

**DOÑA ANA COUNTY
PROPOSED MIMBRES RESOURCE
MANAGEMENT PLAN
AMENDMENT/ENVIRONMENTAL
ASSESSMENT AND FONSI
NM-030-2008-025**

Las Cruces District Office 1800 Marquess Street Las Cruces NM 88005



September 2008



BLM/NM/PL-08-09-1610

ACRONYMS AND ABBREVIATIONS

ACEC	Area of Critical Environmental Concern	NRCS	Natural Resources Conservation Service
ACHP	Advisory Council on Historic Preservation	OHV	Off-Highway Vehicle
AIRFA	American Indian Religious Freedom Act	ORV	Off-Road Vehicle
AMP	Allotment Management Plan	PM10	Airborne Particulate Matter
ARPA	Archaeological Resources Protection Act	RFFA	Reasonably Foreseeable Future Actions
AUM	Animal Unit Month	ROW	Right-of-Way
BLM	Bureau of Land Management	RMP	Resource Management Plan
CEQ	Council on Environmental Quality	RMPPA	Resource Management Plan Amendment
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act	SHPO	State Historic Preservation Office
CFR	Code of Federal Regulations	SHS	Standard Habitat Site
CTF	Citizen's Task Force	SLO	State Land Office
CYL	Cattle Year-Long	SVIM	Soil and Vegetation Inventory and Monitoring
EA	Environmental Assessment	T&E	Threatened and Endangered
EIS	Environmental Impact Statement	UPRR	Union Pacific Railroad
EPA	Environmental Protection Agency	USDA	U.S. Department of Agriculture
FAA	Federal Aviation Administration	VRM	Visual Resource Management
FLPMA	Federal Land Policy and Management Act	WSA	Wilderness Study Area
FONSI	Finding of No Significant Impact		
FWS	U.S. Fish and Wildlife Service		
GHG	Greenhouse Gas		
IMP	Interim Management Policy		
IPPC	Intergovernmental Panel on Climate Change		
LCDO	Las Cruces District Office		
MOU	Memorandum of Understanding		
NAAQS	National Ambient Air Quality Standards		
NEPA	National Environmental Policy Act		
NHPA	National Historic Preservation Act		
NRHP	National Register of Historic Places		
NMDGF	New Mexico Department of Game and Fish		
NOI	Notice of Intent		



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Las Cruces District Office
1800 Marquess Street
Las Cruces, New Mexico 88005
www.blm.gov/nm



IN REPLY REFER TO:
1610 (03000)

SEP 2008

Dear Reader:

The Bureau of Land Management (BLM) Las Cruces District has completed the Doña Ana County Proposed Mimbres Resource Management Plan Amendment (RMPA)/Environmental Assessment (EA) and Finding of No Significant Impact (FONSI). The Proposed RMPA/EA was prepared in consultation with various government agencies and organizations, taking into account public comments received during this planning effort. The purpose of the Proposed RMPA is to amend the Mimbres RMP to designate selected public land for disposal. The need for action is in response to the State of New Mexico's request to acquire selected parcels within Doña Ana County, New Mexico that are not currently identified for disposal in the Mimbres RMP. The Proposed RMPA would change the land tenure designation for certain parcels of land from retention to disposal to accommodate exchange of the selected public land to the State of New Mexico and/or allow for future sale.

Any person who participated in the planning process for this Proposed RMPA/EA, and has an interest which is or may be adversely affected, may protest approval of this Proposed RMPA and land use planning decisions contained within it (see 43 Code of Federal Regulations 1610.5-2) during this 30-day period. Only those persons or organizations who participated in the planning process leading to the Proposed RMPA may protest. The protesting party may raise only those issues submitted for the record during the planning process leading up to the publication of this Proposed RMPA. These issues may have been raised by the protesting party or others. New issues may not be brought into the record at the protest stage. E-mail and faxed protests will not be accepted as valid protests unless the protesting party also provides the original letter by either regular or overnight mail postmarked by the close of the protest period. Under these conditions, the BLM will consider the e-mail or faxed protest as an advance copy and it will receive full consideration. If you wish to provide the BLM with such advance notification, please direct faxed protests to the attention of the BLM protest coordinator at 202-452-5112, and e-mails to: Brenda_HudgensWilliams@blm.gov.

All protests, including the follow-up letter (if emailing or faxing) must be in writing and mailed to the following address:

REGULAR MAIL:

Director (210)
Attention: Brenda Williams
P.O. Box 66538
Washington, D.C. 20035

OVERNIGHT MAIL:

Director (210)
Attention: Brenda Williams
4620 L Street, N.W., Suite 1075
Washington, D.C. 20036

All protests must be postmarked on or before October 29, 2008.

IMPORTANT: In accordance with 43 CFR 1610.5-2, the protest must contain the information described in the following critical elements check list:

- The name, mailing address, and telephone number of the person filing the protest.
- The “interest” of the person filing the protest (how will you be adversely affected by the approval or amendment of the resource management plan?).
- A statement of the part(s) of the Proposed RMPA, and the issue(s) being protested. (To the extent possible, this should reference specific pages, paragraphs, sections, tables, maps, etc., which are believed to be incorrect or incomplete.)
- A copy of all documents addressing the issue(s) that the protesting party submitted during the planning process OR a statement of the date they were discussed for the record.
- A concise statement explaining why the protestor believes the BLM State Director’s proposed decision is incorrect.

All of these elements are critical parts of your protest. Take care to document all relevant facts. As much as possible, reference or cite the planning documents, or available planning records (e.g. meeting minutes or summaries, correspondence, etc.). To aid in ensuring the completeness of your protest, a protest checklist is enclosed with this letter (labeled as Enclosure #1).

The BLM Director will make every attempt to promptly render a decision on the protest. The decision will be in writing and will be sent to the protesting party by certified mail, return receipt requested. The decision of the BLM Director shall be the final decision of the Department of the Interior.

BLM’s practice is to make comments, including names and home addresses of respondents, available for public review. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment-- including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so. All submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations and businesses, will be available for public inspection in their entirety.

Upon resolution of any protests, a Decision Record (DR) will be issued. The DR will be available to all parties through the “Planning” page of the BLM national website (<http://www.blm.gov/planning>). We appreciate your interest in this project.

Sincerely,



Bill Childress
District Manager

2 Enclosures

Resource Management Plan Protest Critical Item Checklist

**The following items *must* be included to constitute a valid protest
whether using this optional format, or a narrative letter.**

(43 CFR 1610.5-2)

Before including your address, phone number, e-mail address, or other personal identifying information in your **protest**, be advised that your entire **protest**--including your personal identifying information--may be made publicly available at any time. While you can ask us in your **protest** to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so. All submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations and businesses, will be available for public inspection in their entirety.

Resource Management Plan (RMP) or Amendment (RMPA) being protested:

Name:

Address:

Phone Number: ()

Your interest in filing this protest (how will you be adversely affected by the approval or amendment of this plan?):

Issue or issues being protested:

Statement of the part or parts of the plan being protested:

Chapter:

Section:

Page:

(or) Map:

Attach copies of all documents addressing the issue(s) that were submitted during the planning process by the protesting party, OR an indication of the date the issue(s) were discussed for the record.

Date(s):

A concise statement explaining why the State Director's decisions is believed to be wrong:

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CHAPTER 1

INTRODUCTION

The Bureau of Land Management (BLM), Las Cruces District Office, manages public land in southwestern New Mexico. Since the completion of the Mimbres Resource Management Plan (RMP) in 1993, significant changes have occurred with regard to retention of public land. Public land in the area west of Las Cruces and the area south near Santa Teresa, New Mexico are currently not identified for disposal in the Mimbres RMP and would require an amendment to the Plan to change that designation. These parcels of land meet the criteria for disposal consistent with the Federal Land Policy and Management Act.

PURPOSE AND NEED FOR THE RESOURCE MANAGEMENT PLAN AMENDMENT (RMPA) AND ENVIRONMENTAL ASSESSMENT

The purpose of the RMPA is to amend the Mimbres RMP to designate selected public land for disposal. The need for action is in response to the State of New Mexico's request to acquire selected parcels within Doña Ana County, New Mexico that are not currently identified for disposal in the Mimbres RMP. The proposed RMPA would change the land tenure designation from retention to disposal to accommodate exchange of the selected public land to the State of New Mexico and/or allow for future sale.

PLANNING AREA

The proposed RMPA involves identifying for disposal 5,992 acres of public land through exchange or sale in Doña Ana County, New Mexico (see Map 1-1). The disposal areas are located approximately 3 miles west of Las Cruces, south of Interstate 10, and approximately 30 miles south of Las Cruces, in the vicinity of Santa Teresa, New Mexico. The public land is administered by the Las Cruces District Office.

Disposal of the public land would include to the extent possible the sale of land and the minerals associated with that land or exchange of both surface and subsurface estates. This EA analyzes potential impacts resulting from amending the Mimbres RMP and designating selected public land for disposal, through exchange or sale.

SCOPING/ISSUES

To allow for an early and open process for determining the scope and significance of issues related to the RMPA (40 CFR 1510.7), a public scoping period was provided by the BLM. A Notice of Intent to prepare an Amendment to the Mimbres RMP and Associated EA was published in the Federal Register on January 14, 2008 (Vol. 73, No. 9, pages 2272 - 2273). Publication of this Notice in the Federal Register initiated a 30-day public scoping period to determine relevant issues that would influence the scope of the environmental analysis and EA alternatives. Comments were received through March 26, 2008. During public scoping, general comments made supported the land disposal; concerns expressed included:

- *What was the main reason for the RMPA?*
- *Would like to see a clear proposal go out and appreciate the opportunity for comment.*
- *How does this benefit BLM?*
- *Why do we want to do this?*

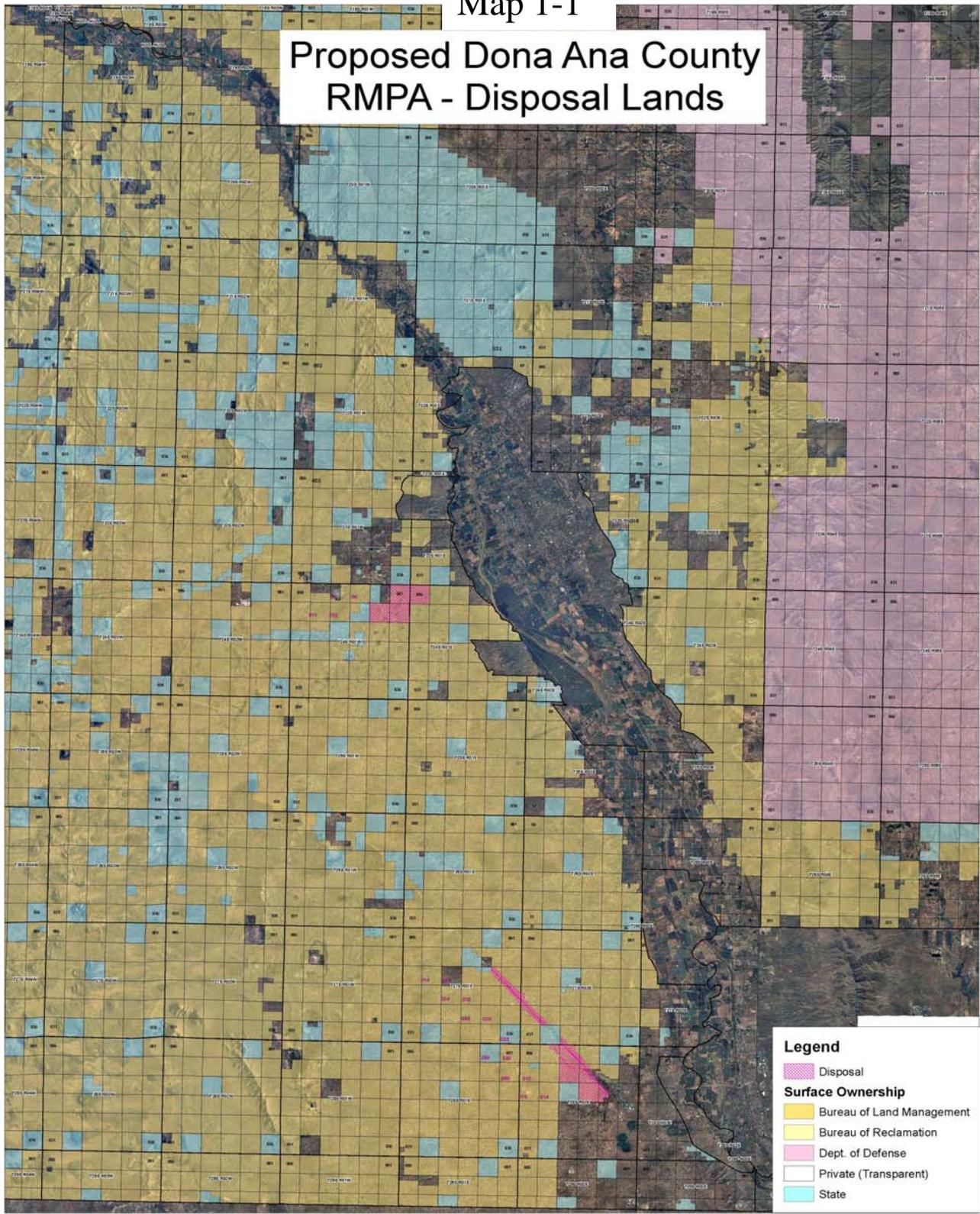
- *Horseback riders and landowners adjacent to land in the Santa Teresa area appreciate BLM, State and Union Pacific's railroad planning process and public meetings. Appreciate that development is on the flat desert area in the area, and that non-replaceable desert escarpment, arroyos and hilly, scenic and recreational areas are remaining in BLM ownership.*
- *Strongly support the proposed land trades, more access and benefits to wildlife, sportsmen and citizens of Dona Ana County.*

The following topics of concern were provided by the public and are beyond the scope of the land disposal RMPA/EA. However, these topics will be further addressed in the EA for the proposed Santa Teresa Land Exchange:

- *Consider the proximity of the proposed Union Pacific Rail Yard and the County's Airport at Santa Teresa.*
- *Consider environmental impacts of the proposed Union Pacific Rail Yard.*
- *Consider the allowable uses of the property acquired within the Doña Ana Mountains and attempt to limit those uses with negative impacts.*
- *Consider the affects of growth near the Organ Mountains and attempt to limit the negative impacts of such growth.*
- *Consider the potential, cumulative impacts from future developments on water quality, soil erosion, traffic loading, watershed protection and existing development.*
- *Consider the City of Las Cruces and Doña Ana County's requests to recognize Weisner Road as the eastern growth limit for the city and County toward the Organ Mountains.*
- *Consider removal of Section 8, S¹/₂, T. 23 S., R. 3 E., on the east mesa from the trade since it is east of the future Weisner Road and is identified in the CTF vision as a corridor to Tortugas, particularly the southern half which has a branch of the Tortugas arroyo running through it.*
- *Consider ranking of parcels that SLO targeted to transfer to BLM. The following 5 parcels were ranked as having equal conservation value:*
 - T. 21 S., R. 1 E., Sec. 36, 583.76 acres, land contiguous to the Doña Ana ACEC.*
 - T. 23 S., R. 3 E., Sec. 16, 640 acres, land contiguous to the Organ Mountain WSA.*
 - T. 21 S., R. 1 W., Sec. 36, 583.76 acres of land contiguous to the Robledo WSA. (BLM consider taking all of section 36 from the State to abut and cross the River for connectivity from the WSA to the River.)*
 - T. 22 S., R. 1 W., Sec. 2, 655.31 acres in the Robledo WSA.*
 - T. 23 S., R. 1 W., Sec. 2, 407.03 acres, Box Canyon.*
- *The remaining four parcels were noted as not having significant conservation or trade value.*
- *T. 21 S., R. 2 E., Sec. 32, all, is potentially an energy corridor and if so, its conservation value would be greatly compromised.*

Map 1-1

Proposed Dona Ana County RMPA - Disposal Lands



Legend

- Disposal
- Surface Ownership**
 - Bureau of Land Management
 - Bureau of Reclamation
 - Dept. of Defense
 - Private (Transparent)
 - State

0 5 10 Miles
9/18/2008 1:100,000

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use. All data are provided as a service to the public and are not intended for use in any legal proceeding. The information is subject to change without notice.

- *State lands that have conservation value are not included in the transfer to BLM; BLM consider acquiring these lands from the SLO:*
 - T. 24 S., R. 2 E., Sec. 16, which is identified in the CTF Vision as a Tortugas Mountain corridor and located with the CTF Organ Mountain expanded recreation area.*
 - T. 23 S., R. 3 E., Sec. 32, also identified in the CTF Vision as a Tortugas Mountain corridor and is contiguous to the Organ Mountain ACEC. Energy Corridor?*
 - T. 21 S., R. 2 E., Secs. 35, 26, and 23, which buffer Isaack Lake, provide drainage into the Lake and are designated in the CTF Vision as land to be conserved.*
 - T. 23 S., R. 1 E., Sec. 32, largely escarpment, and identified in the CTF Vision as part of the West Mesa Regional park.*
 - T. 22 S., R. 1 E., Sec. 32, identified as Apache Canyon, also part of the escarpment and valuable acquisition even if a dam is located within it, and identified in CTF Vision for protection.*
 - T. 23 S., R. 2 E., Sec. 36, consists mostly of Filmore arroyo and its tributaries.*
 - T. 24 S., R. 3 E., Sec. 16, identified in CTF Vision for protection. Energy Corridor?*
- *Recommend BLM consider the 4 tracks versus the 8 tracks crossing. BLM consider moving the proposed railroad crossing north the 3 or 4 miles so it will only be four tracks wide as opposed to the almost center of the proposed rail yard with eight tracks to cross. It takes only one track to be blocked and the road is completely closed. Plus moving the road north will help both the railroad and the property owners by bringing a desperately needed county road to their property. The railroad has agreed to build this road at no cost to the county. This would help the proposed 600 new homes and 3,000 votes who would occupy these homes, since they will have far less chance of finding the tracks blocked by trains and since there will only be 4 tracks wide rather than 8 tracks. It will also make it easier for Union Pacific to route traffic and avoid getting tickets for blocking a county highway.*

PLANNING CRITERIA

BLM regulations guiding the development of resource management plans and plan amendments require preparation of planning criteria (43 CFR 1610.4-2). These criteria guide development of the plan and ensure that it is tailored to identify issues and unnecessary data collection is avoided. These criteria are intended to streamline and simplify the planning process:

1. The RMPA/EA process will be in compliance with FLPMA, NEPA, and applicable laws, regulations, and policies. The land use plan amendment process will be governed by the planning regulations at 43 CFR 1610 and BLM Land Use Planning Handbook H-1601-1.
2. Lands affected by the proposed plan amendment only apply to public surface and mineral estate managed by the BLM. No decisions will be made relative to non-BLM administered lands or non-Federal minerals.
3. Public participation will be an integral part of the planning process.
4. The plan amendment will recognize all valid existing rights.

5. The BLM will work with cooperating agencies, tribal governments, and other interested groups, agencies, and individuals during the RMPA/EA process.
6. The RMPA/EA will strive to be consistent with existing non-Federal plans and policies, provided the decisions in the existing plans are consistent with the purposes, policies, and programs of Federal law and regulations for BLM public land.

PLANNING PROCESS

Public Involvement

The analysis for this RMPA/EA was completed in consultation and coordination with other agencies, State/local and tribal governments, and the public. Through the planning process, the BLM ensured the RMPA/EA and decision remained consistent with applicable laws, regulations, orders, and policies. The amendment process involves public participation, assessment, decision-making, implementation, plan monitoring and evaluations.

Publication of a Notice of Intent in the Federal Register initiated the plan amendment process and began public scoping (43 CFR 1610.2(c)). Information discussions with the State of New Mexico, Doña Ana County, City of Las Cruces, the BLM Resource Advisory Council, Native American Tribes and other interest groups occurred prior to formal scoping. A scoping letter with the Notice of Intent was sent to Federal, state and local governments, including the public and interest groups allowing for a 30-day public comment period on issues and planning criteria. The Notice of Intent was also published in the Las Cruces Sun News. The Notice of Intent addressed methods for submitting comments, which included the BLM New Mexico web site, email, mailing, fax, and personal delivery. The BLM also announced public scoping meetings through the local news media, newsletters, and the BLM web site at least 15 days prior to the first meeting. Two public scoping meetings were held, one in Las Cruces and the other in the Santa Teresa area.

Upon release of this Proposed RMPA/EA, the BLM notified the public and published a notice in the Las Cruces Sun News announcing the 30-day protest period. Only those persons or organizations who participated in the planning process leading to the proposed RMPA may file a protest. (For additional information, refer to the Dear Reader letter in this document.)

The proposed RMPA/EA also includes a 60-day Governor's consistency review. The BLM will issue a decision record and final RMPA after it resolves all protests and any potential consistency issues received from the Governor's office.

Relationship to BLM Policies, Plans and Programs

The amendment to the Mimbres RMP and identifying lands for disposal are addressed in this EA. Criteria for exchange or sale of public land are contained in Section 203 of the Federal Land Policy and Management Act (FLPMA) (43 U.S.C. 1713). The Act provides authority for land ownership adjustments by sale, exchange, withdrawal and other means. The Act further requires that adjustments be in conformance with existing land-use plans. This Act allows disposal of tracts that due to their location or other characteristics are difficult and uneconomic to manage as part of the public land area. To the extent possible, both surface and subsurface estate would be transferred, ensuring that future management problems would be minimized.

Some of the tracts included in the proposed disposal are adjacent to or surrounded by State trust and private fee-land. In addition, none of the tracts are considered suitable for management by another Federal department or agency. The future proposed use of these tracts would be more compatible with the adjoining private fee-land, rather than continuing to manage them as public land.

BLM decision options include approving the amendment, approving alternatives to the amendment to mitigate environmental impacts, approving the amendment with stipulations to mitigate environmental impacts, or denying the amendment. If BLM approves the amendment, designated parcels of public land would be offered for exchange to the State of New Mexico or sale of the remaining public land.

Collaboration

The RMPA process involves collaboration with public and tribal and local governments. Collaboration has involved input from individuals, the Doña Ana County Commissioners, Santa Teresa Airport Advisory Committee, City of Las Cruces, New Mexico State Land Office, Federal Aviation Administration, Homeland Security and the ranching community. In collaboration with the Citizens Task Force for Open Space, World Wildlife Fund, and New Mexico Wilderness Alliance, the BLM worked to prioritize those parcels within Dona Ana County for disposal. Issues and concerns that have been received by the BLM during the public participation and collaboration process are included in the Scoping/Issues section of this EA.

In accordance with the National Historic Preservation Act, efforts were made to identify and consider traditional cultural places. Letters were sent to nine American Indian tribes to initiate discussions (see Chapter 5 for a list of tribes). To date, written response has been received from the Hopi Tribe, who asked to be kept informed on the project.

Related Plans

BLM planning regulations (1610.3-1(d)(1)) require that RMPs and Amendments be consistent, to the extent possible, with officially approved land use plans of other Federal, Tribal, State, and local agencies. Other land use plans relevant to the RMPA include the City of Las Cruces/Dona Ana County Vision 20/40 Plan and Doña Ana County's Plan.

CHAPTER 2

PROPOSED ACTION AND ALTERNATIVES

INTRODUCTION

The Mimbres Resource Management Plan (RMP) (1993) identified the selected lands for retention. In order for the proposed disposal to be considered, the Mimbres RMP decision must be amended and the land in question identified for disposal.

PROPOSED ACTION

The Proposed Action is to amend the Mimbres RMP (BLM 1993) to identify 5,992 acres of public land for disposal. The land identified in Map 1-1 would be changed from the retention to disposal category.

NO ACTION ALTERNATIVE

Under the No Action Alternative, the Mimbres RMP would not be amended, and public land identified for disposal would be retained.

CHAPTER 3

AFFECTED ENVIRONMENT

INTRODUCTION

This chapter describes the environment that would be affected by implementation of the Proposed Action and No Action Alternatives described in Chapter 2. The affected environment primarily includes the land proposed for disposal and associated resources. Certain environmental components require analysis under BLM policy. Only those environmental components that may be impacted are described below (see Table 3-1).

Mapping and descriptive data for the existing environment in the proposed land disposal area can be found in the Mimbres Resource Management Plan (RMP) (BLM 1993). For the purposes of this Plan Amendment/EA, the proposed disposal area is the geographic area west of Las Cruces and the geographic area south of Las Cruces, adjacent to the Santa Teresa airport area (See Map 1-1).

TABLE 3-1 ELEMENTS OF THE HUMAN ENVIRONMENT			
ELEMENT	NOT PRESENT	PRESENT/NOT AFFECTED	PRESENT/MAY BE AFFECTED
Air Quality		✓	
Areas of Critical Environmental Concern	✓		
Cultural Resources			✓
Environmental Justice		✓	
Farm Lands (prime or unique)	✓		
Floodplains	✓		
Invasive, Nonnative Species		✓	
Migratory Birds		✓	
Native American Religious Concerns	✓		
Threatened or Endangered Species		✓	
Wastes, Hazardous or Solid		✓	
Water Quality (Surface/Ground)		✓	
Wetlands/Riparian Zones	✓		
Wild and Scenic Rivers	✓		
Wilderness	✓		

AIR QUALITY

During the dry spring months, windstorms and blowing dust can become a problem throughout the area. In 1999, monitors throughout Doña Ana County recorded 16 days which exceeded National Ambient Air Quality Standards (NAAQS) for airborne particulate matter (PM10). Excessive dust in the air can impair driving visibility and, when breathed, be potentially harmful to high-risk people with respiratory conditions. A Natural Events Action Plan was prepared for Doña Ana County and released in December 2000 by the Air Quality Bureau of the New Mexico Environment Department.

Currently, there are 12 air quality monitoring stations within Doña Ana County. Four of these stations only monitor PM10, two only monitor ozone, one monitors ozone and PM10, one only monitors PM2.5, one only monitors CO, and two monitor NO2, ozone, PM10, and PM2.5.

Two designated non-attainment areas occur in southern Doña Ana County. One is the town of Anthony, New Mexico for PM10. The Anthony non-attainment area is located approximately 10 miles northeast of the proposed disposal area. The other is an ozone non-attainment area near the village of Sunland Park, located approximately 10 miles southeast of the proposed disposal area.

CLIMATE

Climate is the composite of generally prevailing weather conditions of a particular region throughout the year, averaged over a series of years. Greenhouse gases (GHGs) have the potential to impact climate and in turn, climate has the potential to influence resource management. GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), water vapor, and several trace gases). On-going scientific research has identified the potential impacts of anthropogenic (man-made) GHG emissions and changes in biological carbon sequestration due to land management activities on global climate. Through complex interactions on a regional and global scale, GHG emissions net losses of biological carbon sinks cause a net warming effect of the atmosphere, primarily by decreasing the amount of heat energy radiated by the earth back into space. Although GHG levels and corresponding variations in climatic conditions have varied for millennia, industrialization and burning of fossil carbon sources have caused GHG concentrations to increase measurably, and may contribute to overall climatic changes, typically referred to as global warming or climate change. Increasing CO₂ concentrations also lead to fertilization and growth of specific plant species. The Intergovernmental Panel on Climate Change recently concluded that “warming of the climate system is unequivocal” and “most of the observed increase in globally average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations”.

Global mean surface temperatures have increased nearly 1.0°C (1.8°F) from 1890 to 2006 (Goddard Institute for Space Studies, 2007). However, observations and predictive models indicate that average temperature changes are likely to be greater in the Northern Hemisphere. The Goddard Institute for Space Studies data (2007) indicate that northern latitudes have exhibited temperature increases of nearly 2.1⁰ F since 1900, with nearly a 1.8⁰ F increase since 1970 alone. Without additional meteorological monitoring systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions, but increasing concentrations of GHGs are likely to accelerate the rate of climate change.

In 2001, the IPCC indicated that by the year 2100, global average surface temperatures would rise 2.5 to 10.4°F (1.4 to 5.8°C) above 1990 levels. The National Academy of Sciences (2006) has confirmed these findings, but also indicated there are uncertainties how climate change would affect different regions. Computer model predictions indicate that increases in temperature would not be equally distributed, but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be higher than during the summer. In New Mexico, a recent study indicated that the mean annual temperatures have exceeded the global averages by nearly 50 percent since the 1970's (Enquist and Gori). Similar to trends in national data, increases in mean winter temperatures in the Southwest have contributed to this rise. When compared to

baseline information, periods between 1991 and 2005 show temperature increases in over 95 percent of the geographical area of New Mexico. Warming is greatest in the northwestern, central, and southwestern parts of the State.

Some GHGs such as CO₂, occur naturally and are emitted to the atmosphere through both natural process and buy human activities, while others are created and emitted solely through human activities. The GHGs that enter the atmosphere due to human activities include CO₂, emitted through the burning of fossil fuels, solid waste trees, and wood products; CH₄ emitted during the production and transport of coal, natural gas and oil, as well as by livestock production, deforestation, and agricultural practices, N₂O emitted during agricultural and industrial activities and during the combustion of fossil fuels and sold waste; and fluorinated gases that are emitted from a variety of industrial process (EPA 2008).

The assessment of GHG emissions on climate change is in its formative phase and it is not yet possible to know with confidence the net impact to climate. Observed climatic changes may be caused by GHG emissions, or may reflect natural fluctuations (U.S. GAO 2007). Therefore, it is currently not feasible to know with certainty the impacts to climate as a result of any GHG emissions related to the proposed alternatives in the RMPA. This is due to unavailable information and the lack of scientific models to predict and quantify potential impacts to regional climate from specific sources emitting GHGs.

According to the EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks (2008), the total GHGs in the United States were estimated at 7,054.2 teragrams of CO₂ in 2006. Overall total U.S. emissions have risen by 14.7 percent from 1990 to 2006. The primary GHG emitted by human activities in the U.S. was CO₂, representing approximately 84.8 percent of total GHG emissions, with the largest source of CO₂ being fossil fuel combustion. Conversely, U.S. GHG emissions are partly offset by carbon sequestration in forests, trees, in urban areas, and agricultural soils, which in aggregate , offset 12.5 percent of total emissions in 2006 (EPA 2008).

CULTURAL RESOURCES

The availability of archeological site information in the area varies depending on the existing survey data. Surveys have largely been initiated in response to Section 106 requirements of the National Historic Preservation Act. Consequently, some areas have had numerous archeological surveys and reports, and others have not had any surveys.

The sites listed in the following tables include items that contain the word “unknown” as part of their dates. These sites could not be dated from the information available on the surface of the site. Without diagnostic projectile points (dart and arrow points), ceramics that are specific to a culture and time, radiocarbon dates, or other chronometric information, these sites cannot be assigned to anything more than a general time period. For example, the term “Unknown Prehistoric” refers to a site that has flaked stone artifacts that do not have characteristics that can be identified other than some prehistoric occupation of the area that falls between 10,000 B.C. and A. D. 1800. In many cases, these sites are dated after subsurface testing or excavation has been completed.

There are also listings for National Register of Historic Places (NRHP) eligibility that are “undetermined.” In these cases, there was not sufficient surface information to state whether a site contained enough information to determine whether it is eligible for the NRHP or not.

These conditions are in the nature of surface survey work. The artifacts that would have made determinations of eligibility and temporal context possible are sometimes illegally collected, lie beneath the surface, or the character of the site is such that items that could give us the information needed to make these determinations was not left on the site when it was occupied.

Known dates are:
Regional Chronology

PERIOD/PHASE	APPROXIMATE DATE
Paleoindian	Ca. 10,000-6000 B.C.
Archaic	6000 B.C.- A.D. 200
Early	6000-4000 B.C.
Middle	4000-1200 B.C.
Late	1200 B.C.-A.D. 200
Formative	A.D. 200-1450
Mesilla	A.D. 200-1100
Dona Ana	A.D. 1100-1200
El Paso	A.D. 1200-1450
Protohistoric	A.D. 1450-1659
Historic	A.D. 1659-present
SOURCE: BLM Las Cruces District Cultural Files, 2008.	

Tables 3-2 and 3-3 identify sites within and adjacent to the proposed disposal area. The adjacent land had to be examined in some cases because no survey existed within certain parcels.

TABLE 3-2 SINGLE COMPONENT SITES ON FEDERAL LAND		
SITE TYPE	NUMBER OF SITES	NRHP ELIGIBILITY
Unknown	2	Undetermined
Unknown Prehistoric	12	Undetermined (3 eligible)
Unknown Mogollon	5	Undetermined (1 not eligible)
Late Pithouse	3	Undetermined (1 eligible)
Early to Late Pithouse	2	Undetermined
Late Pueblo	3	Undetermined (1 eligible)
Unknown Historic	7	Undetermined
Territorial to Statehood	2	Undetermined (1 eligible)
Statehood to WWII	2	Undetermined
Recent (post-WWII)	1	Not Eligible
SOURCE: BLM Las Cruces District Cultural Files, 2008.		

TABLE 3-3 MULTI-COMPONENT SITES ON FEDERAL LAND		
SITE TYPE	NUMBER OF SITES	NRHP ELIGIBILITY
Late Paleoindian/Early Archaic and Late Pithouse Periods	1	Determined Eligible
Unknown Prehistoric and Territorial to Statehood Periods	1	Determined Eligible
Late Pithouse, Territorial to Statehood, and Statehood to WW II Periods	1	Determined Eligible
Late Pithouse and Early Pueblo Periods (Mimbres)	1	Determined Eligible
Unknown Prehistoric, Territorial to Statehood, Statehood to WW II, and Recent Periods	1	Determined Eligible
Unspecific Archaic and Late Pithouse Periods	1	Eligibility Undetermined
Unknown Prehistoric and Unspecific Jornada Mogollon	1	Eligibility Undetermined
Unspecific Archaic, Late Pueblo, and Unknown Historic (probably Territorial to Statehood)	1	Eligibility Undetermined
Unknown Prehistoric and Unknown Historic Periods	1	Eligibility Undetermined
Late Pueblo and Unknown Historic Periods	1	Eligibility Undetermined

SOURCE: BLM Las Cruces District Cultural Files, 2008

Potential Cultural Resources of the Proposed Disposal Area

It is difficult to predict the number and types of sites that would be found, due to either no or limited cultural resource surveys conducted in the vicinity of a selected parcel of land. While there are areas in which no sites are found, there are also areas with high densities of sites. As a result, cultural resource investigations for any future site disturbance activities would include subsequent physical inspections of land surfaces to locate cultural resource sites. This work would be followed by appropriate mitigation (subsurface testing or excavation) for those cases in which a ground disturbing activity is proposed.

PALEONTOLOGICAL RESOURCES

Paleontological resources, usually thought of as fossils, include the bones, teeth, body remains, traces, or imprints of plants and animals preserved in the earth through geologic time. Paleontological resources also include related geological information, such as rock types and ages. All fossils offer scientific information, but not all fossils offer noteworthy scientific information. Fossils generally are considered to be scientifically noteworthy if they are unique, unusual, rare, diagnostically or stratigraphically important, or add to the existing body of knowledge in a specific area of science. Most fossils occur in sedimentary rock formations.

Overall, the greatest potential for fossils in Doña Ana County is in the Camp Rice Formation (Santa Fe Group) found along the alluvial and terrace deposits of the Rio Grande, in the Permian Abo and Hueco formations, and in portions of the Robledo, San Andres and Organ Mountains. Fossils found in Doña Ana County are presented in the Table 3-4.

TABLE 3-4 FOSSILS FOUND IN DOÑA ANA COUNTY BY GEOLOGIC PERIOD AND FORMATION		
GEOLOGIC PERIOD	FORMATION	FOSSILS
Quaternary-Tertiary (Neogene)	Camp Rice (Santa Fe Group)	Birds, bivalves, mammals (antelope, dogs, foxes, horses, camels, gomphotheres, leopards, mammoths, glyptodons), reptiles, plants
Quaternary-Tertiary (Neogene)	Otero	Mammals (horses, camels, elephants), reptiles
Cretaceous	Del Norte	Anthozoa
Cretaceous	Del Rio	Bivalves
Cretaceous	Gallup	Bivalves
Cretaceous	Mancos Shale	Bivalves, cephalopods
Cretaceous	Mesilla Valley	Anthozoa, cephalopods
Cretaceous	Sarten	Bivalves, cephalopods, and other invertebrates
Cretaceous	U-Bar	Bivalves
Permian	Abo	Amphibians, reptiles, plants, invertebrates
Permian	Hueco	Amphibians, bivalves, arthropods, plants, brachiopods, cephalopods, sponges, crinoids, echinoids, gastropods, insects, reptiles, trilobites, miscellaneous other vertebrates and invertebrates
Permian	Robledo Mountains	Bivalves, brachiopods, gastropods, amphibians
Permian	Shalem Colony	Brachiopods, gastropods, bivalves, bryozoa, cephalopods, crinoids
Carboniferous	Panther Seep	Anthozoa, bivalves, brachiopods, bryozoa, echinodermata, gastropods, trilobites, miscellaneous other invertebrates
Cambrian	Bliss	Phosphatic dermal plates similar to heterostracan fish
SOURCE: New Mexico Museum of Natural History and Science 2005b		

Paleontological resources in southern New Mexico are typically found in the Camp Rice, Abo, and Hueco formations, although other formations have yielded several varieties of fossils. Vertebrate fossils or other noteworthy occurrences of invertebrate and plant fossils are considered significant by BLM and are expected to remain so. Since many of the fossils in the proposed disposal area are typically found in the Quaternary-Tertiary deposits, additional fossils may be found as a result of ground-disturbing activities or through naturally occurring surface erosion. The condition of the fossil is expected to vary from each discovery and would need to be assessed by a qualified paleontologist. Paleontological resources are assessed from a qualitative approach, since it is the scientific significance of the fossil that is of importance upon discovery and not the number of fossils.

MINERAL RESOURCES

Geologic literature and field maps encompassing the proposed disposal area have been reviewed. It has been determined that the tracts have no apparent value for locatable minerals, which includes precious and base metals as well as industrial minerals. There is no history of extraction for leasable minerals including coal, potassium, sodium, phosphate, or oil shale, nor is the geologic environment suitable for such. All tracts are considered prospectively valuable for oil, gas, and geothermal resources. The parcels contain geologic units that are favorable for the occurrence of salable mineral deposits such as sand and gravel. Current and past mineral material activity inside and within the vicinity of the tracts indicates that extraction of such deposits is viable, including a withdrawn negotiated sale application for 56,500 cubic yards of sand and gravel in Section 24, within the Santa Teresa tracts.

SOIL RESOURCES

The U.S. Department of Agriculture (USDA) Soil Conservation Service (now the Natural Resource Conservation Service [NRCS]) mapped soils in the Mimbres Resource Area. These maps are available in the county soil surveys of Doña Ana County (1980), Luna County (1980), Grant County (1983), and Hidalgo County (1973). The soil resources of the proposed disposal area are categorized according to soil associations, or in terminology of the NRCS surveys, soil map units.

Soils are primarily the product of climate, the underlying bedrock, and landscape. The soil associations mapped by NRCS are most closely correlated to the various landforms of the proposed disposal area, and the following description is primarily developed from the soil survey references. The soils in the proposed disposal area are derived from a variety of rock types, including granitic, volcanic, sedimentary formations, and alluvial and eolian sediments. Erosion is one form of soil degradation; other types of degradation include soil compaction, low organic matter, soil structure loss, poor internal drainage, salinization, and changes in soil acidity. Factors that contribute to soil erosion include wind, rain, and stormwater runoff; soil type, slope length, and steepness; and absence of or damage to the plant or vegetative cover. Other factors, such as off-road vehicle use, improperly built or maintained roads and trails, and overgrazing, accelerate the natural erosion process.

Soils on the proposed disposal area tracts formed in a relic basin floor surface and old unconsolidated alluvium that has been re-worked and modified by wind. In most cases, the sandy surface soils have formed hummocks and large coppice dunes around mesquite shrubs. The ecological sites are SD-2 Sandy and SD-2 Deep Sand.

WATER QUALITY

Groundwater

The New Mexico Office of the State Engineer has divided the State into declared groundwater basins to assess and adjudicate water resources. The tracts in the proposed disposal area are in the Lower Rio Grande Underground Water Basin as declared by the New Mexico State Engineer on September 11, 1980. The region relies heavily on groundwater for domestic sources, livestock water and in some areas for cultivation of crops on private land.

Groundwater below the tracts in the proposed disposal area occurs in aquifers of the upper Mesilla Bolson, Lower Rio Grande basin fill, and lower Mesilla Bolson at depths of 300 to 500 feet. Well yields and water quality are expected to be good.

Surface Water

The major surface water in the proposed disposal area is the Rio Grande. Most other perennial waters occur as small seeps and springs throughout the proposed disposal area.

There are no perennial surface waters on the proposed disposal land.

VEGETATION

The land in the proposed disposal area is located on Sandy, Deep Sand, and Gravelly Ecological Sites within the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area (SD-2). Detailed description of these sites can be found on the Natural Resource Conservation Service (NRCS) website <http://www.nm.nrcs.usda.gov/technical/fotg/section-2/esd.html>.

In general, the Sandy site usually occurs on level to gently sloping or undulating piedmont slopes or plains. Annual average precipitation ranges from 8 to 10.5 inches, but widely fluctuates from year-to-year. The Sandy sites within the proposed disposal area are in the Mesquite Shrubland State and have developed into coppice dunes dominated by honey mesquite (*Prosopis glandulosa*). Other species present include threeawns (*Aristida* spp.) and snakeweed (*Gutierrezia* spp.).

The Deep Sand site usually occurs on level-to-gently sloping old eolian and alluvial deposits. Precipitation is similar to the Sandy site. Vegetation in the Deep Sand site is similar to the Sandy site and in the tracts proposed for disposal, dominant vegetation is also honey mesquite.

The Gravelly sites usually occur as a complex of soils, slope, direction of slope, and general topography along footslopes of desert mountains and the side slopes of arroyos and watercourses. The landscape is characterized by low hills and ridges, fans or footslopes. The Gravelly sites within the proposed disposal area are in the Shrub Dominated State with creosote (*Larrea tridentata*) as the dominant species. Other species present include fluffgrass (*Tridens* spp.) and mariola (*Parthenium incanum*).

Soil and Vegetation Inventory and Monitoring (SVIM) data show that the Sandy and Deep Sand sites are dominated by mesquite while the Gravelly site is dominated by creosote. All three sites are in early seral range condition.

Noxious and Invasive Species

Based on weed inventory data collected by the Las Cruces District Office, the only known population of noxious weeds is African rue (*Peganum harmala*), which occurs in the proposed disposal area just south of I-10.

LIVESTOCK GRAZING

The tracts in the proposed disposal area occur within four grazing allotments (see Table 3-5).

TABLE 3-5 GRAZING ALLOTMENTS WITHIN THE PROPOSED DISPOSAL AREA			
Allotment No./Name	Acres	AUMs	CYL
03020/Beacon	2,650	156	13
03022/La Union	665	36	3
03023 /Kilbourne Hole	260	12	1
03002 /Home Ranch	2,562	144	12
TOTAL	6,137	348	29
SOURCE: BLM Las Cruces District Range Files, 2008			

Within the proposed disposal area, only one allotment contains permanent range improvements that have been authorized by BLM. Table 3-6 summarizes the range improvements that occur within La Union Allotment No. 03022.

TABLE 3-6 RANGE IMPROVEMENTS WITHIN THE PROPOSED DISPOSAL AREA		
ALLOTMENT NO./NAME	RANGE IMPROVEMENT NO./NAME	AGREEMENT TYPE
03022/La Union	630482/Gardner Fence	Permit
	632552/Gardner Fence	Permit
	640124/La Union Boundary Fence	Permit
SOURCE: BLM Las Cruces District Office Range Files, 2008		

WILDLIFE RESOURCES

One Standard Habitat Site (SHS), Mesquite Sand Dune, occurs within the proposed disposal area southwest of Anthony, New Mexico. This sandy soil habitat is dominated by honey mesquite. Other commonly associated plants are four-wing saltbush, sand sagebrush, snakeweed, and a variety of annual and perennial forbs. Grasses are typically scarce with mesa dropseed being the most common. The dunes vary in height from 2 to 10 feet, depending on soil depth. It represents a disclimax sandy soil habitat where grasslands have been altered due to historic overgrazing.

Three SHSs occur within the offered land southwest and east of Las Cruces, New Mexico; they are Creosote Rolling Upland, Mesquite Sand Dune, and Arroyo.

The Creosote Rolling Upland habitat is dominated by creosote with other desert grasses and shrubs scattered throughout the uplands such as muhly grass, burro grass, tobosa grass, snakeweed, sumac species, and American tarbush. It is typically considered a disclimax type or an alternate stable state resulting from conversion of grassland and is generally considered undesirable from a wildlife habitat perspective. Upland areas are drained by numerous arroyos and consist of primarily eroded soils and gravelly inclusions. The Mesquite Sand Dune description is the same as in the proposed disposal area southwest of Anthony, New Mexico.

Arroyos are defined as drainage with only brief intermittent water flow supporting vegetation non-characteristic of surrounding uplands. Grass and forb species are often sparse. Arroyos contain various shrubs such as rhus, acacia, and Apache plume. Rhus is a significant dietary

component of mule deer but the amount of available habitat would limit the habitat use to individuals or small groups of animals that may be moving through the area. The primary importance of this habitat is the structure it provides for many species.

The proposed disposal areas are dissected by various rights-of-way (ROW) including roads, pipelines, fence lines, and power lines. Because of the existing ROWs and frequent use this area receives, it is unlikely that suitable habitat exists for large mammals, nesting songbirds, various raptors, and some reptiles and amphibians.

SPECIAL STATUS SPECIES

Animals

There are 87 special status animal species that may be present or were present within Doña Ana County. Of the 87 animal species, 76 were eliminated from consideration due to lack of habitat, the distribution of the species is beyond the boundaries of the habitat, or the species no longer occurs within the County. The remaining 10 species were considered for determination of effect based on habitat requirements and potential occurrence within the three habitat types (see Table 3-7).

Plants

There are 21 special status plant species that show as being present within Doña Ana County. Of the 21 special status plant species, two may occur within the habitat sites present in the proposed disposal area (see Table 3-8).

TABLE 3-8 SPECIAL STATUS SPECIES -- PLANTS				
COMMON NAME	SCIENTIFIC NAME	USFWS	State of NM	BLM
Night blooming cereus	<i>Peniocereus greggii var. greggii</i>	Species of Concern	Endangered	Sensitive Species
Sand prickly-pear	<i>Opuntia arenaria</i>	Species of Concern	Endangered	Sensitive Species
SOURCE: BLM Las Cruces District Office Files, 2008.				

**TABLE 3-7
SPECIAL STATUS SPECIES -- ANIMALS**

SPECIES	PRESENT STATUS	OCCURRENCE
Texas-Horned lizard	BLM-Sensitive; FWS Species of Concern	This species occurs in sandy areas and are common in a range of seral communities. Their main diet is ants.
Bald eagle	Federally-Delisted; State Threatened	This species utilizes areas with large bodies of water and nests in high cliffs or pinnacles or trees usually 300 feet in height with water in near proximity (within 600 feet). Prey species is typically channel catfish, carp, Sonora sucker, and desert sucker. Small mammals and birds are also taken. Within the state, they winter and migrate over the entire state. With the exception of the Rio Grande Valley and high elevation areas, they do not nest in the southern parts of the state.
American peregrine falcon	Federally-Delisted; State Threatened	Prefer cliffs which generally exceed 200 feet in height with a southern exposure. Nest sites are normally near water courses and impoundments because of abundance of avian prey which frequent such areas. Their main prey base is small avian species captured in the air. They may travel up to 17 miles from the nest site to the preferred hunting habitats such as cropland, meadows, river bottoms, marshes and lakes. The main threat is pesticides causing egg shell thinning and nest disturbance. Maintaining healthy grasslands and riparian areas would benefit the peregrine falcon.
Common ground dove	State Endangered	This species prefers native shrub lands and weedy areas at lower elevations, including riparian areas. These include open stands of creosote bush and large succulents. It may occur in arroyo or mesquite sand dune areas. Main threats are loss of native shrub lands and weedy areas including such habitats in riparian areas.
Burrowing owl	BLM-Sensitive; FWS Species of Concern	This species occurs in desert scrub dominated by mesquite, yucca and cactus and in the expansive, open, grasslands, prairies, or open areas near human habitation, especially golf courses, and airports in the southwest. Main limiting factors include high mortality due to predators (avian and mammalian predators), starvation, diseases and parasites (burrows often infested with fleas, poisoning and nest site losses resulting from human efforts to control squirrels and prairie dogs)
Loggerhead shrike	BLM-Sensitive; FWS Species of Concern	Utilize expansive open grasslands, desert scrub (dominated by mesquite, yucca, and cactus), riparian, and lowland wooded areas. Main threat is consumption of contaminated prey (large insects and small mammals).
Spotted bat	State Threatened; BLM-Sensitive; FWS Species of Concern	In New Mexico, most records of this bat are in or near forested areas, usually of bats captured in nets over bodies of water. This bat will roost in coniferous forests, cliffs, or canyons. They require cracks or crevices with openings of 2.0 - 5.5 cm in cliff faces in which to roost near perennial water. They may summer in forested areas and migrate through lower elevations at other seasons. The main impacts to bats are disturbance to nursery and roosting sites, pesticides, and livestock grazing in riparian zones.
Big free-tailed bat	BLM- and State-Sensitive; FWS Species of Concern	Occurs throughout state in all elevations and appears to inhabit the rugged, rocky habitats of the arid landscapes including desert shrub, woodlands, and evergreen forests. It is a seasonal migrant. It roosts mainly in crevices of rocks in cliff situations, although sometimes in buildings, caves, and cavities. It forages almost entirely on large moths. No known threats to the species have been identified, but general threats to bats could apply such as overgrazing riparian areas or uplands in general and use of pesticides.
Desert pocket gopher	BLM-Sensitive; FWS Species of Concern	Most of the range of this gopher lies in New Mexico. It is isolated in the sandy or loamy soils of the White Sands area, the lower Rio Grande Valley, and the eastern half of the Deming Plain. This species is most common in soft alluvial soils of arroyo bottoms and flood plains. Its diet is almost exclusively grasses and forbs. No free water is needed, they derive water from vegetation.
Common Hog-nosed skunk	State-Sensitive	This species occur in southern New Mexico from creosote desert to at least pine-oak forest. Their preferred habitat has rocky areas with holes or crevices which are used for denning and where they can take refuge during the day. They root in the ground for insects, which is their main diet.

VISUAL RESOURCES

Visual resources include the natural and manmade physical features that give a particular landscape its character and value. The features that form the overall impression a viewer has of an area include landform, vegetation, water, color, adjacent scenery, scarcity, and manmade modifications (BLM 1986).

The BLM manages scenery, or the visual environment, through the Visual Resource Management system (VRM), as described in BLM Handbook H-8410-1. The VRM system is an objective and systematic method for identifying and evaluating visual (scenic) values. A visual resource inventory is performed for all BLM administered public land and rates the visual appeal of a tract of land, measures public concern for scenic quality, and determines visibility from travel routes (motorized and non-motorized) or observation points. The lands within the planning area were inventoried in the 1970's and assigned a Visual Resource Inventory Class IV meaning that these lands have low visual value. The Visual Resource Inventory Class IV and other land uses served as the basis for designating the Visual Resource Management Class IV in the 1982 Resource Management Plan (RMP), which was also carried forth into the 1993 RMP revision.

There are four visual resource management (VRM) classes. The management objectives for each are based on criteria identified within BLM's Visual Resource Inventory Handbook (BLM 1984b). The proposed disposal area is located within a VRM Class IV. The objective of this class is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

RECREATION

The proposed disposal area is located in southern Doña Ana county and west of the Rio Grande. The public land provides dispersed opportunities that include wildlife viewing, sightseeing, rockhounding, rock climbing, horseback riding, hiking, and primitive camping. Two of the more popular undeveloped activities are off-vehicle highway (OHV) use and hunting.

In 2004, a study of visitors to BLM land was conducted by the University of Idaho to determine how satisfied they were with their experiences on public land. One of the study sites was under the jurisdiction of the BLM Las Cruces District Office. The most commonly listed recreational activities at the selected study sites included camping, sightseeing, and hiking. Overall, day trips accounted for most of the time spent visiting public land and accounted for 51 percent of all visits. Approximately 63 percent of visitors indicated a preference for more educational and interpretive material about the area (University of Idaho 2004).

The proposed disposal area does not contain any wilderness characteristics.

LANDS

The BLM administers 1,117,928 acres of public land in Doña Ana County. The proposed disposal area is characterized by its rural qualities, open spaces, and generally sparse population. However, a large and expanding urban population exists along the Rio Grande and Mesilla Valley from Las Cruces to El Paso, Texas. Developed uses adjacent to the proposed disposal area occur

in towns along Interstate 10, generally from the Texas border to the Chihuahuan Desert Rangeland Research Center, including Anthony, Mesquite, Mesilla, Las Cruces, and Doña Ana. Ranching activities occur within the proposed disposal area. Residential, commercial, and industrial land uses are commonly concentrated within incorporated municipalities and unincorporated towns along the highways in Doña Ana County including Interstate 10.

The urban populations, particularly in the Rio Grande and Mesilla Valley, put a great demand on nearby public land to provide for the needs of these growing communities. Typical actions and authorizations include leases, permits, exchanges, communication site rights-of-way and linear rights-of-way. The existing rights-of-way within the proposed disposal area are shown in Table 3-9.

TABLE 3-9 RIGHTS-OF-WAY IN PROPOSED DISPOSAL AREA		
	HOLDER	ROWs
NMNM 63887	El Paso Electric Company	Power Transmission Line
NMLC 0 064563	AT & T GRE LEAS ADMIN	Telephone and Telegraph
NMNM 052930	City of Las Cruces	Energy Facilities
NMNM 057029	Doña Ana County	Road (Potential RS 2477)
NMNM 059304	El Paso Electric Company	Power Transmission Line
NMNM 061213	El Paso Electric Company	Power Transmission Line
NMNM 070078	City of Las Cruces	Water Facility
NMNM 086760	Public Service Company of NM	Oil and Gas Pipeline
NMNM 098522	El Paso Electric Company	Transmission Line
NMNM 102648	AT & T GRE LEASE ADMIN	Telephone and Telegraph
NMNM 107570	Rio Grande Natural Gas Assoc.	Energy Facilities
SOURCE: BLM LR2000 files.		

Utility Corridors, Exclusion Areas, and Avoidance Areas

Many of the linear facilities authorized under various right-of-way grants have led to the establishment of defacto right-of-way corridors. The Las Cruces District manages rights-of-way through a system of designated corridors and designated right-of-way exclusion and avoidance areas. The District has encouraged the placement of new facilities within established corridors. Exceptions have been permitted based on the type of and need for the proposed facility, and absence of conflict with other resource values and uses. Overlapping or adjacent rights-of-way are issued whenever possible. Within the proposed disposal area, there are two existing right-of-way corridors. BLM encourages the use of designated right-of-way corridors, but it is not required.

In addition to designated corridors, the Western Utility Group (an ad hoc organization of major western gas, electric, and telecommunication companies) developed the Western Regional Corridor Study in 1992 to promote ongoing interagency dialogue regarding future utility corridor needs (BLM and Forest Service 1993). This reference document, which will be considered by BLM and the Forest Service during planning efforts, identifies eight potential utility corridors of which potential corridors are within this proposed disposal area. The first and second of those corridors would enter western Doña Ana County near Interstate 10 and travel east past the northern portion of the Aden Lava Flow Wilderness Study Area (WSA), where they would break southeast and continue to El Paso. The third and fourth potential utility corridors would parallel the first two up to the Aden Lava Flow WSA, where they would head slightly southeast, crossing

the Rio Grande between the towns of Anthony and Mesquite and continuing southeast into Texas. A sixth potential corridor would lie north of and parallel to the fifth corridor, running from the western border of Doña Ana County to Las Cruces.

BLM establishes right-of-way exclusion and avoidance areas to guide decisions about where rights-of-way may be granted. In exclusion areas, no rights-of-way are allowed unless mandated by law; in avoidance areas, rights-of-way may be granted only when no feasible alternative route (or designated right-of-way corridor) is available (BLM 1993a). There are no right-of-way exclusion and avoidance areas in the proposed disposal area.

TRANSPORTATION AND ACCESS

Existing transportation routes in the vicinity of the proposed disposal area include Interstate 10, U.S. Highway 70 and State Roads 28 and 478. In addition to the major State and Federal highways, numerous county roads traverse portions of the proposed disposal area. Due to the moderate route network within the proposed disposal area, physical access to public land is generally feasible. Legal access is available through Federal, State and County route networks. Additional legal access is available along several pipeline and power line service roads.

Air Transportation

The Las Cruces International Airport is owned by the City of Las Cruces and is located about 8 miles west of the City and approximately 2 miles north of the west parcels of the proposed disposal area. The Doña Ana County Airport at Santa Teresa is located in the southern portion of the county and adjacent to the southern proposed disposal area.

Railroad

Approximately 8 miles of the Union Pacific Railroad runs through the proposed disposal area within the east to west corridor. New Mexico's vast energy reserves have generated growth in the State since the 1970s. Copper, gold, lead, zinc and molybdenum are all mined in New Mexico, and potash mining continues to be an important economic element, as well. Rail transportation is vital in transporting all of these commodities. Some half million tons of New Mexico coal are hauled to Arizona each year via the Los Angeles-El Paso-Houston Sunset Route. Union Pacific's top three customers in New Mexico are Freeport McMoran, Pittsburg Midway Coal and Glencore Limited.

HAZARDOUS MATERIALS

The BLM is required by law to consider whether property it proposes to transfer has contamination present. Environmental Site Assessments (ESAs) prepared by the BLM or by private contractors for disposal land must comply with agency notice and disclosure requirements. Guidance provided in Environmental Site Assessments for Disposal of Real Property, BLM Manual Handbook H-2000-02, is intended to meet agency requirements to comply with section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) for real property disposals.

SOCIOECONOMIC CONDITIONS

There are economic ties between the City of El Paso, El Paso County and public land in southern Doña Ana County. Many Texans rely on the public land in New Mexico for recreational opportunities. Economic and population growth in the “Rio Grande Corridor,” between Las Cruces and El Paso, is also closely related. However, there is a low population density for southern Doña Ana County in the vicinity of the proposed disposal area.

Population Trends and Demographic Characteristics

The 2000 Census Bureau population of Doña Ana County is 174,682 people, a 29 percent population increase since 1990. Doña Ana County’s 2000 population density is about 46 people per square mile. The City of Las Cruces is the largest metropolitan area with a 2000 population of 74,267 people, or roughly 42 percent of the population of Doña Ana County. Population density in Las Cruces is approximately 1,426 people per square mile, which is considerably higher than the population density elsewhere in Doña Ana County.

According to the Census, the largest age group in Doña Ana County is 15-to-19-year-olds. People younger than 24 years old comprise 43 percent of the Doña Ana County population, which is higher than the State of New Mexico’s figure of 38 percent. The median age in Doña Ana County is 27.9 years old. About 11 percent of the population of Doña Ana County is of retirement age. About 68 percent of people in Doña Ana County identify their race as White. About 63 percent of people are Hispanic or Latino, the majority of who identify themselves as white and Hispanic (about 35 percent of the total population). Compared to the State of New Mexico, Doña Ana County has a substantially larger share of the population that is Hispanic or Latino.

The latest U.S. Census Bureau estimated population of Doña Ana County was 198,791 people in 2007 (Population Estimates Program 2000). Urbanized and incorporated areas in Doña Ana County such as Las Cruces, Hatch, Mesilla, and Anthony have been identified as growth centers. Las Cruces is the largest city within the county and is projected to reach a population of 112,000 people by 2015, an increase of nearly 34,000 people. Anthony, NM is also expected to grow in population within the next decade. The population of Doña Ana County is projected to reach over 250,000 people by 2015, and double its 2000 population by 2030 (Doña Ana County 1994).

Environmental Justice

Executive Order 129898, Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations, requires each Federal agency to “*Identify and address, as appropriate, disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.*” Doña Ana County can be characterized as having minority and low-income populations (U.S. Census Bureau 2000).

To determine whether minority and low-income populations occur disproportionately within the larger population, the percentage of minority and low-income residents within each geographic unit is compared against: (1) 50 percent of the population area, or whether the majority of the population is minority or low-income and (2) the state percentage. Results of this analysis are summarized in Table 3-10 below.

The majority of New Mexico's population (54 percent) is part of a minority group which indicates that Doña Ana County and the City of Las Cruces exceeded the State of New Mexico's minority population proportion. Doña Ana County exceeded the State of New Mexico's low-income population rate of 18 percent (U.S. Census Bureau 2000).

TABLE 3-10				
MINORITY AND LOW INCOME POPULATIONS (2000)				
GEOGRAPHIC AREA	% OF MINORITY RESIDENTS	BELOW 50%	BELOW 54%	POVERTY RATE
Doña Ana County	66	Yes	Yes	25%
Las Cruces	58	Yes	Yes	23%
<i>NOTE: Poverty rate among individuals, based on poverty status in 1999.</i>				
SOURCE: U.S. Census Bureau, 2000.				

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

Chapter 4 analyzes potential impacts that would result from implementation of the Proposed Action and the No Action Alternative. Approval of the Proposed Action would allow for the future proposed land exchange between BLM and the State of New Mexico. This would eventually result in disposal of approximately 5,992 acres of public land. Selection of the No Action Alternative would result in no amendment to the Mimbres RMP and the land would not be designated for disposal. Public land would remain designated for retention in Federal management, and no land exchange or sale would occur.

The following critical elements of the human environment were either not present or present/not affected: Air Quality, Areas of Critical Environmental Concern, Farm Lands, Floodplains, Invasive/Nonnative Species, Migratory Birds, Native American Religious Concerns, Threatened or Endangered Species, Water Quality (Surface/Ground), Wetlands/Riparian Zones, Wild and Scenic Rivers and Wilderness.

ANALYTICAL ASSUMPTIONS

The impact analysis is based on an understanding of the existing conditions in the Planning Area, including the area proposed for disposal, and environs, characterized in Chapter 3, the Affected Environment. Some of the information provided in Chapter 3 (Affected Environment) and Chapter 4 (Environmental Consequences) are also tiered from the 1993 Mimbres RMP, including incorporation through reference.

The decision and related analysis in the Proposed Mimbres RMPA/EA is either to identify the subject public land for disposal (Proposed Alternative), or retain it by not amending the Mimbres RMP (No Action Alternative). Therefore, future projects affecting the proposed disposal area would be analyzed through site-specific analysis as required by the National Environmental Policy Act (NEPA).

Climate change analyses are comprised of several factors, including greenhouse gases (GHGs), land use management practices, the albino effect, etc. The tools necessary to quantify climatic impacts from the Proposed or No Action Alternatives are presently unavailable. As a consequence, impact assessment of specific effects of anthropogenic activities cannot be determined. Additionally, specific levels of significance have not yet been established. Therefore, climate change analysis for the purpose of this document is limited to accounting and disclosing of factors that may contribute to climate change. Qualitative and/or quantitative evaluation of potential contributing factors within the planning area is included where appropriate and practicable.

Reasonably Foreseeable Future Actions (RFFA)

The Proposed Action is to modify the land tenure adjustment decision in the Mimbres RMP from retention to disposal. The RMPA itself would have no direct impact on the condition and management of the land in question. However, contingent on approval of the RMPA, and once the public land passes to the State of New Mexico, it is reasonable to expect that the State would make the land available for some type of development through either outright sales or long-term leases.

Disposal of public land parcels to the State of New Mexico may lead to economic development because the potential land in Santa Teresa area is sought by the Union Pacific Railroad (UPRR) for construction of

a Run-through Fueling Facility, Crew Change, Intermodal Block Swap Yard, and eventually, an Intermodal Ramp Refueling facility.

In March 2007, the New Mexico State Legislature approved a State fuel tax exemption for diesel locomotives. The new law removed a hurdle for the UPRR to build proposed facility. The proposed project is considered important to the State of New Mexico, as UPRR intends to have the Fueling Facility, Crew Change, and Block Swap Yard in operation by the end of 2010. The project is expected to have a positive impact on Southern New Mexico's economy providing over 100 jobs and the support facilities for 280 crew members to change shifts each day.

Disposal of the Federal land would help meet important public objectives. The State Land Office (SLO) would acquire this land and then sell the land or issue long-term commercial leases for commercial or industrial development, which in turn would stimulate economic growth in the region. The City of Las Cruces and Doña Ana County governments are expected to support this exchange so they can work with the SLO to provide economic development opportunities in their communities. The community as a whole is likely to benefit by the possibility of increased economic opportunities in the region.

Therefore, under each of the Resource and Resources Use subheadings, the impacts of reasonably foreseeable future actions are analyzed should the State dispose of the land in question. The public land parcels near Las Cruces are in the path of City development. It is reasonable to assume that within the next 10-20 years this land would be developed for commercial and/or residential use. The UPRR runs through the selected land in the Santa Teresa area. UPRR has indicated an interest in developing a facility as described above on this land if they are able to acquire it from the State of New Mexico. This would likely lead to other industrial development in the immediate vicinity.

Types of Impacts to be Addressed

The following analysis focuses on three types of impacts: **direct**, **indirect**, and **cumulative**. Each of these is defined below.

Direct impacts – Effects caused by the action and occur at the same time and place as the action. Examples include elimination of original land use through erection of a structure. Direct impacts may cause indirect impacts such as ground disturbance resulting in particulate matter emission.

Indirect impacts – Effects caused by the action, but occur later than or are somewhat distant from the action; however, they are still reasonably foreseeable and related to the action by a chain of cause and effect. Indirect impacts may reach beyond the natural and physical environment (e.g., environmental impact) to include growth-inducing effects and other effects related to induce changes in the pattern of land use, population, density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Cumulative impacts – Effects that result from the incremental impact of the action when it is added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts may result from actions that take place over time and that are individually minor, but are collectively significant.

INCOMPLETE OR UNAVAILABLE INFORMATION

As noted above, it is expected that UPRR will acquire and develop the disposed lands once they are exchanged to the State of New Mexico. The extent of that development and its impacts are not completely known at this time. Development that may occur in association with, but offsite of the UPRR facility, is also unknown. Therefore, some assumptions were made in analyzing impacts; however, these assumptions may not account for all future development.

While global and national inventories are established, regional and state-specific inventories are in varying levels of development. Quantification techniques are in development – for example, there is a good understanding of climate change emissions related to fuel usage; however measuring and understanding the effects of albino is less comprehensive. Analytical tools necessary to quantify climatic impacts are presently unavailable. As a consequence, impact assessment of specific effects of anthropogenic activities cannot be determined.

IMPACT ANALYSIS

Proposed Action

Direct/Indirect Effects

Under the Proposed Action, changing the land tenure decision in the Mimbres RMP from retention to disposal would have no direct or indirect effects on air quality, recreation/wilderness, lands, socioeconomics, environmental justice, special status species (plants and animals), visual, soils, vegetation, livestock grazing, wildlife, climate, cultural resources, paleontology, or mineral resources. Land disposal could have long-term potential direct or indirect impacts to these resources as a result of the land disposal/exchange based on the Reasonably Foreseeable Future Actions (RFFA) below. The direct/indirect effects on these resources as a result of the actual disposal/exchange would be analyzed in a separate environmental assessment (EA).

No Action Alternative

Under the No Action Alternative, the decisions regarding land tenure adjustment in the Mimbres RMP would not change, and the land in question would be retained by BLM. As a result, there would be no impacts to resources other than those identified in the Mimbres RMP.

Certain BLM-authorized activities that would continue to occur within the public land under the No Action Alternative would produce emissions considered to be greenhouse gases (GHGs). BLM public land and activities may help offset any emissions and sequester carbon, such as maintaining vegetative cover, which could help build organic carbon in soils and function as “carbon sinks.”

CUMULATIVE EFFECTS OF THE PROPOSED ACTION: PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS (RFFA)

Air Quality

The twin border cities of El Paso, Texas and Ciudad Juarez, Chihuahua lie just 12 miles to the south of the air quality non-attainment areas in Southern New Mexico (discussed in Chapter 3). The combined population of these two cities is estimated to be near 3 million people. Air quality in the vicinity of the

project area has been and would continue to be influenced by the emissions of these large, industrial cities. Doña Ana County participates in the Joint Advisory Committee on Air Quality Improvement for the Ciudad Juarez/El Paso/Doña Ana Air Quality Management Basin. The population of these cities is projected to increase over the coming decades and improving air quality would continue to be a challenge (Joint Advisory Committee 2007).

In the immediate vicinity of the southern Doña Ana County exchange parcels, private lands are expected to be developed on both the US and Mexico sides of the international border. At least 22,000 acres of southern New Mexico have been targeted for a master planned community associated with logistical supply and industrial facilities, as well as a railroad yard with intermodal capabilities.

As the selected parcels are developed, the sites are cleared, and new roads and facilities are constructed, PM10 (dust) and emissions from vehicular traffic and construction would increase, impairing air quality, should certain atmospheric conditions prevail. Increases in residential and industrial traffic would impair air quality. An increase in train engines would also increase emissions. Unpaved roads along the Mexico side of the border would increase particulate matter.

Climate

Certain future activities within the land disposal area may produce emissions to be considered greenhouse gases (GHGs). Surrounding and adjacent BLM public land and activities may help offset any emissions and sequester carbon, such as maintaining vegetative cover, which may help build organic carbon in soils and function as “carbon sinks.”

The potential impacts to natural resources and plant and animal species due to climate change are likely to be varied, including those in the southwestern United States. For example, if global climate change results in a warmer and drier climate, increased particulate matter impacts could occur due to increased windblown dust from drier and less stable soils. Cool season plant species’ spatial ranges are predicted to move north and to higher elevations, and extinction of endemic threatened and endangered plants may be accelerated. Due to loss of habitat or competition from other species whose ranges may shift northward, the population of some animal species may be reduced or increased. Less snow at lower elevations would likely impact the timing and quantity of snowmelt, which, in turn, could impact water resources and species dependant on historic water conditions. Forests at higher elevations in New Mexico, for example, have been exposed to warmer and drier conditions over a ten year period. Should the trend continue, these forest habitats and the drought sensitive species within them may be affected by climate change. Additionally, as disturbances (e.g. fire and insect outbreaks) increase, the character of vegetative resources would change (IPCC 2007). In the future, as tools for predicting climate changes in the regional improve and/or changes in climate affect resources and necessitate change in how resource are managed, the BLM may be able to reevaluate decisions made as part of the planning process and adjust management accordingly.

Cultural Resources

Impacts to cultural resources would be minimal. When public land is made available for disposal to the State of New Mexico, BLM conducts a cultural resources survey of the land and provides the State with a report of findings. Based on those findings, BLM may retain some sites in Federal ownership. The remaining land is transferred to State with stipulations for management, including the requirement for Section 106 clearances (on-the-ground surveys) before the land is disturbed or developed in any way. Because of these requirements and State laws pertaining to State’s management of cultural resources, it is highly unlikely that any cultural resources would be impacted. Any sites impacted would be mitigated by relocation of the project or mitigated through excavation of the site.

Mineral Resources

Impacts to mineral resources would likely occur as a result of commercial or industrial development of the disposed parcels. While locatable minerals such as precious metals, and leasable minerals such as coal are not present in the area, salable minerals such as sand and gravel are found throughout. These low value minerals are readily available in the surrounding areas, therefore disposal of the selected land would have no impact on the availability of mineral material (sand, gravel building stone, etc.). Excavation in the construction of roads, railroads, and buildings would have a minor and localized effect on minerals. It is likely that mineral material in the disposal area would be excavated and removed or used onsite in many cases.

Soil Resources

Soils would be impacted by excavation and construction activities. Impervious structures such as buildings, roads, and parking lots would prevent soils from draining. This increase in the scale of development would impact the drainage of water into soils. During construction, soil horizons would be mixed and soils would be eroded from construction sites by wind and water.

Vegetation

Most, if not all, vegetation would be removed as a result of construction of roads and facilities. This would occur on all three range sites (Sandy, Deep Sand, and Gravelly) described in Chapter 3. In the long-term, some vegetation would regrow naturally, and some vegetation would be replanted for landscape purposes. Planted vegetation would most likely not correspond to that on the existing range sites. As a result, an undetermined number of acres would be permanently lost as natural range sites due to the potential construction of roads and facilities and landscaping. In the immediate vicinity of the southern Doña Ana County exchange parcels, private lands are expected to be developed on both the US and Mexico sides of the international border. This increase in urban development would reduce the amount of native vegetation.

Livestock Grazing

There would be a number of impacts to livestock grazing in the potential disposal area. The land disposal would affect four grazing allotments and four permittees in the Las Cruces District. Table 4-1 below summarizes the carrying capacity for the proposed disposal area in each allotment and the changes to permitted use as a result of disposing this land.

The Federal grazing regulations (43 CFR 4110.4-2(b)), require a 2-year notification prior to disposal of lands when those lands will be devoted to a public purpose which precludes livestock grazing. The regulations allow a permittee or lessee to unconditionally waive the 2-year notification without prejudicing their right to reasonable compensation.

As indicated by Table 4-1, two allotments would result in a reduction to the permitted use upon disposal of the land. The permittees would be offered an opportunity to unconditionally waive the 2-year prior notification.

**TABLE 4-1
SUMMARY OF ALLOTMENTS AND CHANGES TO PERMITTED USE AS A RESULT OF LAND DISPOSAL**

Allotment No./Name	Before Land Disposal			Capacity of Disposal Land			After Land Disposal			% Change in Permitted Use ¹
	Public Acres	Permitted Use (AUMs)	Total CYL	Acres	AUMs	CYL	Public Acres	Permitted Use (AUMs)	Total CYL	
03020/Beacon	58,004	4,084	374	2,650	156	13	55,354	3,928	361	-3%
03022/La Union	41,670	2,495	239	665	36	3	41,005	2,495	239	0%
03023 / Kilbourne Hole	85,488	5,741	520	260	12	1	85,228	5,741	520	0%
03002 / Home Ranch	32,760	2,149	199	2,562	144	12	30,198	2,005	187	-6%

SOURCE: BLM Las Cruces District Office Range Files, 2008

Abbreviations: AUMs = Animal Unit Months; Total CYL = total cattle year long on state, private, and public lands as reflected on grazing permits.

NOTES: ¹ If the AUMs associated with the disposal land were less than 1% of the permitted use, a change in permitted use after the disposal of the land would not be proposed, thus adjustments would occur on the Beacon and Home Ranch Allotments. Acres would be adjusted for all allotments accordingly.

Reasonable compensation for the adjusted value of a permittee’s interest in authorized range improvements is described in 43 CFR 4120.3-6(c). In situations where a range improvement is authorized by a range improvement permit, the regulations allow for a livestock operator to salvage materials and perform rehabilitation measure rather than to be compensated for the adjusted value. If the livestock operator chooses to salvage materials, he/she is allowed 180 days (43 CFR 4120.3-6(d).

The 4120-1 Grazing Management Handbook (pages 9-10) further describes compensation, salvage, and reimbursement procedures. For example, extensions may be granted to the 180 days for salvage of materials. Compensation to the permittee or lessee for range improvements on the disposed land is the responsibility of the purchaser of the disposed land.

Within the land identified for disposal, only one allotment (La Union, Allotment No. 03022) contains permanent range improvements. The range improvements include two pasture fences and one boundary fence, all authorized by a Section 4 range improvement permit; therefore, the permittee would need to be compensated or allowed to salvage the materials. In addition to the range improvements, allotment boundaries would need to be adjusted upon disposal of the land. The party eventually responsible for the disposal land would be required to construct and maintain a new boundary fence to minimize conflicts with livestock grazing.

Wildlife Resources

The habitat is considered of low value for wildlife based on its low biological diversity levels, limited amounts of arroyo habitat, and significant development in surrounding areas. Existing rights-of-way, utility corridors, roads and highways, and railroad tracks all reduce the importance of the area for wildlife by fragmenting habitat. This low value wildlife habitat is widely available to the east, north and south of the areas proposed for disposal. While the values for wildlife are low, subsequent developments to the area would impact the wildlife occurring on this land, lowering the values even further.

Special Status Species -- Animals

The proposed disposal area may provide marginal foraging habitat for several special-status species and suitable nesting habitat for others. No Federally-listed species are known to exist on this area and it is unlikely that any would be found within the site at any time in the future. Three State listed species may

occur within proposed disposal area; however, it is highly unlikely they would be found due to the disturbances already occurring in the area. Land disposal would not affect or cause any of the species discussed in this section to become listed or endangered. Similar habitat occurs throughout the area and in locations further from development and potential disturbance. The disposal of this land would have no effect on these species.

Special Status Species -- Plants

Although the habitat, consisting of a creosote bush and mesquite sand dune, may be potential habitat for two State Endangered species, the amount of disturbance and activities already occurring in the proximity, make it unlikely the plant species occur within the offered land. The land adjacent to the proposed disposal area is developed, with various rights-of-way, existing utilities, and roads, intersecting the proposed land. Effects of long-term development would not impact known populations which occur in similar habitat approximately 10 miles to the west.

No Federally-listed species are known to exist on this area and it is unlikely that any would be found within the site at any time in the future. Land disposal would not affect or cause any of the species discussed in this section to become listed or endangered. Similar habitat occurs throughout the area and in locations further from development and potential disturbance. The disposal of this land would have no effect on these species.

Visual Resources

The disposal of the Federal land would eliminate the BLM visual resource management for this land. Land is currently in VRM Class IV and the allowable level of change to the characteristic landscape can be high. The results of authorized activities and/or uses may dominate the view and be the major focus of viewer attention. Probable future developments in these areas will be of little or no change to surrounding Visual Resources. The results of authorized activities and/or uses may dominate the view and be the major focus of viewer attention.

Recreation

The disposal of the Federal land would remove it from BLM management and would eliminate dispersed recreation opportunities for outdoor enthusiasts on those lands. Dispersed opportunities include wildlife viewing, sightseeing, rock hounding, rock climbing, horseback riding, hiking, and primitive camping. The public would have 5,992 acres less for dispersed recreational activities in Doña Ana County.

Lands

Implementation of the proposed land tenure decision could result in the disposal of 5,992 acres of public land. The land would no longer be managed as public land by the BLM and would be available for other purposes such as economic development. Rights-of-way would be maintained under their current terms and conditions, converted to easements or perpetual rights-of-way, or current rights-of-way holders could negotiate with the new landowner.

Socioeconomic Conditions

The latest U.S. Census Bureau estimated population of Doña Ana County was 198,791 people in 2007. The population of Doña Ana County is projected to reach over 250,000 people by 2015, and double its 2000 population by 2030. Population projections can be an indicator of anticipated development,

demands on services, additional pressures on public lands for recreation, and increased value of open space to counter urbanization (Doña Ana County 1994).

The potential development of the land by the State of New Mexico and others would possibly lead to a mix of both positive and negative socioeconomic impacts. The development of the Union Pacific Rail Yard would provide jobs as would other supporting businesses and industries that would follow Union Pacific into the area. With the planned master communities developing in Santa Teresa, the population of the immediate vicinity (within 10 miles) would grow dramatically- up to 100,000 people in 50 years. Infrastructure, such as roads and utilities, and emergency response programs, would all improve. Coming with these economic benefits, though, would be potential impacts from increases in noise, air emissions, congestion on local roads and a loss of open space as well as possibly increase demand for schools, law enforcement, fire and other services.

Environmental Justice

The determination if there is an environmental justice issue will be assessed in a subsequent NEPA document for the disposal.

CUMULATIVE IMPACTS OF THE NO ACTION ALTERNATIVE: PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS (RFFA)

For most resources, cumulative impacts under the No Action Alternative would be the same as those described in the Mimbres RMP (1993). Specific impacts to some resources are described below.

Mineral Resources

Development on the adjacent private land could result in an increased demand for mineral material from the public land. However, mineral material pits would be a few acres in size and overall impact to the planning area would be negligible.

Socio-Economic Conditions

Planned industrial and commercial development would not occur. Jobs and other economic opportunities would be reduced accordingly. Development of existing private land would continue until all land was occupied or otherwise used. However, total industrial and commercial development in the southern part of the county would be reduced because of a lack of available land.

As development increased on private land, the adjacent public land would become more valuable to certain demographics as open space and recreation lands.

There is limited private land in the project area. Once it is fully developed, there would be no additional opportunities for industrial exploration. BLM would have increased requests for rights-of-way.

CHAPTER 5

CONSULTATION AND COORDINATION

PUBLIC PARTICIPATION

A public scoping period on the proposed project began with a *Notice of Intent to Prepare an Amendment to the Mimbres Resource Management Plan (RMPA), and Associated Environmental Assessment (EA), Las Cruces District, New Mexico*, published in the Federal Register on Monday, January 14, 2008.

A display ad announcing a BLM Open House in Las Cruces, New Mexico and an additional open house in Santa Teresa, New Mexico was published in the Las Cruces Sun News and El Paso Times on Tuesday, February 19, 2008.

Both notices were also sent to the Interested Party Mailing List developed for the project. A total of 133 notices were mailed on February 8, 2008 and included Federal, state and local governments, Native American tribes, grazing permittees, right-of-way holders, environmental and recreation groups, special interest groups, and individuals. The second notice adding the Santa Teresa Open House was mailed on February 15, 2008 to the same mailing list.

The first BLM Open House was held on Tuesday, February 26, 2008 from 4:00 p.m. until 7:00 p.m. at the Las Cruces District Office main conference room. A total of 52 people were in attendance. The Santa Teresa Open House was held on Tuesday, March 4, 2008 from 4:00 p.m. until 7:00 p.m. at the Santa Teresa Airport in Santa Teresa, New Mexico. A total of 23 people were in attendance. The format was an open workshop involving several stations where information was shared with the public and input was received. The public was encouraged to verbally discuss their concerns and to prepare written comments. The open houses were a vital part of developing alternatives and identifying public concern for a variety of environmental and socioeconomic resources with the region of influence.

The public comment period on the initial scoping on the land disposal issue in Dona Ana County ran through March 26, 2008. A total of 16 responses in the form of comment letters, emails and telephone calls were received and have been recorded. Most responses favored the land disposal.

CONSULTATION WITH OTHERS

The following Federal, state, and local agencies were consulted in the form of letter and meetings during preparation of the EA:

- Dona Ana County Commissioners
- City of Las Cruces
- Members of the Environmental Community
- Federal Aviation Administration
- Union Pacific Railroad
- U.S. Fish and Wildlife Service
- New Mexico State Land Office
- New Mexico State Historic Preservation Office
- U.S. Bureau of Indian Affairs, Traditional Cultural Properties
- Comanche Indian Tribe
- Fort Sill Apache Tribe

- Isleta Pueblo
- Kiowa Tribe
- Mescalero Apache Tribe
- Navajo Nation
- White Mountain Apache Tribe
- Ysleta del Sur Pueblo
- Hopi Tribe

(Response received from the Hopi Tribe requesting they be kept inform of the project.)

LIST OF PREPARERS AND REVIEWERS

NAME	RESPONSIBILITY
Lorraine Salas	Project Lead
Frances Martinez	Realty/Assistant Project Lead
Louis Bevacqua	Range Resources (Vegetation/Noxious Weed)
Bruce Call	Soil, Water, Air
Margie Guzman	Wildlife/T&E
David Jevons	Hazardous Materials
David Legare	Cultural Resources/Native American Religious Concerns
Adam Merrill	Minerals
Joe Sanchez	Recreation/Wilderness/VRM
Bill Childress	District Manager – Management Review
Jennifer Montoya	Planning & Environmental Coordination
Dwayne Sykes	Planning & Environmental Coordination
Rena Gutierrez	Editing/Document Production
Mark Spencer	Planning & Environmental Coordination –New Mexico State Office (NMSO)
Megan Stouffer	Planning & Environmental Coordination - NMSO
Debbie Lucero	Realty Team Lead – NMSO Reviewer
Bill Merhege	Associate State Director/Wildlife Biologist – NMSO Management Review

**DOÑA ANA COUNTY PROPOSED MIMBRES
RESOURCE MANAGEMENT PLAN
AMENDMENT/ENVIRONMENTAL ASSESSMENT
(EA-NM-030-2008-025)
FINDING OF NO SIGNIFICANT IMPACT**

Based on the analysis of the potential environmental impacts contained in the attached DOÑA ANA COUNTY PROPOSED MIMBRES RESOURCE MANAGEMENT PLAN AMENDMENT/ENVIRONMENTAL ASSESSMENT (EA-NM-030-2008-025), including the Proposed Action and No Action Alternative, it has been determined that impacts, as described in the assessment, are not expected to be significant to the human environment and an environmental impact statement (EIS) is not required. There are no known inconsistencies between the Proposed Action or No Action Alternative and officially approved and adopted resource-related plans of other Federal agencies, State, local and tribal governments.

Bill Childress

Bill Childress, District Manager,
Las Cruces District Office

9/19/2008

Date

GLOSSARY

ACTION. In the context of the National Environmental Policy Act, describes actions proposed to meet a specific purpose and need and that may have effects on the environment, which are potentially subject to Federal control and responsibility. Federal actions generally fall into the categories of adoption of official policy, formal plans, and programs; or approval of specific projects.

ADJUSTMENT IN NUMBERS. Change (increase or decrease) of livestock numbers to conform to the amount of forage produced in an area considering other multiple uses.

AGENCY. Any Federal, State, or county government organization with jurisdictional responsibilities.

AIR QUALITY. A measure of the health-related and visual characteristics of the air, often derived from quantitative measurements of the concentrations of specific injurious or contaminating substances.

AIR QUALITY STANDARD. Levels of air pollutants prescribed by regulations that may not be exceeded during a specified time in a defined area.

ALLOTMENT. A designated area of land available for livestock grazing upon which a specified number and kind of livestock may be grazed under management of an authorized agency. An allotment generally consists of Federal rangelands, but may include intermingled parcels of private, State, or Federal lands.

ALTERNATIVE. Any one of a number of options for a project.

ANIMAL UNIT (AU). Considered to be one mature cow (1,000 pounds) or its equivalent based upon average daily forage consumption of 26 pounds of dry matter per day.

ARCHAEOLOGY. The scientific study of the life and culture of past, especially ancient, peoples, by excavation of ancient cities, relics, artifacts, etc.

ARCHAEOLOGICAL SITE. A discrete location that provides physical evidence of past human use.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC). An area of public lands designated by Bureau of Land Management for special management attention to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life/provide safety from natural hazards. Areas designated as ACECs have met criteria for importance and relevance that are outlined in 43 CFR 1610.7-2(b).

ARROYO HABITAT. Intermittent drainages (arroyos) supporting a more varied vegetation composition than the surrounding upland areas.

ARTIFACT. A human-made object.

AVOIDANCE AREAS. These are areas where future rights-of-way may be granted only when no feasible alternative route or designated right-of-way corridor is available. Special terms and conditions may be required.

BASIN AND RANGE PHYSIOGRAPHIC PROVINCE. A province in the southwestern United States characterized by a series of tilted fault blocks forming longitudinal ridges or mountains and broad intervening basin.

BEST MANAGEMENT PRACTICES

(BMPS). A suite of techniques that guide, or may be applied to, management actions to aid in achieving desired outcomes and help to protect the environmental resources by avoiding or minimizing the impacts of an action. BMPs are often developed in conjunction with land use plans, but they are not considered a land use plan decision unless the land use plan specifies that they are mandatory. They may be updated or modified without a plan amendment if they are not mandatory.

BUREAU OF LAND MANAGEMENT

(BLM). An agency of the Department of the Interior responsible for managing most Federal government subsurface minerals. It has surface management responsibility for Federal lands designated under the Federal Land Policy and Management Act of 1976.

COOPERATING AGENCY. Assists the lead Federal agency in developing an environmental assessment or environmental impact statement. The Council on Environmental Quality regulations implementing the National Environmental Policy Act define a cooperating agency as any agency that has jurisdiction by law or special expertise for proposals covered by NEPA (40 CFR 1501.6). Any Federal, state, local government jurisdiction with such qualifications may become a cooperating agency by agreement with the lead agency.

COW YEAR LONG (CYL). The amount of forage necessary to sustain one cow for a 1-year period. One CYL equals 12 animal unit months.

CRITICAL HABITAT. Portions of the habitat of a wildlife population that, if destroyed or adversely modified, would result in a reduction of the population to a greater extent than destruction of other portions of the habitat.

CULTURAL RESOURCES. Any definite location of past human activity, occupation, or use, identifiable through inventory, historical documentation, or oral evidence. Cultural resources include archaeological, historic, or architectural sites, structures, places, objects, and artifacts.

CULTURAL RESOURCES INVENTORY CLASSES:

Class I -Existing Data Inventory: an inventory study of a defined area designed to provide a narrative overview (cultural resource overview) derived from existing cultural resource information and to provide a compilation of existing cultural resource site record data on which to base the development of the BLM's site record system.

Class II -Sampling Field Inventory: a sample-oriented field inventory designed to locate and record, from surface and exposed profile indications, all cultural resource sites within a portion of a defined area in a manner which will allow an objective estimate of the nature and distribution of cultural resources in the entire defined area. The Class II inventory is a tool utilized in management and planning activities as an accurate predictor of cultural resources in the area of consideration. The primary area of consideration for the implementation of a Class II inventory is a planning unit. The secondary area is a specific project in which an intensive field inventory (Class III) is not practical or necessary.

Class III -Intensive Field Inventory: an intensive field inventory designed to locate and record, from surface and exposed profile indications, all cultural resource sites within a specified area. Normally, upon completion of such inventories in an area, no further cultural resource inventory work is needed. A Class III inventory is appropriate on small project areas, all areas to be disturbed, and primary cultural resource areas.

CUMULATIVE IMPACTS (OR EFFECTS).

An impact on the environment that results from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts are evaluated as part of the environmental impact statement, and may include consideration of additive or interactive effects regardless of what agency or person undertakes the other actions.

DEFERRED GRAZING. The use of deferment in grazing management of a management unit, but not in a systematic rotation including other units.

DEVELOPED RECREATION. Recreation that requires facilities that result in further concentrated use of the area. For example, off-road vehicles require parking lots and trails; campgrounds require roads, picnic tables, and toilet facilities.

DIRT TANK. Usually a permanent earthen structure for holding water temporarily. These are built in high rainfall runoff areas such as an arroyo, canyon, or swale area.

DIVERSITY. The relative degree of abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area.

DISPOSAL OF LAND. Transfer of land from Federal ownership, including sales, exchanges, and recreation and public purposes.

ECOSYSTEM. Any area or volume in which there is an exchange of matter and energy between living and nonliving parts; that is, the biotic community together with soil, air, water, and sunlight form an ecosystem. Ecosystems are the best units for studying the flow of energy and matter.

EFFECT (OR IMPACT). A modification of the existing environment as it presently exists, caused by an action (such as construction or operation of facilities). An effect may be direct, indirect, or cumulative. The terms effect and impact are synonymous under the National Environmental Policy Act.

ENDANGERED SPECIES: A plant or animal that is in danger of extinction throughout all or a significant portion of its range.

ENVIRONMENTAL ASSESSMENT (EA). A concise public document for which a Federal agency is responsible. An EA serves (1) to briefly provide enough evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact; and (2) to aid an agency's compliance with the National Environmental Policy Act when no EIS is needed; and (3) to facilitate preparation of an EIS when one is needed.

ENVIRONMENTAL IMPACT STATEMENT (EIS). An analytical document that portrays potential impacts on the human environment of a particular course of action and its possible alternatives. Required by the National Environmental Policy Act, an EIS is prepared for use by decision makers to assess the environmental consequences of a potential decision.

ENVIRONMENTAL JUSTICE. The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of Federal, state, local, and tribal programs and policies (see Executive Order 12898).

EXCHANGE. A trading of public land (surface or subsurface estates) that usually does not have high public value, for land in other ownerships which does have value for public use, management and enjoyment. The exchange may be for the benefit of other Federal agencies as well as BLM.

EXCLUSION AREAS. An environmentally sensitive area where rights-of-way would be granted only in cases where there is a legal requirement to provide such access.

EXISTING UTILITY CORRIDORS. A parcel of land without fixed boundaries, limited only by terrain, land ownership, and environmental considerations.

FAIR MARKET VALUE. The amount in case or on terms reasonably equivalent to cash, for which in all probability the property would be sold by a knowledgeable owner willing but not obligated to sell to a knowledgeable purchaser who desires but is not obligated to buy.

FEDERAL LAND. Land, or interests in lands (such as easements and rights-of-way), owned by the United States.

FOSSIL. Any remains, trace, or imprint of a plant or animal that has been preserved by natural process in the earth's crust since some past geologic time.

GEOTHERMAL ENERGY. Useful energy that can be extracted from naturally occurring steam, hot water, or hot rock in the earth's crust.

GRAZING CAPACITY. The maximum livestock stocking rate possible without inducing damage to vegetation or related resources such as watershed. This incorporates factors such as suitability of the rangeland for grazing as well as the proper use which can be made on all of the plants within the area. Normally expressed in terms of acres per animal unit month (Ac/AUM) or sometimes referred to as the total AUMs that are available in any given area, such as an allotment. Areas that are unsuitable for livestock use are not computed in the grazing capacity. Grazing capacity may or may not be the same as the stocking rate.

GRAZING LEASE. A document authorizing use of public land outside grazing districts for the purpose of grazing livestock under Section 15 of the Taylor Grazing Act.

GRAZING PREFERENCE. The total number of animal unit months of livestock grazing on public land apportioned and attached to base property owned or controlled by a permittee or lessee.

HABITAT. An area where a plant or animal lives. Sum total of environmental conditions in the area.

HABITAT MANAGEMENT PLAN (HMP). A written and officially approved plan for a specific geographical area of public land which identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives, and outlines procedures for evaluating accomplishments.

HAZARDOUS MATERIALS. Substances or mixtures of substances that have the capability of either causing or significantly contributing to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or posing a substantial present or potential risk to human health or the environment.

HISTORIC CULTURAL RESOURCES. Historic cultural resources include all mines, ranches, towns, resorts, railroads, trails, and other evidence of human use from the entrance of the Spanish to 1932.

INDIRECT EFFECT (OR IMPACT). Secondary effects that occur in locations other than the initial action or later in time, but that are caused by the proposed action

INTERDISCIPLINARY TEAM. A team of varied land use and resource specialists formed to provide a coordinated, integrated information base for overall land use planning and management.

ISSUE. Describes the relationship between actions (proposed, connected, cumulative, similar) and environmental (natural, cultural, and socioeconomic) resources. Issues may be questions, concerns, problems, or other relationships, including beneficial ones. Issues do not predict the degree or intensity of harm the action might cause, but alert the reader as to what the environmental problems might be. The National Environmental Policy Act document should address issues identified through interaction with agencies and/or the public, and/or through resource studies.

JURISDICTION. The legal right to control or regulate use of land or a facility. Jurisdiction requires authority, but not necessarily ownership.

LAND USE PLAN. A set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of Federal Land Policy and Management Act; an assimilation of land-use-plan-level decisions developed through the planning process outlined in 43 CFR 1600, regardless of the scale at which the decisions were developed. Resource management plans are land use plans.

LEASE. An authorization or contract by which one party (lessor) conveys the use of property, such as real estate, to another (lessee) in return for rental payments. In addition to rental payments, lessees also pay royalties (a percentage of value) to the lessor from resource production.

MITIGATION. The abatement or reduction of an impact on the environment by (1) avoiding a certain action or parts of an action, (2) employing certain construction measures to limit the degree of impact, (3) restoring an area to preconstruction conditions, (4) preserving or maintaining an area throughout the life of a project, (5) replacing or providing substitute resources to the environment, or (6) gathering data (e.g., archaeological or paleontological) prior to disturbance.

MULTIPLE USE. Multiple use as defined by the Multiple Use – Sustained Yield Act of 1960 means, (1) the management of all the various renewable surface resources so that they are used in the combination that will best meet the needs of the American people, (2) making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions, (3) that some land will be used for less than all of the resources, and (4) harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will be given the greatest dollar return or the greatest unit output.

NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (NEPA). An Act that encourages productive and enjoyable harmony between man and his environment and promotes efforts to prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; enriches understanding of the ecological systems and natural resources important to the Nation, and established the Council on Environmental Quality.

NATIONAL REGISTER OF HISTORIC PLACES (NATIONAL REGISTER). A listing of architectural, historical, archaeological, and cultural sites of local, State, or national significance. The list of sites was established by the Historic Preservation Act of 1966 and is maintained by the National Park Service.

NOTICE OF INTENT (NOI). The first formal step in the EIS process, consisting of a written notice that includes proposed actions and alternatives, proposed scoping process, and identification of a lead agency contact person.

NOXIOUS WEEDS. Plant species that have been legally designated as unwanted or undesirable. This includes national, State, and county or local designations. Typically, an undesirable noxious weed species can crowd out more desirable species. According to the Federal Noxious Weed Law, native plant species are not designated “noxious.” Native plant species that may be of management concern, such as poisonous plants or desert shrub and sub-shrub species, are not considered priorities for noxious weed work or funding.

OBJECTIVES. The planned results to be achieved within a stated time period. Objectives are subordinate to goals, more narrow in scope and shorter in range. Objectives must specify time periods for completion, and products or achievements that are measurable.

OFF-HIGHWAY VEHICLE (OHV). A vehicle (including four-wheel drive, trail bikes, all-terrain vehicles, and snowmobiles, but excluding helicopters, fixed-wing aircraft, and boats) capable of traveling off road over land, water, ice, snow, sand, marshes, and other terrain.

PALEOENVIRONMENTAL STUDIES. Studies using fossilized pollen and other geological and biological remains to determine past climatic conditions.

PARTICULATE MATTER. Includes dust, soot, and other tiny bits of solid materials that are released into and move around in the air. Particulates are produced by many sources, including burning of diesel fuels by trucks and buses, incineration of garbage, mixing, and application of fertilizers and pesticides, road construction, industrial processes such as steel making, mining operations, agricultural burning (field and slash burning), and operation of fireplaces and woodstoves.

PERMIT. Permits are one of three forms of a land use authorization (the others are leases and easements). Permits are short-term, revocable authorizations to use public lands for specific purposes that involve either little or no land improvement, construction, or investment that

can be amortized within the term of the permit. A permit conveys no possessory interest. The permit is renewable at the discretion of the authorized officer and may be revoked in accordance with its terms and applicable regulations.

PETROGLYPH. A form of rock art manufactured by incising, scratching, or pecking designs into rock surfaces.

PLANNING CRITERIA. The standards, rules, and other factors developed by managers and interdisciplinary teams for their use in forming judgments about decision making, analysis, and data collection during planning. Planning criteria streamline and simplify the resource management planning actions.

POTTERY SCATTER. A Mogollon to Historic cultural site type where pot-sherds are concentrated; usually a small site.

PUBLIC LAND. Land or interest in land owned by the United States and administered by the Secretary of the Interior through the BLM without regard to how the United States acquired ownership, except lands located on the Outer Continental Shelf, and land held for the benefit of Indians, Aleuts, and Eskimos.

PUBLIC LAND LAWS. The body of laws which regulates the administration of the public land and the resources thereon.

RANGELAND. Land used for grazing by livestock and big game animals on which the vegetation is dominated by grasses, grass-like plants, forbs, or shrubs

RANGELAND IMPROVEMENT. Any activity or program on or relating to rangelands which is designed to improve production of forage, change vegetation composition, control patterns of use, provide water, stabilize soil and water conditions, and provide habitat for livestock or wildlife.

RECREATION OPPORTUNITIES.

Favorable circumstances enabling visitors' engagement in a leisure activity to realize immediate psychological experiences and attain more lasting, value-added beneficial outcomes.

RESEARCH NATURAL AREA. An area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics: (1) a typical representation of a common plant or animal association; (2) an unusual plant or animal association; (3) a threatened or endangered plant or animal species; (4) a typical representation of common geologic, soil, or water features; or (5) outstanding or unusual geologic, soil, or water features.

RESOURCE MANAGEMENT PLAN

(RMP). A land use plan that establishes land use allocations, multiple-use guidelines, and management objectives for a given planning area. The RMP planning system has been used by the BLM since 1980.

RIGHT-OF-WAY. Authorization to use public land for a specified purpose. Examples are roads, powerlines, pipelines, water wells, and communication sites.

RIPARIAN VEGETATION. Vegetation which occurs in, or adjacent, to drainage ways or their floodplains.

ROCK ART (PETROGLYPH OR PICTOGRAPH). An Archaic to Modern cultural site type consisting of incised figures such as people, animals, plants, or abstracts on a rock surface.

ROCK SHELTER. A cultural site type representative of all periods consisting of an area protected by an overhanging cliff. Often associated with the same materials as a campsite or rock art.

SALABLE MINERALS. These are common variety mineral materials such as sand, gravel, cinders, and building stone that are sold on a permit basis.

SCOPING. A term used to identify the process for determining the scope of issues related to a proposed action and for identifying significant issues to be addressed in an environmental impact statement.

SOIL SERIES. A group of soils having genetic horizons (layers) that, except for texture of the surface layer, have similar characteristics and arrangement in the profile.

SPECIAL MANAGEMENT AREAS

(SMAS). An area identified by the BLM for the management of a specific resource or resources.

SPECIAL STATUS SPECIES. Includes proposed species, listed species, and candidate species under the Endangered Species Act; state-listed species; and BLM state director-designated sensitive species (see BLM Manual 6840, Special Status Species Policy).

SUSTAINED YIELD. The achievement and maintenance, in perpetuity, of a high level of annual or periodic output of the various renewable resources of the public land consistent with multiple-use. Amount of resource harvested normally equals the amount grown since the previous harvest.

THREATENED SPECIES. Any species likely to become endangered within the foreseeable future throughout all or a significant part of its range.

VILLAGE. A Mogollon to Historic cultural site type consisting of a permanent habitation area containing several types of artifacts, evidence of agriculture, and structures.

VISUAL RESOURCES. The visible physical features on a landscape (e.g., land, water, vegetation, animals, structures, and other features). Visual resources are managed by inventory and planning actions taken to identify resource values and to establish objectives for managing those values; and the management actions taken to achieve the visual management objectives.

VISUAL RESOURCES MANAGEMENT (VRM) CLASSES. VRM •Classes are based on relative visual ratings of inventoried lands. Each class describes the different degree of modification allowed to the basic elements of the landscape.

WILDERNESS STUDY AREA (WSA). Areas under study for possible inclusion as a wilderness area in the National Wilderness Preservation System.

WILDLIFE. Includes all species of mammals, birds, molluscs, crustaceans, amphibians, reptiles, or their progeny or eggs which, whether raised in captivity or not, are normally found in a wild state. Feral horses and burrows are excluded.

WITHDRAWAL. An action that restricts the use of public land and segregates the land from some or all of the public land or mineral laws.

YEARLONG GRAZING. Continuous grazing for a calendar year.

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