runoff. The objectives of the Hydrology Study can be achieved only by allowing grazing in the study areas, but excluding all other surface disturbing activities, except for instruments and data collection.

The planned actions include: (1) Develop an activity plan; (2) Withdraw minerals; (3) Allow no surface disturbance; (4) Limit motorized vehicle use to existing roads and trails; (5) Close BLM Inventory Road 21-4-12.

No support needs have been identified.



MAP 23
PELON WATERSHED

SURFACE OWNERSHIP

BLM

PRIVATE

N

PAVED OR GRADED ROAD

PRIMITIVE ROAD OR TRAIL

ROAD CLOSED TO VEHICULAR USE

SMA BOUNDARY

OTHER MOTORIZED VEHICLE USE
LIMITED TO EXISTING ROADS & TRAILS

3. Historic Homesteads

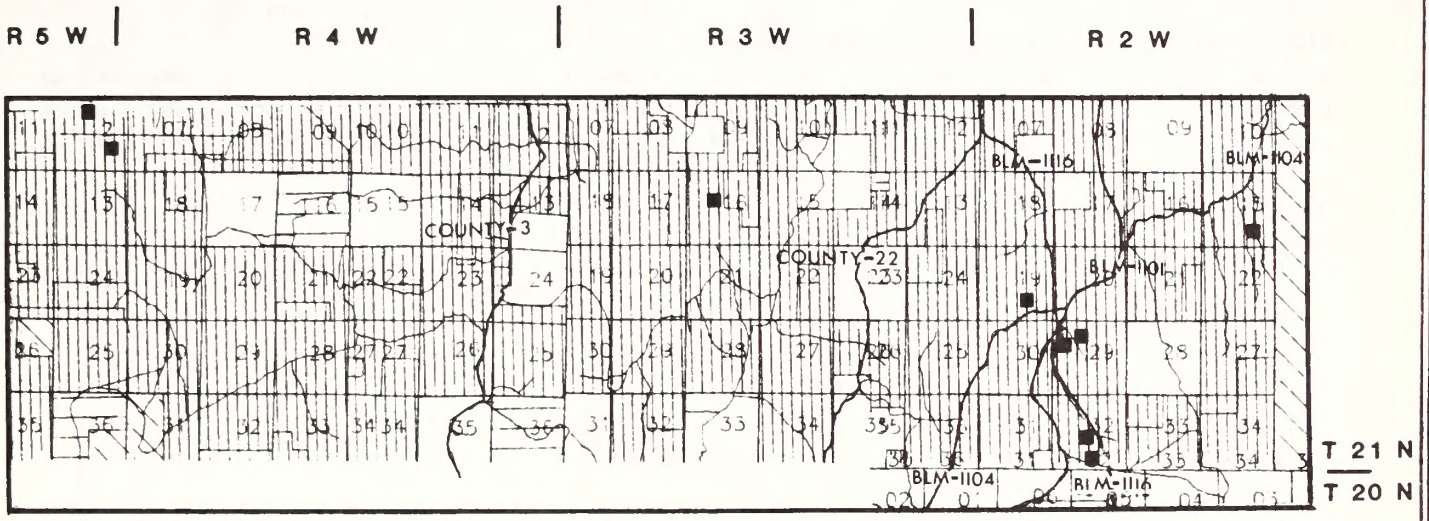
General Description. This SMA consists of nine historic log cabin sites scattered through the northern portion of the Rio Puerco Grazing ES Area (see Map 24). These cabins were constructed between 1900 and 1940, with the peak of settlement activity occurring around the 1920's. Homesteads in this area were settled by both Hispanics and Anglos; thus these settlements offer an intriguing glimpse into the historic roots of modern, multi-cultural New Mexico. The homesteads in the SMA came into Federal ownership as a result of The Bankhead-Jones Farm Tenant Act which authorized Federal purchase of privately-owned farmlands if they had originally been homesteaded. Known as Land Utilization Projects, these submarginal lands proved to be incapable of producing sufficient income to support a family. The families were relocated and the lands retired from agricultural production. These tracts were then added to Federal lands. Since the RPRA contains 80 percent of all Land Utilization (LU) (acquired) lands in the State of New Mexico, it is reasonable to assume that a substantial number of additional historic homesteads are scattered on public land throughout the RPRA.

One cabin has been identified as the birthplace of Euell Gibbons, a well-known author and proponent of natural foods.

Management Objectives. The goals of special management for the Historic Homesteads are maximization of the interpretive and educational potential of the sites, while protecting their inherent cultural values.

The planned action for this SMA is: Develop an activity plan.

No support needs have been identified.



0 1 2 3 4 5 6 MILES

SCALE

MAP 24
HISTORIC HOMESTEADS

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE
- USFS

N

- PAVED OR GRADED ROAD
- PRIMITIVE ROAD OR TRAIL
- HISTORIC HOMESTEAD

4. Canon Jarido

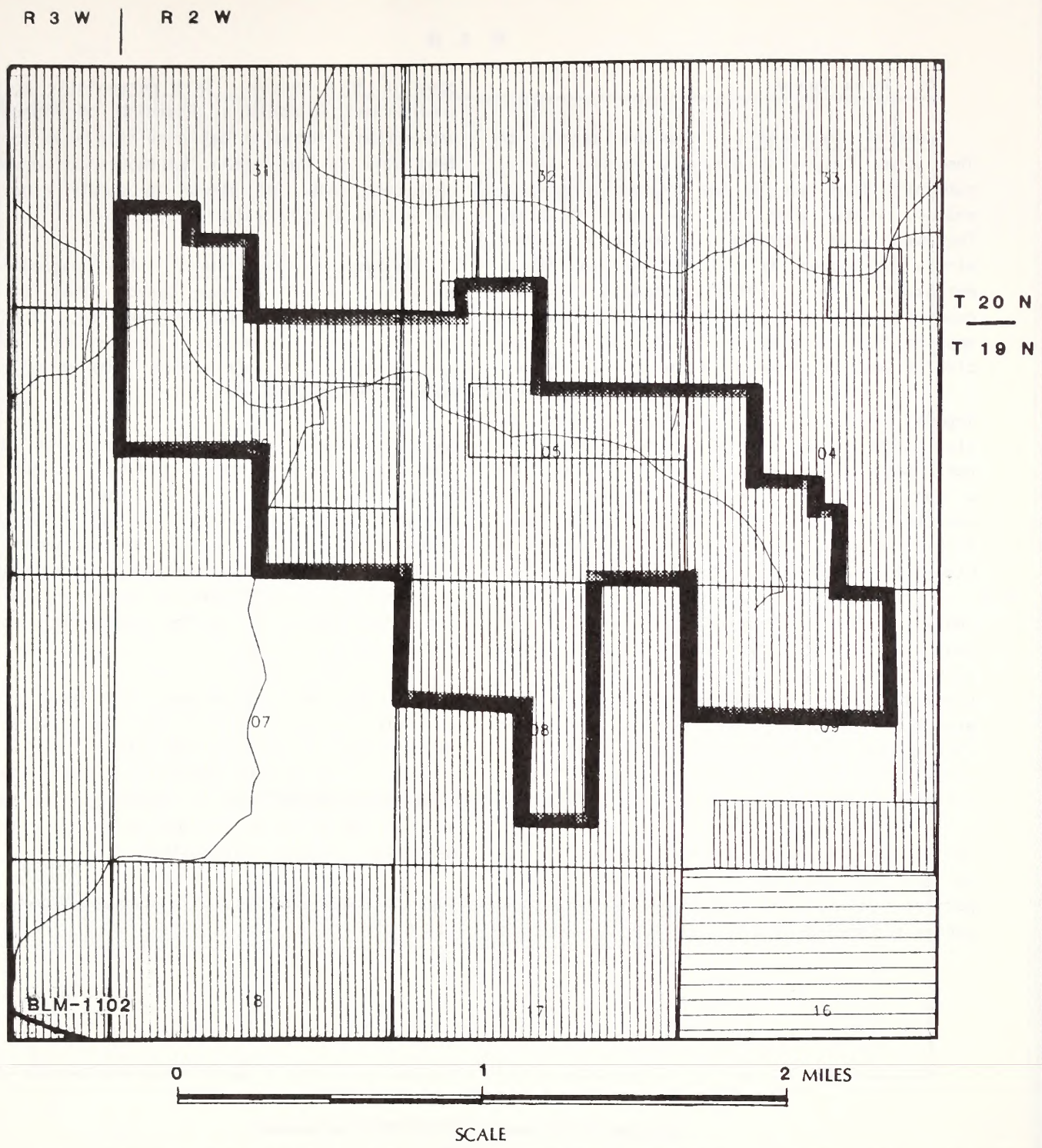
General Description. Canon Jarido (see Map 25) consists of a steep-sided sandstone canyon cut approximately 100 feet into Mesa Portales which provides raptor nesting sites. Lower elevations consist of sage cover interspersed with pinyon and juniper. This vegetative community progresses into ponderosa pine and Gambel's oak, also providing good mule deer habitat.

Five springs are located within the canyon, two of which are associated with historic homesteads settled sometime during the early 1900's. One cabin site is in excellent condition, while the second is in moderately good shape. To date, the deterioration has been due to natural causes, rather than vandalism. This relatively undisturbed cultural resource warrants immediate attention. Additional historic and prehistoric cultural materials have also been identified within Canon Jarido.

Management Objectives. Goals of special management for Canon Jarido emphasize management for scenic values, wildlife habitat, cultural values, and intensive recreation use, specifically Semi-Primitive Motorized recreation opportunities.

Planned actions include: (1) Develop an activity plan; (2) Limit motorized vehicle use to existing roads and trails; (3) Allow no surface disturbance.

No support needs have been identified.



MAP 25
CANON JARIDO

SURFACE OWNERSHIP

STATE

BLM

PRIVATE

N

PAVED OR GRADED ROAD

PRIMITIVE ROAD OR TRAIL

SMA BOUNDARY

ALL MOTORIZED USE WITHIN BOUNDARY
LIMITED TO EXISTING ROADS & TRAILS

5. Jones Canyon

General Description. Reconnaissance of the Jones Canyon prehistoric Pueblo II-III community (see Map 26) has documented over 25 masonry sites, some over 100 rooms in size. The main site location is centrally located within the community and may contain 200 or more rooms. Early analysis suggests that this community may be Chacoan-related; however, it appears that it does not display some of the classic Chacoan ceramic and masonry attributes.

Vegetation of the area is typical of the dry, high (6800 to 7200 foot elevation) plateaus of north-central New Mexico. Dense juniper and pinyon are the dominant species, with scattered grasses, Gambel's oak, cliff rose, sage, squawberry, yucca, cholla, and ponderosa pine also present.

The prehistoric community is located at the head of Jones Canyon and along several tributary canyons in the area. The area is characterized by dramatic variations in elevation, sandstone outcroppings, stabilized sand dunes, and dense vegetation. Almost all local high ground contains sites or other evidence of prehistoric occupation.

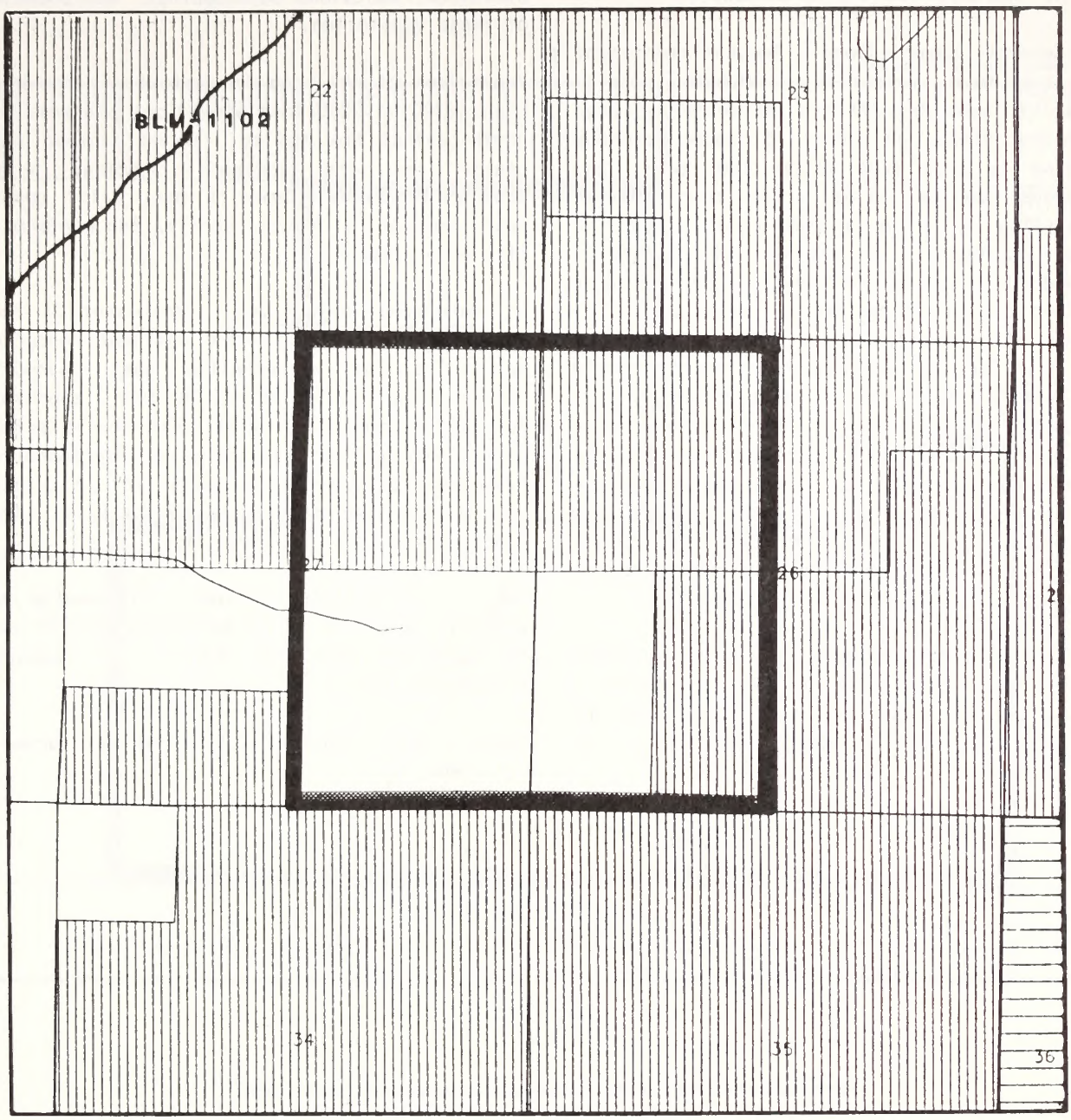
The canyon just south of Jones Canyon is one of the few riparian zones in the northern portion of the Rio Puerco ES area. A perennial spring and stream feed a man-made pond in this canyon. This perennially moist environment supports a diversity of riparian vegetation. Gambel's oak grow thirty to forty feet tall in the canyon. Although no surveys have been made, the canyon is surely a haven for a diversity of wildlife species.

Management Objectives. The management emphasis for the Jones Canyon SMA is on cultural values, riparian habitat, scenic values, and intensive recreation use, specifically Semi-Primitive Non-Motorized recreation opportunities.

Management of the Jones Canyon site and community under the cultural resource scientific and conservation goal category designations will allow further approved scientific study while maintaining existing conditions until completion of a comprehensive management plan sufficient in detail to assign use categories to all of the components within the community.

The planned actions include: (1) Develop an activity plan; (2) Allow no surface disturbance; (3) Acquire non-public lands; (4) Withdraw locatable minerals; (5) Limit motorized vehicle use to existing roads and trails; (6) Allow no surface occupancy (fluid minerals) (already implemented).

Support needs include: (1) Cadastral survey; (2) ATROW.



MAP 26
JONES CANYON

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE

N

- PAVED OR GRADED ROAD
- PRIMITIVE ROAD OR TRAIL
- SMA BOUNDARY

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS

6. Headcut Prehistoric Community

General Description. Reconnaissance of the Headcut prehistoric Pueblo II-III community (see Map 27) has documented a large isolated kiva, at least 5 major pueblos ranging in size from 45 to 100 rooms, and numerous smaller sites. One concentration consisting of a large pueblo (150 rooms or more) surrounded by smaller structures is located just across the Headcut drainage from another concentration defined only as a high Pueblo site density area. Total site numbers for this Special Management Area could exceed 200 sites. The 1976 reconnaissance of this community suggests that it is classic Chacoan in nature and probably contemporary with the Jones Canyon Community immediately to the north, but displaying different masonry and ceramics. The exact number, affiliation, and locations of components within this community have not been established.

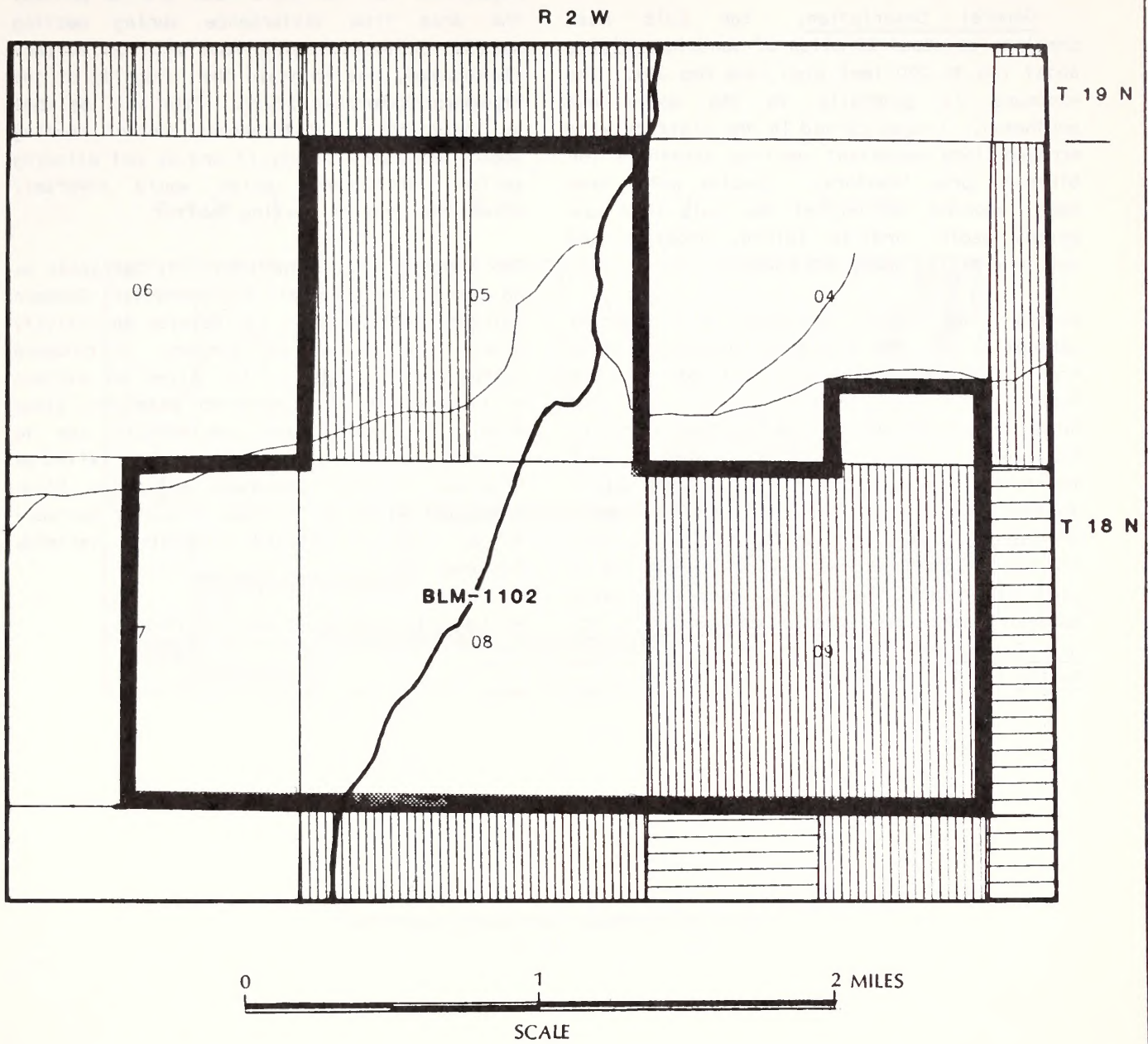
The prehistoric community is located within one-half mile of Headcut Reservoir on the high ground to the east and west. The area is characterized by dramatic variations in elevation, sandstone outcroppings, and pockets of dense vegetation.

Vegetation of the area is typical of the dry, high (6700 to 7200 foot elevation) plateaus of north-central New Mexico. Dense juniper and pinyon are the dominant species, with scattered grasses, Gambel's oak, cliff rose, sage, squawberry, yucca, choila, and ponderosa pine also present.

Management Objectives. Management of the Headcut Community under the cultural resource scientific and conservation goal category designations will allow further approved scientific study but will maintain existing conditions until completion of a comprehensive management plan which is sufficient in detail to assign use categories to all of the components within the community.

The planned actions include: (1) Develop an activity plan; (2) Limit motorized vehicle use to existing roads and trails; (3) Acquire non-public lands.

Support needs include: (1) Cadastral survey; (2) ATROW.



MAP 27

HEADCUT PREHISTORIC COMMUNITY

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE

N

- PAVED OR GRADED ROAD
- PRIMITIVE ROAD OR TRAIL
- SMA BOUNDARY

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS

7. San Luis Mesa Raptor Area

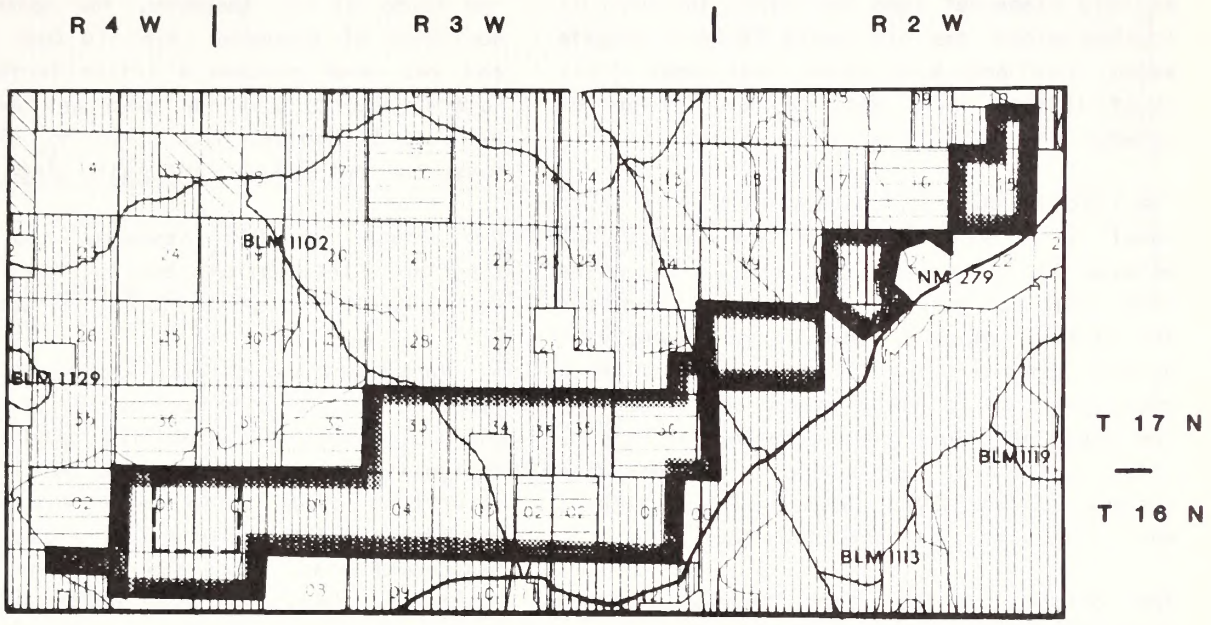
General Description. San Luis Mesa consists of about 20 miles of sandstone bluffs about 100 to 200 feet high (see Map 28). The exposure is generally to the south and southeast. Ledges carved in the bluff by wind erosion form excellent nesting substrate for birds of prey (raptors). Species which have been recorded nesting at San Luis Mesa are golden eagle, prairie falcon, great horned owl, red-tailed hawk, and raven.

Within the area proposed for special management is the Empedrado Watershed Study Area. This watershed is part of the Rio Puerco Hydrology Study which monitors hydrologic responses to the Rio Puerco grazing management programs. Only through such monitoring can a determination be made as to whether the objectives of the Rio Puerco Grazing ES (USDI, BLM 1978b) are being met. The western half of the SMA is part of the La Lena Wilderness Study Area, currently being managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b).

Management Objectives. Management objectives for San Luis Mesa are to protect the area from disturbance during nesting season, protect nesting habitat from surface disturbance, and maintain the integrity of the Empedrado Watershed Study. This will be done by restricting disturbance during nesting season (February 1-July 1) and by not allowing surface disturbance which would adversely affect the area as nesting habitat.

The planned actions include: (1) Designate as an Area of Critical Environmental Concern (already implemented); (2) Develop an activity plan; (3) Allow no surface disturbance February 1 to July 1; (4) Allow no surface disturbance in the Empedrado Watershed Study Area; (5) Limit motorized vehicle use to existing roads and trails; (6) Withdraw minerals in the Empedrado Watershed Study Area; (7) Allow no surface occupancy February 1 to July 1 (fluid minerals) (already implemented).

No support needs have been identified.



MAP 28
SAN LUIS MESA RAPTOR AREA

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE

N

- PAVED OR GRADED ROAD
- PRIMITIVE ROAD OR TRAIL
- SMA BOUNDARY
- EMPEDRADO WATERSHED

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS

8. Azabache Station

General Description. The so-called Azabache Stage Station is an abandoned, four room, sandstone masonry ranch house with spring house, corral, and evidence of at least two other buildings built near the base of Mesa La Azabache, next to a small spring known as "Ojo Azabache" (see Map 29). The ruin is located along the old Santa Fe-Fort Wingate wagon road and even older Zuni-Jemez trail about fifteen miles west of the Village of Cabezon.

The ruin is important because little is known about rural architecture in New Mexico, and because it is so well preserved. The ruins have been stripped of removable objects but the cultural deposits remain intact except for natural deterioration. There is some evidence that vandalism to the site may be increasing. The house was built and occupied during the late territorial period of New Mexico's history (1846-1880), homesteaded following World War I, and was abandoned about 1925.

The origin of the term "Azabache Stage Station" is unknown. The Star Line Mail stage stopped at Willow Springs and the Village of Cabezon to the west and east of Azabache, with no stops along the way. Maps from 1879 and 1883 indicate a stop at Coal Spring, apparently located at the ruin one mile northeast of "Azabache Station." Since Azabache means "a compact velvet-black coal," it is likely that the place called Azabache by Bandelier in 1888 and the ranch shown as Coal Spring on the 1883 USGS topographic map are one and the same.

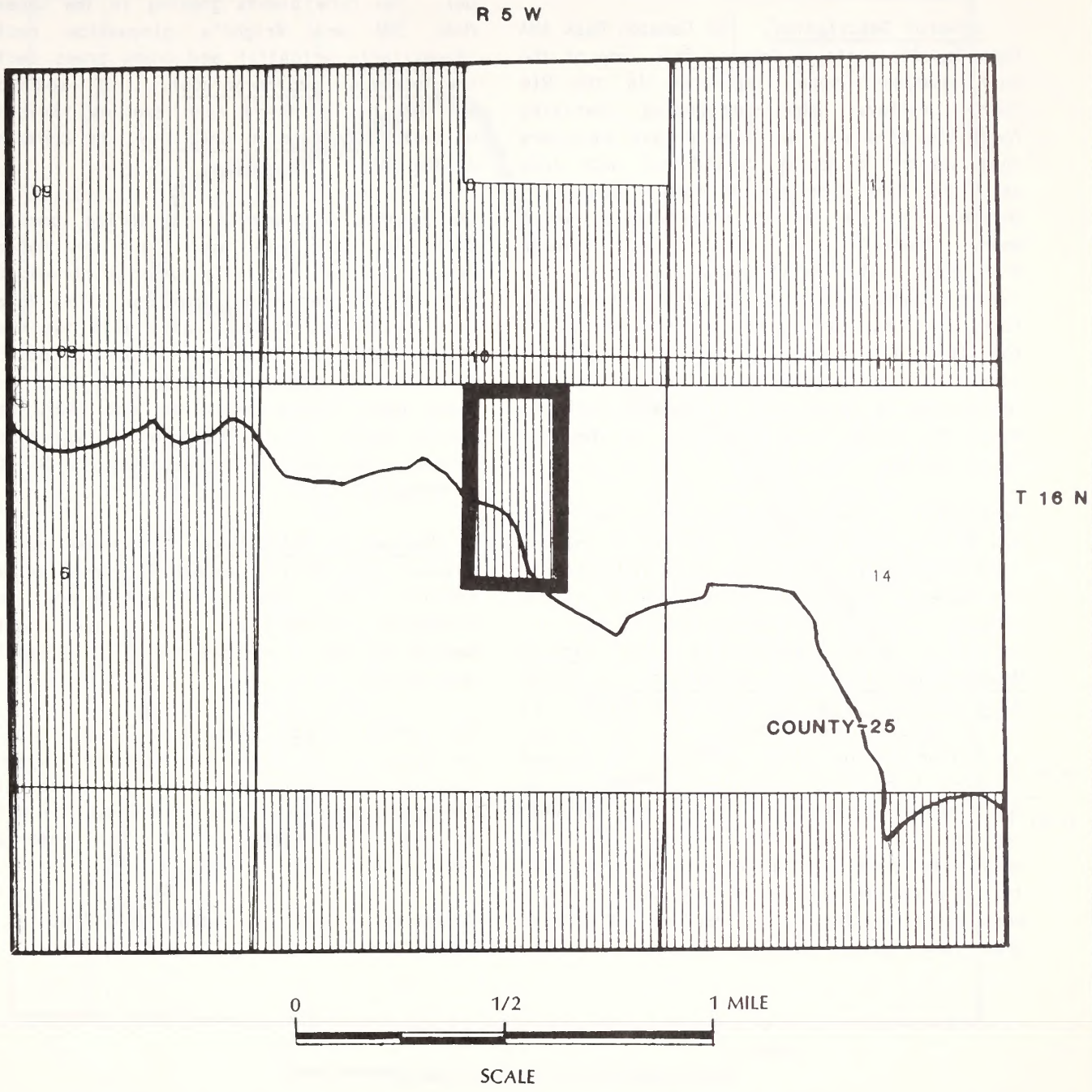
John Walker, U.S. Deputy Surveyor, who surveyed the area in 1901, reported that there were only four inhabited ranches in the area, the house at Ojo Azabache, the house a mile northeast of Azabache (the old Coal Spring), and two other ranches a little further east. Federal records show the ranch was homesteaded by Eduardo Montoya from 1916 to 1925. The house has had no known occupants since 1925.

The house at Ojo Azabache could yield important information about frontier life during New Mexico's territorial period.

Management Objectives. Management of the Azabache Station site and community under the cultural resource scientific goal category designation will allow further approved scientific study while maintaining existing conditions until completion of a comprehensive management plan. Management of the SMA will emphasize interpretive and educational values.

The planned actions include: (1) Develop an activity plan; (2) Allow no surface occupancy (fluid minerals) (already implemented); (3) Withdraw locatable and saleable minerals; (4) Close the area to motorized vehicle use.

No support needs have been identified.



MAP 29
AZABACHE STATION

SURFACE OWNERSHIP

BLM

PRIVATE

N

PAVED OR GRADED ROAD

PRIMITIVE ROAD OR TRAIL

SMA BOUNDARY

SMA CLOSED TO MOTORIZED VEHICLE USE, EXCLUDING COUNTY ROAD 25

9. Cabezon Peak

General Description. The Cabezon Peak SMA (see Map 30) contains Cabezon Peak, one of the most prominent local landmarks in the Rio Puerco Valley. The surrounding low-lying foothills give way to large rugged shoulders that support a nearly cylindrical neck from which the Peak receives its name. Cabezon is derived from the Spanish noun "cabeza" which means "head." In this case, Cabezon translates into "big head." Cabezon Peak towers approximately 8,000 feet above sea level and is surrounded by rolling grassy foothills and steep-sided arroyos. The Peak itself is part of the Mount Taylor volcanic region and is the largest of several volcanic necks protruding from the floor of the Rio Puerco Valley.

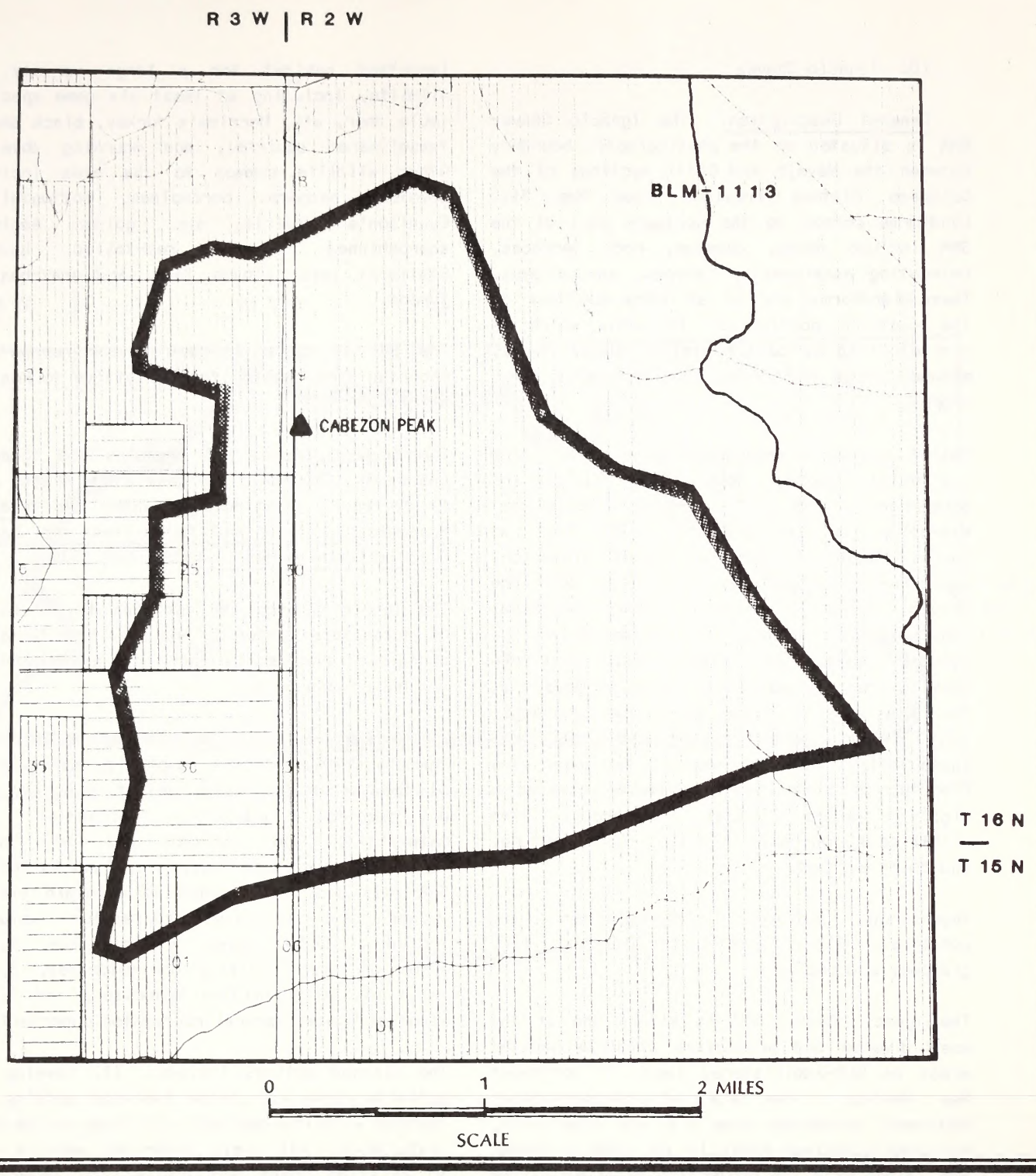
Vegetation of the SMA is confined primarily to the rolling foothills, and consists of cactus, shrubs, grasses, and some pinyon and juniper. The Cabezon Peak SMA contains most of the Cabezon Wilderness Study Area, and is currently being managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b). It is a popular recreation site for casual visitation and for climbing. Over two hundred climbers from in- and out-of-State, as well as two foreign countries, signed the visitor register in a twelve month time span. The area also contains raptor nesting sites and two rare cactus species on the State list of endangered species. The raptors using the area are golden eagle, red-tailed hawk, sparrow hawk, prairie falcon, and great horned owl. The rare plants growing in the Cabezon Peak SMA are Wright's pincushion cactus (Mammillaria wrightii) and grama grass cactus (Pediocactus papyracanthus). In addition, habitat for a third rare species, Knight's milkvetch (Astragalus knightii), is contained in the SMA.

The remains of a prehistoric shrine (possibly still in use) have been found on Cabezon Peak. The Peak has religious significance for both Pueblo and Navajo Indians. The Navajo have various myths associated with the Peak, one of which explains the origin of Cabezon. According to legend the Peak and local lava flows came from a giant who was slain upon nearby Mount Taylor. The giant's head became Cabezon Peak and his blood congealed to form El Malpais.

Management Objectives. Management of the Cabezon Peak SMA will emphasize scenic values, socio-cultural values, rare cactus, and intensive recreation use, specifically Semi-Primitive Non-Motorized recreation opportunity.

The planned actions include: (1) Designate as an Area of Critical Environmental Concern (already implemented); (2) Develop an activity plan; (3) Acquire non-public lands; (4) Allow no surface disturbance; (5) Close to motorized vehicle use.

Cadastral survey has been identified as a support need.



MAP 30
CABEZON PEAK

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE

N

- PAVED OR GRADED ROAD
- PRIMITIVE ROAD OR TRAIL
- SMA BOUNDARY
- SMA CLOSED TO MOTORIZED VEHICLE USE

10. Ignacio Chavez

General Description. The Ignacio Chavez SMA is situated on the physiographic boundary between the Navajo and Datil sections of the Colorado Plateau Province (see Map 31). Landforms common to the northern part of the SMA include mesas, cuestas, rock terraces, retreating escarpments, canyons, and arroyos. These landforms are in striking contrast to the southern portion of the SMA, which is characterized by basalt plains, cinder cones, exhumed plugs and dikes, and extensive talus slopes.

Relief varies throughout the SMA from low-relief mesa tops to high-relief escarpments along plateau edges. The highest elevation is approximately 7,731 feet at Bear's Mouth, while the lowest elevation, approximately 6,000 feet, is found near the Arroyo Chico drainage. Three principal landforms occur within the boundaries of the Ignacio Chavez SMA. These are: (1) the lava-covered surface of El Banquito Mesa, (2) the talus-covered slopes along the mesa edge, and (3) the incised cuesta topography that characterizes the remainder of the area. The blending of these three landforms creates a highly valued visual resource, with significant contrast in form, line, texture, and color evident.

Vegetation includes pinyon-juniper and ponderosa pine, scattered Douglas fir, grasses, and cactus.

The Ignacio Chavez SMA is within one of the most diverse and productive wildlife habitat areas on BLM-administered lands in northwest New Mexico. The mix of pinyon-juniper woodland, ponderosa pine with oak understory, and open grassland parks in the Ignacio Chavez SMA, along with the protection afforded by the steep slopes and cliffs of Mesa Chivato, provide excellent habitat for many species of wildlife. Approximately 257 vertebrate species may inhabit the area, including 146 species of birds, 71 of mammals, 31 of reptiles, and 9 species of amphibians. Although use of the area by threatened or endangered species is limited, the SMA is important habitat for a large variety of wildlife, including at least six game species (mule deer, elk, Merriam's turkey, black bear, tassel-eared squirrel, and mourning dove.) Other wildlife common to the area include coyotes, badgers, porcupines, cottontails, Gunnison's prairie dog, golden eagles, sharpshinned hawks, red-tailed hawks, Steller's jays, pinyon jays, and gray-headed juncos.

The SMA is currently popular for recreation opportunities ranging from Primitive to Roaded Natural.

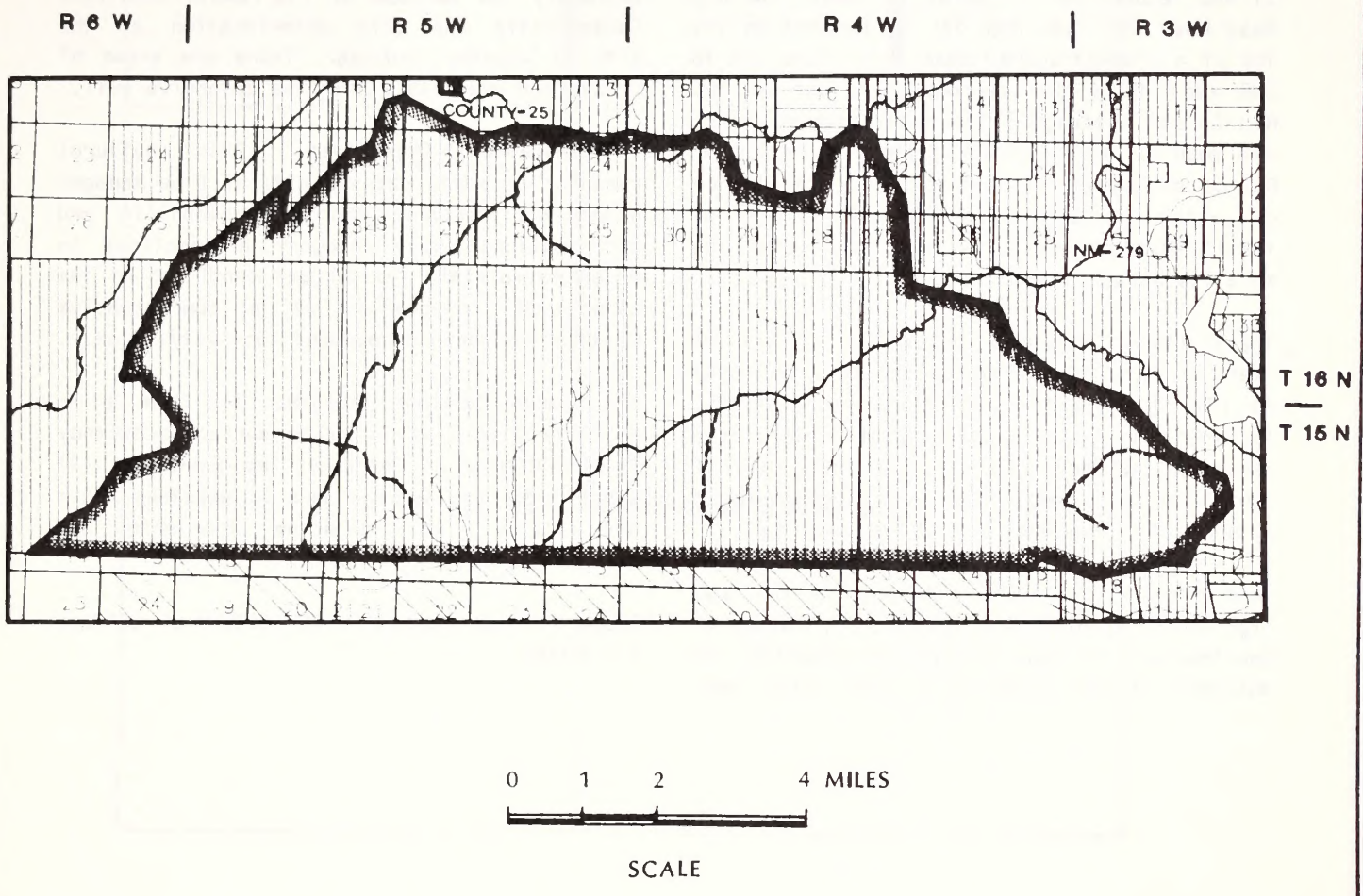
The Ignacio Chavez SMA contains the Ignacio Chavez and Chamisa Wilderness Study Areas, and is currently being managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b).

The Ignacio Chavez SMA contains 17,300 acres of accessible fuelwood, and has traditionally sustained small-scale cutting, predominantly for home fuelwood use.

Management Objectives. Management of the Ignacio Chavez SMA will emphasize maintenance of the current wildlife habitat diversity and environmental education potential by maintaining the current mix of three representative ecosystems. The Ignacio Chavez SMA will also be managed to maintain visual values and intensive recreation values, including 23,587 acres of Primitive, 8,800 acres of Semi-Primitive Non-Motorized, 3,696 acres of Semi-Primitive Motorized, and 7,065 acres of Roaded Natural recreation opportunity.

The planned actions include: (1) Develop an activity plan; (2) Allow fuelwood cutting to improve wildlife habitat; (3) Allow no surface disturbance; (4) Limit motorized vehicle use to existing roads and trails; (5) Determine standard fluid mineral lease stipulations during activity planning; (6) Close certain routes (except for authorized users) (see Map 31); (7) Acquire non-public lands.

Cadastral survey has been identified as a support need.



MAP 31
IGNACIO CHAVEZ

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE
- USFS

N

- PRIMITIVE ROAD OR TRAIL
- PAVED OR GRADED ROAD
- SMA BOUNDARY
- LIMITED TO AUTHORIZED USERS
- ROUTE CLOSED TO VEHICULAR USE

REMAINING VEHICULAR USE IS LIMITED TO EXISTING ROADS & TRAILS

11. Big Bead Mesa

General Description. Big Bead Mesa, a well-known historic Navajo locality, is currently designated as a National Historic Landmark. The original designation consisted of 750 acres; however, after examination of the site in 1975 by the National Park Service, it was reduced to 150 acres in 1981. The Big Bead Mesa SMA (see Map 32) is located on the top of a cresent-shaped mesa that rises 150 to 200 feet above the surrounding floor of the Rio Salado drainage. The mesa, canyon walls, and much of the surrounding terrain consist of Dalton sandstone and Mancos shale, the latter of which contains high concentrations of fossil bivalves and univalves which give the mesa its Navajo name of Yotso or "Big Bead."

The cultural resource property consists of over 90 sites and features dating from about AD 1745 to 1812 located in several clusters. The most impressive architectural feature is a defensive masonry wall 12 feet high and 26 feet wide that completely separates the major site cluster from the rest of the mesa top.

Vegetation of the area is typical of the dry, high (6400 to 6600 foot elevation) plateaus of New Mexico. Juniper and pinyon comprise the dominant ground cover with some scrub oak, cliff rose, squawberry, yucca, cholla, and an occasional ponderosa pine occurring.

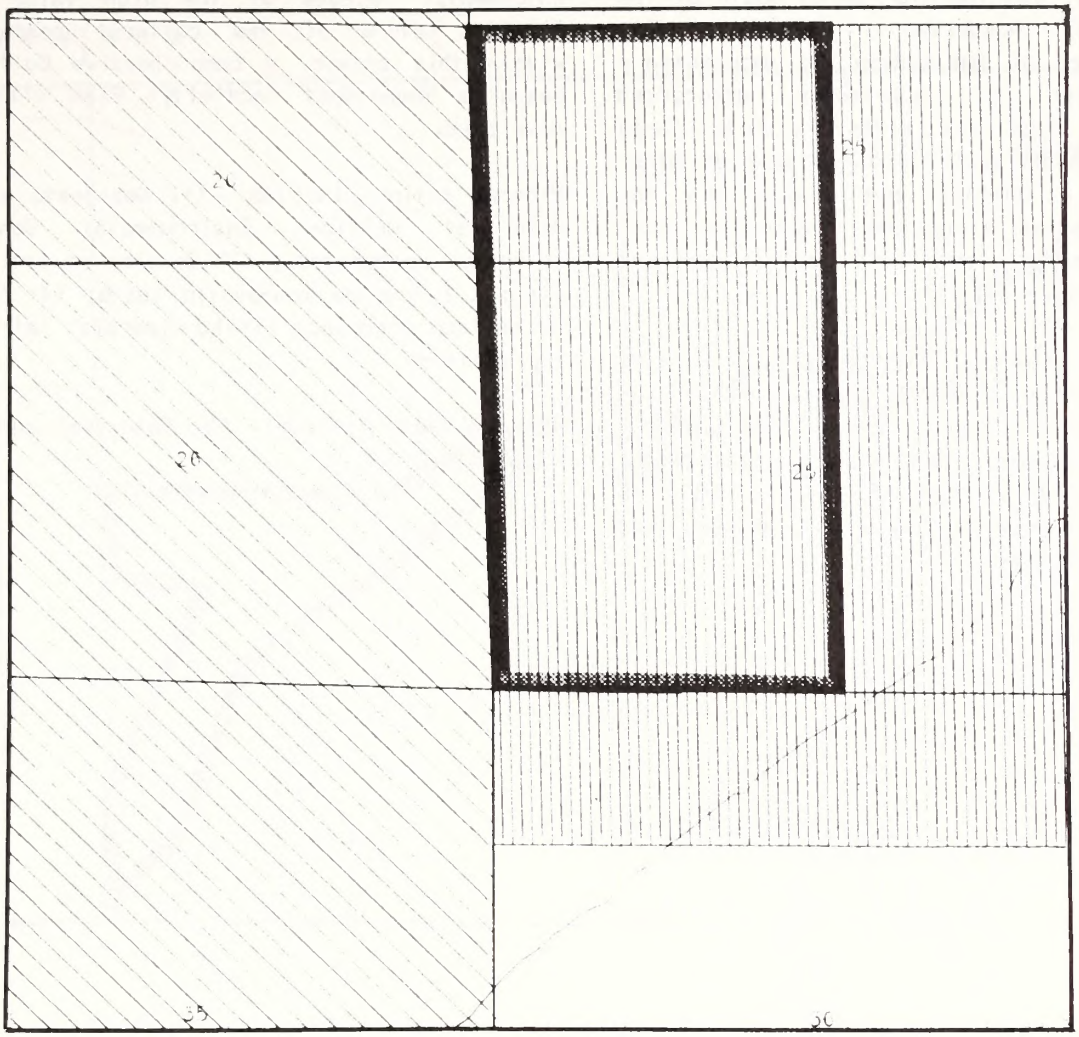
Most of the cultural remains were completely excavated by Dorothy Keur in 1939 (Keur 1941). While Big Bead Mesa is well known in the anthropological literature as an early Navajo site, current public visitation is extremely low because of its remote location. Consequently the only deterioration at the site is weather induced. There are areas of cracks and weakness within the defensive wall.

Management Objectives. This cultural resource property and vicinity will be managed under the cultural resource scientific and socio-cultural goal category designations in order to maintain the current condition of the site until completion of a comprehensive Cultural Resource Management (activity) Plan.

The planned actions include: (1) Develop an activity plan; (2) Allow no surface occupancy (fluid minerals) (already implemented); (3) Limit motorized vehicle use to existing roads and trails; (4) Withdraw locatable and saleable minerals.

Support needs include: (1) Cadastral survey; (2) ATROW.

R 4 W



0 1/2 1 MILE

SCALE

MAP 32
BIG BEAD MESA

SURFACE OWNERSHIP

BLM

USFS

PRIVATE

N

PRIMITIVE ROAD OR TRAIL

SMA BOUNDARY

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS

12. Canon Tapia

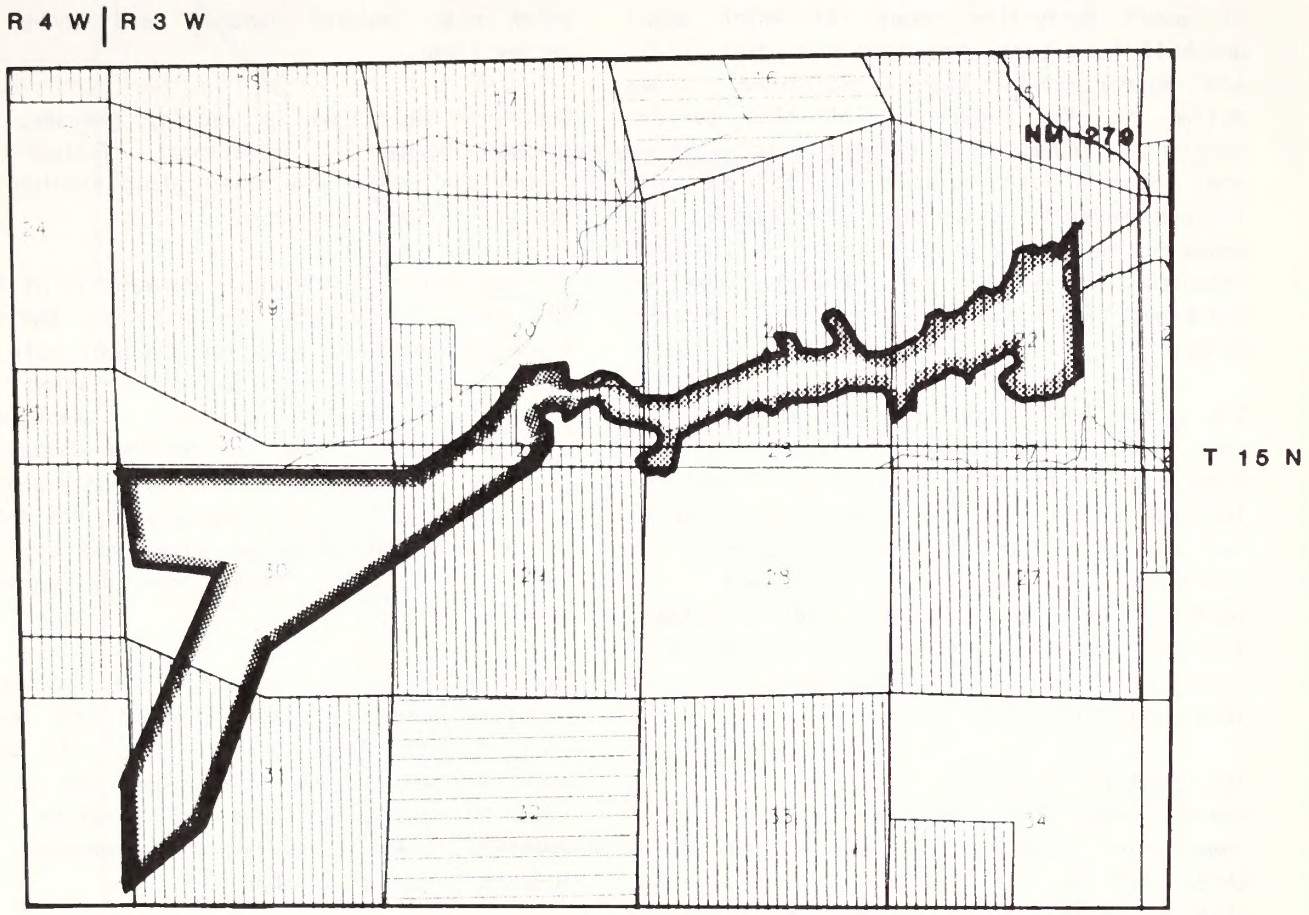
General Description. The Canon Tapia SMA is located within a large secondary drainage that empties into the Rio Puerco south of the Village of Guadalupe (see Map 33). Reconnaissance of the canyon has documented a large number of previously unrecorded prehistoric rock art sites in both large panels and individual glyphs as well as other site types. Juniper and pinyon are the dominant species along the canyon rim, with pinyon, juniper, and salt cedar dominant within the canyon itself.

The canyon provides the occasional visitor with spectacular views of contrasting red and brown sandstone cliffs, a large natural sandstone bridge, prehistoric petroglyphs reflecting a wide range of time, as well as remains of Navajo masonry sites, hogans, and storage structures.

Management Objectives. Management under the cultural resource scientific goal category will maintain the present condition within the canyon while allowing public visitation and enjoyment. Because of the high value and fragile nature of the cultural resources within this canyon, a comprehensive Cultural Resource Management (activity) Plan will be developed.

Planned actions include: (1) Designate as an Area of Critical Environmental Concern (already implemented); (2) Develop an activity plan; (3) Acquire non-public lands; (4) Allow no surface occupancy (fluid minerals) (already implemented).

Support needs include: (1) Cadastral survey; (2) ATROW.



0 1 2 MILES

SCALE

MAP 33
CANON TAPIA

SURFACE OWNERSHIP

STATE

BLM

PRIVATE

N

PAVED AND GRADED ROADS

PRIMITIVE ROADS AND TRAILS

SMA BOUNDARY

13. Guadalupe Ruin and Community

General Description. The Guadalupe Ruin and Community SMA (see Map 34) contains Guadalupe Ruin, a prehistoric Chacoan outlier of about forty-five rooms (of which about one-half have been excavated and stabilized), and approximately twenty additional sites dating to the Pueblo II-III time period. Substantial numbers of related masonry sites are located just outside of the SMA and include recently discovered prehistoric road segments and related features. A cultural resource survey of the general area of Guadalupe Ruin has recorded 157 related sites.

The central ruin itself has been managed since 1981 under an approved Cultural Resource Management Plan (USDI, BLM 1981a). The plan included stabilization and recording measures, now complete, and established patrol and monitoring actions, still in effect. The Guadalupe Ruin and Community SMA encompasses the area covered by the existing plan and will incorporate the existing management plan into this planning effort.

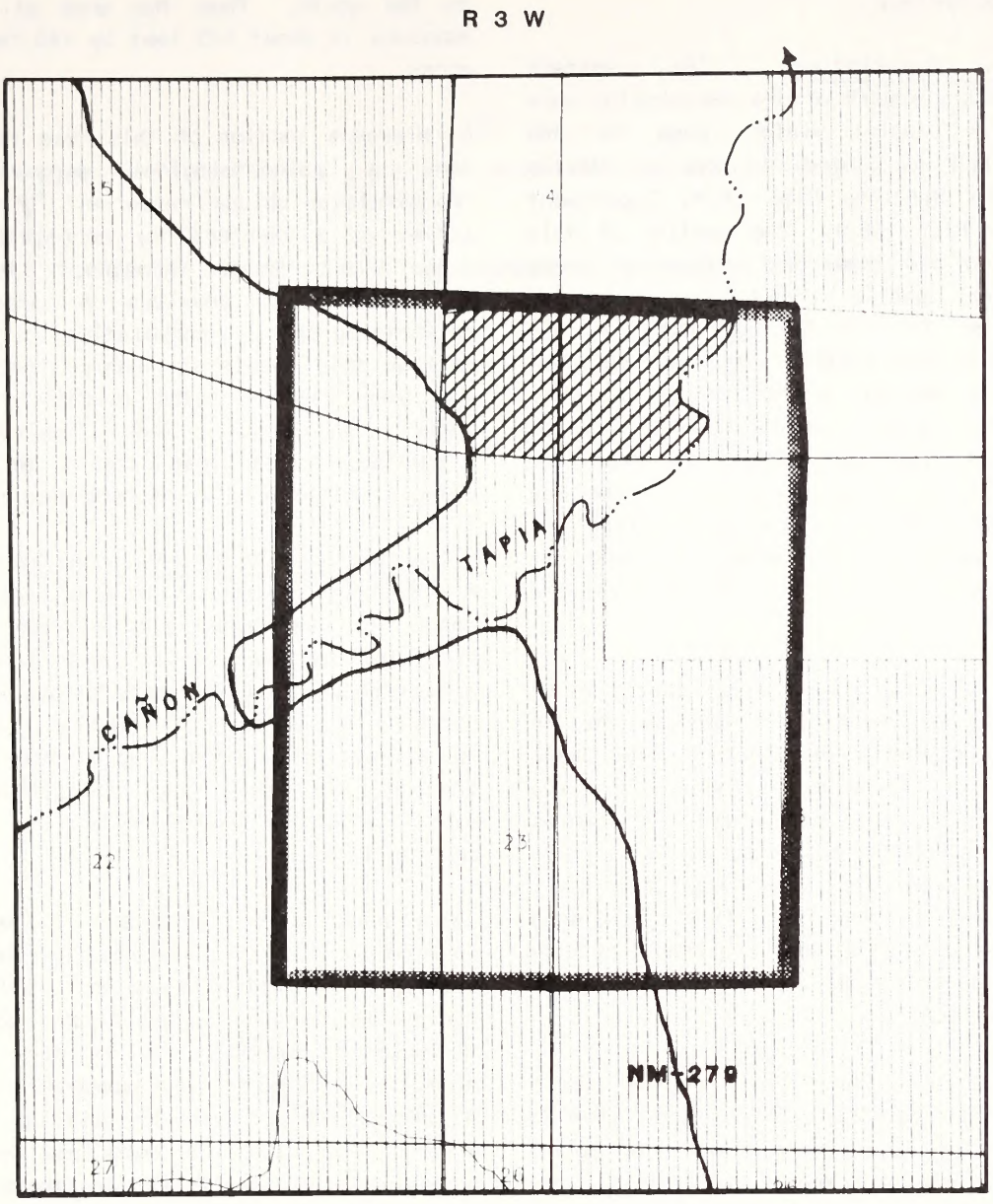
The central ruin and community lie on the western edge of the Rio Puerco Valley immediately below the confluence of the Arroyo Chico and the Rio Puerco. The surrounding highland areas include the Cebolleta Mountains to the west and Mesa Prieta to the east, both eroded remnants of an extensive basalt plateau. Several tributary arroyos enter the Rio Puerco floodplain near Guadalupe Ruin from steep-sided canyons. The topography is dominated by numerous exhumed volcanic plugs which rise several hundred feet above the valley floor.

Dominant vegetation is cactus, grasses, and shrubs with an occasional juniper in floodplain areas and heavy pinyon-juniper in locally higher elevations.

Management Objectives. Management of this SMA will incorporate the existing Cultural Resource Management Plan for the main ruin and extend cultural resource conservation and scientific goal category management considerations to the surrounding community. This will allow maintenance of present conditions while providing public visitation and a more comprehensive management approach to a high value, high density cultural resource area.

The planned actions include: (1) Develop an activity plan; (2) Close the 40-acre fenced area to motorized vehicle use; (3) Limit motorized vehicle use in the remainder of the area to existing roads and trails; (4) Withdraw minerals (already implemented for 40-acre fenced area only).

No support needs have been identified.



MAP 34
GUADALUPE RUIN AND COMMUNITY

SURFACE OWNERSHIP

BLM

PRIVATE

N

PAVED OR GRADED ROAD

PRIMITIVE ROAD OR TRAIL

SMA BOUNDARY

CULTURAL RESOURCE MANAGEMENT PLAN AREA - CLOSED TO ALL VEHICULAR USE

ALL MOTORIZED USE WITHIN REMAINING AREA LIMITED TO EXISTING ROADS & TRAILS

14. Elk Springs

General Description. The western foothills and piedmont of the Nacimientos were designated a crucial winter range for the Jemez elk and deer herds in the New Mexico Comprehensive Wildlife Plan (N.M. Department of Game and Fish 1980). The portion of this area north of the Jemez Indian Reservation is predominantly public land proposed for management as the Elk Springs SMA (see Map 35). Chaining and seeding projects have been completed to improve winter forage for big game on BLM lands. Lands in the crucial winter range from San Miguel to Cuba are predominantly in private ownership. The New Mexico Department of Game and Fish has received a considerable number of complaints from landowners in this area about wintering big game depredations.

Also within this SMA is an area identified by Dane, Cobban, and Kauffman (1966) as the San Juan Basin Reference Section for the Juana Lopez Member of the Mancos Formation. Fossils include ammonites, molluscs, and fish debris of Upper Cretaceous age (about 70 million years before present). The stratigraphy and regional relationships of this reference section were analyzed and published by the United States Geological Survey (Dane, Cobban, and Kauffman 1966).

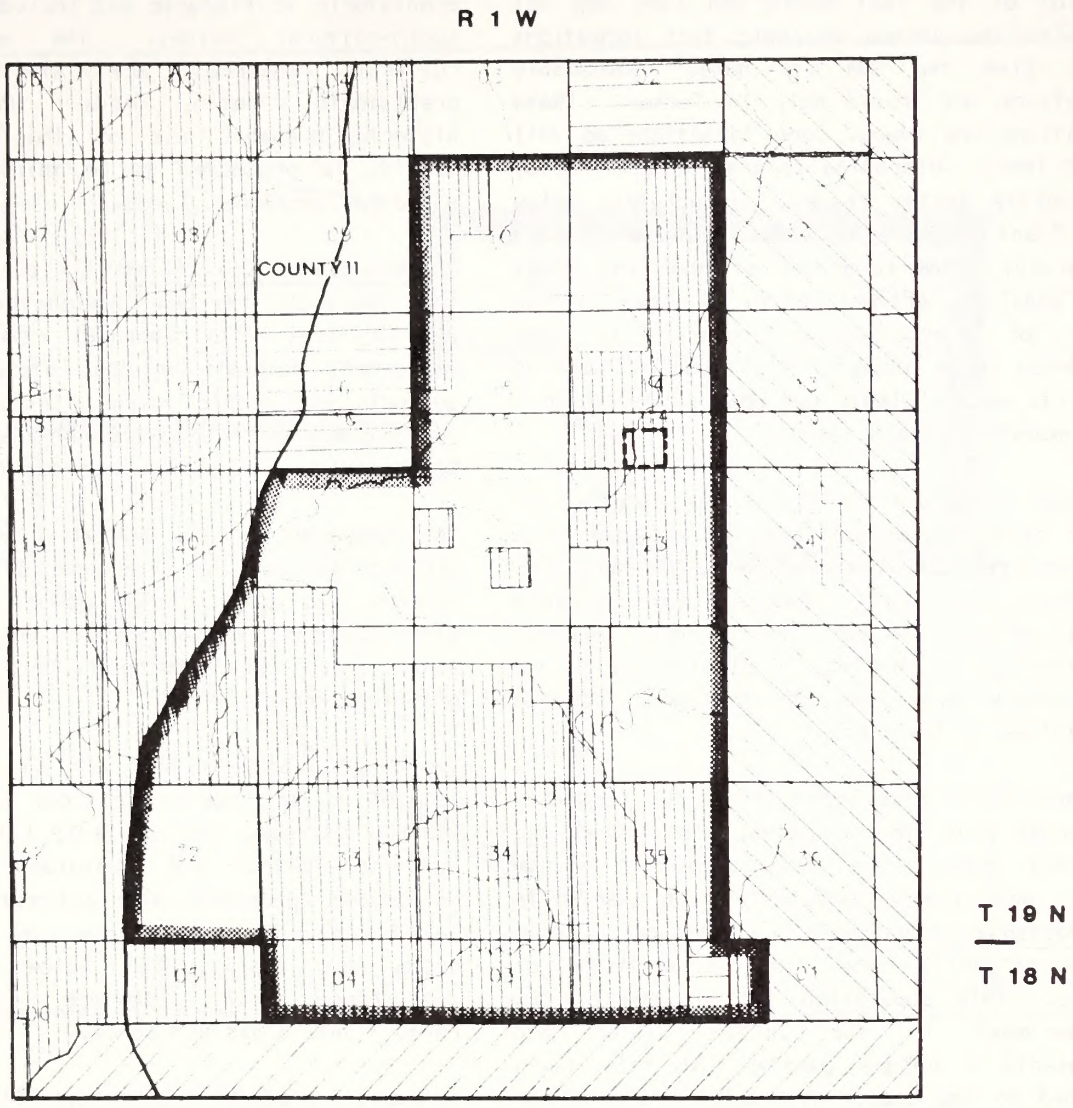
The reference section lies on a small north-trending hogback. The actual section measured by Dane and others lies in a gap in the hogback. At the place of measurement, the hogback is held up by the resistant limestones of the Juana Lopez Member. The Mancos Shale which lies above and below the Juana Lopez is not eroded from the hogback immediately to the north of the measured section and thus the area of good exposure extends only about 400 feet along strike in a northerly direction (San Filipo 1985). To the south lies another small knoll held up by well-exposed Juana Lopez, continuing along strike about 275 feet to the south. Thus the area of good rock exposure is about 675 feet by 140 feet, or 2.2 acres.

A reference section of this type is important from a paleontological perspective and represents a unique resource. This exposure serves as a standard for correlation of the Juana Lopez Member throughout its area of deposition and provides a standard for paleontological correlation worldwide. Because this locale is highly significant and has been used for the scientific study of Upper Cretaceous New Mexico faunal assemblages, the area should be preserved without change for future reference and study.

Management Objectives. The goals of the Elk Springs SMA are to provide quality winter range for the Jemez elk and deer herds by providing optimal cover and forage, thus alleviating big game depredations on private lands. In addition, the SMA will be managed to protect the Juana Lopez Member reference section, and scenic and recreational values, specifically Semi-Primitive Motorized opportunities.

The planned actions include: (1) Designate as an Area of Critical Environmental Concern; (2) Develop an activity plan; (3) Acquire non-public lands; (4) Allow no surface disturbance November 16 to May 14 (fluid minerals) (already implemented); (5) Limit motorized vehicle use to existing roads and trails; (6) Close to motorized vehicle use November 16 to May 14; (7) Designate the Juana Lopez Member reference section as a Research Natural Area; (8) Allow no surface disturbance in the Research Natural Area; (9) Withdraw minerals in the Research Natural Area; (10) No surface occupancy (fluid minerals) in Research Natural Area (already implemented).

Support needs include: (1) Cadastral survey; (2) ATROW.



MAP 35
ELK SPRINGS

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE
- INDIAN
- USFS

N

- PAVED OR GRADED ROAD
- PRIMITIVE ROAD OR TRAIL
- SMA BOUNDARY
- JUANA LOPEZ MEMBER

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS AND SUBJECT TO SEASONAL RESTRICTIONS

15. Tent Rocks

General Description. The northeast portion of the Tent Rocks SMA (see Map 36) exhibits the unique volcanic tuff formations which give the SMA its name. Comparable formations are found only in Turkey. These formations are steep, cone formations as tall as 90 feet. Coloration is grey, black, white, and subtle pastel shades. Immediately below the "tent rocks" is more rounded badland topography. The remainder of the Tent Rocks SMA consists predominantly of low rolling hills of pinyon-juniper cover with some ponderosa pine cover. The western portion exhibits several small canyons meandering down from mountain breaks terrain.

Although the Tent Rocks SMA has received no other official designations to date, it is a popular regional recreation site and has received consistent public and private attention over the past two decades. Hiking, sightseeing, camping, picnicking, and photography are some of the most popular activities in the SMA.

The area has a wide plant diversity, including ponderosa pine, Apache plume, blue grama, and sideoats grama. The area contains a rather large and viable population of manzanita (Arctostaphalus pungens), a shrubby species known primarily from the Sierra Madre of Mexico. This population site is one of the northernmost in the United States and represents a unique genotype of this taxon adapted to the cooler and moister weather of northern New Mexico.

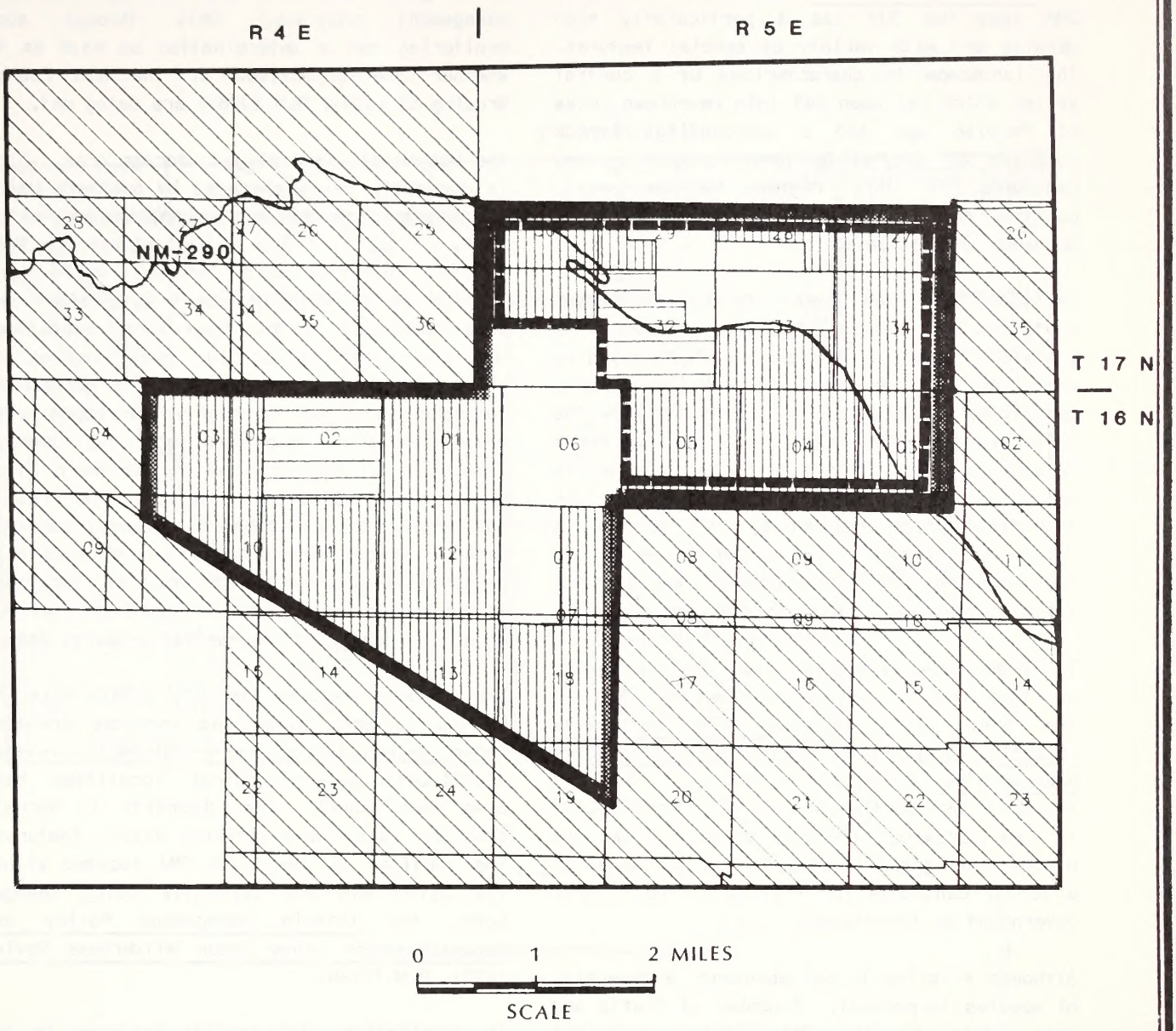
Existing data suggest that a full array of cultural resources exists in the Tent Rocks area. These resources range from early prehistoric to historic and include areas with socio-cultural values. The most common cultural resources are attributable to prehistoric Pueblo, modern Pueblo, and historic Hispanic use of the area. Site density is projected to be thirty to eighty sites per section.

Management Objectives. A portion of the Tent Rocks SMA has been designated as an Area of Critical Environmental Concern with management emphasis on the interpretation of geologic and scenic values, and on intensive recreation use, specifically Semi-Primitive Non-Motorized recreation opportunity.

The remainder of the SMA will be managed to protect habitat for non-game birds and to improve big game winter range. Agreements with adjacent landowners will be pursued and water will be developed to rehabilitate grassland parks.

The planned actions include: (1) Designate a portion as an Area of Critical Environmental Concern (already implemented); (2) Develop an activity plan; (3) Develop Cooperative Management Agreements with private landowners; (4) Limit motorized vehicle use to existing roads and trails; (5) Allow no surface disturbance; (6) Develop water and rehabilitate grassland parks.

No support needs have been identified.



MAP 36
TENT ROCKS

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE
- INDIAN

N

- PAVED OR GRADED ROAD
- SMA BOUNDARY
- AREA OF CRITICAL ENVIRONMENTAL CONCERN

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS

16. Ojito

General Description. Overall, the Ojito SMA (see Map 37) has a particularly high density and wide variety of special features. The landscape is characterized by a central valley which has been cut into red-brown rocks of Permian age and a surrounding rimrock composed of gray-white Jurassic-aged gypsum. Landforms in this region include mesas, cuestas, rock terraces, escarpments, canyons, arroyos, and badlands.

Geologically, the San Ysidro Anticline contained in the Ojito SMA represents a classical example of a breached plunging anticline. Aside from its obvious scenic qualities, the area is used extensively by the University of New Mexico and Bowling Green University of Ohio for introductory classes in geological mapping. The opportunity for scientific study provided by this feature is unique to the area and represents one of the few locations in the Southwest where these types of geological relationships are exposed.

Two plant species on the State of New Mexico Heritage list of species of concern occur in the SMA. These species are Astragalus knightii (Knight's milkvetch) and Pediocactus papyracanthus (grama grass cactus), found in the northeast portion of the SMA. This cactus is found growing in clumps of blue grama and black grama grass in swales, and is currently a formal candidate for listing by the Federal government as threatened.

Although wildlife is not abundant, a diversity of species is present. A number of bluffs and mesa edges in the SMA provide excellent nesting habitat for raptors, swallows, and swifts. Several stock ponds currently provide resting areas for migrating waterfowl. Scaled quail and mourning doves inhabit the brushy draws and rocky wooded hillsides. A few mule deer occupy the juniper-pinyon ecotype, and a small band of antelope ranges into the northwest corner of the SMA. Other wildlife common to the SMA include coyote, fox, rabbit, horned lark, raven, and kestrel. Bobcats have also been sighted in the SMA.

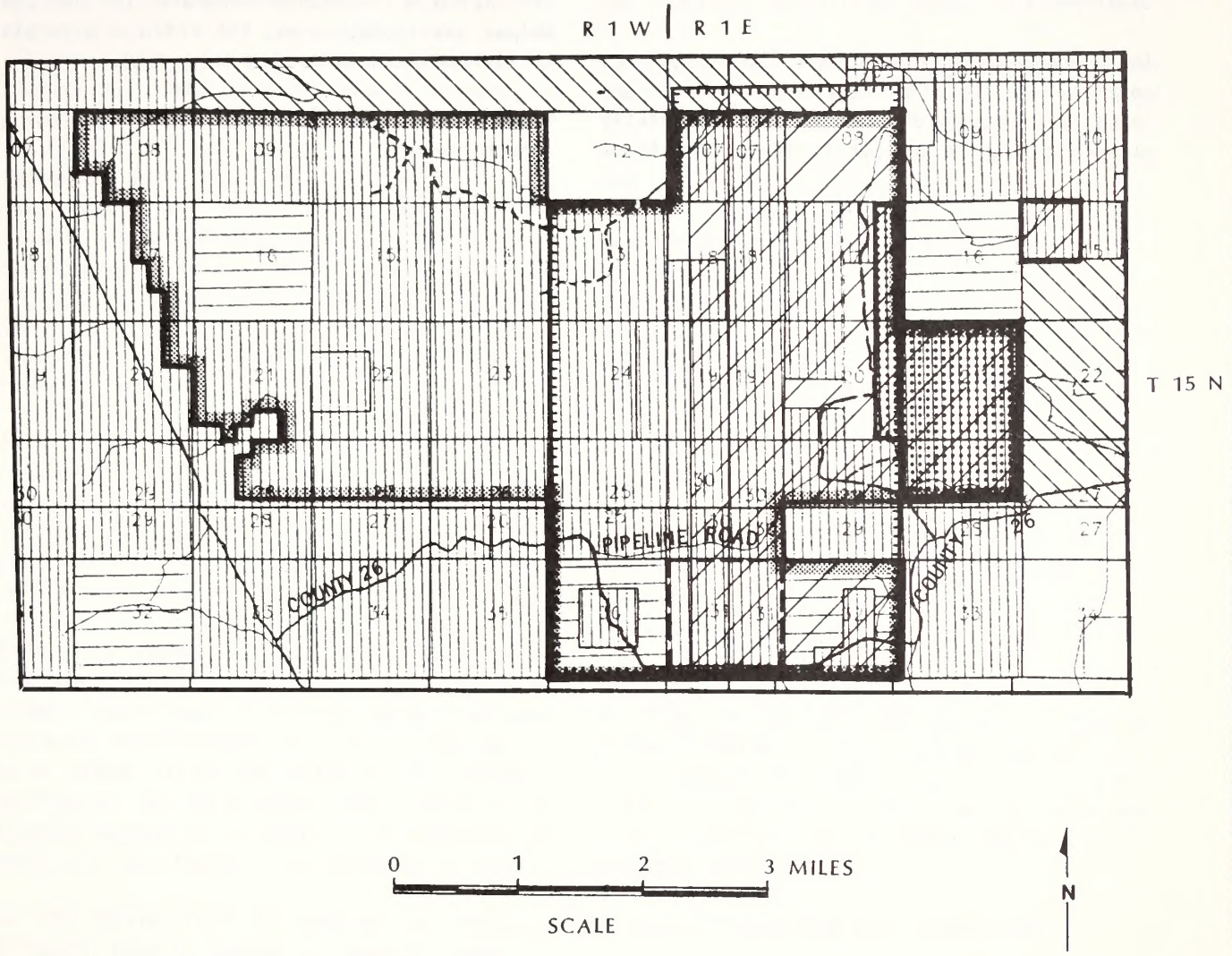
Within the area proposed for special management is the Querencia Watershed Study Area. This watershed is part of the Rio Puerco Hydrology Study which monitors hydrologic responses to the Rio Puerco grazing management programs. Only through such monitoring can a determination be made as to whether the objectives of the Rio Puerco Grazing ES (USDI, BLM 1978b) are being met.

The Las Milpas natural gas storage area, which is currently being operated by Southern Union Gas Company and the Gas Company of New Mexico in T. 15 N., R. 1 E., is also within the SMA. Initial injection and recovery wells were drilled to a depth of about 2,400 feet and were completed in the Agua Zarca Sandstone. Original plans called for peak storage of about 100 billion cubic feet. The surface of the storage area is highly developed with several miles of pipeline servicing numerous injection and recovery wells. Southern Union has unitized 7,680 acres although the present gas bubble is now estimated to occupy some 730 acres. Inadvertent penetration of this high pressure natural gas reservoir by locatable mineral developers could result in serious injury or death and substantial property loss.

The cultural resource density within this SMA is particularly high, and includes Archaic, later prehistoric, and historic sites. Significant paleontological localities have also been found. The diversity in terrain provides varied and striking visual features. The portions of the Ojito SMA located within the Ojito WSA are currently being managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b).

In combination, the special features in the Ojito SMA provide exceptional scientific and educational potential by providing a natural setting in which to observe a wide variety of natural systems. The SMA is currently being used for environmental education classes by the Albuquerque Public Schools.

Management Objectives. Goals for the Ojito SMA include management emphasis on geologic, visual, cultural, paleontological, plant, and wildlife values; scientific study; and intensive recreation use, specifically Semi-Primitive Non-Motorized and Semi-Primitive Motorized opportunity. The Las



MAP 37
OJITO

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE
- INDIAN

- LAS MILPAS GAS STORAGE FACILITY
- SAN YSIDRO ANTICLINE
- QUERENCIA WATERSHED

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS

- PAVED OR GRADED ROAD
- PRIMITIVE ROAD OR TRAIL
- LIMITED TO AUTHORIZED USER
- ROUTE CLOSED TO MOTORIZED VEHICULAR USE
- AREA CLOSED TO MOTORIZED VEHICULAR USE
- SMA BOUNDARY

Milpas gas storage area (6,840 acres) will be managed as a geologic hazard. The effect of these actions will be to allow access for educational use and scientific study while at the same time prohibiting unnecessary and undue degradation associated with mineral development.

The planned actions include: (1) Designate as an Area of Critical Environmental Concern (already implemented); (2) Develop an activity plan; (3) Acquire non-public lands; (4) Allow no surface disturbance; (5) Limit motorized vehicle use to existing roads and trails; (6) Close the Querencia Watershed Study Area and Las Milpas pipeline and well areas to motorized vehicle use; (7) Close certain roads (except for authorized users) (see Map 37); (8) Withdraw locatable minerals in the Las Milpas gas storage area; (9) Withdraw minerals in the Querencia Watershed Study Area.

Cadastral survey has been identified as a support need.

17. Ball Ranch

General Description. The Ball Ranch allotment (see Map 38) was identified during the Rio Puerco RMP rare plant survey conducted by the New Mexico State Heritage Program as containing unique communities of rare plants, and geological and paleontological values (Knight 1983). The Nature Conservancy and the grazing allottees have expressed interest in the preservation of these communities.

Geologically, the Ball Ranch SMA is represented by Cenozoic conglomerates and gravels, and Mesozoic sandstones and clays. Paleontologically, there are extensive deposits of finely-preserved petrified wood, deposits of bivalve marine shells, and most importantly, considerable quantities of Eocene mammal bones.

Botanically, this area contains significant populations of Abronia bigelovii (tufted sand verbena), on the State of New Mexico Heritage list of species of concern. These locales represent the only known sites of this species on BLM lands.

Astragalus feensis (Santa Fe milkvetch), on the State list of species of concern, is an endemic taxon known only from the area between Santa Fe and Albuquerque. It is represented by a rather large population in the northern portion of the Ball Ranch SMA. Here it is locally common on alluvial hills composed of sandy soil and fragments of metamorphic rock.

On the State list of species of concern, although locally common in several areas of central New Mexico, Astragalus kentrophyta var. neomexicana is represented by very large and healthy populations in the Ball Ranch SMA. These locales may represent some of the largest populations in the State. Within the SMA this taxon is most common on sandy soils derived from the Gallsteo Formation.

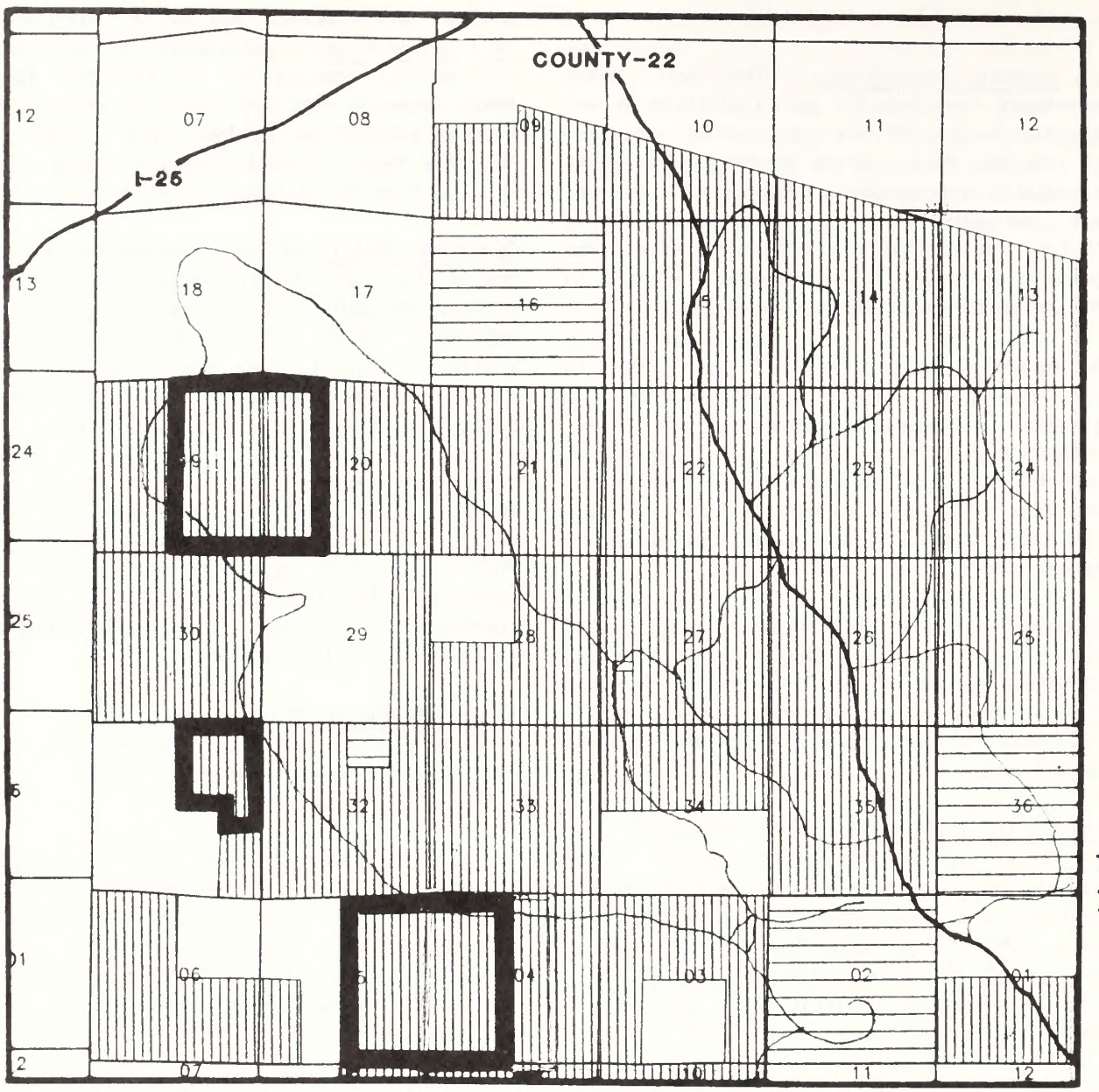
Oenothera caespitosa spp. navajoensis, also on the State list, is represented by a large healthy population in the southern portion of the SMA. It is restricted to open barren knolls of Mancos clay and related shales. These locales represent the easternmost collection of this taxon presently known.

Pediocactus papyracanthus, grama grass cactus, on the State list and a Federal Register Category 2 species, is scattered throughout the SMA on open desert grassland and clay badlands. The plants in these populations represent some of the largest and healthiest in the State (Knight 1983).

Management Objectives: Goals of management of the Ball Ranch SMA will emphasize rare plant habitat and paleontological values.

The planned actions include: (1) Designate as an Area of Critical Environmental Concern/ Research Natural Area (already implemented); (2) Develop an activity plan; (3) Limit motorized vehicle use to existing roads and trails; (4) Allow no surface disturbance; (5) Withdraw minerals.

No support needs have been identified.



MAP 38
BALL RANCH

SURFACE OWNERSHIP

STATE

BLM

PRIVATE

N

PAVED OR GRADED ROAD

PRIMITIVE ROAD OR TRAIL

SMA BOUNDARY

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS

18. Pronoun Cave Complex

General Description. The Pronoun Cave Complex (see Map 39) consists of What Cave, Which Cave, That Cave, and approximately six additional caves. These vertical caves are particularly valued for their paleontological resources as well as for habitat for several species of bats. The New Mexico Museum of Natural History has expressed interest in these scientific resources. Evidence of historic occupation exists, as well as remnants of prehistoric occupation.

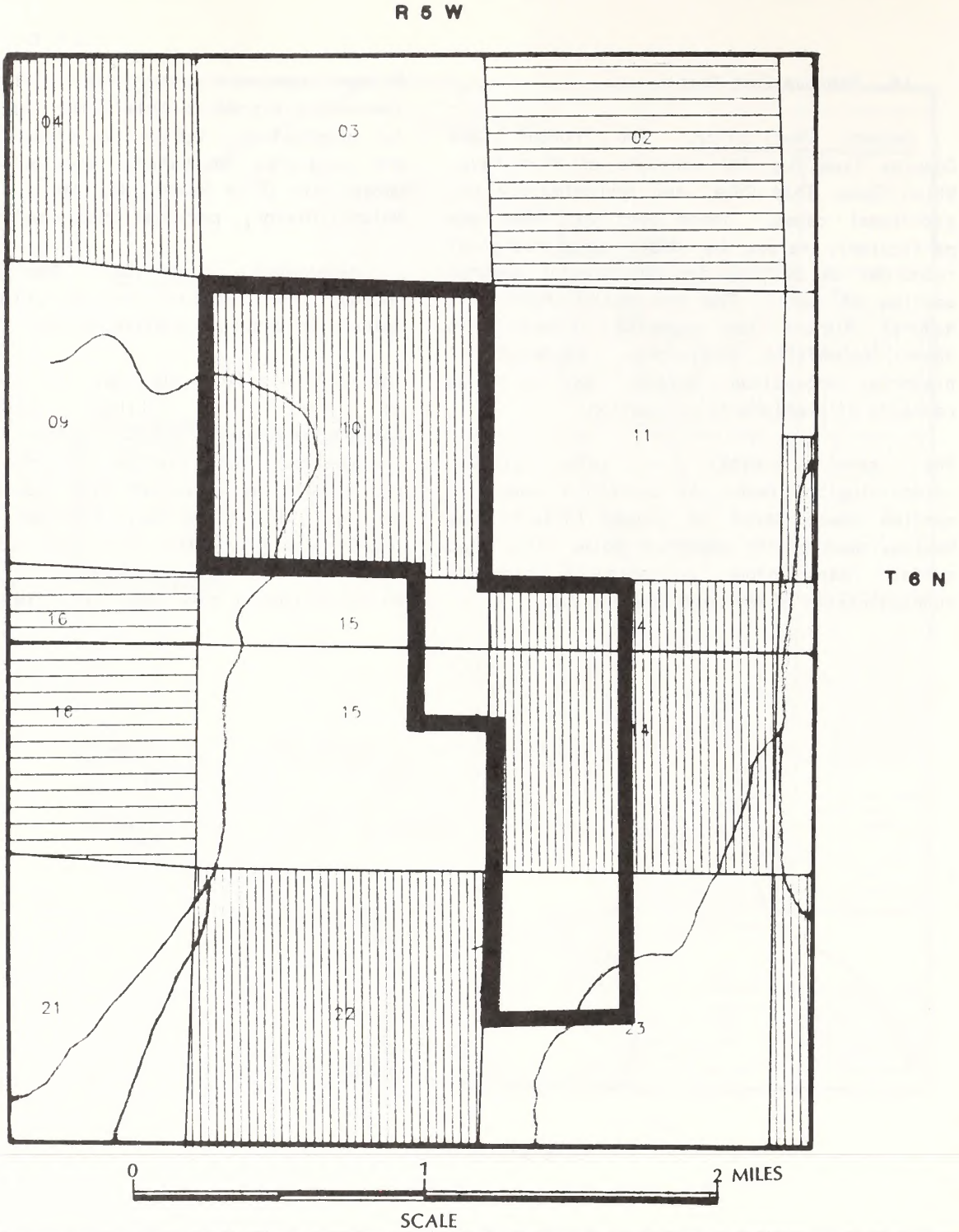
The caves exhibit a late glacial paleontological fauna and contain a number of species whose range no longer includes New Mexico, such as the sagebrush vole. They also contain many other micro-faunal elements characteristic of New Mexico's ice Age.

Modern species using the caves include Townsend's big-eared bats which use the caves for hibernation. During the summer, the caves are populated by various species of little brown bats (Rick Smart, New Mexico Museum of Natural History, personal communication 1984).

Management Objectives. Management of Pronoun Cave Complex will be primarily for scientific and interpretive values.

The planned actions include: (1) Designate as an Area of Critical Environmental Concern/Research Natural Area (already implemented); (2) Develop an activity plan; (3) Develop an agreement with the New Mexico Museum of Natural History; (4) Limit motorized vehicle use to existing roads and trails.

No support needs have been identified.



MAP 39
PRONOUN CAVE COMPLEX

SURFACE OWNERSHIP

STATE

BLM

PRIVATE

N

PRIMITIVE ROAD OR TRAIL

SMA BOUNDARY

ALL MOTORIZED USE WITHIN BOUNDARY
LIMITED TO EXISTING ROADS & TRAILS

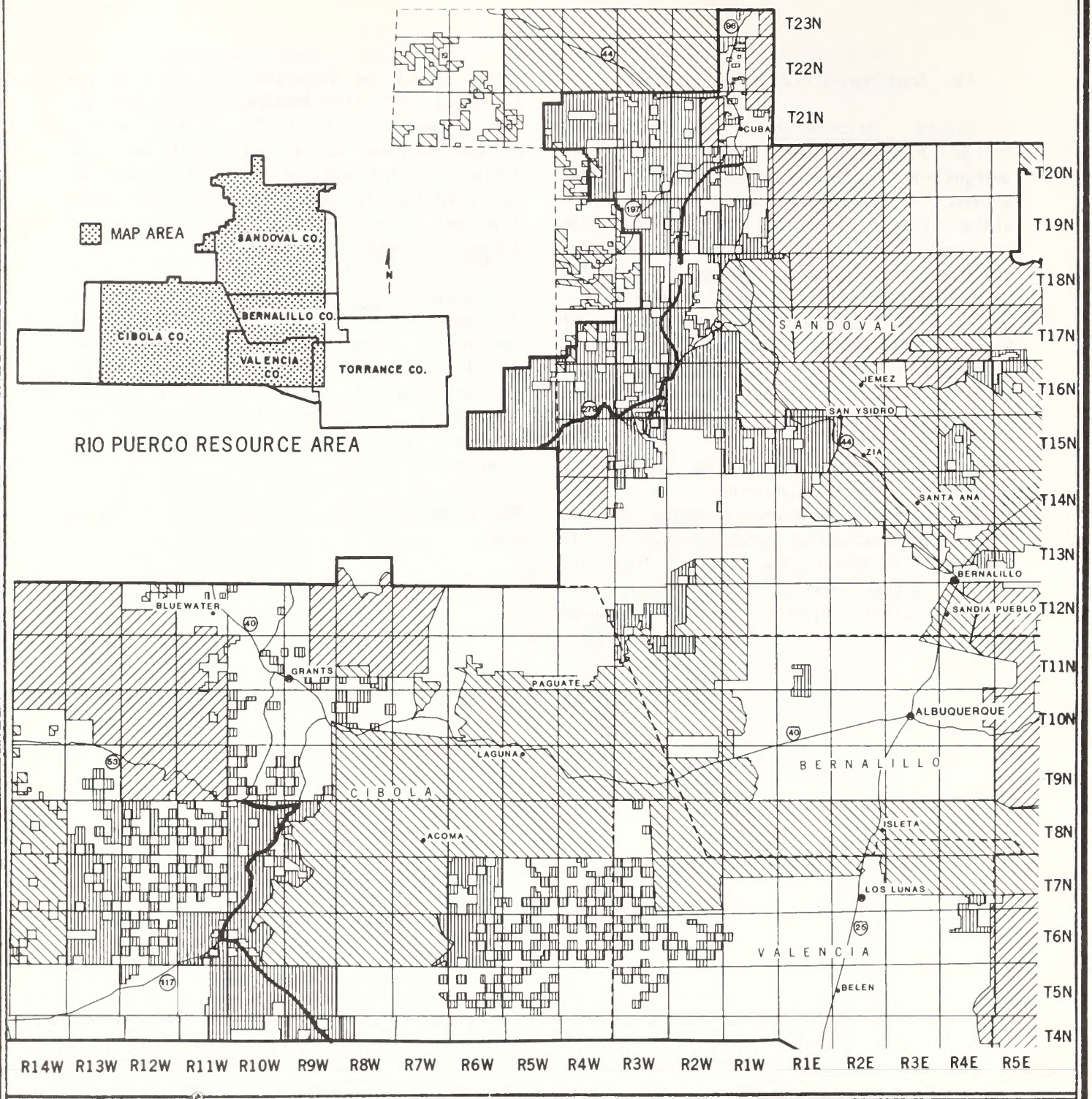
19. Continental Divide Trail

General Description. The Continental Divide National Scenic Trail has been designated by the Congress of the United States. A scenic corridor fifty miles on either side of the actual Continental Divide has been established, with the treadway for the trail to be proposed through the planning of the appropriate land managing agency, and reviewed and approved by the Continental Divide Trail Advisory Council. The treadway proposed in this RMP parallels New Mexico State Roads 279 and 117 and BLM Inventory Road 16-4-25 for approximately 62 miles (see Map 40). It traverses a wide variety of topography, including rolling grasslands, pinyon-juniper and ponderosa pine covered mesas, retreating escarpments, extensive lava flows, and spectacular sandstone bluffs. In addition it skirts the Cabezon Peak and Ignacio Chavez SMA's, travels through the Rimrock, Little Rimrock, and Sand Canyon WSA's, as well as traversing the center of the El Malpais SMA. The treadway also crosses the 1870's Wagon Road Trail SMA. A wide variety of opportunities exists for additional side trails and interpretive services because of the significantly contrasting ecosystems being traversed. These would be considered during the activity planning stage.

Management Objectives. Management of the Continental Trail SMA will emphasize Continental Divide National Trail objectives established by the Continental Divide Trail Advisory Council and intensive recreation management. The RPRA will coordinate and cooperate with all involved public and private landowners.

The planned action is: Develop an activity plan.

No support needs have been identified.



MAP 40
CONTINENTAL DIVIDE TRAIL

LEGEND

- CONTINENTAL DIVIDE TRAIL
- PUBLIC LANDS
- FOREST SERVICE
- INDIAN RESERVATION
- RESOURCE AREA BOUNDARY
- COUNTY BOUNDARY

N

0 1 2 3 4 5 6 MILES

SCALE

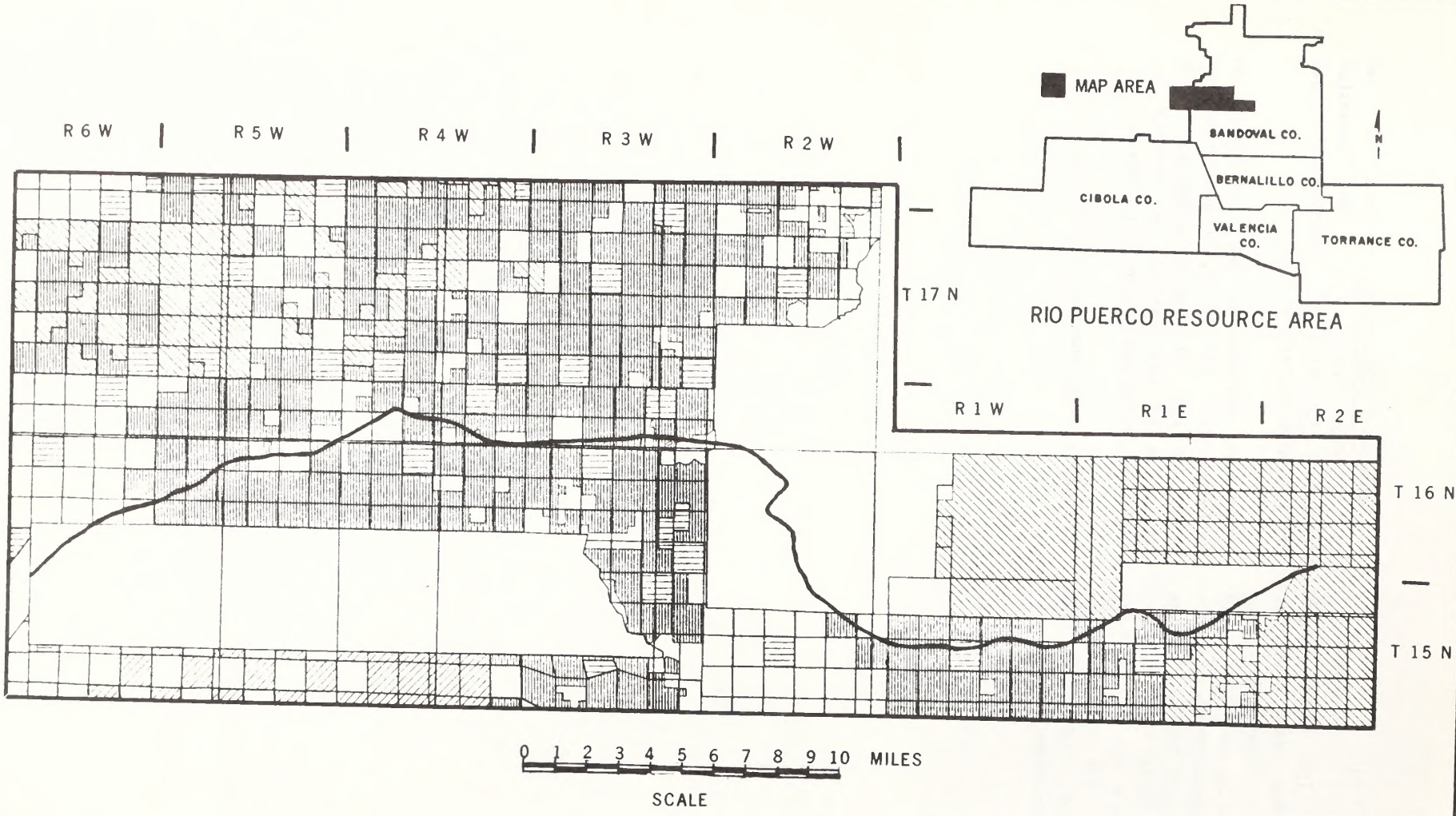
20. 1870's Wagon Road Trail

General Description. The 1870's Wagon Road Trail SMA (see Map 41) traverses approximately 49 miles of the RPRA, goes through the Empedrado and La Lena WSA's, and skirts the Ojito, Cabezon Peak, Ignacio Chavez, and Azabache Station SMA's. It was the main route linking Santa Fe with Fort Wingate in the early 1900's and was used for both supplies and troops. The trail was also used extensively as a wagon freight road, Star Route mail line, and for passenger coaches.

Management Objectives. Goals for the 1870's Wagon Road Trail SMA emphasize management for historic interpretive values and intensive recreation use.

The planned actions include: (1) Develop an activity plan; (2) Limit to pedestrian and equestrian use; (3) Develop an agreement with the State of New Mexico; (4) Arrange for inclusion in the New Mexico Trails System.

No support needs have been identified.



MAP 41
1870'S WAGON ROAD TRAIL

SURFACE OWNERSHIP

STATE

BLM

PRIVATE

INDIAN

USFS

1870's WAGON ROAD TRAIL

N

21. El Malpais

General Description. The El Malpais lava field and neighboring public lands (see Map 42) include hundreds of thousands of acres of cinder cones, lava tubes, ice caves, sculptured sandstone formations, and ponderosa pine forests. El Malpais (The Badlands) is the historic Spanish name given to the lava field, and in view of the brutally rugged nature of the terrain it is an accurate description.

Bounded by high sandstone bluffs and cliffs and sandhill country on the east, and by the appropriately named "Chain of Craters" on the west, El Malpais is an outstanding example of volcanic landscape. El Malpais consists of four distinct lava flows which were spewed over the McCarty's Valley at different times over the last 3,000 years. Based upon archeological evidence the most recent flows have been dated at less than 1,000 years in age.

The El Malpais SMA consolidates a series of overlapping special designations. Portions had previously been designated as follows: (1) Wilderness Instant Study Area being recommended for Wilderness designation, (2) four Wilderness Study Areas being recommended for Wilderness designation, (3) Outstanding Natural Area, (4) Natural Environmental Area, (5) National Natural Landmark, and (6) Chaco Archeological Protection Site. The majority of the SMA is currently being managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b). Wildlife values for a portion of the SMA are being managed according to the objectives outlined in the El Malpais Habitat Management Plan (USDI, BLM 1981d).

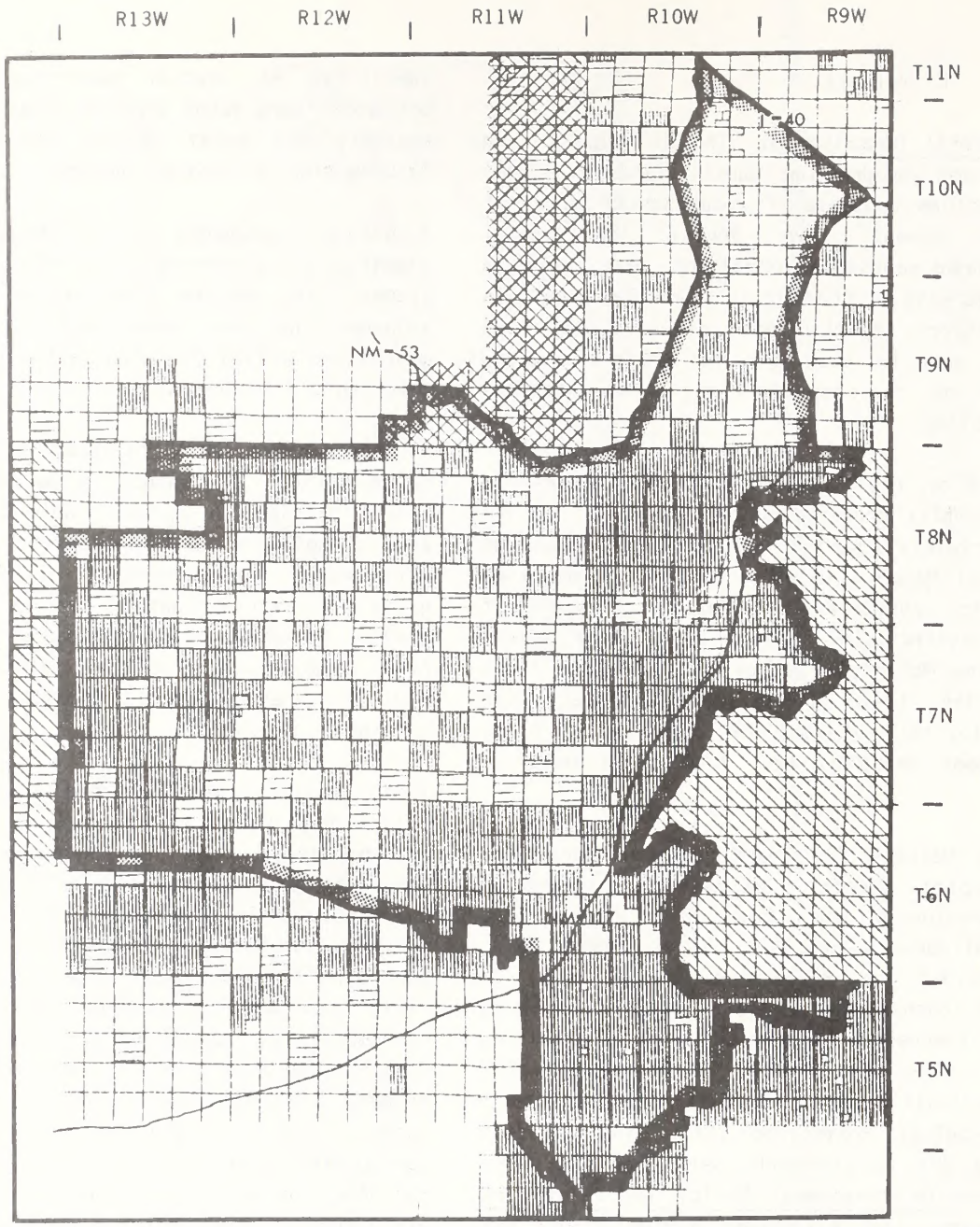
Because of the interesting combination of ecotypes existing in the El Malpais SMA, it contains a wide variety of plant and animal life. Major wildlife species include deer, antelope, Abert's squirrel, turkey, and band-tail pigeon. The sandstone bluffs to the east contain a good nesting population of raptors including golden eagles, red-tailed hawks, and prairie falcons. It has also been identified as crucial bald eagle habitat. Collapsed lava tubes provide ideal habitat for kestrels and great horned owls. Peregrine falcons migrate through the SMA.

A unique phenomenon of El Malpais is the stunting of ponderosa pine trees in certain places. The species grows normally on sites adjacent to the lava, but harsh growing conditions within the area cause a picturesque dwarfing of the trees.

Recent surveys have revealed plants in El Malpais which are unique in New Mexico. Two plants, Asplenium septentrionole (grass fern) and Asplenium trichomanes (maidenhair spleenwort) are widespread in the SMA, but quite uncommon throughout the western United States. Another plant, Carex pityophylla, a rare sedge found in southern Colorado, Utah, and New Mexico, was recently discovered growing in a vigorous colony.

The El Malpais SMA has been inhabited since Paleoindian times (at least 10,000 years ago), and possesses numerous archeological sites. One area of particular significance is the Candelaria Ruin and community. This site, formerly known as "Las Ventanas," is a Chacoan outlier. The main site itself is relatively small but contains a tower kiva within its roomblock. An isolated great kiva is located just southeast of the ruin and segments of a related prehistoric road run from the main roomblock in a northeasterly direction. The surrounding area contains evidence of surface recontouring and two pueblos of thirty to sixty rooms, in addition to numerous small and single room structures and other undefined features. This site is one of two identified in the Joint Management Plan for the Chaco Archeological Protection Site System (USDI, NPS 1984) as particularly suitable for development as interpretive sites.

The El Malpais SMA is very popular for recreation opportunities ranging from Primitive to Roaded Natural, and has received attention for these values from such varied publications as Backpacker Magazine, Sunset Magazine, and New Mexico Magazine. Additionally, several freelance writers and



MAP 42
EL MALPAIS

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE
- INDIAN
- USFS

N

PAVED OR GRADED ROAD

SMA BOUNDARY

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS

photographers have recently submitted material on El Malpais for publication.

Management Objectives. Management of the El Malpais SMA will consolidate the existing planned actions of the El Malpais Habitat Management Plan (USDI, BLM 1981d), El Malpais Recreation Area Management Plan (USDI, BLM 1982a), Draft Management Proposal for Visitor Use of the Malpais Region Scenic Corridor: New Mexico State Road 117 (USDI, BLM 1984b), and the Joint Management Plan for the Chaco Archeological Protection Site System (USDI, NPS 1984). The objectives of the National Natural Landmark Program and the BLM Wilderness Management Policy (USDI, BLM 1981g), if Congress designates any portion of the SMA as Wilderness, will also be considered. Fuelwood cutting within the El Malpais SMA as delineated in the Divide Management Framework Plan (USDI, BLM 1983b) will continue subject to the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b).

Candelaria Ruin and Community will be managed under the cultural resource scientific and conservation goal category designations. This will allow further approved scientific study while maintaining existing conditions until a comprehensive management plan is completed.

In summary, management of the El Malpais SMA will emphasize protection of wildlife habitat, visual values, cultural values, scientific/interpretive values, and intensive recreation use, specifically Primitive, Semi-Primitive Non-Motorized, Semi-Primitive Motorized, and Roaded Natural recreation opportunity.

The planned actions include: (1) Develop activity plans; (2) Limit motorized vehicle use to existing roads and trails; (3) Acquire mineral estate.

No support needs have been identified.

22. Petaca Pinta

General Description. Landforms in the Petaca Pinta SMA (see Map 43) vary from grassland to rugged mesas and canyons. Petaca Pinta dominates the SMA. This isolated mountain-like mesa rises a near vertical thousand feet above the surrounding landscape. Blue Water Canyon (not the same Bluewater Canyon as in the Bluewater Canyon ACEC/SMA), in the southwest corner of the area, is a deep, sheer-walled canyon. The area also contains a maze of smaller box canyons, a badlands environment, and a lava flow.

The lower elevation lands are dominated by various species of grama grasses, most notably blue and sideoats gramas. Other low elevation species include bear grass, yucca, and cholla. The higher elevations support pinyon and one-seed juniper. Gambel's oak of considerable size and age occur in Blue Water Canyon and in other canyons within the SMA. A limited number of ponderosa pine grow at the highest elevations on the rimrock of Blue Water Mesa on the west.

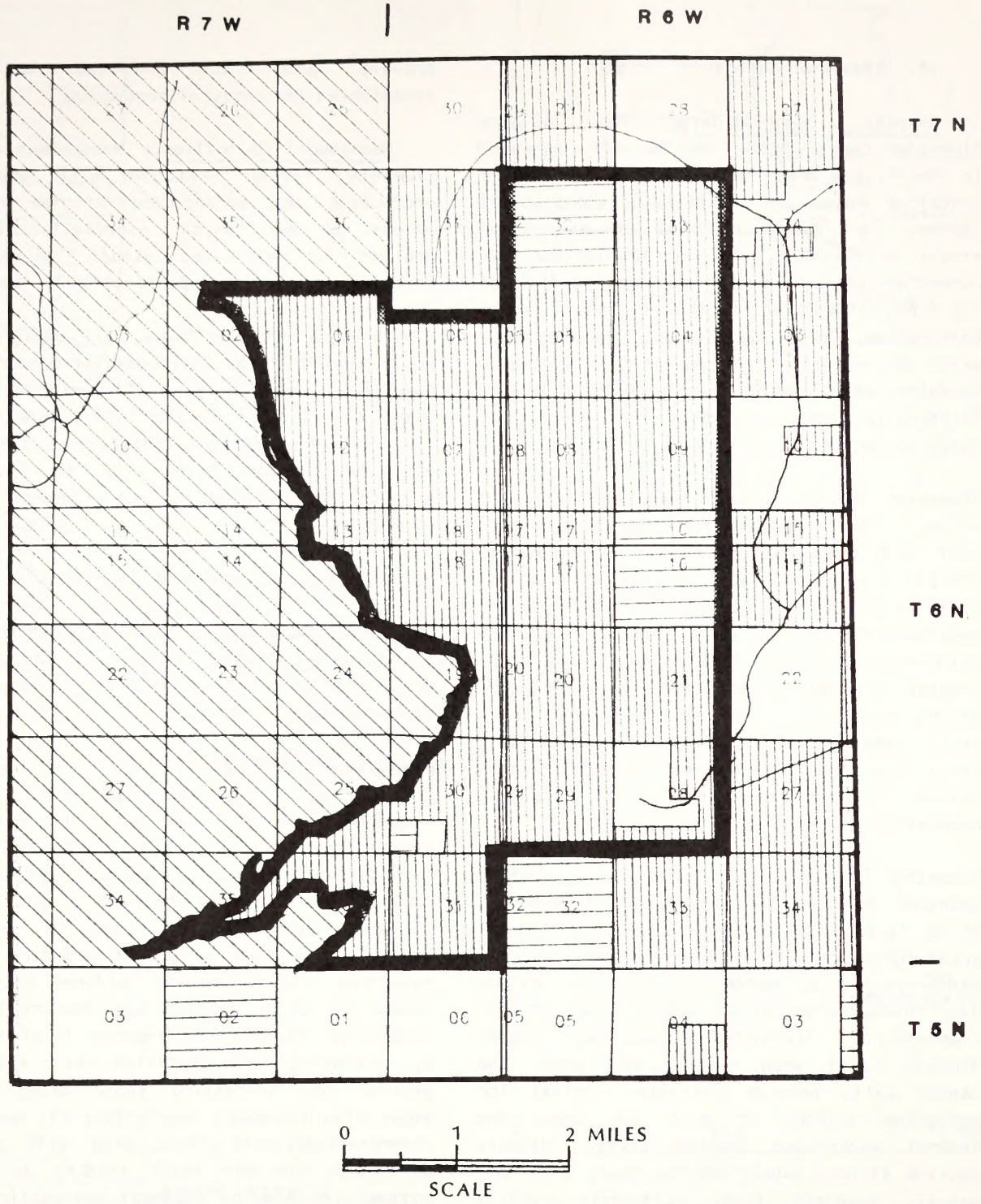
The habitat is good for deer but their numbers are low. Golden eagle and red-tailed hawk eyries are present within the SMA. The rocky bluffs also provide habitat for bobcat and grey fox. Mountain lions may occasionally range into the SMA.

The majority of the Petaca Pinta SMA is currently being managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b) as the Petaca Pinta Wilderness Study Area.

Management Objectives. Management of the Petaca Pinta SMA will emphasize intensive recreation use, specifically Primitive recreation experience and enhancement of wildlife habitat and visual values.

The planned actions include: (1) Develop an activity plan; (2) Limit motorized vehicle use to existing roads and trails; (3) Acquire mineral estate.

ATROW has been identified as a support need.



MAP 43
PETACA PINTA

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE
- INDIAN

N

- PRIMITIVE ROAD OR TRAIL
- SMA BOUNDARY

ALL MOTORIZED USE WITHIN BOUNDARY LIMITED TO EXISTING ROADS & TRAILS

23. Bluewater Canyon

General Description. The 89-acre Bluewater Canyon ACEC (see Map 44), approved in the Divide MFP, is located in an area of sandstone mesas and contains a steep-walled canyon. This canyon contains the only trout stream in the RPRA. This stream is the only perennial stream in the southern portion of the RPRA. The riparian habitat contains large cottonwoods, dense vegetation, and abundant water for wildlife. Bluewater Canyon usually contains water when other canyons within a thirty-mile radius are dry. This leads to a heavy concentration of birds and mammals.

Bluewater Canyon contains outstanding scenic values. The sandstone walls rising up to 500 feet vertically and the narrow canyon bottom provide a striking visual setting. The canyon contains a unique and aesthetically appealing combination of vegetation, including cottonwoods, pinyon, juniper, ponderosa pine, Douglas fir, oak, willow, and various grasses, shrubs, and cacti. The steep and rocky canyon walls contrast with the vegetation growing along them. The lush vegetation in the canyon bottom provides a setting for Primitive recreation opportunities.

Bluewater Canyon and the adjacent area offer abundant habitat for many wildlife species. Birds include golden eagle, prairie falcon, great horned owl, screech owl, common flicker, ladder-backed woodpecker, scrub jay, pinyon jay, raven, rufous-sided towhee, black-chinned hummingbird, flycatcher, swallow, black-throated swift, wren, warbler, and junco. The canyon walls provide potential habitat for peregrine falcon, on both the State and Federal endangered species lists. Mammals include striped skunk, coyote, bear, grey fox, bobcat, mountain lion, cottontail rabbit, other rabbit species, mule deer, chipmunk, raccoon, beaver, and species of bats and mice. Various reptiles and amphibians are also present. Fish species include brown trout, catfish, and various species of chubs and shiners.

The only known archeological site is a single prehistoric grain storage bin located on private land. The SMA has not been inventoried for cultural resources.

Management Objectives. Management of the Bluewater Canyon ACEC/SMA will emphasize protection and enhancement of the natural values of the canyon, especially riparian habitat for wildlife, visual values, and Primitive recreation opportunities.

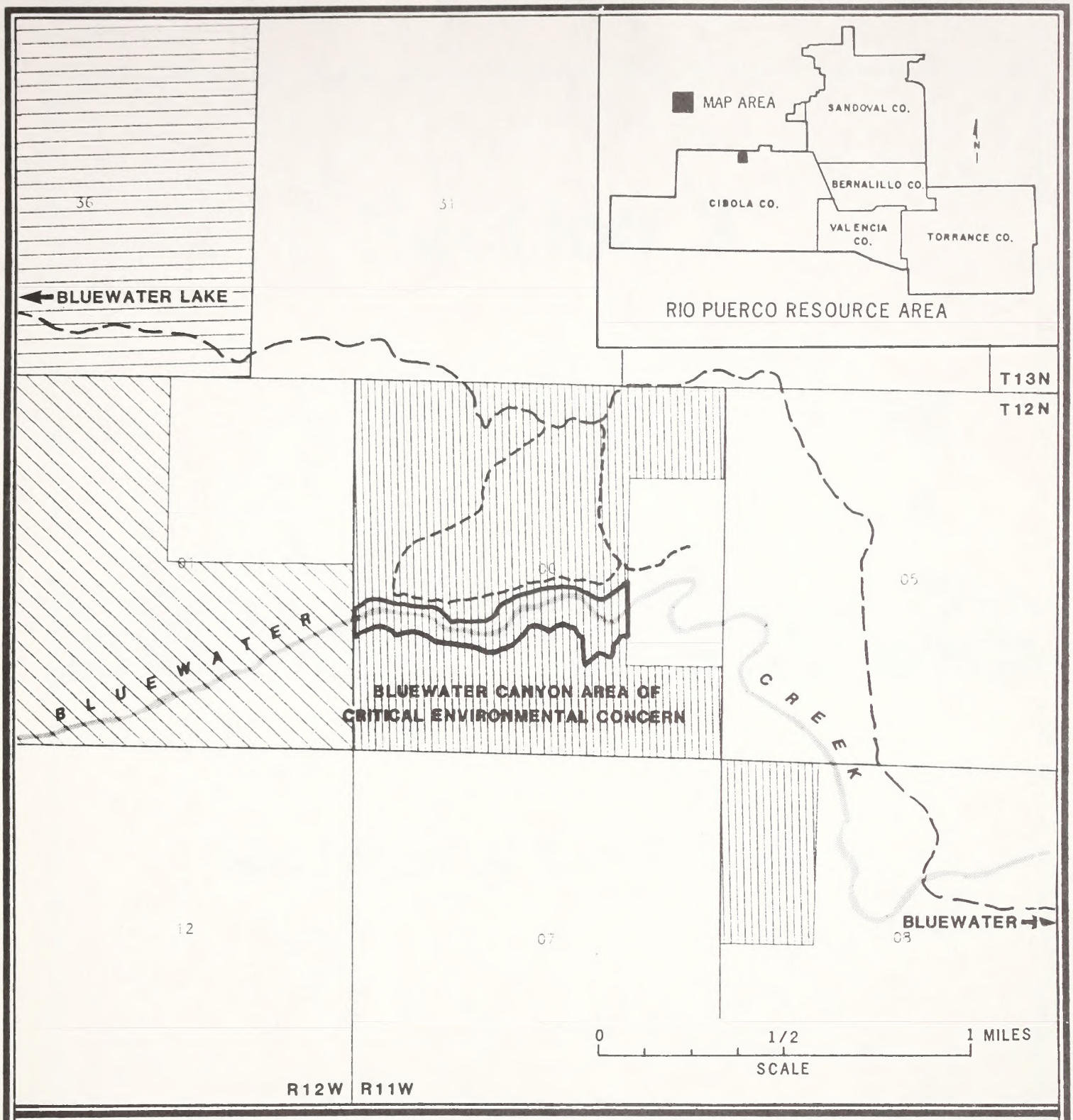
Completed actions inlcude: (1) Designate as an Area of Critical Environmental Concern; (2) Develop an activity plan ("Interim ACEC Plan Element, Bluewater Canyon" USDI, BLM 1983d); (3) Close to motorized vehicle use; (4) Close Bluewater Canyon below rim to livestock grazing; (5) Allow no surface occupancy (fluid minerals).

Planned actions approved in the Divide MFP include: (1) Construct an interpretive area/scenic overlook with display at the rim of Bluewater Canyon (R-9.1); (2) Attempt to acquire private lands within sensitive area in Bluewater Canyon (R-14.3).

Planned actions called for in the approved activity plan ("Interim ACEC Plan Element, Bluewater Canyon") include: (1) Allow no mineral material sales; (2) Allow no vegetative or woodland products sales; (3) Prohibit large mechanized firefighting equipment and chemical drops; (4) Prohibit intensive forestry management and fire hazard reduction; (5) Survey for cultural resources; manage any sites located for interpretive and scientific values; (6) Improve trout habitat by increasing pool to riffle ratio with rock gabions and increasing shade along stream edges with increased vegetation; (7) Construct interpretive/scenic/picnic area with parking on canyon rim and trail leading to canyon bottom; (8) Acquire adjacent non-public lands (outside of SMA).

No support needs have been identified.

Monitoring Studies. The ACEC activity plan calls for monitoring Bluewater Canyon by establishing photo points, vegetative and wildlife transects, and stream improvements for fish.



MAP 44
BLUEWATER CANYON

SURFACE OWNERSHIP

- STATE
- BLM
- PRIVATE
- INDIAN

N

- GRADED ROAD
- UNIMPROVED DIRT ROAD
- ACEC/SMA

SMA CLOSED TO MOTORIZED VEHICLE USE

Section 3

IMPLEMENTATION GUIDANCE

SECTION 3

IMPLEMENTATION GUIDANCE

INTRODUCTION

Based on the management decisions, objectives, and guidance developed through the RMP/EIS process, and now contained in Section 2, "Program Guidance," of this document, three "Management Classes" have been delineated for the RPRA (see Pocket Map Overlay). Each management class contains different resource potentials and management opportunities, and, as identified through the RMP process, has different management prescriptions. Management class delineation represents the final step in the preparation of a comprehensive land use plan for the RPRA. The management classes provide an overview of the major RMP decisions reached for the RPRA and provide a guide for implementation of the RMP decisions. The management classes guide RMP implementation by establishing areas of relative importance, ensuring that the Program Guidance is applied in the manner intended at the time the RMP was developed. The following sections describe the major decisions affecting RMP implementation for each management class.

The identified management classes consider only the public surface analyzed in the RMP/EIS process. The RPRA's additional minerals management responsibilities in split-estate areas (public subsurface/ non-public surface) and for public minerals in areas where the surface is managed by another Federal agency, although not considered in detail in the RMP/EIS and not described in the management classes, will continue as required. The RPRA's responsibilities on Indian land will also continue.

MANAGEMENT CLASS A

The public lands in Management Class A have been identified for retention through the RMP process. This management class contains the three largest and best consolidated blocks of public land in the RPRA. As a result of this land ownership pattern, this class has the best management potential in the Resource Area. This class is the Resource Area's top priority for consolidating public land ownership through acquisition of State and private lands to improve the ownership pattern and manageability. Specific tracts of State and private land located in the Special Management Areas contained in this class have been identified for acquisition (see SMA Summaries, Section 2). As it was not possible to identify all State and private lands within the management class whose acquisition would benefit BLM resource management, additional acquisition can be identified in the future. In addition to the public lands contained in Management Classes B and C, public lands in Management Class A can be used for exchange to further improve and consolidate the public land ownership pattern in this management class (e.g., a BLM/State of New Mexico exchange to block up both BLM-administered land and State land within a specific county). All exchanges will be examined through the environmental assessment process (see Glossary), including full public involvement, and will be conducted as required by the "Lands and Realty Program Guidance" portion of Section 2 in this document.

Management Class A is the top priority area for implementing the management actions described in Section 2, "Program Guidance." Prior to initiation of the RMP process, all but one of the site-specific activity plans developed for the RPRA were contained in this management class. The existing activity plans referenced in the "Program Guidance" will continue to be implemented. The new activity plans proposed in the "Program Guidance" will be developed and implemented as expeditiously as the budget allows. Of these new activity

plans, those proposed for the twenty SMA's contained in this management class will receive the highest priority for development and implementation to ensure that the resource values contained in these areas receive the necessary attention and protection.

All other permitted activities (e.g., range improvements, Land Use Authorizations, mineral materials sales) will be processed on a case-by-case basis and will be authorized through the environmental assessment process in accordance with the restrictions and mitigating measures described in the "Program Guidance" section of this document.

MANAGEMENT CLASS B

The public lands in Management Class B have also been identified for retention through the RMP process. However, the RMP does not identify the lands in this class as a priority for consolidation of public ownership. These tracts of public land are smaller and more scattered than those of Class A, but still fairly well consolidated. Several of them have no legal public access. The surrounding land status is another factor affecting the manageability of these tracts.

As result of the management limitations on the lands in Class B, as well as the more limited knowledge of the resource values, only one site-specific activity plan, for the Bluewater ACEC/SMA, had been developed for this management class prior to the initiation of the RMP process. As a result of the RMP/EIS, two additional SMA's, as well as a Dune Buggy Event Area and nine "I" selective management category grazing allotments, were identified within Management Class B. The management emphasis for this class will be on developing and implementing SMA activity plans and completing the grazing decision process, as discussed in the "Range Program Guidance" portion of Section 2. Any dune buggy events will be authorized by permit in the event area.

Additional activity plans can be developed in the future if new SMA's are identified. The guidance and criteria to be followed for the establishment of new SMA's are described in the "SMA Program Guidance" section of this document. It is expected that all other BLM-initiated resource management (e.g., fuelwood sales or timber management) in Management Class B will be identified in activity plans for the SMA's or in Allotment Management Plans and will be conducted to protect or improve the resource values contained in the SMA's or grazing allotments. Development and implementation of activity plans for Management Class B will be of lower priority than for Management Class A.

All other permitted activities (e.g., range improvements, Lands Use Authorizations, mineral materials sales) will be processed on a case-by-case basis, and will be authorized through the environmental assessment process in accordance with restrictions and mitigating measures described in the "Program Guidance" section of this document.

Although identified for retention, the public lands in Management Class B could be made available for exchanges to acquire non-public lands in Management Class A. All future exchanges involving these public lands will be conducted in the accordance with the "Lands and Realty Program Guidance" section of this document.

MANAGEMENT CLASS C

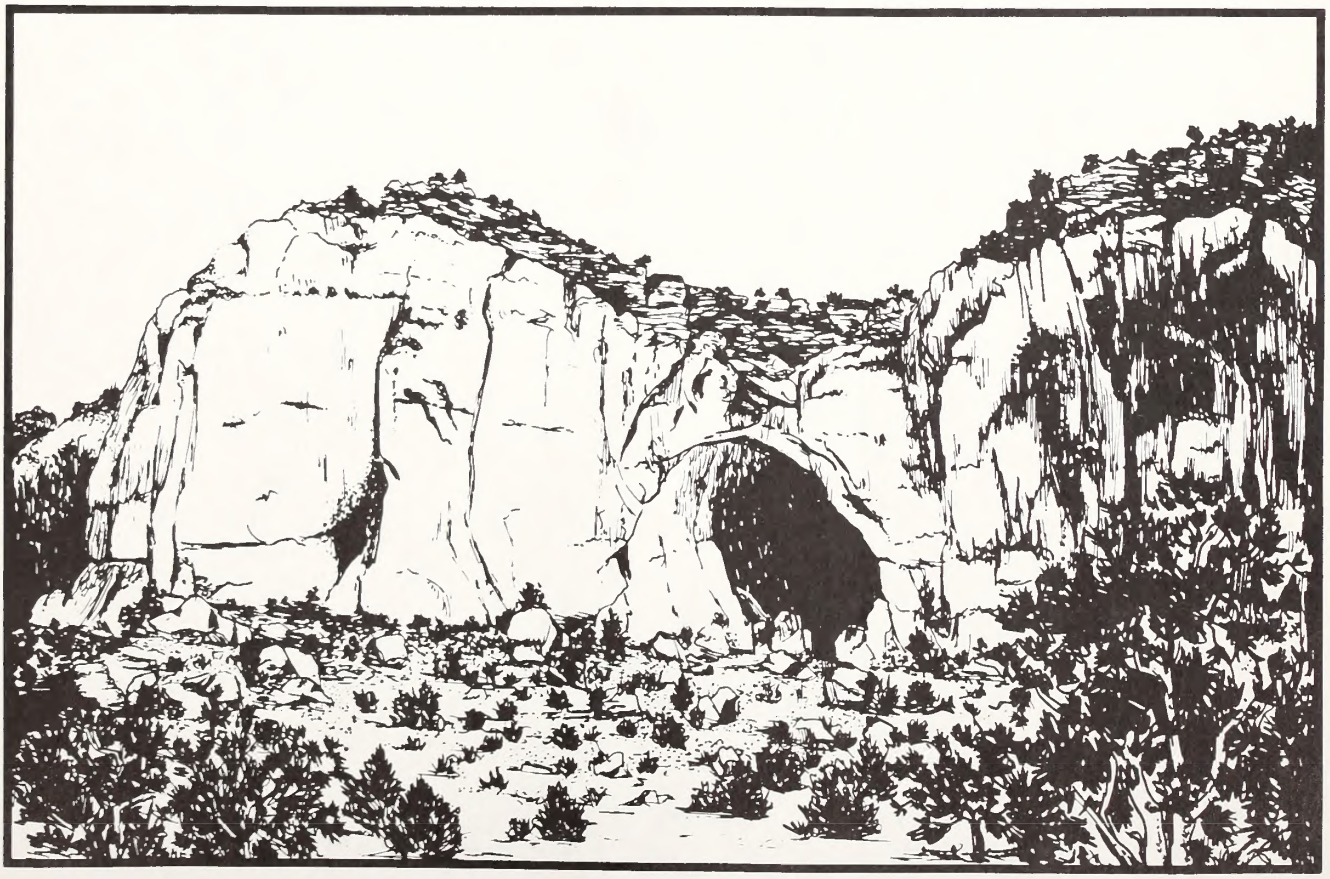
The public lands in Management Class C have been identified for disposal through the RMP Land Ownership Adjustment Issue and the Management Framework Plan decisions carried forward into the Rio Puerco RMP (see Tables 7, 18, and 19). These public lands are primarily small, scattered, and isolated tracts which are difficult to manage and for the most part contain no known significant resource values.

Included in this class are parcels of public land in the San Augustine Coal Area which were identified in the Divide MFP for disposal pending a coal leasing suitability determination. A portion of this area is currently being assessed for coal leasing suitability in the Las Cruces District's

Socorro Resource Area RMP (see Map 4). The final determination on the availability of these parcels for immediate disposal will be made in the Socorro RMP. Those parcels not identified for further consideration for coal leasing in the Socorro RMP will be managed in the same manner as the other parcels in this class. Those parcels identified as suitable for further consideration for coal leasing would require further activity planning prior to coal lease sale. These parcels could be considered for exchange for lands with similar mineral values to consolidate public land ownership. In addition, these lands could be disposed of once the coal encumbrance was lifted. The parcels in the San Augustine Coal Area identified for disposal in the Divide MFP but not considered in the Socorro RMP (see Table 18) will remain available for disposal, but will require a Mineral Resource Assessment prior to disposal to determine their coal potential.

Due to the limited manageability and lack of significant resource values, management of the public lands in Management Class C will be de-emphasized. The only activity planning other than for coal which will be conducted in this management class will be for disposals unless significant resource values are identified in the future. In that case, areas with significant resource values could be identified as Special Management Areas by following guidance established in the "Special Management Area Program Guidance" section of this document. Such SMA's established in Management Class C will be shifted to Management Class B.

All activities requiring permitting (e.g., mineral materials sales, range improvements, Land Use Authorizations, rights-of-way) will be considered in environmental assessments prior to approval. Any permits issued will contain stipulations to protect the Federal government from bearing the cost of relocating private facilities such as microwave stations or from compensating permittees for permanent facilities such as wells or dirt tanks in the event of disposal. In addition, to prevent loss of Federal investments when the land leaves Federal ownership Federal funds will not be allocated in the future for project developments such as range improvements.



Glossary

GLOSSARY

Activity plan - A site-specific plan for the management of one or more resources (e.g., an Allotment Management Plan or a Cultural Resources Management Plan). Activity plans implement decisions made in the Resource Management Plan.

Actual use - Means a report of the actual livestock grazing use certified to be accurate by the permittee or lessee.

Adverse visual impact - Any modification in land forms, water bodies, or vegetation, or any introduction of structures which negatively interrupts the visual character of the landscape and disrupts the harmony of the basic elements (i.e., form, line, color, and texture).

Allotment - An area of land where one or more permittees graze their livestock. Generally consists of public land but may include parcels of private or State lands. The number of livestock and season of use are stipulated for each allotment. An allotment may consist of several pastures or be any one pasture.

Allotment Management Plan (AMP) - Means an activity plan which applies to livestock grazing on the public lands, prepared in consultation, cooperation, and coordination with the permittee(s), lessee(s), or other involved affected interest.

Allowable cut - The amount of wood allowed to be cut each year on a sustained yield basis.

Allowable livestock grazing use - This term is synonymous with "Grazing preference" which means the total number of Animal Unit Months of livestock grazing on public lands apportioned and attached to base property owned or controlled by a permittee or lessee.

Animal Unit Month (AUM) - Means the amount of forage necessary for the sustenance of one cow or its equivalent for a period of one month; also a unit of measure of "grazing preference."

Area of Critical Environmental Concern (ACEC)- An area within the public lands where special management attention is required: (1) to protect and prevent irreparable damage to important historic, cultural or scenic values, to fish and wildlife resources, or to other natural systems or processes; or (2) to protect life and safety from natural hazards.

Area regulation - The planning and management of a stand for sustained yield. It prescribes the exact number of acres to be harvested each year. Since stand densities can vary by acre, annual harvest may vary each year.

Authorized livestock grazing use - That portion of the grazing preference or allowable livestock grazing use authorized to be used during a grazing year.

Biome - An ecosystem of continental proportions described primarily by biotic components, particularly its characteristic vegetation.

Browse - Trees and shrubs whose twigs, leaves, and fruit are eaten by wildlife or livestock.

Bypass coal - An isolated coal deposit that cannot be mined in an economical or environmentally sound manner in the foreseeable future.

Candidate species - Species identified by the U.S. Fish and Wildlife Service as appropriate for listing as threatened or endangered.

Chaco Culture Archeological Protection Sites - Prehistoric archeological sites located generally within the San Juan Basin and related to the Chacoan cultural system, recognized by Congress through the Chaco Culture Preservation Act of 1980. This Act enlarged the boundaries of Chaco Canyon National Monument by almost 13,000 acres, renamed the monument as Chaco Culture National Historic Park, and recognized an additional 33 sites (9,000 acres) outside the Park boundary.

Chaining - A method of creating openings in pinyon-juniper woodlands by pulling an anchor chain between two tractors, knocking over or uprooting the trees.

Closed to motorized vehicle use - See ORV Closed.

Coal unsuitability criteria - Regulations developed by BLM which use the ability of an area's surface resources to accept or absorb the impact of coal mining activities as a means to determine the suitability or unsuitability of the area for coal mining.

Color-of-Title Act of 1928 - Class 1 of the Act specifies that an occupant on Federal land can acquire title to the land if it can be shown that the claimant or the claimant's predecessors in interest had a chain of title acquired in good faith going back at least twenty years and had cultivated or otherwise made valuable improvements to the land. Class 2 of the Act allows the Federal government to transfer title to lands held in good faith prior to January 1, 1901, on which taxes had been paid since that time.

Common variety mineral materials - Widespread deposits of common clay, sand, gravel, or stone which are not subject to disposal under The 1872 Mining Law (as amended).

Competitive bidding - Bidding at an open public auction by qualified purchasers.

Continental Divide National Scenic Trail treadway - The actual trail established and marked as the route of the Continental Divide National Scenic Trail. It can exist as part of the Continental Divide National Scenic Trail system only after formal designation by the appropriate agency head and the publishing of notice in the Federal Register.

Contrast - Opposition or dissimilarity of different forms, lines, colors, or textures in a landscape.

Cover type - A habitat type for wildlife generally based on vegetation, e.g., pinyon-juniper, grassland, sagebrush.

Critical habitat for threatened or endangered plant or animal species - Areas officially designated by the U.S. Fish and Wildlife Service. There are none in this planning area.

Critical wildlife habitat - Areas on which an animal population depends for survival.

Cultural resource inventory:

Class I - An existing data survey. This is an inventory of a study area: (1) to provide a narrative overview of cultural resources by using existing information; and (2) to compile existing cultural resources site record data on which to base the development of the BLM's site record system.

Class II - A sampling field inventory. This is designed to locate from surface and exposed profile indications all cultural resource sites within a portion of an area so that an estimate can be made of the cultural resources for the entire area. The Class II inventory is to be used where an intensive field inventory (Class III) is not practical or necessary.

Class III - An intensive field inventory. This is designed to locate from surface and exposed profile indications all cultural resource sites in an area. Upon its completion, no further cultural resource inventory work is normally needed. A Class III inventory is appropriate for small project areas, all areas to be disturbed, and primary cultural resource areas.

Cultural Resource Management Plan (CRMP) - A written and officially approved plan for an area or a group of resources. It identifies cultural resources protection and use objectives, establishes the specific nature and sequence of actions to achieve objectives, and outlines procedures for evaluating accomplishments.

Cultural resources - Fragile and nonrenewable remains of human activity, occupation, or endeavor. They are reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture and natural resources that were of importance

in human events. These resources consist of: (1) physical remains; (2) areas where significant human events occurred, even though evidence no longer remains; and (3) the environment immediately surrounding the resource.

Direct sale - See Non-competitive sale.

Diversity - The relative abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area.

Ecological condition - The present state of vegetation of a range site in relation to the climax (natural potential) plant community for that site. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a plant community resemble that of the climax plant community for the site.

Ecological condition class - Four classes are used to express the departure of the present plant community from the climax plant community; expressed as a percentage.

Class	Percent Departure
Excellent	76-100
Good	51-75
Fair	26-50
Poor	0-25

Ecological condition rating - The percent departure from the climax plant community of the present plant community.

Ecological succession - The change in vegetation and in animal life that takes place as the plant community evolves from bare ground to climax.

Edge effect - The increased richness of flora and fauna where two communities join and blend.

Emergency leasing - Emergency coal leases may be issued in response to an application as outlined under 43 CFR 3425.1-4. Briefly, an emergency lease may be issued if the coal reserves are part of a mining operation that is producing coal and either: (1) the Federal coal is needed within three years to maintain an existing mining operation, or (2) if the coal deposits are not leased, then they would be bypassed and if leased, some of the coal on the tract would be used within three years.

Endemic - Peculiar to or found only in a particular locality; e.g., endemic plants are common in a locality, but not elsewhere.

Energy Minerals Activity Recommendation System (EMARS) - Established by the 1975 Coal Management Program, it has three phases: (1) nomination and programming, (2) scheduling, and (3) leasing.

Environmental Analysis (EA) - See Environmental analysis process.

Environmental analysis process - Studies conducted in compliance with the National Environmental Policy Act (NEPA) considering the environmental consequences of a proposed Federal action and considering alternatives to the action. The study may take the form of a full-scale Environmental Impact Statement for a major action or an Environmental Assessment for an action of more restricted scope. In some cases the action is covered by a categorical exclusion and no environmental analysis studies are required; however, the application of the categorical exclusion is documented. Following conclusion of the environmental analysis process the authorized officer of the BLM makes a formal decision for or against the proposed action. The authorized officer may choose one of the alternatives or a combination.

Existing roads and trails - Roads and trails identified through a road inventory process. A detailed map is available at the Rio Puerco Resource Area Office.

Featured species - Wildlife species selected for analysis because they represent overall wildlife conditions.

Federal Land Policy and Management Act of 1976 (FLPMA) - Establishes public land policy for management of lands administered by BLM. FLPMA specifies several key directions for the Bureau, notably that: management be on the

basis of multiple use and sustained yield; land use plans be prepared to guide management actions; public lands be managed for the protection, development, and enhancement of resources; public lands generally be retained in Federal ownership; and public participation be included in reaching management decisions.

Fee simple title - An estate in which the owner is entitled to the entire property with unconditional power of disposition.

Fuelwood - Firewood; wood for fuel.

Habitat - The sum total of environmental conditions of a specific place occupied by a wildlife species.

Habitat site - A local ecosystem defined specifically by existing homogenous vegetation and local landform and influenced by regional physiography and intraregional association. The habitat site is the lowest classification level of BLM's habitat inventory system.

Hardrock mining - Underground or open-pit mining, generally associated with locatable minerals.

Harvestable base - The quantity of wood allocated to be managed under sustained yield.

High priority habitat for migratory species - Areas that: (1) are used regularly by one or more of the listed species; (2) are either limited in availability for feeding, reproduction, wintering, or other uses, or supportive of concentrations of one or more species; and (3) contain a combination of natural or man-made factors that provide essential habitat requirements. The only high interest migratory species possibly affected in the coal issue area is the mountain plover.

Grazing system - A systematic sequence of grazing use and non-use of an allotment to reach identified multiple use goals or objectives by improving the quality and quantity of the vegetation.

Instant Study Areas - All public land areas which had been formally designated as Natural or Primitive areas prior to November 1, 1975 were automatically designated as Wilderness Study Areas.

Intensive Recreation Management Area - A portion of the public land which should receive more intensive recreation management in response to public issues or management concerns. Management objectives for these areas must be related to reduced resource damage, solving visitor safety and health problems, mitigating conflicts, or providing the public with recreation opportunities not otherwise available.

Known Geologic Structure (KGS) - A trap in which an accumulation of oil and gas has been discovered by drilling and which is determined to be productive. Its limits include all acreage that is presumptively productive [43 CFR 3100.0-5(a)]. Lands underlain by a KGS may be leased only through a competitive system.

Known mineral values for locatable and saleable minerals - Mineral values in lands with underlying geologic formations which are valuable for prospecting for, developing, or producing natural mineral deposits. The presence of such mineral deposits in the lands may be known or geologic conditions may be such as to make the lands prospectively valuable for mineral occurrence.

Leasable minerals - Those minerals or fluids that can be acquired under lease from the Federal government. They incude oil, gas, geothermals, coal, phosphate, sodium, potash, oil shale, sulfur, and all minerals on acquired lands.

Limited motorized vehicle use - See ORV limited.

Locatable minerals - Minerals or mineral materials subject to disposal under The Mining Law of 1872 (as amended). These generally include metallic minerals of high intrinsic value, such as gold and silver, and other uncommon varieties not subject to lease or sale, such as sodium bentonite, high-calcium limestone, and perlite.

Location - Perfecting the right to a mining claim by discovery of a valuable mineral, monumenting the corners, completing discovery work, posting a notice of location, and recording the claim.

Logical Mining Unit - An area of land in which the recoverable coal reserves can be developed in an efficient, economical, and orderly manner as a unit, with due regard for the conservation of recoverable coal reserves and other resources.

Management Framework Plan (MFP) - A planning decision document that established land use allocations, coordination guidelines for multiple use, and management objectives for each class of land use or protection for a given planning area. It was the BLM's land use plan. An MFP was prepared in three steps: (1) resource recommendations, (2) impact analysis and alternative development, and (3) decision making. Since 1982, BLM land use plans have been developed under an altered planning system and called Resource Management Plans (RMP's).

Management Situation Analysis (MSA) - An unpublished companion document to this RMP that provides the background documentation for the development of alternatives. The MSA consists of the Resource Area Profile, Existing Management Situation, Existing Resource Situation, and Opportunity Analysis.

Mine plan - A plan of operation which details how the coal will be mined and the area reclaimed. It is prepared in order to obtain a mine permit.

Mineral entry - The availability of Federal lands for location of mines.

Mineral estate (mineral rights) - The ownership of all minerals including all rights necessary for access, exploration, development, mining, ore dressing, and transportation operations.

Multiple use - The management of all resources of the public lands so that they are used in the combination that will best meet the needs of the people of the United States.

National Environmental Policy Act (NEPA) - See Environmental analysis process.

National Historic Landmark - A designation established by The Historic Sites Act of 1935. That Act gave the Secretary of the Interior responsibility for systematically identifying resources which by historic association, architectural or design excellence, or extraordinary information content are nationally significant. Landmarks include districts, sites, buildings, structures, and objects pivotal in national history, architecture, archeology, or culture. Criteria for Landmark status parallel to some degree those of the National Register of Historic Places, but the associative, architectural, aesthetic, or informational quality required is significantly greater and must pertain to the nation rather than to a single place or group of people.

National Natural Landmark - A specific area designated by the Secretary of the Interior which contains a representative example(s) of the nation's natural history. It can include terrestrial communities, aquatic communities, landforms, geological features, or habitats of native plant and animal species. A Landmark must possess national significance in illustrating or interpreting the nation's natural heritage.

National Register of Historic Places - The official list, established by The Historic Preservation Act of 1966, of the nation's cultural resources worthy of preservation. The Register lists archeological, historic, and architectural properties (i.e., districts, sites, buildings, structures, and objects) nominated for their local, state, or national significance by state or Federal agencies and approved by the National Register staff.

National Scenic Trail - A trail designated under The National Trail System Act. It must be an extensive trail, located for its outdoor

recreational potential, and for the conservation and enjoyment of nationally significant scenic, historic, natural, or cultural qualities in its vicinity.

New Mexico State Register of Cultural Properties - The State register of architectural sites, historic structures, objects, artifacts, works of art and documents of significance to the history of New Mexico.

No known mineral values for leasable minerals- Lands have no known mineral values for leasable minerals if they are not under a mineral lease, prospecting permit, or preference right lease application or if they have not been classified as being in a "known leasing area" (including KGS's, KGRA's, etc.), or as being "prospectively valuable."

No surface disturbance - Defined on a case-by-case basis when the activity plan for an area is developed. In general, an activity would be allowed as long as it does not interfere with the management objectives of the area.

No surface occupancy - A fluid mineral leasing stipulation that prohibits occupancy or disturbance of all or part of the lease surface in order to protect special values or uses. Lessees may exploit the oil and gas or geothermal resource in such a lease by directional drilling from sites outside the no surface occupancy area.

Non-competitive sale - Land sales made at fair market value without competitive bidding.

Non use - Allowable livestock grazing use (in AUM's) that is authorized but not to be used during a given time period. Non use is applied for and authorized on an annual basis.

Off-road vehicle (ORV) - Any motorized vehicle capable of or designed for travel on or immediately over natural terrain. Excluded are: (1) any non-amphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while used for an emergency; (3) any vehicle with express official approval; (4) vehicles in official use; and (5) combat or combat support vehicles during a national defense emergency.

Open to motorized vehicle use - See ORV open.

ORV closed - "Closed areas and trails" are designated areas and trails where the use of motorized vehicles (except by authorized users) is permanently or temporarily prohibited.

ORV limited - "Limited areas and trails" are designated areas and trails where the use of motorized vehicles is subject to restrictions deemed appropriate by an authorized officer. Restrictions may limit the number or types of vehicles allowed, dates and times of use, and similar matters. Limited areas and trails may be designated for special or intensive use such as organized events and may be subject to, but not limited to, rules set forth in 43 CFR 8341.2. ORV use related to mining claim operations will not be restricted, except by regulations and requirements found in 43 CFR 3809, as amended on March 2, 1983. ORV use performed in conformance with existing leases, permits, rights-of-way stipulations, or other land-use authorizations will not be impinged upon.

ORV open - "Open areas and trails" are designated areas and trails where motorized vehicles may be operated subject to the operating regulations and vehicle standards set forth at 43 CFR 8341 and 8343.

Outstanding Natural Area (ONA) - An area established to preserve scenic values and areas of natural wonder. The preservation of these resources in their natural condition is the primary management objective. Access roads, parking areas, and other public use facilities are normally located on the periphery of the area.

Patent - A grant made to an individual or group conveying fee simple title to the public lands.

Patented claim - A claim on which title has passed from the Federal government to the mining claimant under The Mining Law of 1872.

Payments in Lieu of Taxes (PILT) - Payments to local or state governments which have public lands within their boundaries, authorized by Public Law 94-565 of 1979.

Physiographic province - An extensive region of similar geological structures and climates that share a common geomorphic history. It normally encompasses many hundreds of square miles and portrays similar qualities of soil, rock, slope, and vegetation.

Plan of operation - A plan required when mining activities will disturb five or more acres or will disturb special areas. It should describe the equipment to be used, locations of access, support facilities, drill sites, and measures which will be taken to prevent unnecessary or undue degradation of the area to be disturbed.

Preferred livestock forage - Those plant species most palatable to livestock.

Proper use - The proper level of forage utilization that allows for the maintentance or improvement of ecological condition.

Public land - Lands whose surface and/or subsurface is administered by the Bureau of Land Management.

Range site - A distinctive kind of rangeland that differs from other kinds of rangeland in its ability to produce a characteristic natural plant community, is the product of all environmental factors responsible for its development, and is capable of supporting a native plant community typified by an association of species that differs from that of other range sites in the kind or proportion of species or in total production.

Range trend - The change in vegetative and soil characteristics as a direct result of environmental factors, primarily climate and grazing. Range trend studies are used in combination with other studies to evaluate the success of grazing management.

Rare plants - See Rare species.

Rare species - Plant species identified as rare by the New Mexico Heritage Program.

Recreation and Public Purposes Act (R&PP Act)- An Act which authorizes the Secretary of the Interior, under specific conditions, to sell or lease public domain lands to state and local governments for recreation and other public purposes, or to qualified non-profit organizations for public or quasi-public purposes, such as recreation, education, and health.

Recreation Opportunity Spectrum (ROS) - A framework for stratifying and defining classes of outdoor recreation opportunity environments.

Research Natural Area - An area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics: (1) a typical representation of a common plant or animal association; (2) an unusual plant or animal association; (3) a threatened or endangered plant or animal species; (4) a typical representation of common geologic, soil, or water features; or (5) outstanding or unusual geologic, soil, or water features.

Resident species of high interest - Generally, game, furbearers, gamefish, and threatened or endangered species officially designated by the New Mexico State Legislature.

Rights-of-way (ROW) corridors - Corridors designated for the placement of transmission lines.

Rights-of-way (ROW) windows - Areas critical for transmission line placement due to topographic or land ownership constraints.

Saleable minerals - Common variety mineral materials (sand, gravel, etc.) which are disposed of by sale by the Federal government under The Material Sales Act of 1947.

Scenic quality - The relative worth of a landscape from a visual perception point-of-view.

Scenic quality rating - The relative scenic quality (A, B, or C) assigned to a landscape by applying the scenic quality evaluation key factors. A is the highest rating, B is intermediate, and C is the lowest.

Selective cut - An uneven-age silvicultural system in which trees are removed individually and periodically throughout the stand, leaving a mixture of tree ages and sizes.

Silviculture - The cultivation of forest trees; the art of producing and tending a forest; the application of the knowledge of silvics in the treatment of a forest; the theory and practice of controlling forest establishment, composition, and growth.

Site - The position or location of trees in relation to their environment.

Site index - A measure of site quality based on the height of the dominant tree at an arbitrarily chosen age.

Special Management Area (SMA) - An area requiring special management by BLM to protect one or more resource values. An SMA may include non-public lands that BLM wishes to acquire or to bring under a Cooperative Management Agreement to better manage the valued resource. At a minimum, an activity plan will be prepared for an SMA. SMA's may be given designations under various existing labels such as Area of Critical Environmental Concern or Research Natural Area. SMA's are not necessarily "locked up" from development if the development activity does not conflict with the goals for the area.

Split estate - Lands where surface and mineral estates have been severed and are under different ownership.

Stand - A group of growing trees of a particular species in a given area.

Standard stipulations - A series of requirements that are always attached to a given lease; e.g., on 3:1 slopes--plug the holes, conserve topsoil.

State concern - Plant species identified by the New Mexico Heritage Program.

State-listed species - Animals listed by the State of New Mexico as threatened or endangered.

Surface mining - Mining in surface excavations, including placer mining, mining in open glory-hole or milling pits, mining and removing ore from open cuts by hand or with mechanical excavating and transportation equipment, and the removal of capping or overburden to uncover the ores. Mining at or near the surface is generally done where the overburden can be removed without great expense.

Sustained yield - The achievement and maintenance in perpetuity of a high level of annual or periodic output of the various renewable resources of the public lands consistent with multiple use. The amount of resource harvested normally equals the amount grown since the previous harvest.

Threatened and endangered species - Plants and animals listed by the U.S. Fish and Wildlife Service or the State of New Mexico as threatened or endangered.

Tract - A defined area of land which will logically be proposed as a single lease offering. At the preliminary tract stage, the exact boundaries of tracts would still be subject to adjustment based on subsequent analysis.

Transmission Line - Any electrical transmission line with a 69 kV capacity or greater or any pipeline with a 6-inch diameter or greater.

Type locality - The place at which a stratigraphic unit (such as a formation or a series) is typically displayed and from which it derives its name. It contains the type section and is contained within the type area.

Unacceptable ecological conditions - Range site, pasture and/or allotment with an ecological condition rating of less than 38, and downward or static range trend.

Unpatented mining claim - A claim made under the authority of The Mining Law of 1872 on vacant, unappropriated public land, where valuable locatable minerals have been discovered.

Valid existing rights - Legal interests that attach to a land or mineral estate that cannot be divested from the estate until that interest expires or is relinquished.

Valuable wildlife habitat - Areas heavily used by wildlife.

Visual Resource Management (VRM) - The system by which BLM classifies and manages the visual resources of public lands. Based on their scenic qualities, sensitivities, and the distances from which they are viewed, the lands are classified into management units. The system includes actions taken to identify visual values, to establish objectives for managing these values, and to achieve the visual management objectives.

Wilderness Study Area (WSA) - A roadless area or island that has been inventoried and found to have characteristics described in Section 603 of FLPMA and Section 2(c) of The Wilderness Act of 1964. These lands are currently managed under the "Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM 1979b) and will be considered for designation as Wilderness by Congress.

Wildlife cover - Vegetation used by wildlife for protection from predators, to ameliorate weather conditions, or in which to reproduce.

Withdrawal - Actions which restrict the use of public land and segregate the land from the operation of some or all of the public land and mineral laws. Withdrawals are also used to transfer jurisdiction of management to other Federal agencies.

Woodland - Forest land not capable of producing twenty cubic feet of timber per acre per year; e.g., pinyon-juniper stands.

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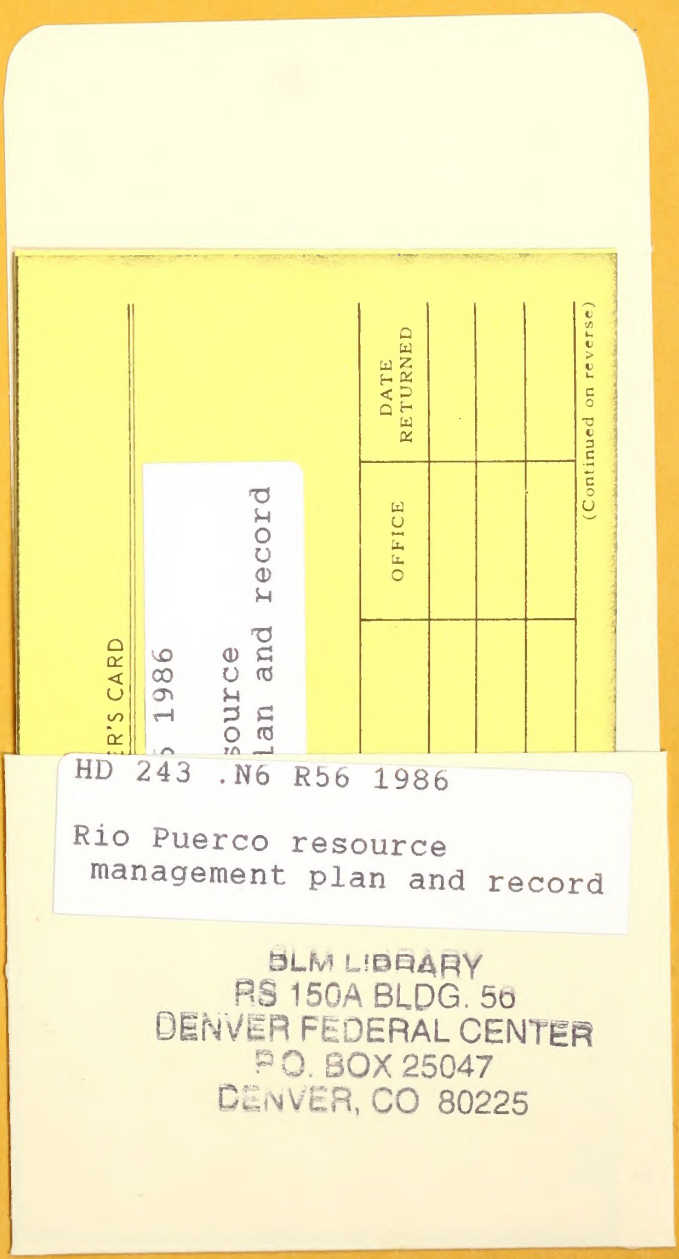

RIO PUERCO RESOURCE AREA

LAND STATUS

1986

US DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ALBUQUERQUE DISTRICT OFFICE
RIO PUERCO RESOURCE AREA

LEGEND

- RESOURCE AREA BOUNDARY
- ADMINISTRATIVE RESPONSIBILITY BOUNDARY
- CITIES, TOWNS OR VILLAGES
- COUNTY SEAT
- BUILT-UP AREAS: TOWNS OVER 5,000
- COUNTY BOUNDARIES
- SCHEDULED SERVICE AIRPORT
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY
- OTHER PRINCIPAL ROADS
- PUBLIC LAND
- STATE LAND
- INDIAN RESERVATION
- NATIONAL PARKS AND MONUMENTS
- MILITARY LAND
- PRIVATE LAND - BLANK
- NATIONAL FOREST
- GRANTS
- INDIAN LEGISLATION
- DOUBLE STATUS

NORTH

SCALE 1:5000,000

10 0 10 20 30

Contour interval 500 feet

THIS MAP SHOWS ONLY GENERAL OWNERSHIP STATUS AND IS SUBJECT TO PERIODIC CHANGE. EXACT LAND OWNERSHIP STATUS OF PUBLIC LAND CAN BE OBTAINED FROM OFFICIAL PLATS AND RECORDS AT THE BUREAU OF LAND MANAGEMENT OFFICE, SANTA FE, NEW MEXICO.

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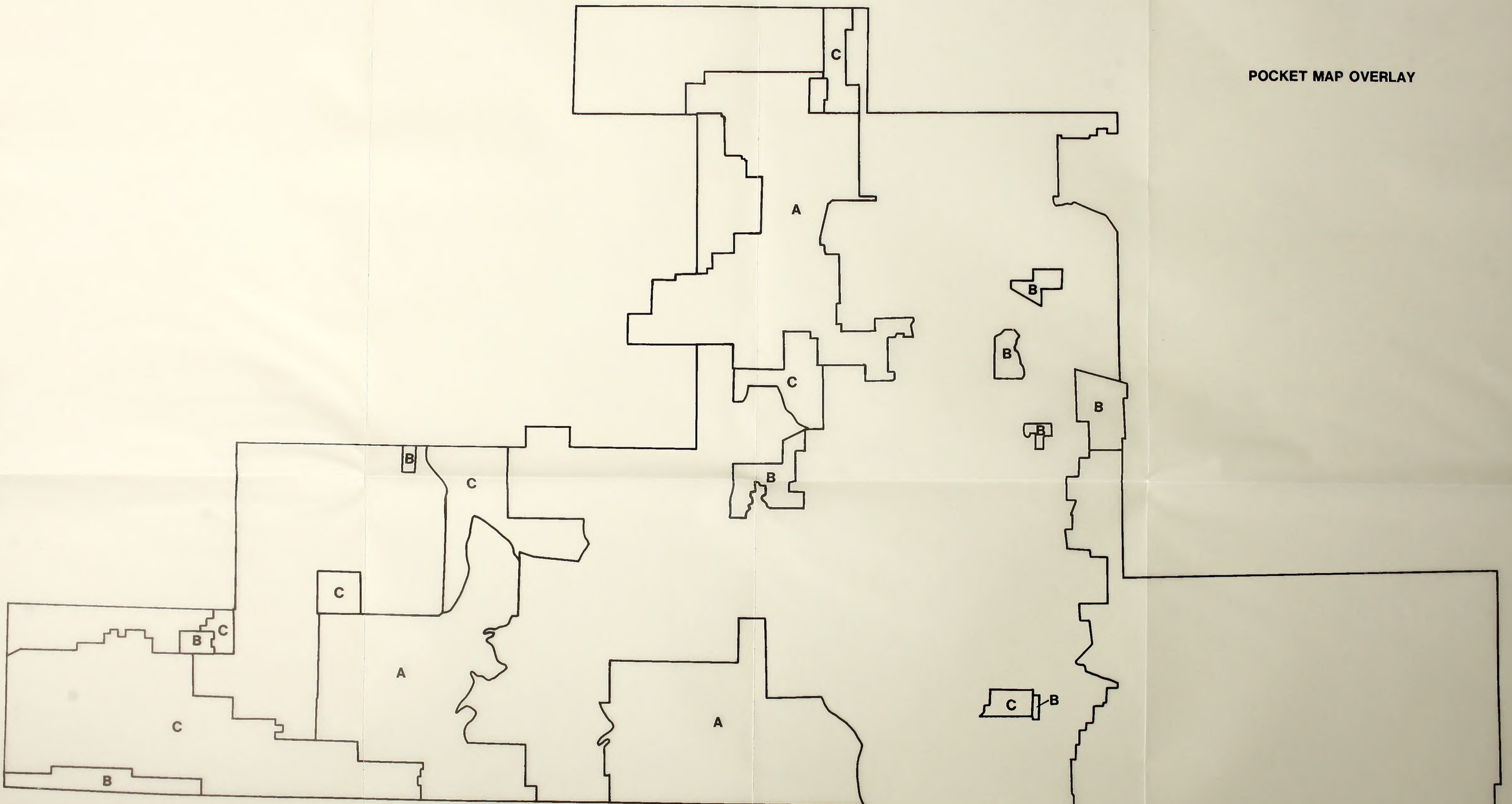
POCKET MAP OVERLAY



RIO PUERCO RESOURCE AREA
RMP MANAGEMENT CLASSES
1986

THE MANAGEMENT CLASSES (A, B, AND C)
ARE DESCRIBED IN SECTION 3 OF THE RMP

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BUREAU OF LAND MANAGEMENT
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