SPECIAL STATUS SPECIES Record of Decision and Approved Resource Management Plan Amendment

APRIL 2008

Pecos District Office, Roswell, New Mexico

BLM

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To sustain the health, diversity, and productivity of the public land for the use and enjoyment of present and future generations.

BLM NM/PL-08-05-1610

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Pecos District Office
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201
http://www.blm.gov/rfo/index.htm

IN REPLY REFER TO:
1610 (500)

April 2008

Dear Reader:

This Record of Decision (ROD) approves the Special Status Species Resource Management Plan Amendment (RMPA). The proposed plan amendment was described as the preferred alternative in the Special Status Species Proposed RMPA and Final Environmental Impact Statement (FEIS). The plan amendment provides guidance for managing approximately 850,000 acres of public land and 300,000 acres of federal minerals in portions of Chaves, Eddy, Lea and Roosevelt Counties. The overall Planning Area encompasses 1,853,000 acres.

In addition to the preferred alternative, this ROD also establishes the Lesser Prairie-Chicken Habitat Preservation Area of Critical Environmental Concern (ACEC). This ACEC is a modification of the proposed ACEC as described in Alternative E of the Draft RMPA/EIS and Proposed RMPA/Final EIS. The purpose of the ACEC is to maintain and enhance habitat for the lesser prairie-chicken and sand dune lizard. While both these species are considered warranted for listing by the U.S. Fish and Wildlife Service (FWS), the management prescriptions for this ACEC, coupled with the other actions identified throughout this plan will be important in demonstrating a commitment to securing habitat that may prevent the listing of both species. The decision to designate this ACEC is because both species have a high potential for listing as a threatened or endangered species by FWS.

This plan amendment was prepared under the regulations implementing the Federal Land Policy and Management Act of 1976 (43 CFR 1600). An environmental impact statement was prepared for this Plan in compliance with the National Environmental Policy Act (NEPA) of 1969.

The ROD approves new decisions concerning oil and gas leasing and development, Off-Highway Vehicle (OHV) designations, land ownership adjustments, and wildlife habitat management. These decisions are intended to replace goals, objectives, management actions and conditions of use described in the 1988 Carlsbad RMP, the 1997 Carlsbad RMPA, and the 1997 Roswell RMP in the Planning Area. Decisions outside the Planning Area are unaffected.

The DRMP/DEIS was made available for public review and comment from October 20, 2006, to January 18, 2007. The PRMP/FEIS was released on November 2, 2007. The Proposed RMP was subject to a 30-day protest period that ended December 3, 2007. One protest was received and reviewed by the BLM Assistant Director, Renewable Resources and Planning, in Washington, DC. This ROD includes information about the protest and BLM's findings. No

significant changes to the proposed plan were made as a result of the protest. The regulations in 43 CFR 1610.5-2 do not provide for any additional administrative review of this decision. However, actions taken to implement this plan amendment, such as approval of application for permit to drill (APD), other land use permits, leases, or lands disposal or exchange actions, may be administratively reviewed in accordance with applicable regulations at that time such action is taken.

Thank you for your interest and participation in the development of the plan.If you have any questions about the ROD, please contact, Howard Parman, Planning Team Leader, at 575-627-0212.

Sincerely,

Douglas J. Burger
District Manager

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Record of Decision

SPECIAL STATUS SPECIES
RESOURCE MANAGEMENT PLAN AMENDMENT
RECORD OF DECISION
Bureau of Land Management
Pecos District
Roswell, New Mexico

COOPERATING AGENCIES

New Mexico State Land Office
New Mexico Department of Game and Fish
Eddy County
New Mexico Department of Agriculture
Chaves County
Lea County

DECISION

This document records the decisions made by the Bureau of Land Management (BLM) for managing all resources and uses on approximately 850,000 surface acres of public lands and approximately 1,150,000 acres of Federal mineral estate in the Planning Area. The Planning Area comprises parts of Chaves, Eddy, Lea, and Roosevelt Counties in southeastern New Mexico.

The decision is to select and approve the Preferred Alternative of the Special Status Species proposed Resource Management Plan Amendment (RMPA) for the Pecos District, which has been refined from the draft RMPA based on public comment and the needs of special status species. In order to meet the goals and objectives of this RMPA, an additional component will be implemented with the Preferred Alternative. The BLM will establish the 58,000 acre Lesser Prairie-Chicken Habitat Preservation Area of Critical Environmental Concern (ACEC). The purpose of this ACEC is to maintain and enhance habitat for the lesser prairie-chicken and sand dune lizard.

One of the goals of the Preferred Alternative is to reclaim two previously disturbed acres for every one acre of new disturbance. To achieve this goal, the BLM will consider employing off-site mitigation on a “case-by-case” basis. Onsite mitigation will continue to be the BLM’s preferred action.

This Plan was prepared according to regulations implementing the Federal Land Policy and Management Act (FLPMA) of 1976, which are located in Title 43 of the Code of Federal Regulations (CFR) in Part 1600. The Environmental Impact Statement (EIS) was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and its implementing regulations in Title 40 of the CFR, Part 1500.

This RMPA amends decisions made in the 1988 Carlsbad RMP, the 1997 Carlsbad RMPA, and the 1997 Roswell RMP that guides the management of all public lands resources and uses in the Planning Area. The Plan amends decisions concerning oil and gas and other minerals; land ownership adjustments; livestock grazing; vegetation management; rights-of-way and access; outdoor recreation; off-highway-vehicle designation; special status wildlife species; and wildlife habitat. All previous land use plans and decisions in the Planning Area are amended by this RMPA.

ALTERNATIVES CONSIDERED

Six alternatives were considered in the RMPA/EIS. Under the No Action Alternative, management decisions and guidance would have continued as directed by the current land use plans. Alternatives A, B, C, D, and E provided a range of management options that maintain, protect, or enhance special status species' habitat while allowing existing activities to continue in a modified manner.

The No Action Alternative represented the continuation of existing management plans, policies, and decisions as established by the current RMPs.

Alternative A adopted the portions of the Conservation Strategy developed by the Southeast New Mexico Lesser Prairie-Chicken Working Group that applied to public lands and Federal minerals.

Alternative B (BLM's Preferred Alternative) represented the Conservation Strategy and added emphasis to sand dune lizard habitat protection and surface reclamation. The designation of the Lesser Prairie-Chicken Habitat Preservation ACEC is a modification of the proposed ACEC as described in Alternative E of the draft RMPA/EIS and proposed RMPA/final EIS.

This alternative is considered the environmentally preferable alternative when taking into consideration the human (social and economic) environment, as well as the natural environment. The Proposed Plan provides a balanced approach with protection for the environment, while also providing economic and recreational activities.

Alternative C represented the continuation of Interim Management originally put in place by the BLM (August 2004) to preserve management options in the Planning Area.

Alternative D focused management efforts on preserving only occupied habitat.

Alternative E analyzed the impacts of an ACEC nomination.

The decision is to select the refined Alternative B as described above. Alternative B and the modified ACEC were addressed in the draft RMPA/EIS and the proposed RMPA/final EIS in the description of Alternative E.

MANAGEMENT CONSIDERATIONS

The decision to select the Preferred Alternative is based on:

- Management actions needed to resolve the planning issues and management opportunities and to address planning questions and planning criteria identified through the planning process;

- The environmental analysis of each alternative considered in detail, which is contained in Chapter 4 of the draft RMPA/EIS and Chapter 4 of the proposed RMPA/final EIS;

- Input from the public, BLM specialists, local and State Governments, and other Federal agencies; and

- The combination of management actions considered by the BLM to best meet the legal mandate of the FLPMA for management of the public lands according to the principles of multiple use and sustained yield.

MITIGATION AND MONITORING

All decisions made in this Plan Amendment considered all affected resources and uses prior to Plan Amendment implementation. All reasonable measures will be taken to ensure that adverse impacts are mitigated in a manner consistent with the measures identified in the proposed RMPA (see Appendix 1, Best Management Practices, Special Status Species RMPA). These measures, and any plan decisions that serve as mitigations, may be supplemented during environmental analyses for site-specific actions.

The Approved Special Status Species RMPA provides the framework and guidance for making specific management decisions related to all resources and uses in the Planning Area. Actions initiated by the BLM or the public will be monitored to determine if the management objectives of this RMPA are being met (see Appendix 2, Monitoring and Implementation). The effectiveness of the RMPA's decisions will be formally evaluated every 5 years as part of a periodic review to determine the need for a plan revision or amendment.

PUBLIC INVOLVEMENT

Public opinion and input have been sought throughout the planning and decision-making process. Public participation efforts are described in detail in Chapter 5 of the proposed RMPA/final EIS. Highlights of the public involvement process include:

- Preparation of a public participation plan;
- *Federal Register* notices of intent and requests for information;
- Public scoping meetings and open houses;
- Formal and informal meetings with interested individuals, groups, and businesses;
- Working representatives from cooperating agencies to develop alternatives;
- A 90-day comment period on the draft RMPA/EIS;
- Public meetings and open houses on the draft RMPA/EIS;
- Briefings for interested groups, cooperating agencies, and individuals;
- Working sessions with industry groups to resolve specific concerns; and
- A 30-day review and protest period on the proposed RMPA/final EIS.

PROTEST RESOLUTION

One protest of the Special Status Species RMPA was filed during the 30-day protest period which ran from November 2 through December 3, 2007. No other letters were received during the

protest period. Six issues were referred to the Director of the BLM for resolution and were dismissed. The general topics of those issues were:

- The BLM failed to meaningfully respond to comments and failed to revise the draft RMPA/EIS in light of issues raised in the comments;
- The BLM failed to take a hard look at environmental consequences;
- The BLM failed to consider a range of reasonable alternatives;
- The BLM failed to provide mitigations sufficient to reduce environmental consequences;
- The BLM violated its manual by contributing to the need to list special status species; and
- The BLM violated the FLPMA policy concerning unnecessary and undue degradation of public lands.

Following a review by the Director, it was determined the Pecos District Manager followed applicable procedures, laws, regulations, and policies, and considered all relevant resource factors, as well as public input in developing the Preferred Alternative. It was concluded there was no basis for changing the Preferred Alternative from that contained in the proposed RMPA/final EIS. The Director of the BLM dismissed the protest and sent a letter to the protestor explaining the reasons for the dismissal.

BIOLOGICAL ASSESSMENT AND OPINION

Throughout the planning process, the BLM consulted informally and formally with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act of 1973, as amended. The BLM prepared a Biological Assessment of the probable effects of the existing Carlsbad and Roswell RMPs, and the implementation of the RMPA on federally threatened and endangered species for review by the USFWS.

After review, the USFWS supported the BLM's determination of "no effect" for 17 species and the determination of "may affect, not likely to adversely affect" for two candidate species. The USFWS also provided technical assistance during the development of this RMPA.

CONSISTENCY

There are no known or identified inconsistencies with the plans, programs, and policies of other Federal agencies and of State and local governments. The 60-day Governor's consistency review period ended January 2, 2008; no inconsistencies were identified.

CONCLUSION

This Record of Decision constitutes the BLM's final action on approving the Special Status Species RMPA. Copies of the Special Status Species RMPA are available upon request. For additional information, contact the Pecos District Manager, Bureau of Land Management, 2909 West Second St., Roswell, New Mexico 88201, or call 575-627-0272, or visit the BLM's web site at www.blm.gov. Click on New Mexico and then the Pecos District.

APPROVED

Linda S.C. Rundell

Linda S.C. Rundell
State Director
New Mexico BLM

May 2, 2008
Date

Resource Management Plan Amendment

SPECIAL STATUS SPECIES
RESOURCE MANAGEMENT PLAN AMENDMENT

INTRODUCTION

The Special Status Species Resource Management Plan Amendment (RMPA) addresses the management of all uses of public land on about 850,000 acres in the Pecos District where both surface and subsurface estates are in Federal ownership. The RMPA also presents management for about an additional 300,000 acres of Federal mineral estate where the surface is managed by other surface management agencies of the Federal government or New Mexico State agencies or is privately-owned. In these cases, the leasing of fluid mineral (i.e., oil and gas) is administered by BLM.

This RMPA amends the Carlsbad RMP and Roswell RMP within the Planning Area in portions of Chaves, Eddy, Lea and Roosevelt Counties, New Mexico. This plan amendment was prepared in accordance with the requirements of the Federal Land Policy and Management Act (FLPMA) of 1976 and the National Environmental Policy Act (NEPA) of 1969.

The public land described above, including the mineral estate, is administered by the BLM through its Pecos District Office, which is made up of the Roswell Field Office (Chaves County and Roosevelt Counties) and the Carlsbad Field Office (Eddy and Lea Counties) in southeastern New Mexico.

PURPOSE AND NEED FOR THE PLAN AMENDMENT

The purpose of the Special Status Species Proposed Resource Management Plan Amendment/Final Environmental Impact Statement (PRMPA/FEIS) is to propose specific management prescriptions to ensure the continued habitat protection of two special status species, the lesser prairie-chicken (*Tympanuchus pallidicinctus*) and the sand dune lizard (*Sceloporus arenicolus*), while allowing other resource uses and activities to continue within the Planning Area.

Three factors are driving the need for amending these two RMPs: Federal regulations and policies that address special status species and public land use planning and management; related changing resource demands and conditions that may affect the special status species habitat in the Planning Area; and a focus on expanding interagency coordination through the land use planning implementation process. Federal regulations and policies require the BLM to make its public land and resources available based on the principle of multiple-use. At the same time, it is BLM policy to conserve special status species and their habitats, and ensure that actions authorized by the BLM do not contribute to the need for the species to become listed as threatened or endangered by the US Fish and Wildlife Service (USFWS). (For additional information, refer to the BLM Special Status Species Management Manual 6840).

This RMPA and the decisions it contains apply only to public land and Federal minerals. This amendment is not a habitat conservation plan (HCP) covering private land. All land and resource uses and activities in the Planning Area must conform to the decisions and terms and conditions of use described in this plan amendment. Detailed decisions for the implementation of specific actions will be made through activity planning and environmental review that will be completed prior to the implementation of the action. Likewise, the authorization of specific uses will be predicated on conformance with planning decisions and the completion of environmental review.

Descriptions of the affected environment and the environmental consequences of managing public land in the Planning Area were previously addressed in the Draft Special Status Species RMPA/EIS and Proposed Special Status Species RMPA/Final EIS, and are not discussed in this document.

PLANNING AREA

The Planning Area amounts to about 2 percent of New Mexico and is located in the southeastern part of the State (Map 1). The Planning Area includes 1,852,946 acres of private, Federal and State trust lands (see Table 1).

TABLE 1
LAND OWNERSHIP IN THE PLANNING AREA

Ownership	Acres	Percent of Planning Area
Public Land (managed by BLM)	847,491	45.7
Department of Energy	10,244	0.7
State Trust Land	309,129	16.6
Private Land	686,082	37.0
TOTAL PLANNING AREA	**1,852,946**	**100.0**

FEDERAL MINERAL ESTATE

Surface & Subsurface Ownership	Acres
BLM-Managed Surface & Subsurface	847,491
Other Surface Owners, Federal Minerals	297,832
TOTAL	**1,145,323**

Source: Pecos District Office Files, 2006.

PLANNING ISSUES

Based on the results of the scoping meetings, the following planning issues were developed:

Issue - How should lesser prairie-chicken and sand dune lizard habitats be managed to ensure the survival of the two species?

Issue - How should other public land uses such as oil and gas development, livestock grazing, off-highway vehicles be managed to protect the habitats?

Issue - What areas should be declared open, closed, or open with stipulations for oil & gas exploration and development?

Issue - What areas should be designated open, closed, or limited to off-highway vehicles (OHVs) and how should these areas be managed?

ALTERNATIVES/ISSUES ELIMINATED FROM DETAILED STUDY

One alternative dropped from detailed study would have permitted oil and gas leasing and subsequent development, livestock grazing and OHV use in the Planning Area without regard for the habitat needs of the lesser prairie-chicken and the sand dune lizard. Since this alternative would have resulted in actions more detrimental to habitat protection than the No Action Alternative and likely speed the listing of either

the lesser prairie-chicken or sand dune lizard as a threatened or endangered species, it was dropped from analysis.

Another alternative eliminated from detailed study would have banned future development on existing oil and gas leases, and closed the Planning Area to livestock grazing. Since this alternative did not meet the purpose and need of this plan, it was dropped from analysis.

The concept of phased oil and gas development was not included in any of the alternatives. Given the amount of Federal minerals already under lease and the number of active wells in the Planning Area, phased development was dropped from consideration.

Public land in the western United States was assessed for renewable energy potential by the Department of Energy. The Planning Area has little potential for either geothermal or biomass energy generation and, therefore, these categories were not considered in the alternatives.

PLANNING CRITERIA/LEGISLATIVE CONSTRAINTS

Planning criteria are the rules and other factors used to form judgments about data collection, analysis, and decision making during planning. Planning criteria for the RMPA include all applicable Federal laws, regulations, executive orders, policies, and applicable portions of existing land use plans, which the cooperating agencies are required to follow. For this RMPA, the planning criteria are:

A. Actions must comply with laws, regulations, executive orders, and BLM Manuals (i.e., supplemental program guidance).

B. Actions must be reasonable and achievable and allow for flexibility where appropriate (i.e. adaptive management).

C. In accordance with BLM Washington Office Instruction Memorandum 2003-169, the Economic Profile System (EPS) was used as a source of demographic and economic data for the planning process. EPS provided a foundation of current social and economic conditions in the Planning Area. Following this, as planning alternatives were developed, a social and economic analysis and environmental justice assessment was conducted to determine the effect that each will have on users and the diverse population in the Planning Area. The analysis considered the short- and long-term social and economic benefits associated with possible alternatives. Other important factors considered were the needs and long-term plans of local city, county, and tribal governments. Short-term consequences were weighed against long-term benefits as necessary. The impacts on both the general population and affected sub-groups within the Planning Area were determined.

D. Actions were considered in an interdisciplinary approach.

E. The Roswell/Carlsbad RMPA planning team worked cooperatively with county and municipal governments, other Federal, State and local agencies, and interested groups and individuals. A process of collaborative public involvement and participation was carried out throughout this process.

F. The amendment will change or modify the guidance upon which the Field Offices will manage public land within the Planning Area.

G. The planning process included an EIS that complies with NEPA standards.

H. The amendment will cause the protection and enhancement of the biodiversity within the Planning Area, while allowing the public the opportunity for access to public land in a productive and meaningful way.

I. The amendment will recognize valid existing rights related to the use of public land. The RMPA defines the process that BLM will use to address applications or notices filed after the completion of the RMPA for land use authorizations.

J. The RMPA process allowed involvement of Native American tribal governments, and provided strategies for protection of cultural resources and traditional cultural properties on public land.

K. Decisions in the RMPA will strive to be compatible with existing plans and policies of adjacent local, State, and Federal governments and agencies, as long as the decisions are in conformance with BLM management policies.

L. This plan amendment will be evaluated every 5 years, and based on the evaluation, revised or updated as needed. For analysis purposes, the short-term is defined as any time period less than 10 years, and the long-term is defined as any time period longer than 10 years.

PLANNING PROCESS

The RMPA is intended to provide broad management direction and to work in concert with any existing activity plans such as the Strategy for OHV Use, New Mexico Road Policy, and New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management. Site-specific projects may require additional public participation and NEPA processes.

Since the Roswell RMP and the Carlsbad RMPA were completed in 1997, New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management were approved. Also, the New Mexico BLM State Office completed the statewide Fire and Fuels Management Plan Amendment and EA. Both statewide plans amended all New Mexico BLM RMPs.

The 2005 National Wind Energy Development Programmatic EIS evaluated the potential impacts associated with the proposed action to develop a Wind Energy Development Program, including the adoption of policies and best management practices (BMPs). This Programmatic EIS amends BLM land use plans (including the Carlsbad and the Roswell RMPs) to address wind energy development.

In order to comply with Section 368 of the Energy Policy Act of 2005, the Pecos District will designate utility corridors for major interstate projects. The Pecos District has participated in the development of the West-wide Energy Corridor Programmatic EIS. Corridors analyzed in this EIS include those that will be analyzed in the programmatic EIS.

During the scoping period, BLM contacted the Ysleta del Sur Pueblo, the Mescalero Apache Tribe, the Apache Tribe of Oklahoma, the Comanche Tribe and the Kiowa Tribe, asking if there were any management plans approved or adopted by the tribes that this RMPA/EIS will affect. These contacts were made between November 2004 and March 2005 via mail and telephone.

This RMPA is based on the Conservation Strategy developed by the Southeast New Mexico Lesser Prairie-Chicken Working Group (see Appendix 2 of the Proposed RMPA/Final EIS). The cooperating agencies participated in the development of the alternatives that were analyzed in the Draft Special Status Species RMPA/EIS.

Comments, oral or written, received by BLM become part of the public record for the Special Status Species RMPA. As such, these comments are available for public review at the Pecos District Office.

RELATED PLANS

The BLM planning regulations require that RMPs and RMPAs be "consistent with officially approved or adopted resource-related plans, and the policies and procedures contained therein, of other Federal agencies, State and local governments, and Indian tribes, so long as the guidance and RMPAs also are consistent with the purposes, policies and programs of Federal laws and regulations applicable to public lands" (43 CFR 1610.3-2). In order to ensure such consistency, finalized plans were solicited from Federal, State, and local agencies as well as Tribal governments. These same agencies received copies of the Draft RMPA/EIS for review and comment. There are no known inconsistencies between this RMPA and officially approved and adopted resource related plans of other Federal agencies, State and local governments, and Indian tribes. Coordination and consultation will continue throughout implementation of the RMPA.

MANAGEMENT DECISIONS

The Planning Area has four designated management areas: the Core Management Area (CMA), the Primary Population Area (PPA), the Sparse and Scattered Population Area (SSPA), and the Isolated Population Area (IPA). Included in the IPA are 17 Habitat Evaluation Areas. See Map 1 for locations of these areas.

Lands & Realty

In order to comply with Section 368 of the Energy Policy Act of 2005, the Pecos District will designate utility corridors for major projects such as interstate electric transmission lines; pipelines; and communications lines for interstate use. New projects of these types will be sited in the utility corridors shown on Map U-1. The corridors depicted on Map U-1 will be no more than 3,500 feet wide and their compatible uses (pipelines only or electric transmission lines only or both uses) are explained in the map legend. The corridors depicted on Map U-1 include those that are analyzed in the West-wide Energy Corridor Draft Programmatic EIS. Information about this EIS can be obtained on-line at www.corridoreis.anl.gov

New projects of the type described above that propose to cross the Planning Area will be evaluated based on the impacts to lesser prairie-chicken and sand dune lizard habitats and other resources to meet the overall objectives of this plan. These projects will not be located in right-of-way (ROW) avoidance areas if other routes can meet the purposes of the project. Lands acquired as habitat for Special Status Species will be added to the ROW exclusion area for major projects.

For all other projects in the Planning Area, public land will be open to the consideration of granting ROWs under the guidelines in Appendix 2 of the 1997 Roswell RMP and 1997 Carlsbad RMPA. (Both the RMP and RMPA are available on-line at www.nm.blm.gov. Click on Planning/NEPA under Programs.)

Whenever possible, facilities will be confined to existing alignments, minimizing width requirements and maximizing multiple-occupancy. ROWs will be granted only after site-specific analysis. Development of specific agricultural leases may be considered only when the lease is compatible with or enhances the land's identified resource values.

Minor ROWs for facilities such as fences, range and wildlife water pipelines, power distribution lines, access to oil and gas facilities, or oil and gas collection or distribution pipelines will be considered in exclusion and avoidance zones on a case-by-case basis to meet the overall objectives of this plan.

The CMA and occupied habitat within the PPA will be designated as ROW exclusion areas. The Mescalero Sands ACEC and the Mathers Research Natural Area (RNA) will continue to be ROW exclusion areas. The Laguna Plata and Maroon Cliffs Archeological Districts will continue to be ROW avoidance areas. The Mescalero Sand North Dune OHV Area will continue to be a ROW avoidance area.

Landfills, hazardous waste disposal sites, and produced water disposal pits will not be authorized under ROWs or Recreation and Public Purposes Act leases.

Access to public land will be considered throughout the Planning Area. Easements will be acquired across non-Federal land to provide access to the public land for recreational, special management, and other resource needs. Priority for acquisitions of easements will be placed on former county roads vacated by the county government, when those roads are important for the management of the public land. Access will be closed, or restricted, where necessary and in accordance with OHV designations, to protect public health and safety or areas with significant resource values.

To reduce surface disturbance in the Planning Area, the decision to bury pipelines less than 5 inches in diameter will be determined on a case-by-case basis to meet the overall objectives of this plan. It is the BLM's intent that pipelines greater than 5 inches in diameter and any lines with a pressure greater than 125 psi are to be buried. Exceptions will be granted on a case-by-case basis to meet the overall objectives of this plan. If the use of plastic pipe is approved, the pipe must meet American Petroleum Institute specifications or equivalent standard specifications and intended use from the pipe manufacturer.

There will be a priority on exchanges with the New Mexico State Land Office within the CMA. The BLM will consider acquisition of land in the Planning Area for special status species habitat when the opportunity arises from willing sellers. Acquisitions will be acquired via exchange, purchase of land and easements, and donation if they:

- Improve management of natural resources through consolidation of BLM, State, and other Federal lands where agencies have compatible land management missions;
- Secure property necessary to protect special status species, promote biological diversity, enhance wildlife habitat, provide access to public waters and public land, and preserve archaeological and historical resources;
- Meet the criteria for acquisitions, found in Appendix 5 of the 1997 Roswell RMP, will be applied to potential acquisitions regardless of their location in the Planning Area.

To support acquisitions described in the previous paragraph, the Pecos District has previously identified areas as suitable for disposal. The only exception to this land is the public land in Roosevelt County identified in Appendix 7 of the 1997 Roswell RMP. This land, totaling approximately 3,151 acres, will be retained for lesser prairie-chicken habitat.

Within sand dune lizard habitat (see Map 1), new surface disturbance in dune complexes will not be authorized. Exceptions to this requirement will be considered based on the proposed surface use and proposed mitigations indicating the proposal will not adversely affect sand dune lizard habitat.

In order to provide opportunities for expansion of lesser prairie-chicken habitat within the Planning Area and to reduce the impacts of electric power lines, applicants for electric power lines ROWs could participate in a power line removal credit (PLRC) program. Under this program, applicants could remove 1.5 miles of idle power lines (wire and poles) within prairie-chicken habitat management unit (CMA, PPA, SSPA and IPA) and habitat type (occupied or suitable/potentially suitable) before receiving authorization to construct 1.0 mile of new power line in a similar or lower value habitat type. Appendix 2, Monitoring and Implementation, contains the details of the implementation of the PLRC program. The PLRC program will not be applicable in unsuitable habitat, regardless of the management unit (CMA, PPA, SSPA and IPA).

Other mitigation measures that will be considered include, but are not limited to, those shown below. These mitigation measures are ranked in order of effectiveness of reducing impacts from power lines:

1. Burying new distribution power lines within 2 miles of occupied lesser prairie-chicken habitat (measured from the lek) and in suitable lesser prairie-chicken habitat within 2 miles of an active lek. See Table 2-4, Robel Impact Distances. (See Appendix 2, Monitoring and Implementation.)

2. Using internal combustion engines to power equipment at the well. Such engines will be muffled to 75 db measured at 30 feet from the source.

3. Constructing new power lines in locations which avoid occupied and suitable lesser prairie-chicken habitat.

4. In cases where overhead power lines already exist in occupied or suitable lesser prairie-chicken habitat, new power lines could be constructed immediately adjacent to an existing line but only to the extent of the existing overhead power lines. Where sections of the new power line cannot follow the existing line, it will have to be buried, or mitigated according to the PLRC program described above.

5. Constructing all infrastructure supporting development of a well (including roads, power lines and pipelines) within the same corridor.

Minerals

Fluid Minerals

The BLM will continue to require oil and gas lessees to conduct operations in a manner that will minimize adverse impacts to resources, land uses, and other users. To that end, the BLM will continue to apply reasonable mitigating measures to all oil and gas activities.

Requirements that have been issued in Orders or Notices to Lessees (NTL) concerning environmental and other factors associated with the drilling of oil and gas wells will continue to be enforced, as will future orders and NTLs. Regulation of pits falls under the jurisdiction of the New Mexico Oil Conservation Division. Open-top tanks, disposal pits, or other open pits will be required to be covered with a fine mesh netting to make them inaccessible to birds, bats and other wildlife.

Leasing with requirements for Plans of Development (PODs) or Conditions of Approval (COAs) to ensure orderly development with a minimum of surface impact in lesser prairie-chicken and sand dune lizard habitats will be considered on a case-by-case basis, providing impacts from exploration and development will not cause unnecessary or undue impact to efforts to restore habitat. PODs may contain proprietary information which will prohibit its disclosure under the Freedom of Information Act.

Federal lessees should realize implementation of mitigation measures designed to protect lesser prairie-chicken or sand dune lizard habitat may not allow approval of all spacing unit locations or full development of the lease.

TABLE 2
ACRES OF LEASED AND UNLEASED FEDERAL MINERALS

MANAGEMENT AREA	ACRES OF LEASED FEDERAL MINERALS	PERCENT LEASED FEDERAL MINERALS	ACRES OF UNLEASED FEDERAL MINERALS	PERCENT UNLEASED FEDERAL MINERALS	TOTAL FEDERAL MINERAL ACRES	COMPARISON OF FEDERAL MINERAL ACREAGE TO TOTAL FEDERAL MINERAL ACREAGE IN THE PLANNING AREA	COMPARISON OF UNLEASED FEDERAL MINERAL ACRES TO TOTAL FEDERAL MINERAL ACREAGE IN THE PLANNING AREA
Core Management Area	43,338	25%	128,299	75%	171,637	15%	(closed) 11%
Primary Population Area	105,641	53%	93,157	47%	198,798	17%	(closed) 8%
Sparse & Scattered Population Area	78,414	60%	51,780	40%	130,194	11%	5%
Isolated Population Area	597,953	93%	46,741	7%	644,694	56%	4%
Totals	**825,346**	**72%**	**319,977**	**28%**	**1,145,323**	**100%**	**28%**

SOURCE: Pecos District Office Files, 2006

These PODs and COAs will contain various strategies for minimizing impacts associated with new development and for reclaiming developed areas. Methods to achieve this will include, but not be limited to, vegetative treatments, rehabilitation of pads, roads, and ROWs and reduction of infrastructure needed to support the lease. See Appendix 1, Best Management Practices, for a list of development tools that could be used to minimize impacts. They will be designed to improve habitat, enhance connectivity, reduce fragmentation, and move towards Desired Plant Community (DPC).

Within the Planning Area, timing (March 1st to June 15th, from the hours of 3:00 a.m. to 9:00 a.m.) and noise stipulations will be applied. These stipulations are intended to prevent disruption of mating and nesting by activities associated with energy exploration and development. Stipulations will be imposed in areas where the species is present.

Exceptions to these requirements will be considered in emergency situations such as mechanical failures. Potential drill rig loss, drill rig scheduling or the potential loss of a lease are not emergency situations. Exceptions will not be granted after March 15, or during the March 1st to March 15th period if BLM determines, on the basis of biological data or other relevant facts or circumstances, that the granting of an exception will disrupt prairie-chicken booming activity during the breeding season. Requests for exceptions on a non-emergency basis may also be considered, for the period of March 1st to June 15th, but these exceptions will not be granted if

BLM determines that there is lesser prairie-chicken habitat, lesser prairie-chicken sightings, historic leks and or active leks within 1.5 miles of the proposed location, or any combination of the above mentioned criteria. No exceptions will be granted until an appropriate National Environmental Policy Act or environmental review document is completed.

Exceptions to the timing stipulation/COA will not be granted in the following areas:

1. The CMA or PPA.
2. The IPA or SSPA within 1.5 miles of a lek that has been active for one out of the last 5 years.
3. The IPA or SSPA within 1.5 miles of sightings within the past 2 years. If lesser prairie-chickens are not sighted by the end of the second year, exceptions will be considered for the area. However, if a new sighting occurs in the same area, the stipulations will be reapplied.
4. The 17 Habitat Evaluation Areas before and during the habitat evaluation process. Once the evaluation of the 17 Habitat Evaluation Areas is complete, the Habitat Evaluation Areas that do not meet the criteria will be considered for exceptions. No exceptions will be granted in the Habitat Evaluation Areas that meet or exceed the criteria in Appendix 8.
5. Any new areas identified as Habitat Evaluation Areas that were not in the original 17 Habitat Evaluation Areas but meet or exceed the evaluation criteria.

Exceptions will also be subject to other applicable regulatory and environmental compliance requirements. BLM reserves the right to impose other stipulations in the same area of this leasehold if an exception is granted.

Unitization may be utilized on new leases in the Planning Area to ensure protection of special status species habitat; as allowed by lease notices. Existing lessees will be encouraged to join these units.

Within the Planning Area, coordinated efforts to reclaim and restore habitat in previously developed areas will be carried out when and where opportunities arise. Priority locations are areas in the Habitat Evaluation Areas, IPA and SSPA and around lesser prairie-chicken reserves where restoration can help restore connectivity between isolated habitat blocks. The goal is to reclaim two previously disturbed acres for every one acre of new disturbance. To achieve this goal, BLM will consider employing off-site mitigation on a “case-by-case” basis with priority given to performance of onsite mitigation.

If new lesser prairie-chicken leks are discovered in the future within the Planning Area, a 1.5-mile radius around the lek will be considered occupied habitat and the prescriptions of this alternative will apply to proposed actions in and around that habitat.

This plan amendment adopts, with some modifications, the Robel impact distances in mapping and calculating the extent of habitat available to lesser prairie-chicken. Distances used in the calculation of habitat impacts surrounding different development features are shown in Table 3. These distances are used to evaluate impacts of potential projects and were applied to existing infrastructure as part of the definition of suitable and potentially suitable lesser prairie-chicken habitat.

Core Management Area – New Oil and Gas Leasing

The Core Management Area (CMA) will be closed to new leasing for the life of this plan amendment. Certain exceptions will be granted on a limited, case-by-case basis as needed for pooling or drainage protection purposes, or for parcels a minimum of one mile from suitable lesser prairie-chicken habitat. In these cases, a no surface occupancy (NSO) stipulation will be applied to the occupied or suitable portions of the lease.

TABLE 3 ROBEL IMPACT DISTANCES	
DISTURBANCE	**IMPACT RADIUS**
Oil or gas wellheads	.1 mile
Sand/dirt 2-track roads	0
Caliche roads, oil field access roads	.1 mile
Paved roads	.5 mile
Compressor stations	.75 mile
Houses	.5 mile
Power lines	.25 mile
Center-pivot fields	.25 mile
SOURCE: Pecos District Office Files, 2006	

Core Management Area – Existing Oil and Gas Leases

For existing leases, Plans of Development (PODs) and appropriate Conditions of Approval (COAs) will be required to ensure orderly development with a minimum of surface impact in lesser prairie-chicken habitat. PODs may not be required for every existing lease on the Planning Area, but are required when requested by the BLM. Included in PODs and COAs will be specifications for minimizing impacts associated with new development and for reclaiming developed areas. The purpose of a POD is to require planning by the operator and BLM to ensure orderly development as a means to reduce or eliminate impacts to special status species habitat. A POD will incorporate applicable Best Management Practices (BMPs, see Appendix 1) and disclose to the fullest extent possible all future well locations; the location and arrangement of well infrastructure (e.g., tank batteries, compressors, power lines and poles); road locations; and rights-of-way.

Primary Population Area

Areas designated as occupied, suitable and potentially suitable habitat within the Primary Population Area (PPA) are shown on Map 5. Table 4 shows the unleased mineral acreage by habitat type in the PPA.

TABLE 4 UNLEASED FEDERAL MINERALS IN THE PRIMARY POPULATION AREA,		
HABITAT CATEGORY	**ACRES OF UNLEASED FEDERAL MINERALS**	**PERCENTAGE OF UNLEASED FEDERAL MINERALS IN THE PPA**
Occupied	70,799	76%
Suitable	13,974	15%
Potentially Suitable	2,795	3%
Unsuitable	5,589	6%
Total	**93,157**	**100%**
SOURCE: Pecos District Office, 2006		

Primary Population Area – New Oil and Gas Leasing

Areas designated as occupied or suitable lesser prairie-chicken habitat will be closed to new leasing. Certain exceptions will be considered on a limited, case-by-case basis as needed for pooling or drainage protection purposes; and if leasing and subsequent development will not impact habitat. In these cases, a no surface occupancy (NSO) stipulation will be applied to the occupied or suitable portions of the lease.

Areas designated as potentially suitable lesser prairie-chicken habitat will be available for new oil and gas leasing. If leasing and development in these areas will impact suitable habitat, then areas designated as potentially suitable habitat will be closed to new oil and gas leasing. Areas of potentially suitable habitat where lands can be used to “block up" larger surrounding areas of suitable habitat will also be closed to new leasing.

Federal minerals within the State Game Commission-owned Prairie-chicken Area will be closed to new oil and gas leasing. For pooling purposes or drainage protection, new leasing with a NSO stipulation may be allowed within a Prairie-chicken Area provided exploration and development does not impact suitable habitat. BLM will consider opening the Prairie-chicken Area to oil and gas leasing when the special status species are not considered for listing as a threatened or endangered species.

New oil and gas leasing will be allowed in areas designated as unsuitable habitat unless development in unsuitable lesser prairie-chicken habitat or potentially suitable lesser prairie-chicken habitat will extend an impact/avoidance zone into suitable lesser prairie-chicken habitat. BLM will determine if habitat is suitable or unsuitable prior to issuing a new oil and gas lease. Unsuitable habitat will be open to new oil and gas leasing, generally with standard lease terms.

BLM will consider new leasing in suitable habitat within the Primary Population Area (PPA) when there is a calculated two to one ratio of reclaimed acres to disturbed acres within the entire PPA and after inter-agency coordination with the U.S. Fish and Wildlife Service is conducted. The calculation will be conducted at 5-year increments from the approval of this RMPA. In addition to meeting the two to one ratio, other considerations factoring into a decision for new leasing include, but are not limited to, the site characteristics of a tract nominated for leasing such as its proximity to occupied habitat, surface ownership, and the density of existing infrastructure. If new leases are offered in suitable habitat as a result of recalculation, conditions would be attached that would preclude contributing to the need to list the lesser prairie-chicken as threatened or endangered.

BLM will consider new oil and gas leasing in occupied habitat within the PPA at such time the lesser prairie-chicken is no longer considered for listing as a threatened or endangered species. If new leases are offered in occupied habitat, conditions would be attached that would preclude the need to return the lesser prairie-chicken to the list of special status species.

Primary Population Area – Existing Oil and Gas Leases

For existing leases, PODs will be required unless waived by the authorized officer. Subsequent COAs may also be required. Included in PODs and COAs will be specifications for various strategies for minimizing impacts associated with new development and for reclaiming disturbed areas. A POD will incorporate applicable Best Management Practices and disclose all future well locations; the location and arrangement of well infrastructure (e.g., tank batteries, compressors, power lines and poles); road locations; and ROWs.

Sparse and Scattered Population Area – New Oil and Gas Leasing

Occupied lesser prairie-chicken habitat (within 1.5 miles of the lek) will be closed to new leasing. New leasing with a NSO requirement may be allowed, where this is determined to be appropriate, i.e., pooling or drainage protection that does not impact suitable habitat. In the future, new leasing in occupied lesser prairie-chicken habitat will be linked to the status of the species or habitat in New Mexico, as identified in the annual U.S. Fish and Wildlife Service candidate notice of review or other periodic agency review. If new leasing is considered, conditions will be attached that will preclude listing the special status species as threatened or endangered.

Sparse and Scattered Population Area – Existing Oil and Gas Leases

For existing leases, PODs will be required unless waived by the authorized officer. Subsequent COAs may also be required as described for the Primary Population Area section above. Timing and noise stipulations will also be applied.

Isolated Population Area – New Oil and Gas Leasing

Occupied lesser prairie-chicken habitat (e.g. within 1.5 miles from an active lek) will be closed to new leasing. New leasing with a NSO requirement may be allowed, where this is determined to be appropriate. In the future, new leasing in occupied lesser prairie-chicken habitat will be linked to the status of the species or habitat in New Mexico, as identified in the annual US Fish and Wildlife Service candidate notice of review or other periodic agency review. If new leasing is considered, conditions will be attached that will preclude listing the special status species as threatened or endangered.

Isolated Population Area – Existing Oil and Gas Leases

For existing leases, PODs will be required unless waived by the authorized officer. Subsequent COAs may also be required as described for the Primary Population Area section above.

Isolated Population Area – Habitat Evaluation Areas

Habitat suitability analyses will be conducted in the 17 Habitat Evaluation Areas (see Map 1). These areas will be prioritized for reclamation potential and for potential to re-established connectivity to adjacent isolated habitat blocks. Until the evaluation of an area is complete, new oil and gas leasing will be deferred. It may be determined, through the suitability analysis process, that these areas will be discretionarily closed to future oil and gas leasing. Criteria for closing these areas or making them available for lease can be found in Appendix 3. Lessees of existing oil and gas leases will be required to provide a POD unless waived by the authorized officer.

Deferment of leasing in the 17 Habitat Evaluation Areas will continue until the habitat suitability analysis is complete, pending available funding and partners willing to work with BLM.

Sand Dune Lizard – New Oil and Gas Leasing

Tracts nominated for lease within the Lizard Habitat Boundary (see Map 1) will be evaluated by BLM for sand dune lizard habitat suitability. Depending on the results of that evaluation, leasing of the tract may be deferred until occupancy surveys can be completed, or the tract may be offered for lease with an NSO stipulation, or a Sand Dune Lizard Habitat survey stipulation, or other appropriate stipulations including standard stipulations.

New leases will require PODs which will incorporate the results of the habitat surveys. The purpose of a POD is to assist the operator and BLM with planning for orderly development as a means to reduce or eliminate impacts to special status species habitat. A POD will also incorporate applicable best management practices and disclose all future well locations to the fullest extent possible; the location and arrangement of well infrastructure (e. g., tank batteries, compressors, power lines and poles); road locations; and ROWs.

Should a tract be leased with the conditions described above, the lessee will be responsible for any subsequent occupancy surveys within the lease. Surveys for occupied sand dune lizard habitat will follow

scientific protocol and be conducted by personnel approved by BLM. Surveys will follow the protocol outlined in the following section, Sand Dune Lizard – Existing Oil and Gas Leases.

If, after acquiring a Federal mineral lease with an NSO stipulation or any other stipulation, the lessee can demonstrate through the use and application of peer-reviewed science that the rationale behind the stipulation is no longer necessary, waivers, exceptions, or modifications to the lease will be considered by the Authorized Officer. The lease will be subject to the Pecos District land use plans in effect at the time of consideration. Granting of a waiver, exception or modification is a discretionary action which the operator should not routinely expect.

- WAIVER: a permanent exemption for a lease stipulation and the stipulation will no longer apply anywhere within the lease.
- EXCEPTION: a case-by-case exemption for a lease stipulation and the stipulation will continue to apply to all other sites within the lease.
- MODIFICATION: a fundamental change in the provisions of a lease stipulation, either temporarily or for the term of the lease.

See Appendix 2, Monitoring and Implementation, Table AP2-1 for details for the steps necessary to obtain waivers, exceptions and modifications.

Waivers, exceptions, and modifications will also be subject to other applicable regulatory and environmental compliance requirements. The BLM reserves the right to impose other stipulations in the same area of this leasehold if a waiver, exception or modification is granted.

Should occupied sand dune lizard habitat be found outside the Lizard Habitat Boundary (shown on Map B-1) but within the Planning Area, the management prescriptions described above will be applied to new oil and gas leasing.

Sand Dune Lizard – Existing Oil and Gas Leases

For existing leases within the sand dune lizard boundary (see Map 1), the lessee will be responsible for occupancy and habitat suitability surveys required prior to permitting surface disturbing activities. Surveys will be considered Conditions of Approval (COAs) and conducted by BLM employees or BLM approved contractors and personnel. Depending on the results of the survey, proposed well sites may not be available to be developed and directional drilling may be necessary to develop all spacing units within a lease. Shinnery oak flats adjacent to dune complexes are the preferred location for proposed well sites.

Surveys for occupied sand dune lizard habitat will follow scientific protocol. The recommended time period for sand dune lizard surveys is June 1 through September 30 between the hours of 9:00 a.m. and 5:00 p.m., but avoiding the heat of mid-day. Since surveys must be completed before any surface disturbing activities will be approved, lessees that do not complete surveys in the proper time frame will have to wait up to 8 months, October 1 through May 31, before conducting surveys. Depending on the results of the surveys, prospective well locations may be moved up to 200 meters to avoid sand dune lizard habitat.

Existing leases will require PODs, when requested, which will incorporate the results of the habitat surveys. The purpose of a POD is to assist the operator and BLM with planning for orderly development as a means to reduce or eliminate impacts to special status species habitat. A POD will also incorporate applicable best management practices and disclose all future well locations to the fullest extent possible;

the location and arrangement of well infrastructure (e.g., tank batteries, compressors, power lines and poles); road locations; and ROWs.

If the lessee can demonstrate through the use and application of peer-reviewed science that the rationale behind a stipulation is no longer necessary, waivers, exceptions, or modifications to the lease may be considered by the Authorized Officer. The lease will be subject to the Pecos District land use plans in effect at the time of consideration. Granting of a waiver, exception or modification is a discretionary action which the operator should not routinely expect.

Waivers, exceptions, modifications will also be subject to other applicable regulatory and environmental compliance requirements. BLM reserves the right to impose other stipulations in the same area of this leasehold if a waiver, exception or modification is granted.

Should occupied sand dune lizard habitat be found outside the Lizard Habitat Boundary (shown on Map B-1) but within the Planning Area, the management prescriptions described above will be applied to existing oil and gas leasing.

Mineral Materials

In the CMA and in the PPA, no new mineral material sites will be authorized in occupied or suitable prairie-chicken habitat. In the SSPA, no mineral material sites will be authorized in occupied prairie-chicken habitat. In the IPA, no new mineral material sites will be authorized within 1.5 miles of an active lek.

Alternative Energy

One of the priorities of this plan amendment is protection and expansion of occupied habitat and suitable habitat for the lesser prairie-chicken and sand dune lizard. Applications to permit either solar or wind energy sites on public land within the Planning Area will be considered if the applicant can demonstrate no negative impacts on occupied and suitable lesser prairie-chicken or sand lizard habitat.

Soils

Current soil management strategies and prescriptions identified and analyzed in the 1988 Carlsbad RMP (available on-line at www.nm.blm.gov) and the Roswell RMP will continue unchanged in the Planning Area. As specified in both the 1997 Carlsbad RMPA and the 1997 Roswell RMP, no surface disturbing activities will be allowed on slopes over 30 percent or on fragile soils. The slope restriction will not apply to livestock grazing.

Water Resources

Current surface water quantity management strategies, in both the Carlsbad and Roswell Field Offices, will continue unchanged in the Planning Area. See the 1997 Carlsbad RMPA and the 1997 Roswell RMP.

This includes Best Management Practices (BMPs) that will be developed in activity plans for actions that degrade surface water quality through non-point source pollution. The primary emphasis of BMPs will be on preserving water quality. Surface water quality parameters that will be addressed in BMPs include, but are not limited to: water temperature, turbidity, sediment transport and yield, chemical loading, and nutrient loading.

BMPs will be developed on a case-by-case basis for actions that degrade groundwater quality through non-point source pollution, for groundwater with 10,000 mg/l total dissolved solids (TDS) or less. The primary emphasis of BMPs will be on preserving water quality. Groundwater quality parameters that will be addressed in BMPs include, but are not limited to: TDS, pH, volatile organic compounds, and heavy metals.

Floodplains, Air Quality, Hazardous Materials

Current floodplain, air quality, and hazardous materials management strategies, in both the Carlsbad and Roswell Field Offices, will continue unchanged in the Planning Area. See the 1988 Carlsbad RMP, the 1997 Carlsbad RMPA, and the 1997 Roswell RMP.

Vegetation

General management objectives are to improve vegetative composition, cover, and production in areas that currently do not meet the vegetation condition objectives; and to maintain vegetation condition in areas that meet vegetation condition objectives. The Desired Plant Community (DPC) concept of the Roswell Field Office, described in Appendix 11 of the Roswell Resource Area Draft RMP/EIS (September 1994) and implemented by the 1997 Approved Roswell RMP, will be adopted in the Carlsbad Field Office portion of the Planning Area.

The standard practices that will be employed to meet management objectives in each community are:

- Utilization levels not exceeding 45 percent of annual plant production. Utilization levels will be determined prior to green-up and measured on key forage species and overall utilization. See Appendix 2 for further description of the monitoring process.

- Projects such as fences, exclosures, water developments, erosion control structures, reseedings, or vegetative sales.

- Grazing treatments such as rest, changes in season of use, class of livestock, or stocking rates.

- Vegetation treatments, including, prescribed fire or wildland fire use, fuelwood sales, and biological, chemical or mechanical controls.

- Treatment of salt cedar as conditions warrant. Considerations in determining whether to treat include location and density of salt cedar stands, available budget and staff to conduct treatment, and objectives of proposed treatment.

- The Roswell Field Office requirement, that no new treatments completed adjacent to an existing treatment until 5 years have passed, will be dropped.

Constraints on treatments for each community will be:

- Native, deciduous tree species in all plant communities, such as hackberry, black walnut, New Mexico walnut, and desert willow, will be protected from vegetation treatments and surface disturbance to the extent possible.

TABLE 5 VEGETATION MANAGEMENT - GRASSLAND COMMUNITY		
Vegetative Community Objectives		
Percent Vegetative Cover	**Percent Vegetative Composition**	**Percent Composition By Weight**
Grass/Forbs 15-52	Grasses 30-85	Grasses 60-90
	Forbs 10-15	Forbs 10-30
Shrubs/Trees 3-12	Shrubs 1-10	Shrubs 15-25
		Trees 1-10
Bare Ground 14-60		
Small Rock/ Large Rock 0-30		
Litter 8-44		
SOURCE: Pecos District Office Files, 2006		

Grassland Community

While this community has been broken up into several subtypes, the most common subtype within the Planning Area is the mesquite grassland. This subtype is found in the "sand country" east of the Pecos River and is characterized by level to gently rolling terrain, with dunes ranging from small stabilized hummocks to large active dunes. Vegetation treatments to influence DPC will be considered at the following threshold levels:

Mesquite--1/3 of the shrub cover composition
Cholla --100 plants/acre
Catclaw-- 5 percent vegetative cover
Creosote--20 percent of the vegetative canopy
Lechuguilla--20 percent of the vegetative canopy
Tarbush--20 percent of the vegetative canopy
Broom snakeweed--25 percent by weight of vegetative production
Piñon/juniper--12 percent vegetative cover

Shinnery Oak-Dune Community

Vegetation treatments to influence DPC in the shinnery oak-dune community will be considered at the following threshold:

Mesquite--1/3 of the shrub cover composition
Shinnery Oak --40 percent of vegetative cover by composition

Constraints on treatments in the shinnery oak dune community will be:

- Treatments may be conducted to achieve DPC objectives in areas that are not considered suitable or occupied habitat for special status species (e.g., the sand dune lizard). Suitable and occupied habitat

will not be chemically treated unless the species is removed from State or Federal listing, or a chemical application rate is developed that will not impair habitat.

TABLE 6 VEGETATION MANAGEMENT – SHINNERY OAK-DUNE		
Vegetative Community Objectives		
Percent Vegetative Cover	**Percent Vegetative Composition**	**Percent Composition By Weight**
Grass/Forbs 16-40	Grasses 50-70	Grasses 60-80
	Forbs 10-15	Forbs 10-30
Shrubs/Trees 3-17	Shrubs 25-40	Shrubs 15-25
		Trees 1-10
Bare Ground 5-20		
Small Rock/ Large Rock 0-1		
Litter 25-70		
SOURCE: Pecos District Office Files, 2006		

Mixed Desert Shrub Community

Vegetation treatments to influence DPC in the mixed desert shrub community will be considered at the following threshold levels:

Mesquite-- 1/3 of the shrub cover composition
Cholla--100 plants/acre
Catclaw --5 percent canopy cover
Creosote--20 percent of the vegetative canopy
Lechuguilla--20 percent of the vegetative canopy
Tarbush--20 percent of the vegetative canopy
Broom snakeweed--25 percent by weight of vegetative production
Pinon/juniper--2 percent vegetative cover

The Vegetative Community Objectives listed above will be applied throughout the Planning Area. Ecological site descriptions, currently being modified by the Natural Resources Conservation Service (NRCS) to include plant communities and transitional pathways, will be used to assess the Standards for Rangeland Health.

Rangeland restoration and vegetation treatments will continue to be implemented to improve or maintain the plant community needed to achieve multiple-use management goals. These goals will address watershed management, wildlife habitat, and rangeland health. Plant communities in the Carlsbad Field Office are based on the NRCS ecological site descriptions and are described in the Roswell Field Office by the DPC listed in Appendix 11 of the 1994 Draft Roswell RMP. Brush encroachment from mesquite and catclaw will be a primary target to restore native grassland ecosystems with a focus on lesser prairie-

TABLE 7 VEGETATION MANAGEMENT – MIXED DESERT SHRUB COMMUNITY		
Vegetative Community Objectives		
Percent Vegetative Cover	**Percent Vegetative Composition**	**Percent Composition By Weight**
Grass/Forbs 11-28	Grasses 55-75	Grasses 50-80
	Forbs 10-20	Forbs 10-20
Shrubs/Trees 6-15	Shrubs 15-20	Shrubs 10-30
	Trees 1-10	Trees 1-10
Bare Ground 10-40		
Small Rock/ Large Rock 15-35		
Litter 1-12		
SOURCE: Pecos District Office Files, 2006		

chicken habitat types. Growing season rest for 2 years after treatment will be required, unless earlier grazing use or a longer deferment is needed to make progress towards meeting the vegetative standard.

Within the Planning Area, any habitat that is currently designated as unsuitable for lesser prairie-chicken or sand dune lizard, but has potential to become suitable will be identified and targeted for treatment. Methods to achieve this potential will include, but not be limited to, vegetative treatments, rehabilitation of pads, roads, and ROWs, and will be designed to improve habitat, enhance connectivity, reduce fragmentation, and move towards DPC. Not all areas designated as unsuitable habitat, however, can be converted to suitable since the soils in some of these areas are not capable of producing the necessary vegetation for lesser prairie-chicken or sand dune lizard habitat.

Although mineral extraction may occur on a given piece of land over a period of many years, eventually resources become exhausted and wells and related infrastructure are taken out of production. In some areas this has already occurred; elsewhere, some wells are nearing maturity and may be plugged and abandoned within the next decade. This will create opportunities to increase suitable habitat, and to create or expand lesser prairie-chicken management areas.

Recent pilot projects have focused on reclamation of abandoned well-pads and access roads, and re-contouring these sites with the surrounding landscape using the goals of the appropriate DPC. Rangeland restoration efforts will target disturbed areas such as plugged/abandoned pads, roads, and ROWs in lesser prairie-chicken habitat areas. Techniques to accomplish this restoration include removal of caliche, re-contouring, reseeding, fertilizer/water application if appropriate, and temporary fencing to allow establishment of vegetation. A combination of techniques could be utilized and will be site-specific, depending on habitat requirements and DPC.

Mesquite encroachment into sand-shinnery and sand-sage ecosystems reduces the amount of forage and creates habitat that is unsuitable for lesser prairie-chicken nesting or brood-rearing. Mesquite control may be used to improve rangeland health in areas not used by lesser prairie-chickens, thereby reducing grazing pressure in nesting areas. This also could help offset forage losses due to initiation of conservative

grazing on other ranch lands that are important lesser prairie-chicken habitat. Thus, mesquite control will be considered a valuable management tool.

While much of the targeted area is not in the sand-shinnery and sand-sage ecosystems, indirect benefits, such as reduced grazing pressure in nesting or brood rearing areas, will be realized. The intent of these treatments is to move towards the attributes of DPC described above.

Shinnery oak treatments will feature sand dune lizard dispersal corridors of untreated shinnery oak flats at least 500 meters wide between suitable habitats, both occupied and unoccupied, that are separated by less than 2,000 meters. See Figure 2-1.

Vegetative treatments will include chemical, mechanical, and the use of fire. Brush species such as mesquite, catclaw, and noxious/invasive weeds will be targeted and treatment will be site-specific based on habitat requirements and site potential. Standard Bureau stipulations regarding buffer areas and growing season rest will be applied.

A site may provide suitable vegetative composition but lack the vertical structure required for successful lesser prairie-chicken nesting and concealment. Sampling transects of pastures using the Robel method in the late fall to early spring (November 1 to February 28 prior to the leafing out of shinnery oak and immediately prior to nesting), provides a standardized measure of the average height of residual grasses favored by lesser prairie-chickens for nest placement. The vegetative objective will be that at least 10 percent of all survey points should provide a Robel visual obstruction reading of at least 13 inches and a minimum average of 4 inches.

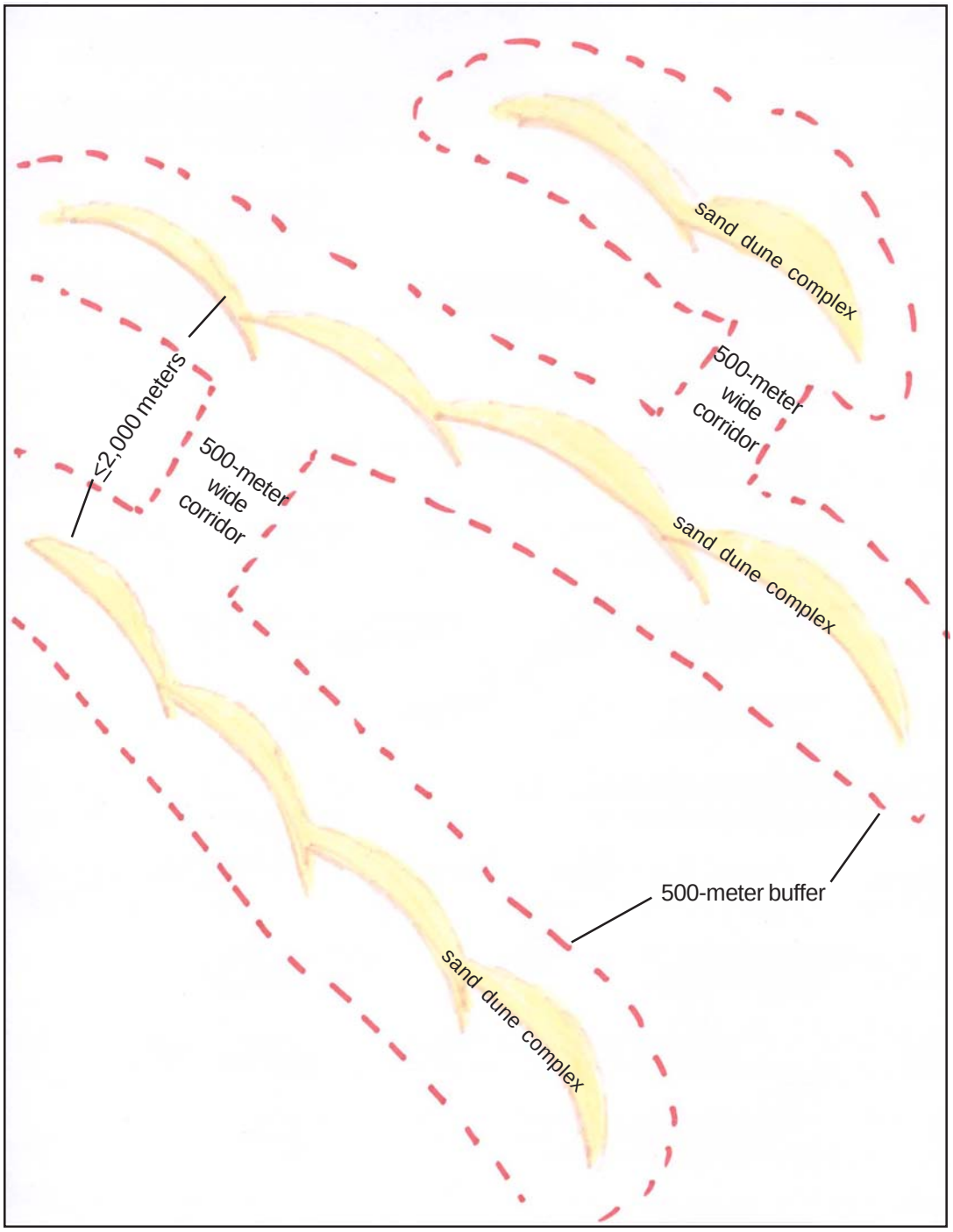
Current management will continue as identified in each Field Office RMP, including brush control methods. Brush control will be implemented to achieve Standards for Public Land Health and meeting Desired Plant Community objectives. Reclamation efforts on abandoned pads, roads, and caliche pits will continue to address and reduce habitat fragmentation, restore native habitat and promote lesser prairie-chicken and sand dune lizard expansion opportunities.

Non-Native and Invasive Species

Management practices targeting species described in the Noxious Weed List for the State of New Mexico (NMDA, 1999) will follow those described in existing planning documents. The presence of those species described in the Noxious Weed List for the State of New Mexico (NMDA, 1999) is detected via continual inventory being carried on by all field going personnel. The inventory process is on-going to detect invasive populations when they are small. Once a population is found, the Bureau coordinates with various agencies and the land user to implement some kind of treatment to remove or control the population.

Both Field Offices conduct noxious weed control via a Memorandum of Understanding between various Federal, State, County, and City agencies and private entities. These populations should be aggressively controlled to eliminate them or keep them small. Priority ranking for treatment of known populations is based upon the Class ranking of the species on the State List, the likelihood of the population to expand, the availability of funding and manpower, and time of year. High priority populations will be treated first, with Class A weeds having the highest priority for treatment, followed by Class B, then Class C. Control methods can be chemical, mechanical, fire, biological, or some combination.

Figure 2-1. Vegetation treatment buffers and dispersal corridors for occupied and suitable sand dune lizard habitat. Not drawn to scale.



Livestock Management

Management priorities among allotments within the Planning Area will be based on similar resource characteristics, management needs, and both resource and economic potential for improvement. Livestock grazing decisions made in the 1988 Carlsbad RMP and the 1997 Roswell RMP will be carried forward. Approximately 1.85 million acres, which includes about 850,000 acres of public land and makes up all or parts of 114 grazing allotments, will be available for livestock use.

Currently, a total of 192,125 AUMs are permitted either by grazing permit or grazing lease. Any adjustments to a permit or lease, whether an increase or a decrease, will be made based on monitoring data, Standards Assessments, and through consultation, as discussed in 43 CFR 4100.

A total of 386 long-term range monitoring studies have been established on 84 allotments in the Planning Area. These studies collect data on livestock use, forage production and utilization, climatic data, and ecological condition and trend. The intensity and frequency of monitoring efforts vary with selective management categories, with "I" category allotments monitored at a greater intensity and frequency than "M" and "C" allotments. (See the "allotment categories" Glossary.) Other monitoring data includes more recent Robel pole studies, photo trend plots, and Rangeland Health Evaluations. This data will continue to be collected within the Planning Area.

Management prescriptions will be applied as needed across the Planning Area with the intent of achieving landscape goals and objectives. Actions will be accomplished via consultation, cooperation and coordination with Federal, State, and local agencies, grazing permittees/lessees and interested publics. Special status species populations and their needs, whether known or found during monitoring, will be addressed using adaptive management to allow livestock grazing while enhancing habitat for these species.

While the current grazing regulations (43 CFR 4100) provide flexibility and wide latitude to improve and maintain rangeland health, voluntary relinquishment will be one method to meet the goal of establishing habitat reserves for the lesser prairie-chicken within the Planning Area. The decision to relinquish livestock grazing is totally voluntary on the part of the permittee/ lessee. The criterion for BLM to accept a voluntary relinquishment and to close the allotment to grazing is that conflicts exist between livestock grazing and protection of lesser prairie-chicken habitat. If a grazing permittee/lessee decides to voluntarily relinquish grazing on the allotment to resolve conflicts that exist between livestock grazing and protection of lesser prairie-chicken habitat, BLM will close the allotment to livestock grazing. This allotment closure will continue for the life of this plan amendment and may or may not continue when the plan is revised.

Since population numbers and habitat for the lesser prairie-chicken can be impacted by livestock grazing, management strategies will be implemented on allotments within the Planning Area. The strategies, based on monitoring data, include changing the time of year certain pastures are grazed, reducing/increasing allowable utilization levels, implementing pasture rotation schemes, and reducing/increasing the annual stocking rates on public land. Seasonal use restrictions will be applied, on a pasture basis, if monitoring indicates habitat requirements are not being met. An example will be removing livestock from a pasture during lesser prairie-chicken booming, and nesting seasons, and then allowing livestock back into the pasture once this timeframe is past.

Growing season rest for 2 years after a brush control treatment will be required, unless a different time period, longer or shorter, is deemed a necessary tool to achieve habitat requirements.

As part of livestock management guidelines, range improvement projects will be constructed where it is determined that these projects can enhance habitat. Improvements such as fencing, both traditional wire and "virtual" fences, and water development will be constructed to allow continued livestock use while improving habitat requirements for both lesser prairie-chickens and sand dune lizards. An example will be a cross fence in a large pasture, especially if only a portion of the pasture is suitable/occupied habitat that will divide the pasture along the suitable/occupied habitat line. By constructing the fence, livestock use could occur in the non-suitable portion during key time periods, while allowing growing season rest or no livestock in the suitable area while young are being reared.

The same effect could be accomplished by adding additional water sources in a large pasture with few existing water sources. Adding another trough in non-suitable areas could draw livestock out of suitable areas during key time periods. As the technology becomes available, virtual" fencing, which is a combination of satellite/computer/ear tag technology that provides stimuli to livestock to guide their movement, could also be used to move livestock out of key areas for certain time periods.

Any new fence constructed in occupied or suitable lesser prairie-chicken habitat will include spikes or other anti-perching devices on fence posts and fence flags to reduce collisions. When determined to be a hazard to lesser prairie-chickens, existing fences will be retro-fitted with these devices.

Range improvement projects will not be allowed if it is determined that the project could have negative impacts to habitat. An example will be a water trough, or any activity, that will concentrate livestock at the edge of a dune complex that has occupied or suitable habitat for sand dune lizards. Concentrating animals in such an area could break down the dune and reduce or eliminate the ability of sand dune lizards to survive.

Rangeland improvements are to be planned and implemented in accordance with priorities established through benefit/cost analysis and must meet design specifications and standard operating procedures. Higher priority for rangeland improvements will be given to "allotments that do not meet the Standards for Public Land Health and Guidelines for Livestock Grazing". Contributions for improvements in the form of labor, material, equipment, or money are to be encouraged and are a factor in determining priority ranking for allocating funds. Vegetation treatments are to be conducted to control undesirable vegetation or increase desirable vegetation consistent with multiple-use objectives. Areas potentially suitable for treatment have been identified in the Planning Area and will be refined during site-specific analysis. Chemical treatments, prescribed burns, and mechanical removal of undesirable vegetation have been conducted in various areas within the Planning Area over the last 20 years.

Standards for Public Land Health and Guidelines for Livestock Grazing

BLM amended the Carlsbad and Roswell Resource Management Plans to incorporate the *New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management* (January 2001), which adopted standards for public land health and guidelines for livestock grazing management in New Mexico. The standards describe conditions needed for healthy, sustainable public rangeland and relate to all uses of public land. The livestock grazing guidelines are management practices that are applied if it has been determined that grazing practices are responsible for non-achievement of a Standard. They are designed to improve public land health and are to be implemented at the watershed, allotment, or pasture level.

There are different indicators that provide a measure of resource quality and functioning condition upon which the standards for public land health will be assessed. These indicators describe attributes of soil and site stability, watershed function, and biotic (plant and animal) integrity. The assessment process is a combination of qualitative and quantitative techniques that use observations and measurements made in

the field to assign numeric values or rankings to each indicator. The indicators are rated relative to the degree of departure from what a healthy site will look like. For instance, if a healthy site is described as having no or few rills and the assessed site has few rills, then it is rated as none to slight departure. Conversely, if the assessed site has many rills, the site is rated as having severe departure. Once each of these indicators has been rated, these rankings are combined to determine soil and site stability, watershed function, and biotic integrity. Some indicators are used in all three of these categories, some in two of the three, and some in only one specific category. The Carlsbad Field Office uses 21 different indicators, while the Roswell Field Office uses 22 of them.

The assessment process is based on the ecological site description and is done on a watershed basis. The Carlsbad and Roswell Field Offices have schedules in place to determine the order in which each watershed area is assessed. These schedules were established based on input from other Federal and State agencies and various public comments. The indicators are rated against the soil, vegetation, and animals described as typically present in that ecological site. During the rating process, site capability and current weather patterns are considered. Site capability is a measure of expected conditions such as degree of erosion or pounds per acre of vegetative production. If a site has been degraded over time, from whatever type of disturbance, it will be rated based on its current capacity. Similarly, if a site has experienced abnormal precipitation, either very dry or very wet, then these weather conditions will be factored into the indicator ratings.

In addition to these indicators, both Field Offices have over 20 years of rangeland monitoring data collected at permanently established study plots. This data provides information about range condition, amount of annual vegetative production, composition and cover of vegetation, utilization amounts, and precipitation. This data will be used along with the assessment process to determine if the Standards for Public Land Health are being met.

Wildlife – Special Status Species

Wildlife habitat management prescriptions delineated in existing RMPs will continue in the Planning Area. These prescriptions include:

- Recovery plans for species Federally-listed as threatened or endangered will be implemented under the authority of the Endangered Species Act (ESA), including the reintroduction or relocation of native special status species in suitable areas on public land in coordination and cooperation with local governments.

- The construction of fence exclosures or barriers will be considered in habitat of special status species (includes Federal threatened or endangered, Federal candidate, or State-listed wildlife and plant species) to protect all or portions of a specific habitat, specific populations, or to provide for scientific research on a species and its habitat. Fenced exclosures will also be considered to protect special habitat features such as wildlife waters, springs, or to provide for scientific research on a species and its habitat. The intent of using fences in this manner is to protect small areas (less than 10 acres), as opposed to fencing-out large areas of public land. It is expected that exclosures or barriers, if used, will be small in size and associated with specific sites. If it is determined to be necessary, mitigation measures such as anti-perching structures and fence markers will be used.

- Existing habitat management plans (HMPs) will be revised, as needed, to incorporate changes resulting from decisions made in this RMPA. Modifications in existing HMPs will include public participation and review through the NEPA process. Actions in existing HMPs will continue to be implemented.

- Surface disturbance will not be allowed on public land within known prairie dog towns or towns identified in the future. Exceptions to this requirement will be considered for maintaining existing structures or facilities. Prairie dog control will not be authorized on public land, except in emergency situations involving public health.

- Surface disturbance will not be allowed within up to 200 meters of active raptor nests on special, natural habitat features, such as trees, large brush, cliff faces and escarpments. Surface disturbance will not be allowed within up to 200 meters of playas and alkali lakes.

- The shinnery oak dune plant grassland and mixed desert shrub community types in the Planning Area will be maintained for special status species and sensitive species requiring this habitat type. These include the black-tailed prairie dog, mountain plover, burrowing owl, Bell's vireo, gray vireo, ferruginous hawk, loggerhead shrike, and Texas horned lizard.

- The Master Memorandum of Understanding between the BLM and the Animal and Plant Health Inspection Service, Animal Damage Control (now Wildlife Services, WS) will guide predator damage management (PDM) activities on public land in the Planning Area. BLM will coordinate with WS to provide for the welfare and perpetuation of wildlife and to be responsive to the needs of individuals or groups who use public land. Constraints on PDM can be found in the 1997 Roswell RMP.

- The following special status species are not present in the Planning Area: **Endangered Species:** black-footed ferret, Northern aplomado falcon, interior least tern, Kuenzler's hedgehog cactus, Pecos gambusia, Sneed pincushion cactus, Koster's tryonia snail, Pecos assiminea snail, Roswell springsnail, Noel's amphipod; **Threatened Species:** bald eagle, Mexican spotted owl, Pecos bluntnose shiner, Pecos sunflower, gypsum wild-buckwheat, Lee pincushion cactus; and **Candidate Species:** Texas hornshell.

- BLM will participate in and support the efforts of the Southeast New Mexico Lesser Prairie-Chicken Working Group Implementation Team for the Working Group's Strategy.

If new lesser prairie-chicken leks outside the Planning Area are discovered in the future, the area around the lek will be considered occupied habitat and the prescriptions of the 1997 Roswell RMP/Carlsbad RMPA (Appendix 1 of both plans) will apply to proposed actions in and around that habitat. Similarly, if new sand dune lizard occupied habitat outside the Planning Area is discovered in the future, the prescriptions of the 1997 Roswell RMPA/Carlsbad RMPA (Appendix 1 of both plans) will apply in and around that habitat.

Inside the Planning Area, most of the wildlife habitat needs or prescriptions are identified in other resource disciplines. Therefore refer to the minerals, livestock grazing, vegetation, recreation, realty, and OHV for guidelines addressing sand dune lizard and lesser prairie-chicken habitats. Current surface and occupancy requirements except those referring to lesser prairie-chicken and sand dune lizard will remain in place.

Within the Planning Area:

- Predator control for the purpose of protecting sensitive wildlife species may be conducted on public land within the Planning Area on a case-by-case basis. Any predator control actions will follow the protocol listed in the 1997 Roswell RMP.

- Increased intensity in research and monitoring will be needed to evaluate changes in habitat condition, land use threats to the species, species use and distribution, reclamation efforts, propagation, and other

projects that may help in enlarging the knowledge base of these species. See Appendix 2 for a description of monitoring lesser prairie-chicken and sand dune lizard habitat.

- BLM will support the propagation of lesser prairie-chicken and transplant efforts throughout the Planning Area, with an emphasis that the habitat parameters necessary for survival be in place prior to reintroduction; unless identified and needed for research projects.

- BLM will support the use of Candidate Conservation Agreements (CCAs) to support the recovery of the lesser prairie-chicken and sand dune lizard.

- If necessary, BLM will pursue and propose changes to State wildlife management regulations on game species based on impacts to land resources and game populations.

- BLM will continue reclamation practices on historical oil and gas for the betterment of rangeland health and wildlife species. These efforts will enhance distribution of special status species in appropriate habitats over the long-term.

- New areas or combinations of areas that can function as lesser prairie-chicken reserves and sites for reintroduction will be established in the IPA. These should be located within predominantly suitable habitat areas large enough to support viable lesser prairie-chicken populations and meet other criteria specified in Appendix 3.

Fire Management

Current fire management strategies, in both the Carlsbad and Roswell Field Offices, will continue in the Planning Area. See the 2004 Resource Management Plan Amendment for Fire and Fuels Management on Public Land in New Mexico and Texas.

Within the Planning Area, the Carlsbad Field Office and the Roswell Field Office have two different fire management unit (FMU) categories. In Eddy and Lea Counties, the FMU category is "C," areas where wildland fire use is desired, but there are significant constraints that must be considered in the use of fire. In Chaves and Roosevelt Counties, the FMU designation is "D," areas where wildland fire use is desired and there are few or no constraints for its use.

The difference between the Field Office designations can be found in the differences in the extent and intensity in oil field development. In Eddy and Lea Counties, managed by the Carlsbad Field Office, there is extensive and intensive oil field development. A lesser level of development exists in Chaves and Roosevelt Counties, managed by the Roswell Field Office.

The fire suppression considerations for the FMU categories are different. Category C guidelines state ecological and resource constraints along with health and safety are to be considered in determining the appropriate suppression response on a case-by-case basis by the incident commander or line officer. By contrast, Category D guidelines state these areas offer the greatest opportunity to take advantage of the full range of options available for managing wildland fire under the appropriate management response. Health and safety constraints also apply.

Wildfire suppression will in all likelihood be applied equally regardless of the administrative boundary. Soils and topography will drive any decisions regarding suppression strategy in the Planning Area. Because of the sandy soils and dune topography, fire suppression strategies will be based on existing roads serving as control lines. Directing personnel and equipment to fight a fire using direct attack

methods in these conditions raises the very real risk of loss of equipment, injury and loss of life due to the difficulty of traveling cross-country in loose sand.

Cultural Resources

Cultural inventory surveys will be required to identify cultural resources prior to surface disturbance through all alternatives. Eligible prehistoric and historic sites will continue to be either avoided or archeologically treated prior to surface disturbance. Unevaluated sites will either be avoided or tested to determine eligibility and if eligible, will be archeologically treated prior to surface disturbance. Cultural resources will be managed for information, interpretation or conservation with the majority of sites falling into the information category.

Paleontology

Protection of paleontological resources will follow through all alternatives. The required cultural inventory surveys will also identify exposed paleontological resources prior to surface disturbance through all alternatives. The geologic units or settings that have potential to produce fossils in planning area are the Quaternary outcrops shown on the Geologic Map of New Mexico 2003. Where fossil locations are known or where significant or important fossils are discovered, a qualified paleontologist will perform a literature and records search, conduct a field survey and report the findings prior to the BLM authorizing surface disturbance.

Recreation

The following recreation management prescriptions in the Planning Area will be carried forward from existing RMPs:

- The recreation opportunity spectrum (ROS) defines the Planning Area as rural and natural (see Glossary). Recreation opportunity will be managed so that opportunities categorized by the ROS will be maintained. No management actions are proposed that will improve or degrade recreation opportunity to the extent that a change in any ROS category will result. Existing ROS classes are discussed in the Glossary.

- In the Planning Area, the objective of the interpretive program will be to assist visitors in developing awareness, appreciation and understanding of the areas they visit. The second objective will be to encourage thoughtful use of the natural resources available in the area to reduce impacts on natural resources. The final objective will be to promote a public understanding of BLM goals and objectives. The main emphasis for interpretation will be placed on the Mescalero Sands North Dune Off-Highway Vechicle (OHV) Area, and the Hackberry Lake Intensive ORV Area. Tools used to accomplish these objectives may include: interpretive trails, exhibits, literature, waysides, environmental education, special populations programs, visitor and information stations, auto tours, campfire talks and guided walks.

- The Special Recreation Management Areas (SRMAs) within the Planning Area are the Mescalero Sands North Dune OHV Area, the Mescalero Sands ACEC, and the Hackberry Lake Intensive ORV Area. See Map 6 for locations of these areas. Areas outside SRMAs will be managed as extensive recreation management areas where only custodial management action will be taken to maintain a rural and natural condition.

New recreation management prescriptions within the Planning Area are:

- In the Planning Area, outside the SRMAs, there are extensive recreation management areas (ERMAs). Within these ERMAs recreation use includes hunting, OHV riding, photography, driving for pleasure, watchable wildlife, and dispersed camping.

- At present, there is no data to support the premise that recreational activities within the Planning Area are the causes of lesser prairie-chicken population decline. However, through visitor monitoring in the Planning Area, if data becomes available that identifies recreational use as a factor in population decline, BLM will implement corrective management actions such as; seasonal closures of roads leading to lek areas, noise restrictions in or around leks, or the issuance of Special Recreation Permits (SRP). Noise restrictions may include but may not be limited to:

  During the lesser prairie-chicken mating season, noise restrictions will be in effect from March 1 through June 15 and from 3 a.m. to 9 a.m. Generators associated with recreation uses will not be allowed in or near identified mating areas during booming season. These conditions will be identified on interpretive signs and placed in key areas within the Planning Area.

- Based on monitoring visitor use and lesser prairie-chicken needs, if results indicate that a SRP is the best method to regulate visitations in lek areas, then an SRP may be issued. If an SRP were to be issued, there will be no cost to the visitor/permittee. The SRP will allow visitations for the purpose of watching or photography to continue while tracking visitor use and spreading impacts so that one lek or group of leks does not bear the brunt of visitors.

- The issuance of a special recreation permit will contain specific stipulations regarding distance, noise, and interfering with the natural mating ritual of the lesser prairie-chicken. The Wildlife and Recreation Specialists in each Field Office will draft stipulations to be attached to a SRP for the purpose of minimizing impact to mating areas.

Off-Highway Vehicles

To clarify the intent of the 1997 Roswell RMP and to bring the 1988 Carlsbad RMP up-to-date, within the Planning Area, motorized wheeled cross-country travel will be allowed for any military, fire, search and rescue, or law enforcement vehicle used for emergency purposes.

Disabled access will be allowed per the Rehabilitation Act of 1973. Under the Act, an individual with a disability will not, solely by reason of his or her disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity conducted by BLM. Disabled access per the Rehabilitation Act is considered at the local level on a case-by-case basis. Motorized wheelchairs, as defined in the Rehabilitation Act are not considered OHVs and therefore, will not be restricted by any of the alternatives.

The State of New Mexico Department of Game and Fish is the licensing authority for all persons including persons with disabilities who engage in hunting. Disabled hunters may have with them a person who is not disabled to assist them with the retrieval of harvested game animals.

There will be no exceptions that allow for cross-country travel for game retrieval on BLM-managed land that has a limited or closed designation. This policy is consistent with all the National Forests in the State of New Mexico. Public land users who engage in hunting activity on public land managed by the BLM should consider this cross- country restriction prior to engaging in hunting activities on public land.

For OHV use, an existing road will be defined as an established road, built or maintained by equipment, which shows no evidence of ever having been closed to vehicular traffic by such means as berms, ripping,

scarification, reseeding, fencing, gates, barricades or posted closures. A two-track road will be defined as void of vegetation in the tracks which shows use for other purposes, such as recreation, mining, logging, and ranching, and shows no evidence of ever having been closed to vehicular traffic by such means as berms, reseeding, gating, fencing or signing.

Livestock and wildlife trails do not meet these definitions and will not be authorized for use by motorized vehicles.

Motorized wheeled cross-country travel for lessees and permittees will be limited to the administration of a BLM lease or permit. Persons or corporations having such a permit or lease will be able to perform administrative functions on public land within the scope of the permit or lease. Lessees and permittees will not be allowed to drive cross-country for the purposes of hunting, fishing, recreation or other purposes not directly related to the administration of their Federal permit or lease.

The constraints mentioned above, however, will not preclude modifying permits or leases to limit motorized wheeled cross-country travel during further site-specific analysis to meet resource management objectives or standards and guidelines.

Some examples of administrative functions include, but are not limited to:

- Gas or electric utilities monitoring a utility corridor for safety conditions or normal maintenance,
- Accessing a remote communications site for normal maintenance or repair,
- Livestock permittees checking vegetative conditions, building or maintaining fences, delivering salt and supplements, moving livestock, checking wells or pipelines as part of the implementation of a grazing permit or lease,
- BLM personnel involved with the administrative duties of managing public land,
- Scientific groups under contract or permit for resource assessments or research,
- Surveying that result in locating well sites, pads and access roads on Federal mineral leases,
- A no surface occupancy (NSO) requirement will be applied to all new oil and gas leases within the Mescalero Sands North Dune OHV Area.

Within the Planning Area, inventories, public review, and transportation planning will be conducted to support road-by-road designations for roads and trails suitable for OHV use. Pending completion of formal designations, the Planning Area will be managed as limited to existing roads and trails for OHV unless otherwise specified in the plan. A preliminary road network is shown on Map R-1.

Within the Planning Area, seasonal OHV use will be implemented in designated OHV areas based on monitoring of visitor use and needs of the lesser prairie-chicken and sand dune lizard. These restrictions will be implemented to protect booming areas adjacent to the OHV areas during the booming season. If monitoring of lesser prairie-chicken and their habitat indicates the need for further restrictions, then no OHV use will be allowed in the Planning Area between the hours of 3 a.m. to 9 a.m. from March 1 through June 15.

For the Mescalero Sands North Dune OHV Area, a lesser prairie-chicken and sand dune lizard survey will be conducted prior to implementation of any phase. See Map 3 for the location of the phases. Providing

there will be no conflicts with lesser prairie-chicken and sand dune lizard habitat, the Mescalero Sands North Dune OHV Area will be expanded from the existing 562 acres to 1,674 acres in a three-phase plan based on monitored visitor use and demand. Phase One will be 418 acres to the north of the existing OHV boundary and will be limited to designated routes. Phase Two will be 295 acres south of the existing boundary and designated open to OHV use. Phase Three will be 399 acres east of the existing boundary and designated open to OHV use.

Acreage for the expansion of each phase of the Mescalero Sands North Dune OHV Area was identified by BLM staff biologists. Prior to the release of the Draft EIS, BLM staff biologists reported no conflicts with special status species or occupied habitat. Before expanding of any phase of Mescalero Sands North Dune OHV Area, the acreage will be surveyed again by BLM staff biologists to confirm that conflicts do not exist with special status species or occupied habitat.

Every established recreation area, including OHV areas, must have a recreation area management plan (RAMP). This resource management plan amendment will amend the RAMP for the Mescalero Sands North Dune OHV Area.

The portion of the Hackberry Lake Intensive OHV Area (22,673 acres) located within the Planning Area, will be designated limited to existing designated routes with the exception of 132 acres of dune complex, known as the Shugart Dunes, which will remain open.

Improvements to the existing facilities and the development of additional facilities will continue throughout the Mescalero Sands North Dune OHV Area, so long as they are compatible with management of special status species. Signage will be placed at key locations for interpretation and education of the recreating public and to show route designations.

The Square Lake dune complexes are within the Planning Area and have historically been heavily used for OHV recreation. BLM will propose establishing the Square Lake OHV Area consisting of 5,974 acres designated as limited to existing routes and 817 acres of sand dunes designated as open. See Map 4 for the location of the dunes and the designated roads and trails. BLM staff biologists identified the dune areas and the transverse routes between the dunes.

Prior to the release of the Draft EIS, wildlife biologists reported no conflicts with special status species or occupied habitat in the proposed Square Lake OHV Area. Prior to any development in the Square Lake OHV Area, BLM staff biologists will re-survey the area to confirm there are no conflicts with the Special Status Species or occupied habitat.

Should the criteria be met to establish the Square Lake OHV Area, BLM will develop a RAMP for the area which will include route designation and the impacts will be analyzed in a National Environmental Policy Act (NEPA) document. Once the RAMP is completed, implementation will include marking designated trails and developing maps of the trails.

Establishment of the proposed OHV area will be pending the results of the evaluation of the Habitat Evaluation Areas and a lack of conflicts with lesser prairie-chicken and sand dune lizard habitat protection.

The proposed Square Lake OHV Area will be limited to vehicles with a width of 55 inches or less. This will normally exclude the use of sand rails and dune buggies. Signage containing information and showing designated routes will be placed at key locations for interpretation and education of the recreating public.

Visual Resources

VRM classes remain unchanged throughout the Planning Area. Low profile tanks and structures will apply in Classes I and II. Under some visual conditions, low profile tanks and structures will be applied in Class III. Painting stipulations from the Standard Environmental Color Chart and the Supplemental Environmental Color chart will apply.

Special Management Areas

The boundaries of the Lesser Prairie-Chicken Habitat Preservation ACEC described below have been established based on the presence of resources and opportunities for efficient management, irrespective of land ownership. The inclusion of other ownerships in the ACEC is for purposes of disclosure and does not mean those lands would be designated as part of an ACEC, or that the management proposed in this plan would be applied to those lands. The acquisition of non-Federal lands within the ACEC is part the management included in this plan. If non-Federal lands are acquired, those lands could then become part of the ACEC and be managed according to the management proposed in this plan, without additional land use planning.

The Lesser Prairie-Chicken Habitat Preservation ACEC (see Map 6) includes 37,082 public land surface acres and 46,902 acres of Federal mineral estate. The surface acreage consists of the following categories and approximate acreages:

Public land	37,082 acres
State trust land	10,819 acres
Private land	9,621 acres
TOTAL	57,522 acres

The Management Goal for this ACEC is to protect the biological qualities of the ACEC, with emphasis on the preservation of the shinnery oak-dune community to enhance the biodiversity of the ecosystem, particularly habitats for the lesser prairie-chicken and the sand dune lizard.

The management prescriptions for the Lesser Prairie-Chicken Habitat Preservation ACEC include:

- The ACEC is designated as a right-of-way exclusion area.
- The BLM will consider acquisition of land within the ACEC for special status species habitat when the opportunity arises from willing sellers of the private land. Acquisitions of State trust land will be by exchange. Inholdings within the ACEC will be considered for acquisition if they:
    - Improve management of natural resources through consolidation;
    - Secure property necessary to protect special status species, promote biological diversity, enhance wildlife habitat, provide access to public waters and public land, and preserve archaeological and historical resources;
    - Criteria for acquisitions, found in Appendix 5 of the 1997 Roswell RMP, will be applied to potential acquisitions regardless of their location in the Planning Area.
- The ACEC will be closed to future oil and gas leasing.
- The ACEC will be closed to locatable, leaseable, and salable mineral entry.
- Existing oil and gas leases will be developed in accordance with those prescriptions applicable in the Core Management Area and sand dune lizard habitat.
- Vegetation will be managed to meet the goals of the ACEC and the vegetation prescriptions described in the Vegetation Management section of this RMPA.

- Livestock grazing within the ACEC will be managed and monitored to meet the Standards for Public Land Health.
- Within the ACEC, the decision to relinquish livestock grazing is totally voluntary on the part of the permittee/lessee. If a grazing permittee/lessee decides to voluntarily relinquish grazing on his/her allotment to resolve conflicts that exist between livestock grazing and protection of lesser prairie-chicken habitat, BLM will close the allotment to permitted livestock grazing. This allotment closure will continue for the life of this plan amendment and may or may not continue when the plan is revised.
- BLM will consider using livestock grazing as a vegetation management tool when monitoring data indicates the key grass species are becoming decadent.
- Recreation within the ACEC will be managed to meet the goals of the ACEC using the management prescriptions of the Recreation section of this RMPA.
- Pending completion of formal designations, the ACEC will be managed as limited to existing roads and trails for off-highway vehicle use.

Management goals and prescriptions for the Mescalero Sands ACEC will remain unchanged. (See Map 6.) All current management prescriptions for this ACEC will be carried forward.

The current designations for SMAs will remain unchanged. The SMAs within the Planning Area are the Mathers RNA, Bear Grass Draw, the Laguna Plata Archeological District, the Maroon Cliffs Archeological District, and the Poco Site. (See Map 6.) All current management prescriptions for these SMAs will be carried forward.

Environmental Justice

All residents, including low-income populations and Indian tribes, will receive equal notification of proposed actions authorized by BLM and ample opportunity to participate in BLM's planning process.

BEST MANAGEMENT PRACTICES

Best management practices (BMPs) will be used in the Planning Area. BMPs are tools to be used in the effort to minimize impacts or return areas that have had surface disturbance (such as drill pads and roads) to natural conditions. As BMPs are employed in this effort, they may continuously change over time due to the finding of more efficient or effective techniques and methods in surface reclamation practices. For a description of these BMPs, see Appendix 1.

PUBLIC INVOLVEMENT

In the National Environmental Policy Act (NEPA) and the Federal Land Policy and Management Act (FLPMA), BLM will seek out opportunities to involve stakeholders in the implementation of this RMPA. During development of the RMPA/EIS, public interest and concern was clearly expressed on a variety of issues and land use management concerns. It is the intent of BLM to work in cooperation, consultation, and collaboration with local and state governments, tribes, interest groups, and individuals to achieve and sustain common objectives. BLM will further this collaboration with the public and interest groups through the activities and organizations described in this section, while looking for new opportunities to obtain public feedback and input for use in land management programs.

MANAGEMENT PLAN AMENDMENT IMPLEMENTATION

The RMPA will be implemented primarily as site-specific actions with more detailed environmental analysis following existing program guidance and permitting procedures. A major portion of the district office work load is devoted to supporting and or mitigating public demand programs, such as the oil and gas program. Other programs such as rangeland management, wildlife management, and recreation management have significant program components devoted to improving public land and resource health. Program specific activity plans will be developed to implement the broader land use plan decisions presented in this RMPA where appropriate.

PLAN EVALUATION

The effectiveness of RMPA determinations will be formally evaluated every 5 years as part of periodic review to determine the need for revision of the Carlsbad RMPA or the Roswell RMP. The Special Status Species RMPA may be amended as needed at any time with full public involvement. The evaluation will contain a summary of activities to accomplish plan goals, a list of accomplishments, and an analysis of existing or potential impediments to plan implementation. Based on the analysis contained in plan evaluations, recommendations for changing schedules and the use of new or different techniques or strategies may be made.

Maps

Special Status Species Amendment Map 1

DE BACA
ROOSEVELT
CHAVES
EDDY
LEA
NEW MEXICO
TEXAS

Elida
Delphos
Dora
Kenna
Milnesand
Caprock
Tatum
Hagerman
Lake Arthur
Lovington
Artesia
Maljamar
Loco Hills
Buckeye
Atoka
Hobbs
Lakewood
Monument
Oil Center
Eunice
Carlsbad
Loving
Malaga
Whites City
Jal

T 02 S
T 03 S
T 04 S
T 05 S
T 06 S
T 07 S
T 08 S
T 09 S
T 10 S
T 11 S
T 12 S
T 13 S
T 14 S
T 15 S
T 16 S
T 17 S
T 18 S
T 19 S
T 20 S
T 21 S
T 22 S
T 23 S
T 24 S
T 25 S
T 26 S

R 25 E
R 26 E
R 27 E
R 28 E
R 29 E
R 30 E
R 31 E
R 32 E
R 33 E
R 34 E
R 35 E
R 36 E
R 37 E
R 38 E

0 9 18 27 36 45 Miles

Bureau of Land Management
Bureau of Reclamation
Dept. of Energy
Forest Service
Fish & Wildlife Service
Private
State
State Game & Fish
State Park

Township LIne
County Boundary
State Boundary
Federal / State Highway
River/Stream
Waterbody
Urban Area
Town/Village

RMP Amendment Area
Lizard Habitat Area

Core Management Area
Habitat Evaluation Areas

1 - Primary Population Area
2 - Sparse & Scattered Population Area
3 - Isolated Population Area

N

New Mexico
Area of Main Map

Produced by the RFO GIS Specialist on April 13, 2006.

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject to change without notification.

Special Status Species Amendment Map 2

DE BACA
ROOSEVELT
CHAVES
LEA
EDDY
NEW MEXICO
TEXAS

Elida
Delphos
Dora
Kenna
Milnesand
Caprock
Tatum
Hagerman
Lake Arthur
Lovington
Maljamar
Loco Hills
Buckeye
Hobbs
Monument
Oil Center
Eunice
Carlsbad
Loving
Malaga
Jal

T 02 S
T 03 S
T 04 S
T 05 S
T 06 S
T 07 S
T 08 S
T 09 S
T 10 S
T 11 S
T 12 S
T 13 S
T 14 S
T 15 S
T 16 S
T 17 S
T 18 S
T 19 S
T 20 S
T 21 S
T 22 S
T 23 S
T 24 S
T 25 S
T 26 S

R 26 E
R 27 E
R 28 E
R 29 E
R 30 E
R 31 E
R 32 E
R 33 E
R 34 E
R 35 E
R 36 E
R 37 E
R 38 E

Bureau of Land Management
Bureau of Reclamation
Dept. of Energy
Forest Service
Fish & Wildlife Service
Private
State
State Game & Fish
State Park

Township LIne
County Boundary
State Boundary
Federal / State Highway
River/Stream
Waterbody
Urban Area
Town/Village

RMP Amendment Area

Open
Limited
Closed

N

New Mexico
Area of Main Map

0 9 18 27 36 45 Miles

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Produced by the RFO GIS Specialist on March 31, 2005.

Special Species Status Amendment Map 3

Bureau of Land Management
Private
State

Township LIne
County Boundary
State Boundary
Federal / State Highway
River/Stream
Waterbody
Urban Area
Town/Village

RMP Amendment Area
Core Management Area
Roads

Mescalero Sands OHV Area
Open to OHV use

Phase Expansion Area
Phase 1 - Limited to roads and trails
Phase 2 - Open to OHV use
Phase 3 - Open to OHV use

T 09 S
T 10 S
T 11 S
T 12 S
R 30 E
R 31 E
Core Management Area
Phase I
Phase 2
Phase 3
380
NEW MEXICO
TEXAS

N

New Mexico
Area of Main Map
25
40
40
25
10

0 1 2 3 4 5 Miles

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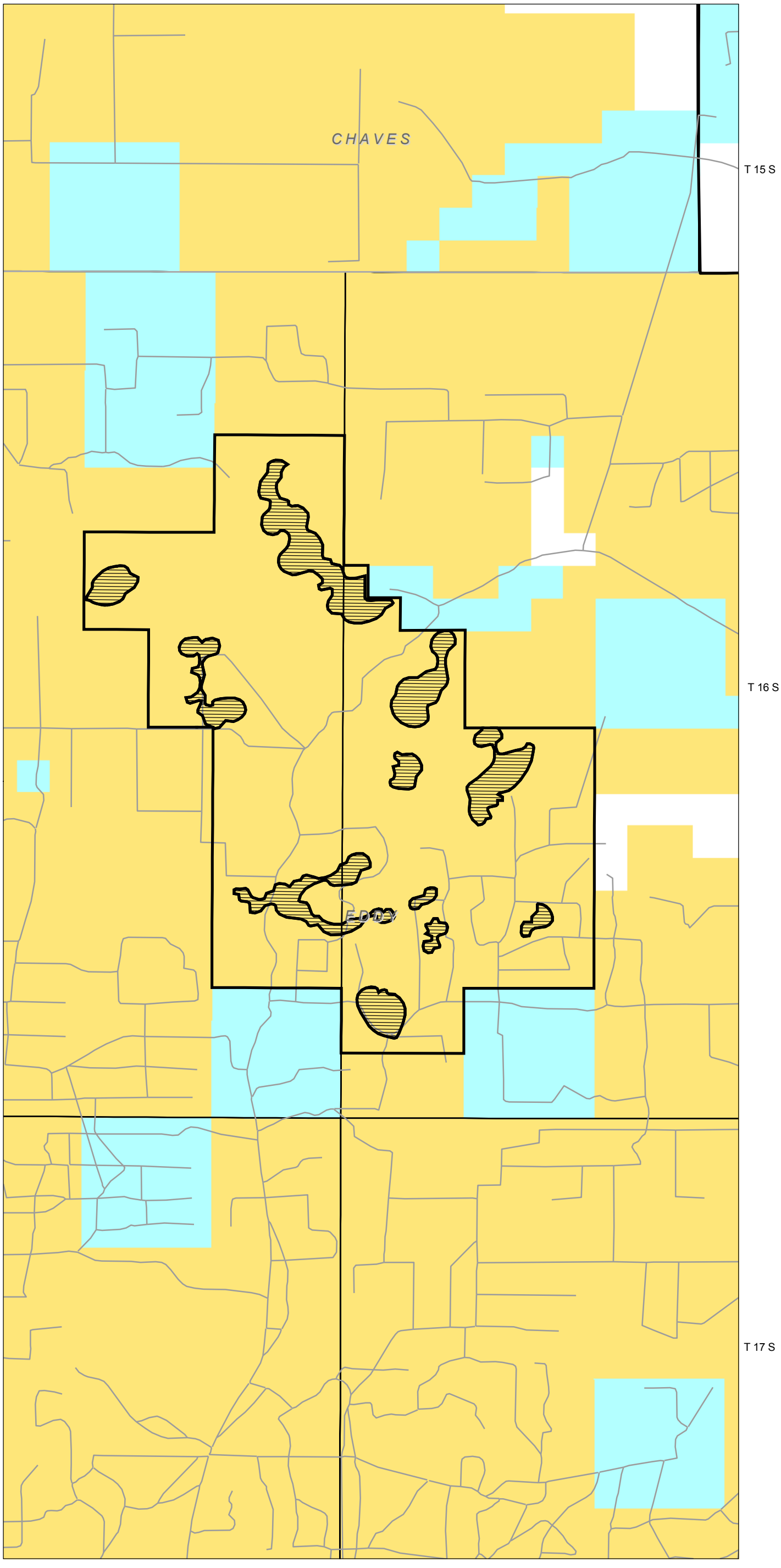
Produced by the RFO GIS Specialist on March 31, 2005.

Special Status Species Amendment

Square Lakes OHV Area
Map 4



Bureau of Land Management
Private
State

Township LIne
County Boundary
State Boundary
Federal / State Highway
River/Stream
Waterbody
Urban Area
Town/Village

RMP Amendment Area

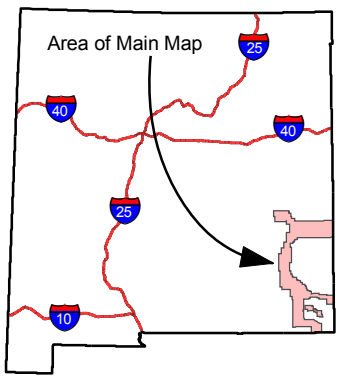
Roads

Square Lake OHV Area Open to OHV Use

Square Lake OHV Area Limited to existing roads and trails

N

New Mexico



0 0.5 1 2 3 4 Miles

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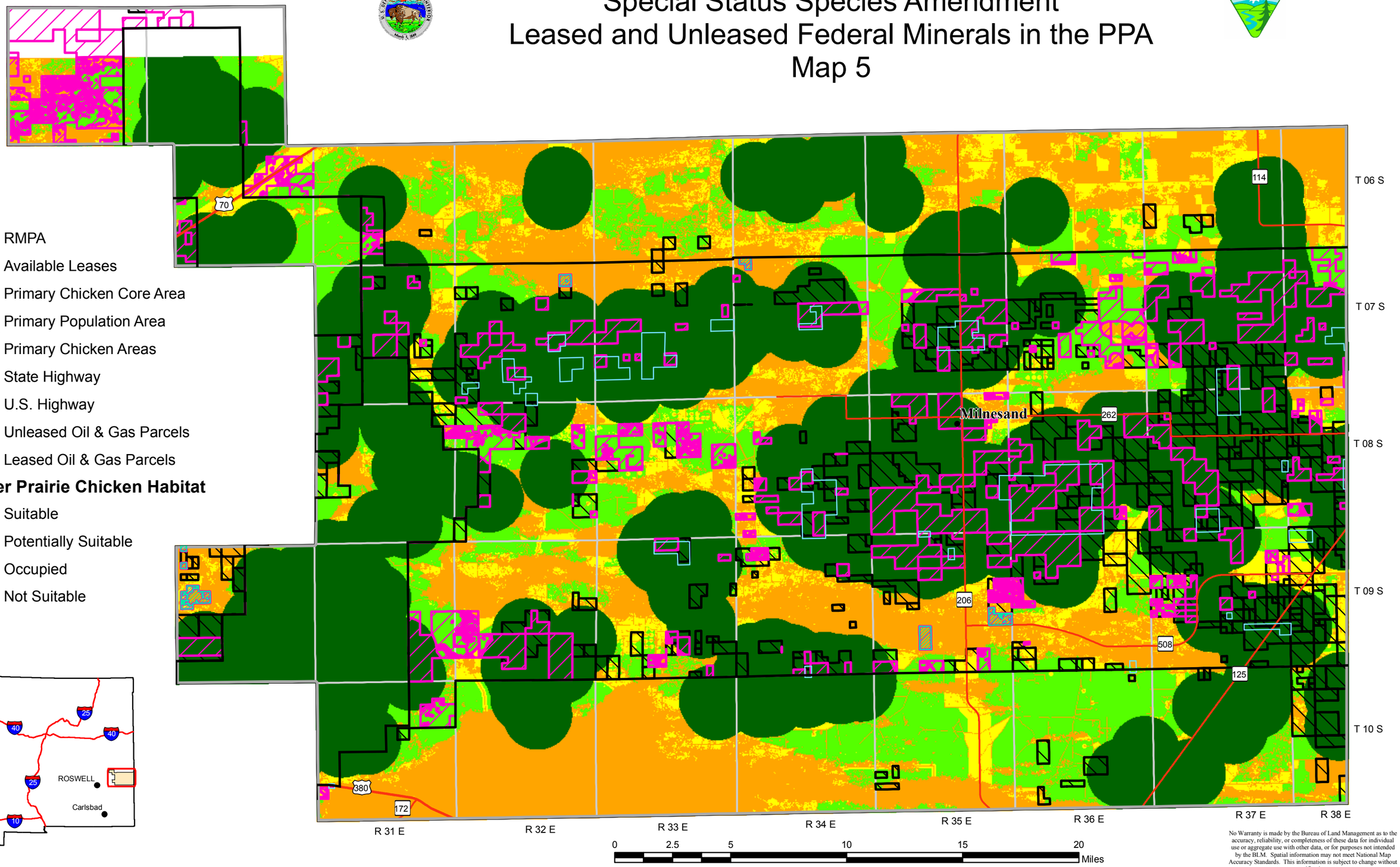
Produced by the RFO GIS Specialist on March 31, 2005.

Special Status Species Amendment
Leased and Unleased Federal Minerals in the PPA
Map 5



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Produced by the RFO GIS Specialist on Feb. 28, 2008

Special Status Species Amendment Map 6

DE BACA
ROOSEVELT
CHAVES
EDDY
LEA
NEW MEXICO
TEXAS

Delphos
Elida
Dora
Kenna
Milnesand
Caprock
Tatum
Hagerman
Lake Arthur
Lovington
Maljamar
Loco Hills
Buckeye
Hobbs
Monument
Oil Center
Eunice
Carlsbad
Loving
Malaga
Jal

LESSER PRAIRIE CHICKEN HABITAT PRESERVATION ACEC

MATHERS RNA

MESCALERO SANDS ACEC

T 02 S
T 03 S
T 04 S
T 05 S
T 06 S
T 07 S
T 08 S
T 09 S
T 10 S
T 11 S
T 12 S
T 13 S
T 14 S
T 15 S
T 16 S
T 17 S
T 18 S
T 19 S
T 20 S
T 21 S
T 22 S
T 23 S
T 24 S
T 25 S
T 26 S

R 26 E
R 27 E
R 28 E
R 29 E
R 30 E
R 31 E
R 32 E
R 33 E
R 34 E
R 35 E
R 36 E
R 37 E
R 38 E

- Bureau of Land Management
- Bureau of Reclamation
- Dept. of Energy
- Forest Service
- Fish & Wildlife Service
- Private
- State
- State Game & Fish
- State Park
- Township LIne
- County Boundary
- State Boundary
- Federal / State Highway
- River/Stream
- Waterbody
- Urban Area
- Town/Village
- RMP Amendment Area
- ACEC
- SMA
- RNA

N

New Mexico

Area of Main Map

0 9 18 27 36 45 Miles

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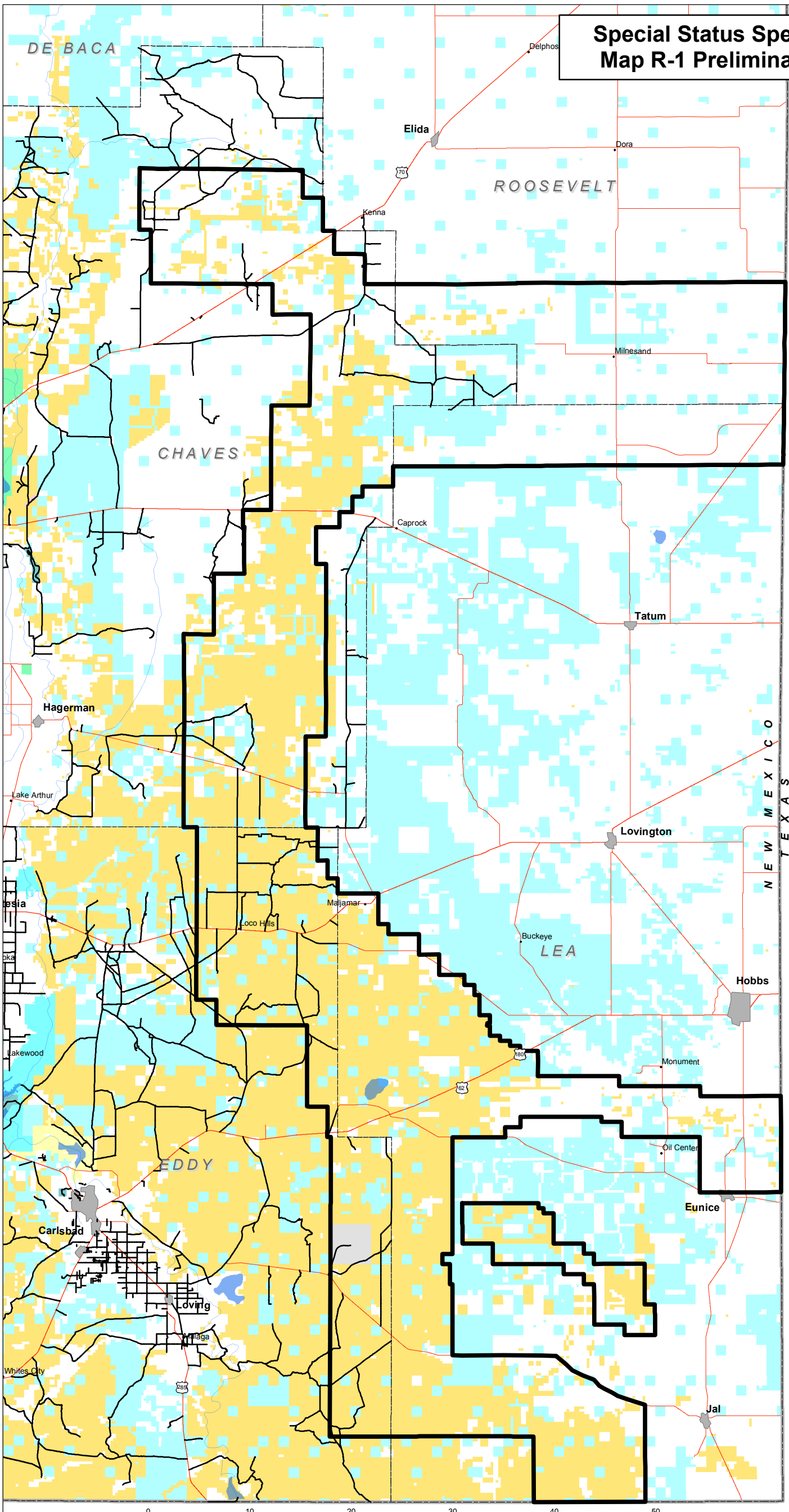
Special Status Species Amendment
Map R-1 Preliminary Road Network



Bureau of Land Management
Bureau of Reclamation
Dept. of Energy
Forest Service
Fish & Wildlife Service
Private
State
State Game & Fish
State Park

Township LIne
County Boundary
State Boundary
Federal / State Highway
River/Stream
Waterbody
Urban Area
Town/Village

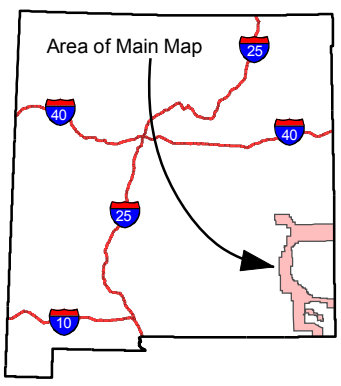
RMP Amendment Area
E-911 County Roads

DISCLAIMER:

This map displays preliminary road data. It does not show all roads either in the Planning area or in the surrounding area.

N

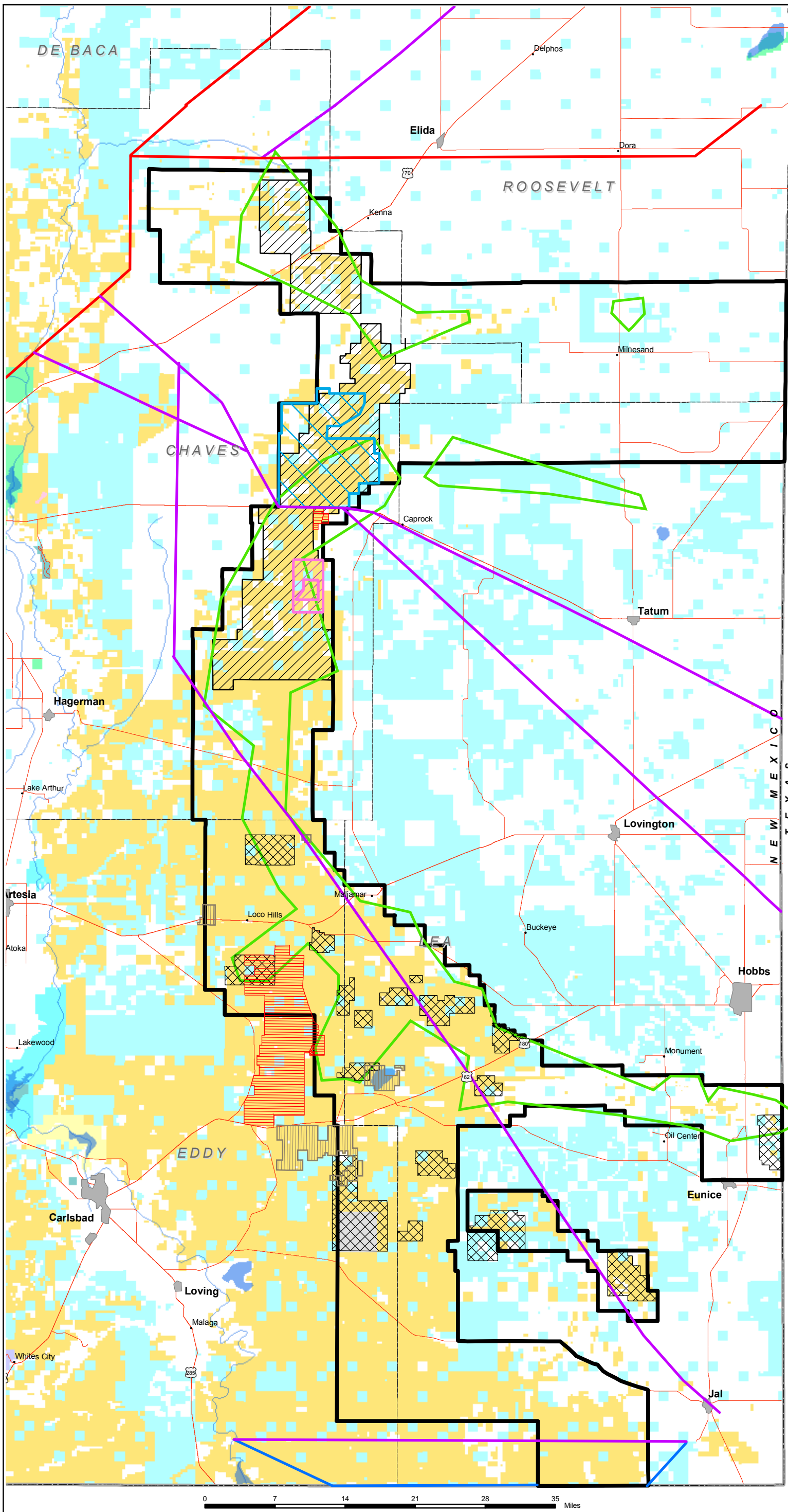
New Mexico



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by BLM. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.

Produced by the RFO GIS Specialist on Feb. 9, 2006.

Special Status Species Amendment Interstate Utility Corridors Map U-1



Bureau of Land Management
Bureau of Reclamation
Dept. of Energy
Forest Service
Fish & Wildlife Service
Private
State
State Game & Fish
State Park

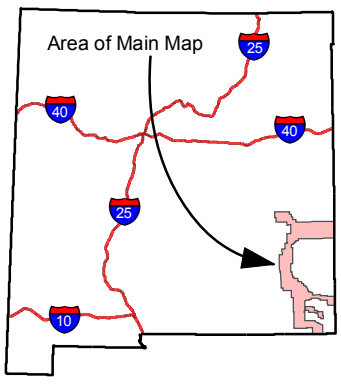
Township LIne
County Boundary
State Boundary
Federal / State Highway
River/Stream
Waterbody
Urban Area
Town/Village

RMP Amendment Area
Pipeline Utility Corridors
Electric Utility Corridors
Electric or Pipeline Utility Corridors
Lizard Habitat Area

Core Management Area
Habitat Evaluation Areas
OHV Areas
CFO Special Mgmt Areas
Mescalero Sands ACEC
Lesser Prairie Chicken ACEC

N

New Mexico



No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject to change without notification.

Produced by the RFO GIS Specialist on Oct. 19, 2005.

Glossary

GLOSSARY

ACQUIRED LANDS. Lands in Federal ownership which were obtained by the government through purchase, condemnation, gift, or exchange.

ACRE-FOOT (AC-FT). Volume of water that will cover one acre of land to a depth of one foot; equals 43,560 cubic feet or 325,851 gallons.

ACTIVE LESSER PRAIRIE CHICKEN LEK SITE. A lek is considered active when, with sufficient annual surveys, two or more males have been seen strutting during the mating season at least one year out of the last five.

ADJUDICATION. A formal court proceeding which results in the determination of the validity and extent of a water right.

AERIAL PHOTOGRAPHY. Photographs taken of the earth's surface from an aircraft. Both color and infra-red aerial photos can be produced which show surface features. Photographs can indicate vegetation changes and water content associated with fractures where caves may be located.

AGGREGATE. Any of several hard, inert materials, such as sand, gravel, slag, or crushed stone, used for mixing with a cementing or bituminous material to form concrete, mortar, or plaster, or used alone, as in railroad ballast or graded fill.

AIR POLLUTION. The general term alluding to the undesirable addition of substances (gases, liquids, or solid particles) to the atmosphere that are foreign to the natural atmosphere or are present in quantities exceeding natural concentrations.

ALKALI LAKES. Shallow plate-like depressions in central portions of basins that drain internally, collect runoff and evaporate rapidly; salt playas.

ALLOTMENT. An area of land designated and managed for grazing of livestock.

ALLOTMENT CATEGORIES. Allotments were placed in one of three categories based on BLM criteria shown below. The criteria for each category were numerous and seldom would an allotment meet all criteria for a category.

I or "Improve" category:

- present range condition is unsatisfactory
- allotments have a moderate or high resource production potential, and are producing at low to moderate levels
- serious resource-use conflicts/controversy exist
- opportunities exist for positive economic return from public investments
- present management appears unsatisfactory

M or "Maintain" category:

- present range condition is satisfactory
- allotments have a moderate or high resource production potential, and are producing near their potential (or trend is moving in that direction)
- no serious resource-use conflicts/controversies exist
- opportunities may exist for positive economic return from public investments
- present management appears satisfactory

C or "Custodial" category:

- present range condition is not a factor
- allotments have a low resource production potential, and are producing at low to moderate levels
- limited resource-use conflicts/controversy may exist
- opportunities for positive economic return on public investments do not exist or are constrained by technological or economic factors
- opportunities exist to achieve the allotments potential through changes in management

ALLOTMENT MANAGEMENT PLAN (AMP). A livestock grazing activity plan for a specific allotment based on multiple-use resource management objectives. The AMP considers livestock grazing in relation to other uses of the rangelands and in relation to renewable resources (i.e., watershed, vegetation and wildlife). An AMP includes the seasons of use, number of livestock permitted on the allotment, grazing system, and the rangeland developments needed. AMPs are prepared in consultation, cooperation and coordination with the permittee(s), lessee(s) or other involved affected parties.

ANIMAL UNIT MONTH (AUM). The amount of forage necessary for the sustenance of one cow with a nursing calf or its equivalent for a period of one month.

ANNUAL WATER YIELD. The total stream flow volume that passes a specified point in a watershed during a year. It generally equals total precipitation and irrigation, less evapo-transpiration losses and deep seepage losses.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC). Areas within the public land where special management attention is needed to protect and prevent irreparable damage to important historical, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and provide safety from natural hazards.

AUTHORIZED OFFICER. Any person authorized by the Secretary of the lnterior to administer regulations.

AVOIDANCE AREA. An environmentally sensitive area where rights-of-way would be granted only in cases where there is a prevailing need and no practical alternative location exists, and then only with appropriate provisions to protect the sensitive environmental components.

BENEFICIAL USE. The basis, the measure, and the limit of a water right. Agricultural, commercial, industrial, and recreational uses are all considered to be beneficial.

BERM. An embankment or mound of earth or other material. Examples of the use of a berm include use around a tank battery in an oil field to contain spilled fluids or as a barrier across a road or trail to prohibit travel by motor vehicles.

BEST MANAGEMENT PRACTICE (BMP). Methods, measures, or practices selected on the basis of site-specific conditions to ensure environmental quality will be maintained or restored to its highest practicable level. BMPs include, but are not limited to structural and nonstructural controls, operations, and maintenance procedures. BMPs can be applied before, during, or after activities to reduce or eliminate impacts to soil, air, water or vegetation resources.

BIODIVERSITY. Refers to the variety of life and its processes and includes the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur.

CALICHE. A brown or white material commonly found as a subsoil deposit in and or semi-arid climates which is composed largely of calcium carbonate.

CAVE. Any naturally occurring void, cavity, recess, or system of interconnected passages which occurs beneath the surface of the earth or within a cliff or ledge (including any cave resource therein, but not including any vug, mine, tunnel, aqueduct, or other manmade

excavation) and which is large enough to permit an individual to enter, whether or not the entrance is naturally formed or manmade. The term "cave" includes any natural pit, sinkhole, or other feature which is an extension of the entrance. Refer also to "Significant Cave."

CAVE EXPLORATION. The act of entering a naturally occurring void, cavity, recess or system of interconnected passages which occurs beneath the surface of the earth, ledge, or cliff to investigate, study or analyze contents, hazards and extent; to travel into new territories for adventure or discovery.

CLASSIFICATION OF LANDS. The process of determining whether the lands are more valuable or suitable for transfer or use under particular or various public land laws than for retention in federal ownership for management purposes.

COMMUNITY. A group of plants and animals living together in a common area having close interactions.

COMMUNITY PIT. A site from which nonexclusive disposals of mineral materials can be made.

CONDITION OF APPROVAL (COA). A requirement appended to a use authorization that must be met in order to be in conformance with the authorization. Conditions of approval may be standard practices that are routinely applied or may be special requirements developed through the NEPA process. Conditions of approval usually are applied to mitigate the impacts of an action. Conditions of approval do not modify any rights granted by a lease (e.g., an oil and gas lease). Also, refer to LEASE, PERMIT, and STIPULATION in the

CONSERVATION (ARCHAEOLOGY). A level of management applied to cultural resources exhibiting uniqueness or relative scarcity of similar cultural properties; research potential that surpasses current state of the art; or singular historic importance or architectural interest.

COORDINATED RESOURCE MANAGEMENT PLAN. A plan for management of one or more grazing allotments that involve all the affected resources, e.g., range, wildlife, watershed, minerals, and recreation.

CORRIDOR. A linear strip of land forming a passageway between two points in which transportation and/or utility systems exist or may be located. A designated corridor is the preferred location for existing and future rights-of-way grants that have been identified by law, by secretarial order, through land use planning, or by other management decision.

CRITICAL HABITAT. Any air, land, or water area, including elements thereof, which have been determined (and published in the *Federal Register*) to be essential to the survival of wild populations of an endangered or threatened species or to be necessary for their recovery to a point at which the measures provided pursuant to the ESA are no longer necessary.

CULTURAL RESOURCE. The fragile and nonrenewable remains of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, and natural features that were of importance in human events. These resources consist of physical remains, areas where significant human events occurred even though evidence of the event no longer remains, and the environment immediately surrounding the actual resource and oral history or ethnographic accounts of life ways and customs.

DESIGNATION. The official identification and naming of a general area or site on public land. Lands may be designated when they are either (1) withdrawn, (2) given special status by act of Congress, or (3) established by an approved land use plan.

DESIGNATED USES. Surface water uses specified by the Water Quality Control Commission for which water quality standards have been established. Designated uses apply whether or not they are being attained.

DESIRED PLANT COMMUNITY (DPC). The plant community which provides the vegetation attributes required for meeting or exceeding RMP vegetation objectives. The DPC must be within an ecological site's capability to produce these attributes through natural succession, management action, or both. A specific description of the vegetation needed to meet the vegetation objectives of a detailed activity plan or implementing action can be described as a desired plant community. Seeding mixtures under DPC would emphasize the use of native species and avoid noxious weeds and exotic species.

DISTRICT. The specific area of public land administered by a District Manager.

DIVERSION. A man-made construction that diverts water from its natural source to be put to beneficial use.

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

DRAINAGE. A term used in oil and natural gas extraction meaning the pool of either resource is “drained” or removed either through existing pressure or pumping. These pools may extend beyond the surface ownership boundaries and a well drilled on one surface owner may drain the resource underneath an adjacent surface owner.

DRASTIC. A method developed by the U.S. Environmental Protection Agency for evaluating the potential for groundwater pollution. The name "DRASTIC" is an acronym for the seven hydro geologic factors that the method uses to produce the Drastic Index. The Index is a numerical value which helps prioritize areas with respect to groundwater contamination vulnerability. The factors are: Depth to water; Recharge; Aquifer media; Soil media; Topography (i.e., slope); Impact of the vadose zone; and, Conductivity (hydraulic) of the aquifer.

ECOLOGICAL SITE INVENTORY (ESI). The effort and documentation needed to establish realistic, achievable, and measurable vegetation management objectives.

ECOSYSTEM. A complex self-sustaining natural system which includes living and nonliving components of the environment and the circulation of matter and energy between organisms and their environment.

ENDANGERED SPECIES (FEDERAL). An animal or plant species whose prospects of survival and reproduction are in immediate jeopardy and in danger of extinction throughout all or a significant portion of its range, as defined by the USFWS under the authority of the Endangered Species Act of 1973, as amended. Whether a species is threatened or endangered is determined by the following factors: (1) present or threatened destruction, modification, or curtailment of its habitat or range; (2) over utilization for commercial, sporting, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms; or (5) other natural or human-made factors. Also, see "Threatened Species (Federal)" in the Glossary.

ENDANGERED SPECIES (STATE). Any species or subspecies whose prospects of survival or recruitment in New Mexico are in jeopardy. Also, see "Threatened Species (State)" in the Glossary.

ENVIRONMENTAL ASSESSMENT (EA). The procedure for analyzing the impacts of some proposed action on a given environment and the documentation of that analysis. An EA is similar to an environmental impact statement (EIS) but is generally smaller in scope. An EA may be preliminary to an EIS.

ENVIRONMENTAL IMPACT STATEMENT (EIS). The procedure for analyzing the impacts (both beneficial and adverse) of a proposed action on a given environment, and the documentation of that analysis.

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.

ENVIRONMENTAL QUALITY INCENTIVES PROGRAM (EQIP). A voluntary conservation program for farmers and ranchers that promotes agricultural production and environmental quality as compatible national goals. EQIP offers financial and technical help to assist eligible participants install or implement structural and management practices on eligible agricultural land.

EPHEMERAL STREAM. A stream that flows in direct response to surface runoff.

EPHEMERAL. A stream or portion of a stream that flows in direct response to precipitation, lasts for a short period of time, and is not influenced by ground water sources. Also pertains to playa lakes which can be intermittently wet.

EXCEPTION. Case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply.

EXCHANGE. A trading of public land (surface or subsurface estates) that usually does not have high public value, for lands in other ownerships which do 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. Areas where future rights-of-way may be granted only when mandated by law.

EXTENSIVE RECREATION MANAGEMENT AREAS (ERMA). Areas where recreation is unstructured and dispersed and where minimal recreation-related investments are required. ERMAs provide recreation visitors the freedom of choice with minimal regulatory constraint. These areas consist of the remainder of land areas not included in Special Recreation Management Areas within a District or Field Office area.

FEDERAL CAVE RESOURCES PROTECTION ACT (FCRPA) OF 1988. The purposes of this act are (1) to secure, protect, and preserve significant caves on Federal lands for the perpetual use, enjoyment, and benefit of all people; and (2) to foster increased cooperation and exchange of information between governmental authorities and those who utilize caves located on Federal lands for scientific, education, or recreational purposes.

FEDERAL LAND. Land owned by the United States and administered by the Federal government. Federal land includes public land (see Public Land in the Glossary).

FEDERAL LAND POLICY AND MANAGEMENT ACT (FLPMA) OF 1976. Public Law 94-579, gives the BLM legal authority to establish public land policy; to establish guidelines for administering such policy; and to provide for the management, protection, development, and enhancement of the public land. Often referred to and pronounced "flipma."

FEDERAL RESERVED WATER RIGHT. A water right which is reserved by the Federal government when land is withdrawn from the public domain for a particular purpose, such as National parks, forests, and monuments. The amount of water reserved is only that necessary to fulfill the intended purpose.

FIELD OFFICE. The smallest administrative subdivision of a BLM district. A Field Office is administered by a Field Manager and is the equivalent of a resource area.

FIRE MANAGEMENT UNIT (FMU). A land management area definable by objectives, management constraints, topographic features, access, values to be protected, political boundaries, fuel types, major fire regime groups, etc. that set it apart from the characteristics of an adjacent FMU. The FMU may have dominant management objectives and pre-selected strategies assigned to accomplish these objectives.

FIRE REGIME CURRENT CONDITION CLASS. A qualitative measure classified into three classes describing the relative degree of departure from historical fire regimes, possibly resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings.

FLOODPLAIN. See "One Hundred-Year Floodplain" in the Glossary.

FLOWLINE. The surface pipe through which oil, water, or gas travels from a well to processing equipment or to storage.

FRAGILE SOIL. A soil that is easily damaged by use or disturbance. Examples include soils that are susceptible to compaction or other mechanic damage to their structure, or soils that are highly erodible when disturbed.

GEOGRAPHIC INFORMATION SYSTEM (GIS). Through the use of computer technology, GIS allows the input, storage, analysis, and display of a great volume and variety of physically locatable data (i.e., data which is known to exist at some specific place or area on the ground).

GRANT. A gift of public land either in quantity or in place. Also, the document or the action which conveys land or an interest in land.

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 a 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 AU Ms that are available in any given area, such as an allotment. Areas that are unsuitable for livestock use are not computed in the grazing capacity. Grazing capacity may or may not be the same as the stocking rate.

GRAZING DISTRICT. Means the specific area within which the public land are administered under Section 3 of the Taylor Grazing Act. Public land outside grazing district boundaries is administered under Section 15 of the Taylor Grazing Act.

GROUND WATER. Subsurface water contained in interconnected pores between soil or rock particles in a zone of saturation. Groundwater includes underground lakes and streams in karst areas.

HABITAT. The place where an animal or plant normally lives during its life cycle often characterized by dominant food, cover, water, and space (e.g., the stream habitat, the forest habitat).

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 MATERIAL. Any substance posing a threat to the health or safety of persons or the environment. These includes but is not limited to RCRA hazardous wastes, CERCLA and CWA hazardous substances, DOT hazardous materials, OSHA hazardous chemicals, SRA Title III toxics and extremely hazardous substances, and biological and disease-causing agents.

INFORMATION (ARCHAEOLOGY). A level of management applied to cultural resources. Most sites fall into this category and would be studied for the information that could be retrieved from them. The process of

extracting information often destroys the site. These sites could be lithic scatters, campsites and other types of sites.

INTERMITTENT STREAM. A stream that does not flow year round but has some association with ground water for surface or subsurface flows.

KARST. A landform where the topography has been formed chiefly by the dissolving of rock. In some cases, the dissolving of rock may be extensive enough to form passages through which an individual could pass. Surface expressions include sinking streams, swalletts, springs and resurgences, and the presence of sinkholes and caves. Surface streams are few, with most of the drainage being underground. These features are important for ground-water recharge of karst systems.

LEASABLE MINERALS. See Mineral Materials.

LEASE. An authorization to possess and use public land for a fixed period of time (usually long-term). Also, any contract, profit-share arrangement, joint venture, or other agreement issued or approved by the United States Government under a mineral leasing law that authorizes exploration for, extraction of, or removal of oil and gas resources.

LEASE NOTICE. An attachment to an oil and gas lease that transmits information at the time of lease issuance to assist a lessee in submitting acceptable plans of operation, or to assist in administration of leases. A Lease Notice is used to disclose a situation or condition known to exist that could affect lease operations. Lease Notices are not a basis for denial of lease operations.

LEGAL ACCESS. In the context of access to public land, especially public land tracts that may be adjacent to or surrounded by land of other ownerships, legal access exists when a person can reach a given public land tract without trespassing, such as from a public road or highway, or from another tract of public land. (See "Physical Access.")

LENTIC. Pertaining to static, calm, or slow moving water or aquatic habitats, such as a marsh.

LEK. A specific area (also termed display, gobbling, booming or strutting grounds) where two or more prairie chicken cocks congregate, typically year after year, for courtship displays in early spring, and vary in size from one-eighth acre to several acres.

LOCATABLE MINERALS. Minerals subject to disposal and development through the Mining Law of 1872 (as amended). Includes all "valuable mineral deposits" including metallic and nonmetallic minerals such as gold, lead, barite, fluorspar or high calcium limestone. It also includes uncommon varieties of sand, stone, gravel, cinders, pumice, pumicite and clay. Also included are all valuable minerals that are not excluded under the leasable and salable minerals.

MANAGEMENT FRAMEWORK PLAN (MFP). A planning decision document now replaced by RMPs that establishes for a given planning area land use allocations, coordination guidelines for multiple use, and management objectives to be achieved for each class of land use or protection.

MINERAL MATERIALS. Minerals such as common varieties of sand, stone, gravel, pumice, pumicite and clay which are not obtainable under the mining or leasing laws but which can be obtained under the Materials Act of 1947, as amended. Also known as saleable minerals.

MODERN URBAN. Areas with recreation opportunities to experience affiliation with individuals and groups are prevalent as in the convenience of sites and opportunities. Experiencing the natural environment and the use of outdoor skills are largely unimportant. One of the six classes of the Recreation Opportunity Spectrum (ROS).

MODIFICATION. A fundamental change in the provisions of a lease stipulation, either temporarily or for the term of the lease. A

modification may, therefore, include an exemption from or an alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive stipulation applies.

MULTIPLE USE MANAGEMENT. Management of public land and their various resource values so they are used in the combination best meeting the present and future needs of the American people. Such a concept allows for the most judicious use of some or all of the resources over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions. Relative resource values are considered, not necessarily the combination of uses that would give the greatest potential economic return or the greatest unit output.

NATIONAL REGISTER OF HISTORIC PLACES. A list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture.

NATIONAL TRAILS SYSTEM. The National Trails System is composed of four types of trails: (1) national recreation trails; (2) national scenic trails; (3) national historic trails; and (4) connecting or side trails. National recreation trails provide for numerous outdoor recreation activities in a variety of urban, rural, and remote areas. They may be designated by the Secretary of the Interior or by the Secretary of Agriculture where lands administered by that agency are involved.

NONPOINT SOURCE POLLUTION (NPS). The alteration of waters by activities not regulated as point sources, which degrade the quality or adversely affect the biological community inhabiting the waters.

NO SURFACE OCCUPANCY (NSO). A condition of surface use attached to a lease or other authorization applied to minerals exploration and development which prohibits occupancy of only the land surface or to protect other identified resource values.

NOXIOUS WEED. A plant that causes disease or has other adverse effects on the human environment and is, therefore, detrimental to the agriculture and commerce of the United States and public health. Generally, noxious weeds possess one or more of the characteristics of being aggressive and difficult to manage, parasitic, a carrier or host of harmful insects or disease, and being either native, new to, or not common in, the United States. In most cases, however noxious weeds are normative species. Noxious weeds are designated and regulated by various state and Federal laws.

OCCUPIED LESSER PRAIRIE CHICKEN HABITAT. All areas within 1.5 miles of an active lesser prairie chicken site, regardless of vegetation that has been active for one out of the last 5 years. Upon discovery of a previously unknown active sites, the surrounding 1.5-mile radius circle is considered occupied habitat.

OFF-HIGHWAY VEHICLE (OHV). Any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other terrain.

Open: Vehicle travel is permitted in the area (both on and off roads) if the vehicle is operated responsibly in a manner not causing, or unlikely to cause significant, undue damage to or disturbance of the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources of other authorized uses of the public land.

Limited: Designated areas and trails where the use of an OHV is subject to restrictions, such as limiting the number on types of vehicles allowed, or dates and times of use (seasonal restrictions); limiting use to designated roads and trails. Combinations of restrictions are possible, such as limiting use to certain types of vehicles during certain times of the year.

Closed: Designated areas, roads, and trails where the use of an OHV is permanently or temporarily prohibited. Emergency use of vehicles is allowed.

ONE HUNDRED-YEAR FLOOD. The flood that will be equaled or exceeded an average of once every 100 years; i.e. the flood that has a one percent chance of being equaled or exceeded in any given year.

ONE HUNDRED-YEAR FLOODPLAIN. The area adjacent to a stream or body of water that would be inundated at the peak of the one hundred-year flood. The floodplain delineated on Flood Insurance Rate Maps (FIRMS) or Flood Hazard Boundary Maps (FHBMS) published by the Federal Emergency Management Agency will be used for management purposes. When a FIRM or FHBM map is not available for the area of interest, the best available information will be used.

PAYMENT IN LIEU OF TAXES (PILT). Payments to local or state governments based on ownership of Federal land and not directly dependent on production of outputs or receipt sharing.

PERENNIAL STREAM. Surface water normally flows throughout the year except during infrequent years of drought.

PERMIT (GRAZING). A document authorizing use of the public land within grazing districts under Section 3 of the Taylor Grazing Act for the purpose of grazing livestock.

PERMIT (LAND). A short-term (generally under 3 years), revocable authorization to use public land for specific purposes.

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

PHREATOPHYTE. A type of plant common to add regions which has an extensive root system to draw water directly from the water table.

PHYSICAL ACCESS. In the context of access to public land, especially public land tracts that may be adjacent to or surrounded by land of other ownerships, physical access exists when a person can physically reach a given public land tract. The existence of physical access does not always mean that legal access exists. In some cases, taking advantage of physical access may involve trespass. (See "Legal Access.")

PIPELINE. A system of connected lengths of steel or plastic pipe, laid either in the earth or on the surface that is used for transporting petroleum, petroleum products, chemicals, natural gas, or other fluids.

SURFACE USE PLAN OF OPERATIONS. The purpose of a Surface Use Plan of Operations (SUPO) is to manage development so that impacts to special status species habitat are minimized or eliminated. A SUPO would incorporate applicable best management practices and disclose all future well locations; the location and arrangement of well infrastructure (e. g., tank batteries, compressors, power lines and poles); road locations; and rights-of-way. Surface Use Plan of Operations (SUPO) contain proprietary information and therefore are not subject to disclosure under the Freedom of Information Act.

PLAYA. A shallow, nearly level, often saline, dry lake bed. Playas vary considerably in materials, salinity, and hydrologic regime. In general, playas: (1) collect surface runoff in closed basins; (2) are poorly vegetated; (3) are ephemerally flooded; and (4) have a thin surface of non-gravelly, fine-textured sediment.

POINT SOURCE POLLUTION. Pollution discharged from any discernible, confined, and discrete conveyance into a water body; e.g., effluent from a pipe. Point source pollution does not include return flow from irrigated agricultural land.

POTENTIALLY SUITABLE LESSER PRAIRIE CHICKEN HABITAT. Unoccupied areas of appropriate vegetation type, but in patches of less than 320 acres and/or falling within Robel impact/avoidance distances around infrastructure.

PRECIPITATION. Any or all forms of water particles, liquid or solid, which fall from the atmosphere and reach the ground.

PRESCRIBED FIRE. Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and NEPA requirements (where applicable) must be met, prior to ignition.

PRESCRIPTION. A written statement defining objectives to be attained as well as temperature, humidity, wind direction and wind speed, fuel moisture content, and soil moisture under which a fire will be allowed to burn, generally expressed as acceptable ranges of the various indices, and the limit of the geographic area to be covered.

PRIMITIVE (P). Areas with recreation opportunities for isolation from the sights and sounds of man, to feel a part of the natural environmental, to have a high degree of challenge and risk, and to use outdoor skills. One of the six classes of the Recreation Opportunity Spectrum (ROS).

PUBLIC LAND. Any land and interest in land owned by the United States within the several states and administered by the Secretary of the Interior through the Bureau of the Land Management, without regard to how the United States acquired ownership, except (1) land located on the Outer Continental Shelf; and (2) land held for the benefit of Indians, Aleuts, and Eskimos.

PUBLIC VALUES AND INTERPRETATION (ARCHAEOLOGY). A level of management of cultural sites which contribute to the belief systems and folkways of a cultural group such as locations having religious significance. Public interpretive sites would have qualities that would lend themselves to being utilized as recreation, education, and interpretive areas.

QUARRYING (MINING). The extraction of building stone or other valuable nonmetallic constituent from a surface mine, or quarry.

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.

RANGE IMPROVEMENT. An authorized activity or program on or relating to rangelands which is designed to improve production of forage; range vegetative composition; control patterns of use; provide water; stabilize soil and water conditions; and provide habitat for livestock, wild horses or burros, and wildlife. The term includes, but is not limited to structures, treatment projects, and use of mechanical means to accomplish the desired results.

RAPTOR. A bird of prey, such as an eagle, hawk, or owl.

RECLAMATION. The reconstruction of disturbance by returning the land to a condition approximate or equal to that which existed prior to disturbance, or to a stable and productive condition compatible with the land use plan. The immediate goal of reclamation is to stabilize disturbed areas and protect both disturbed and adjacent undisturbed areas from unnecessary degradation.

RECREATION AND PUBLIC PURPOSES ACT (R&PP). The Act of June 14, 1926, as amended (43 U.S.C. 869, 869-4). Allows the disposal of public land to any state, local, Federal, or political instrumentality or nonprofit organization or any recreational or public purpose, at the discretion of the authorized officer.

RECREATION OPPORTUNITY SPECTRUM (ROS). A continuum used to characterize recreation opportunities in terms of setting, activity, and experience opportunities. Six classes are included: primitive (P), semi-primitive nonmotorized (SPNM), semi-primitive motorized (SPM), roaded natural (RN), rural (R), and modern urban (U). Refer to the individual definitions in this glossary.

RESERVATION. A withdrawal of a permanent nature, dedicated to a specific public purpose.

RESOURCE MANAGEMENT PLAN (RMP). A written land use plan that outlines BLM's decisions and strategies for management of the resources in a particular area. The RMP has been used by the BLM since 1980.

RESTRICTED AREAS. Areas where mitigation such as seasonal restrictions is required to protect resource values.

RIGHT-OF-WAY (ROW). The legal right for use, occupancy, or access across land or water areas for a specified purpose or purposes. Also, the lands covered by such a right. Examples are roads, power lines, pipelines, water wells, and communication sites. It does not grant an estate of any kind.

RIPARIAN AREAS. Riparian areas are a form of wetland transition between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence. Lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers, and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil.

ROADED NATURAL (RN). Areas with about equal recreation opportunities for affiliation with other user groups and for isolation from sights and sounds of humans. Involves the opportunity to have a high degree of interaction with the natural environmental. Challenge and risk opportunities are not very important except in specific challenging activities. The practice of outdoor skills may be important. Opportunities for both motorized and nonmotorized recreation are present. One of the six classes of the Recreation Opportunity Spectrum (ROS).

RURAL (R). Areas with recreation opportunities to experience affiliation with individuals and groups are prevalent as is the convenience of sites and opportunities. These factors are generally more important than the natural setting. Opportunities for wild land challenges, risk taking, and testing of outdoor skills are unimportant, except in activities involving challenge and risk. One of the six classes of the Recreation Opportunity Spectrum (ROS).

SCOPING PROCESS. An early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. Scoping may involve public meetings, field interviews with representatives of agencies and interest groups, discussions with resource specialists and managers, written comments in response to news release, direct mailings and articles about the proposed action, and scoping meetings.

SEDIMENT YIELD. A quantitative measure of the total sediment outflow from a watershed over a given period of time at a specified point in the channel. Sediment yield is the difference between the total erosion from slopes, channels, and mass wasting, and the amount of sediment deposited before reaching the specified point in the channel.

SEEPS. Is where ground water percolates to the surface and forms a saturated area.

SEMI-PRIMITIVE MOTORIZED (SPM). Areas with some recreation opportunity for isolation from the sights and sounds of humans, but not as important as for primitive opportunities. Involves the opportunity to have a high degree of interaction with the natural environment, to have moderate challenge and risk, and to use outdoor skills. Provides an explicit opportunity to use motorized equipment while in the area. One of the six classes of the Recreation Opportunity Spectrum (ROS).

SEMI-PRIMITIVE NONMOTORIZED (SPNM). Areas with some recreation opportunity for isolation from the sights and sounds of humans, but not as important as for primitive opportunities. Involves the opportunity to have a high degree of interaction with the natural environmental, to have moderate challenge and risk, and to use outdoor skills. One of the six classes of the Recreation Opportunity Spectrum (ROS).

SIGNIFICANT CAVE. A cave located on federal lands that possesses one or more of the following features, characteristics, or values (1) Biota; (2) Cultural; (3) Geologic/ Mineralogic/Paleontologic; (4) Hydrologic; (5) Recreational; (6) Educational or Scientific.

SIGNIFICANT KARST. An area in which sinkholes or other features, such as lineaments, provide points of recharge to an aquifer that is the source of water for human, livestock, or wildlife use, or which provides a primary recharge zone for cave-related hydrologic systems.

SINKHOLE. A closed depression formed when the ground surface collapses above voids created by the solution of carbonate or evaporite rocks. Water levels typically fluctuate rapidly in sinkholes because of their close connection to groundwater.

SLOPE. The inclination of the land surface to the horizontal. When expressed as a percent, slope equals the change in elevation divided by the horizontal distance, with the result multiplied by 100 percent. Thus, a slope of 20 percent is a change in elevation of 20 feet for every 1 00 feet horizontally.

SOLID LEASABLE MINERALS. The chlorides, sulfates, carbonates, borates, silicates or nitrates of potassium or sodium and related products; sulphur in the States of Louisiana and New Mexico and on all acquired lands; phosphate, including associated and related minerals; asphalt in certain lands in Oklahoma; and gilsonite (including all vein-type solid hydrocarbons).

SPECIAL HABITAT FEATURE. A specific component of a habitat site requiring individual consideration, including geological anomalies (cliffs), aquatic situations (seeps), or manmade structures (windmill). A feature may be present in the habitat site because of animal use (booming grounds). Special habitat features may affect wildlife positively or negatively.

SPECIAL MANAGEMENT AREAS. An area containing one or a combination of unique resources or values that receive more intensive management (e.g., ACECS, WSAS, and SRMAS.)

SPECIAL RECREATION MANAGEMENT AREA (SRMA). Areas requiring explicit recreation management to achieve BLM's recreation objectives and to provide specific recreation opportunities. SRMAs are listed in this plan, which also define SRMA management objectives. BLM's recreation investments are concentrated in these areas.

SPECIAL STATUS SPECIES. Wildlife and plant species either Federally-listed or proposed for listing (candidates) as endangered or threatened, State-listed species, or BLM-determined priority species (sensitive species).

SPRING. Where water is discharged from a fixed point and the flow usually forms a small channel.

STATE APPROPRIATIVE WATER RIGHT. A water right licensed by the New Mexico State Engineer once proof of beneficial use is established.

STATE HISTORIC PRESERVATION OFFICER (SHPO). A position within State governments responsible for coordinating State participation in the implementation of the National Historic Preservation Act. This officer serves as an assistant and consultant when identifying cultural properties, assessing effects to them, and considering alternatives to avoid or reduce those effects.

STIPULATION. A requirement, usually dealing with protection of the environment that is made a part of a lease, grant, or other authorizing document. In the case of oil and gas leases, a provision that modifies standard lease rights and is attached to and made a part of the lease. Also, refer to "CONDITION OF APPROVAL" in the Glossary. The following represent the major stipulations on BLM land:

No Surface Occupancy Stipulation (NSO): A stipulation in which use or occupancy of the land surface for fluid mineral exploration or development is prohibited to protect identified resource values.

Timing Limitation Stipulation: A stipulation which prohibits surface use during specified time periods to protect identified resource values. This stipulation does not apply to the operation and maintenance of production facilities unless the findings of analysis demonstrate the continued need for such mitigation and that less stringent, project specific mitigation measures would be insufficient.

Controlled Surface Use Stipulation (CSU): A stipulation in which use and occupancy is allowed (unless restricted by another stipulation), but identified resources values require special operational constraints that may modify the lease rights.

STRUTTING GROUND. Synonymous with Lek.

SUITABILITY. The adaptability of an area to grazing by livestock or wildlife.

SUITABLE LESSER PRAIRIE CHICKEN HABITAT. Unoccupied areas of appropriate vegetation type, in patches of 320 acres or more falling entirely outside of Robel impact/avoidance distances around infrastructure.

SUITABLE RANGE. Rangeland that is accessible to livestock, which can be grazed on a sustained yield basis without damaging the resource.

SURFACE DISTURBANCE. Any action that removal of soil or vegetation and expose the mineral soil to erosive processes. Used in the literal context of actual, physical disturbance and movement or removal of the land surface and vegetation.

SURFACE WATER.. All water located at the surface of the land, such as streams, rivers, and lakes.

THREATENED SPECIES (Federal). Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Whether a species is threatened or endangered is determined by the following factors: (1) present or threatened destruction, modification, or curtailment of its habitat or range; (2) over utilization for commercial, sporting, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms; or (5) other natural or human-made factors. Also, see "Endangered Species (Federal)" in the Glossary.

THREATENED SPECIES (State). Any species or subspecies that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range in New Mexico. Also, see "Endangered Species (State)" in the Glossary.

TURBIDITY. A condition in water caused by the presence of suspended matter which results in the scattering and absorption of light. Generally, a measure of fine suspended matter in water.

UNITIZATION. The joint development of an oil field that includes territory controlled by different owners. A unitized field allows participants to share both royalties and risks in the development of the field and to utilize the field's natural features without damaging the field through excessive competition.

UNSUITABLE LESSER PRAIRIE CHICKEN HABITAT. Areas outside appropriate vegetation. This may include urban and agricultural areas, areas where shinnery oak

is naturally not present or has been eliminated by chemical treatment, and other areas where natural vegetation has been greatly altered or degraded.

USE OF WILDLAND FIRE. Either wildland fire use or prescribed fire applications to meet resource objectives.

VALUE. As used in the RMP/EIS, a value refers to a natural resource or characteristic of a natural resource that is not usually a commodity or is difficult to quantify in terms of a unit of measurement. Examples of values in this context are listed in FLPMA and include scientific, scenic, air and atmospheric, historical, archeological and ecological resources.

VEGETATION TREATMENTS. Methods used to manage the growth and spread of vegetation. A vegetative management practice can either be a direct management of the vegetation itself, for example prescribed fire or indirect management like a change in the number of livestock utilizing the vegetation, or a change in the time frames when livestock are utilizing the vegetation.

VISUAL RESOURCES MANAGEMENT (VRM). The inventory and planning actions taken to identify visual values and to establish objectives for managing those values; and the management actions taken to achieve the visual management objectives.

VISUAL RESOURCE MANAGEMENT (VRM) CLASSES. VRM classes are based on relative visual ratings of inventoried lands. Each class describes the different degree of modification allowed to the basic elements of the landscape. The following are the minimum management objective for each class.

Class 1: Natural ecological changes and very limited management activity are allowed. Any contrast created within the characteristic landscape must not attract attention. This classification is applied to Visual Areas of Critical Environmental Concern, wilderness areas, wild and scenic rivers, and other similar situations.

Class II: Changes in any of the basic elements (form, line, color, texture) caused by a management activity should not be evident in the landscape. A contrast may be seen but should not attract attention.

Class III: Contrasts to the basic elements caused by a management activity may be evident and begin to attract attention in the landscape. The changes, however, should remain subordinate in the existing landscape.

Class IV: Contrasts may attract attention and be a dominant feature in the landscape in terms of scale. However, the changes should repeat the basic elements of the landscape.

Rehabilitation Area: Change is needed or change may add acceptable visual variety to an area. This class applies to areas where the naturalistic character has been disturbed to a point where rehabilitation is needed to bring it back into character with the surrounding landscape. This class would apply to areas identified in the scenic evaluation where the quality class has been reduced because of unacceptable cultural modification. The contrast is inharmonious with the characteristic landscape. It may also be applied to areas that have the potential for enhancement; i.e., add acceptable visual variety to an area or site. It should be considered an interim or short term classification until one of the other VRM class objectives can be reached through rehabilitation or enhancement. The desired visual resource management class should be identified.

WAIVER. Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

WATER QUALITY STANDARD. Regulations which specify designated uses for surface waters of the state, and water quality criteria to protect those uses. Standards are specified by the Water Quality Control Commission, in accordance with Section 303 of the Clean Water Act.

WETLANDS. Areas that are inundated or saturated by surface or ground water at a

frequency and duration sufficient to support and which, under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include marshes, shallows, swamps, lake shores, bogs, muskegs, wet meadows, estuaries, and riparian areas.

WILDERNESS. The definition contained in Section 2(c) of the Wilderness Act of 1964 is as follows: "A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain." Wilderness is an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features or scientific, educational, scenic, or historical value.

WILDERNESS AREA (WA). An area formally designated by Congress as part of the National Wilderness Preservation System.

WILDERNESS STUDY AREA (WSA). A roadless area which has been found to have wilderness characteristics.

WILDERNESS CHARACTERISTICS. Those characteristics of wilderness as described in Section 2(c) of the Wilderness Act. These include size, naturalness, solitude, primitive and unconfined type of recreation, and supplemental values.

WILDFIRE. An unplanned, unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out.

WILDFIRE SUPPRESSION. An appropriate management response to wildfire, escaped wildland fire use or prescribed fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire.

WILDLAND FIRE. Any non-structure fire that occurs in the wildland. Three distinct types of wildland fire have been defined and include wildfire, wildland fire use, and prescribed fire.

WILDLAND FIRE USE. The application of the appropriate management response to naturally-ignited wildland fires to accomplish specific resource management objectives in pre-defined designated areas outlined in Fire Management Plans.

WILDLIFE. Includes all species of animals, birds, mammals, mollusks, crustaceans, amphibians, fish, insects, 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. Removal or withholding of public land, by statute or secretarial order, from operation of some or all of the public land laws. A mineral withdrawal is the closing of an area to mineral location and development activities. A mineral withdrawal includes public lands potentially valuable for solid leasable minerals, precluding the disposal of the lands except with a mineral reservation clause unless the lands are found not to contain a valuable deposit of minerals.

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Appendix 1

APPENDIX 1
RECLAMATION AND BEST MANAGEMENT PRACTICES

INTRODUCTION

The BLM will incorporate appropriate Best Management Practices (BMPs) into proposed Applications for Permit to Drill (APDs) and associated rights-of-way (ROW) approvals after appropriate National Environmental Policy Act (NEPA) evaluation. BMPs are innovative, dynamic, and economically feasible mitigation measures applied on a site-specific basis to reduce, prevent, or avoid adverse environmental or social impacts. BMPs are applied to management actions to aid in achieving desired outcomes for safe, environmentally sound resource development by preventing, minimizing, or mitigating adverse impacts and reducing conflicts.

The early incorporation of BMPs into APDs by the oil and gas operator helps to ensure an efficient and timely APD process. The BLM has developed BMPs specific to public land management in the Planning Area. The BMPs listed in this appendix are not inclusive and are expected to change as both BLM and operators gain experience. BMPs will be applied as Conditions of Approval (COAs) on APDs and as stipulations attached to ROW grants.

The BLM will link rehabilitation requirements to the native vegetative species that are growing adjacent to disturbed sites. This will be done at the Notice of Staking (NOS) or APD Pre-Drill onsite inspection stage. There will also be an assessment of the potential for successful reclamation of proposed well pad sites and ROWs, and relocation of these proposed locations will be considered as needed.

RECLAMATION

The BLM has a statutory mandate to ensure reclamation and closure of oil and gas operations are completed in an environmentally sound manner. The BLM's requirements for reclamation are to shape, stabilize, revegetate, or otherwise treat disturbed areas in order to provide a productive use of the land which conforms to the approved land-use plan for the area. Short-term reclamation requirements are to stabilize disturbed areas and to protect both disturbed and adjacent undisturbed areas from unnecessary and undue degradation. The BLM reclamation practices are derived from the Solid Mineral Reclamation Handbook H-3042-1. This handbook provides reclamation information and guidance applicable to various situations and conditions.

The Roswell RMP and the Carlsbad RMP for Fluid Minerals Leasing place great emphasis on successful reclamation. A primary purpose of the BLM's reclamation program is to stabilize the surface against the long-term effects of erosion. Another major objective is to return the site to a productive post-operational use that reflects the pre-disturbance conditions.

Within the Planning Area, coordinated efforts to reclaim and restore habitat in previously developed areas will be carried out when and where opportunities arise. Priority locations are areas in the Habitat Evaluation Areas, IPA and SSPA and around lesser prairie-chicken reserves where restoration can help restore connectivity between isolated habitat blocks. The goal is to reclaim two previously disturbed acres for every one acre of new disturbance. To achieve this goal BLM will consider employing off-site mitigation on a "case-by-case" basis with priority given to performance of mitigation onsite.

A reclamation plan will be part of the Plan of Development (POD). This outcome-oriented reclamation plan could be amended to incorporate increased expectations based on the outcomes of similar reclamation activities. The BLM will monitor the effectiveness and success of reclamation activities during exploration,

construction, production, and abandonment of oil and gas associated development.
The BLM is also committed to monitor and evaluate reclamation efforts and incorporate that information into future reclamation practices. This will be an ongoing process and will incorporate industry's successes and failures, as well as any information that is available from ranchers in the area of development and information provided by individuals, academia, or other agencies.

The BLM will continue to seek partnerships with academic and research institutions to refine and improve rehabilitation techniques and materials for the public lands that are arid or semiarid.

Reclamation will be considered successful when healthy, mature native perennials are established with a composition and density that closely approximates the surrounding vegetation as prescribed by the BLM, and the reclamation area is free of noxious weeds. All operations are covered by a bond as required by 43 CFR 3104.1.

The BLM believes that a result of the criteria developed through this planning effort industry will be required to ensure reclamation, even when climatic conditions make it difficult.

The BLM will tie rehabilitation requirements to historic and present knowledge of the native vegetative species that are growing adjacent to the disturbed sites.

A number of standard practices which have proven beneficial to successful reclamation have been identified by the Pecos District Office and are summarized below. These standards should be incorporated into an operator's reclamation plan as applicable to specific-site conditions.

General Principles:

1. Total surface disturbance will be minimized.

2. Topsoil will be removed and stockpiled at the site or well pad prior to construction for reapplication during reclamation.

3. Operators will closely match and restore original topographic contours prior to reapplication of topsoil.

4. Erosion control measures will be utilized as necessary (water bars, slope reduction, contouring, terracing, etc.).

5. Noxious weeds will be controlled at all times. In some situations an operator will be required to:

   - Control weeds on disturbed lands which include the roads, pads and associated pipelines and on adjacent lands affected by the establishment of weeds.
   - Clean all equipment and vehicles with either high pressure water or air prior to entering the site for maintenance and administration of the access roads, well pad, and resulting well.

6. Revegetation success will be evaluated using performance-based standards. Parameters will include the percent basal cover of mature approved species as compared to an adjacent undisturbed area. Operators will be required to use any means necessary within state and Federal laws to achieve acceptable revegetation including irrigation if rainfall during the growing season proves insufficient.

7. The BLM will continue to engage partners to leverage funding of approved practices including participation at on-site inspections, monitoring development activities, and evaluating the final reclamation of disturbed sites.

Well Pad Reclamation:

1. Following completion of a producing well, the well pad will be reduced in size to the minimum area required for actual operation of the well. Reclamation of native vegetation will be initiated prior to or by the beginning of the next growing season.

2. Reserve pits must be dry prior to backfilling.

3. Proper disposal methods of debris and other trash including all toxic products will be utilized.

4. The Oil Conservation Division's rules on pits and below grade tanks will be utilized in the Planning Area.

5. Upon abandonment and reclamation of the well, the surface material will be removed from the well pad prior to seeding.

6. Seeded areas will be fenced to exclude cattle and sheep for the duration of the revegetation process. The fence will be removed from the site after it is revegetated to an acceptable condition. The fence will be maintained by the operator during this time and reclamation will not be complete until the fence is removed.

7. During vegetative reclamation of a well pad, a BLM-standard fence will be constructed to exclude livestock until revegetated to an acceptable condition.

8. The BLM or operators may establish pilot plots to evaluate different reclamation methods and seek improved reclamation techniques

Road Reclamation:

1. Upon abandonment and reclamation of the well, the surface material will be removed from the access road prior to seeding.

2. Measures to prevent vehicle travel (such as fencing, barricades, signage, contouring, and hummocks) will be utilized on roads during the reclamation process.

Pipeline Reclamation:

1. Disturbed working-area width will be kept to a minimum and outside limits flagged prior to beginning construction.

2. Topsoil must be removed and windrowed for reapplication after backfilling.

3. Backfill in the trench will be compacted in lifts and topsoil reapplied to the surface.

Seed Mixes:

1. Operators will use the BLM-prescribed seed mixes, appropriate to soils and ecological site descriptions for the location.

2. BLM will experiment with different mixes to improve chances for successful reclamation.

SURFACE USE AND BEST MANAGEMENT PRACTICES

Introduction

This section describes various types of practices that are designed to minimize surface disturbance and effects on other resources and retain the reclamation potential of the disturbed area. These practices may be general and apply regionally, or may be more specific and apply to a particular area or site. The practices represent effective and practical means of accomplishing the requirements of the BLM and should be used as a guide when preparing plans and details that are specific to individual projects.

Generally, the practices described in this appendix have been accepted and employed by industry for similar projects and/or have been derived from this Resource Management Plan Amendment (RMPA) analysis in response to issues identified during scoping and to address impacts identified during analysis.

The standard practices in this appendix should not be construed as rigid requirements that will be applicable to every situation. Rather, the ideas presented in this section communicate the approach and examples that have been successful from which site-specific applications can be developed. The operator and the BLM working together can develop the best approach

to achieve the management objectives in each situation.

Where the surface is privately owned, the operator is responsible for attempting to reach an agreement with the private surface owner. Surface use guidance and best management practices relevant to Federal fluid minerals are described briefly below.

Surface Use Guidance

Every oil and gas operation authorized under a Federal fluid minerals lease must comply with Federally mandated regulations and orders. Procedures are established for exploration of Federal oil and gas reserves in a series of Onshore Oil and Gas Orders, which are authorized by Title 43, Code of Federal Regulations (CFR) Parts 3160 and 3180. These orders detail uniform national standards for minimum levels of performance expected from lessees and operators when conducting oil and gas activities on Federal and Indian lands. The orders relevant to determining the potential for environmental impacts associated with a proposed project are Onshore Oil and Gas Order Nos. 1 and 2.

BLM Manual 3160 provides guidelines and procedures for processing Applications for Permits to Drill (APDs) and subsequent operations. BLM Manual Handbook 3160-1 provides guidelines for review of technical and environmental considerations for APDs and subsequent activities.

Standard Lease Terms

Standard lease terms, which are disclosed on the standard lease forms, indicate that the operator is responsible for diligent development and for conducting operations in a manner that minimizes adverse impacts on resources anywhere within the leasehold. Copies of Standard Form 3100-11, Offer to Lease and Lease for Oil and Gas, and Form 3200-24, Offer to Lease and Lease for Geothermal Resources are available at the BLM offices.

In addition to the standard lease terms and conditions, the BLM Authorized Officer may require site-specific mitigation at the time of an APD at a specific site. These mitigation measures will be attached to the APD as conditions of approval (described below).

Lease Stipulations

Constraints in the form of stipulations are conditions included in a lease when environmental and planning analyses have demonstrated that additional and more stringent environmental protection is needed. Stipulations are provisions that modify the standard lease rights and are attached and made part of the lease. The operator will be expected to comply with the stipulations specific to resource concerns that are attached to a lease.

Surface Operating Standards

Conditions of Approval

Additional constraints may be necessary if the authority to manage the activity on the lease does not already exist under laws, regulations, or orders.

Constraints in the form of conditions of approval (COAs) in an APD are site-specific requirements or measures imposed to protect resources or resource values. COAs must be reasonable and consistent with lease rights. The Authorized Officer can relocate proposed facilities, control timing of operations, and impose other mitigation in accordance with Sections 2 and 6 of the standard oil and gas lease terms (BLM Forms 3100-11 and 3200-24).

BEST MANAGEMENT PRACTICES

While the goals regarding surface management are similar in intent, the operator must be responsible for understanding the requirements of the BLM. Knowledge of the management plans of the BLM, as well as agency operational standards, procedures, and environmental protection requirements, will help an operator

meet these standards. The best management practices described below was developed by the BLM, Pecos District Office for this RMPA.

Best Management Practices For The Planning Area

The best management practices described below apply to any fluid minerals project on public land within the Planning Area, and supplement the standards and guidelines from sources described above.

Preliminary Investigations

Activities occurring during preliminary investigations may include remote sensing; mapping of rock outcrops and seeps (either of which result in little or no surface disturbance); and seismic, gravity, and magnetic surveys. A lessee is not required to conduct such preliminary investigations. However, the geophysical operator is required to file a completed Form 3150-4, "Notice of Intent to Conduct Oil and Gas Exploration Operations" for all operations on public lands and Federal mineral estate.

In general, the BLM requires an examination of resource values and development of appropriate surface protection and reclamation measures prior to the geophysical contractor beginning surface disturbing activities associated with preliminary investigations. The BLM will solicit involvement from public land users (*e.g.*, grazing allottees) to develop site-specific protection measures and reclamation specifications. Compliance monitoring should occur during and after seismic exploration activities when necessary. Compliance inspections during the operation ensure that requirements and guidelines are being followed. Compliance inspections upon completion of work ensure that the lines are clean and drill holes are plugged properly.

The BLM will consider other BMPs on a case-by-case basis depending on their effectiveness, the balancing of increased operating costs vs. the benefit to the public and resource values, the availability of less restrictive mitigation alternatives, and other site-specific factors. Examples of typical case-by-case BMPs include, but are not limited to the following:

- Reclamation efforts are site-specific and initial requirements will be determined by the BLM Authorized Officer
- Minimizing well pad size by leveling or clearing only what is needed for the rig, pits, and tanks
- Installation of raptor perch avoidance on power poles
- Prior to surveying/flagging routes for geophysical surveys or other preliminary activities during the raptor-breeding season, the project area shall be surveyed for raptor nests.
- The Universal Transmercator grid (UTM) locations of all raptor nests will be reported to the Authorized Officer.
- Burying of distribution power lines and/or flow lines adjacent to access roads in certain habitat types
- Centralizing production facilities
- Utilization of submersible pumps
- Utilizing below-ground wellheads
- Drilling multiple wells from a single pad
- Using noise reduction techniques and designs
- Monitoring wildlife habitat
- Using seasonal restriction of public vehicular access
- Avoiding placement of production facilities on hilltops and ridgelines;

- Screening facilities from view
- Using bioremediation of oil field wastes and spills

- Using common utility or right-of-way corridors

- Building the shortest road possible utilizing existing road networks. Select road routes that will create less overall surface disturbance. Construct a travel way which creates the smallest possible surface disturbance in width.

- Using the minimum amount of road surfacing to reduce soil erosion. As a general rule, if spur roads require surfacing, then the minimum compacted layer of surface material should be applied.

- Using portable tanks instead of reserve pits where conditions prevent reserve pit construction such as shallow soils over solid rock where blasting is required and the operator does not want to perform blasting, or for other reasons such as a shallow groundwater table.

- Locating surface and buried pipelines parallel to existing roads

- Minimizing the amount of vegetation cleared for pipelines, electric lines, and utilities. In some locations, for example, only trenching may be necessary.

- Reclaiming any disturbed areas outside the radius of the guy line anchors and/or any surface area not necessary for well operations

<u>Road surface material removal:</u>

- Burying road surface material on location

- Returning the removed road surfacing material to mineral material pits and/or reusing and applying the surfacing material to other roads and pads

- Ripping of compacted soil surfaces to a depth as determined by the Soil Conservation Service Survey Handbooks.

- Contouring the disturbed to resemble natural conditions

- Removing structures, such as production facilities, meters, power poles, and power lines, when they are longer in use

- Utilizing berms, fences, or contoured moguls to control access

- Utilizing erosion control devices such as water bars, terracing, ripping against contour, matting, mulching

- Applying fertilizer when reseeding

- Applying mulch or hydro mulching

- Watering or irrigating seeded areas

- Fencing around the reclaimed areas which may be based on known distances to watering sources for cattle.

- Disposing of hazardous and other refuse in a timely and appropriate manner.

<u>Geophysical Operations:</u>

- The frequency of authorized seismic exploration will be dependent upon resource conditions and seasonal restrictions (timing limitations) that may be imposed to reduce conflicts with watershed conditions, wildlife, and hunting. Management practices specific to wildlife and vegetation resources include the following:

- Geophysical exploration operations, drilling for oil and gas, and other development will not be allowed in special status species habitat during the period of March 1 through June 30, each year.

- Activities will be planned to avoid wet periods.

- Geophysical operations will minimize the off-road impact of large vehicles. Use wide, flat-tread, balloon tires (especially on seismic thumper trucks) where possible. Use all-terrain vehicles rather than large vehicles where possible.

- Occupied habitat for special status species will be avoided in a manner similar to surface use requirements (see Chapter 2 Management Common to All Alternatives).

Measuring Reclamation Success

The goal is to reclaim two previously disturbed acres for every one acre of new disturbance. To achieve this goal BLM will consider employing off-site mitigation on a "case-by-case" basis with priority given to performance of mitigation onsite.

The BLM revegetation goal is to approach or match the vegetation composition of the undisturbed surrounding area. Reclamation (efforts and success) will meet the satisfaction of the Authorized officer before the operator will be released from reclamation responsibilities.

The Pecos District Office will use the Desired Plant Communities (DPC) as described in the Roswell RMP and the Carlsbad RMP for determining seed mixtures. Pelletized seeds may be used.

The Pecos District Office acknowledges some amount of subjectivity regarding successful reclamation. The Pecos District Office, however, will include scientifically acceptable sampling methods, such as pace transects, when making decisions quantifying reclamation success.
NOTE: The above BMPs are not all inclusive. Circumstances may dictate other requirements as deemed necessary by the Authorized Officer.

STANDARD OPERATING PROCEDURES

BMPs are built upon operating procedures that have become the norm through time, legislation and regulation. In an area such as southeast New Mexico with a long history of oil and gas development, the petroleum industry and the agencies charged with regulating that industry are familiar with those procedures. The following is a description of the standard operating procedures as they relate to reclamation and oil and gas development.

Administrative Requirements

The operator and its contractors and subcontractors will conduct all operations in full compliance with all applicable Federal, State, and local laws and regulations; applicable lease stipulations; and guidelines specified in the APD unless a written modification, waiver, or exception from the Authorized Officer has been granted. A copy of the approved APD along with any conditions of approval (*e.g.*, Lesser Prairie-chicken timing stipulation) shall be available at the drill site whenever active construction, drilling, or completion operations are under way.

Prior to commencing construction activities, the operator and its contractors and subcontractors may conduct a preconstruction conference with the BLM Authorized Officer. It is the responsibility of the operator to insure environmental and safety training is conducted with their contractors and subcontractors prior to construction. All employees will be familiarized with the resource protection policies of the BLM, requirements, and mitigating measures incorporated into each project.
The Authorized Officer approves the project during all stages of the project including construction of roads and well pad, drilling and completion of the well, reclamation, preparation for production, and abandonment.

Surface Use

Roads and Access Ways

The BLM requires the use of existing roads to the maximum extent practical and minimizing new roads in unroaded areas. If existing roads are used or damaged they will be maintained at

the appropriate level by the responsible parties. Where new roads are needed, construction, maintenance, rehabilitation, abandonment, and closure of the roads on public land will be in accordance with the BLM Authorized Officer's prescription at the time of abandonment and reclamation. Two different types of roads are described below for the Planning Area.

Permanent Roads

Design Specifications

- Travel width is normally 14 feet unless the Authorized Officer approves a different width. The maximum width of surface disturbance shall not exceed 30 feet. The permanent surfaced road will be constructed to have a travel way width which creates the smallest possible surface disturbance.

- Surfacing with an appropriate amount of gravel should be required where all weather access is needed.

Non-Surfaced Roads

- *Road travel way width* - A nonsurfaced access road will have a travel way which creates the smallest possible surface disturbance and will not exceed 14 feet in width.
- *Non-surfacing* - Surfacing material will not be required on the new access road travel way. The Holder will have the option to surface portions or the entirety of the access road if the Holder considers it necessary. Should the Holder elect to surface the access road, the Holder will submit a "Sundry Notices And Reports On Wells," BLM Form 3160-5, requesting approval for a change in the conditions of approval to surface the access road. The Holder will obtain written approval from the Authorized Officer prior to surfacing. The surfacing material, depth and type, will be determined at the time of approval.
- No drive-around with the exception of turnouts, are allowed outside the travel way.
- The Authorized Officer will reserve the right to require surfacing of the access road at any time if deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.
- If the new access road is not surfaced, no improvements shall be made on the access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.
- Crowning and ditching will not be required on non-surfaced roads.
- The holder will be required to perform maintenance of the non-surfaced road if the road is negatively affected by inclement weather.

Well Sites

In siting facilities at the well site, the following measures must be followed:

- Disturbance will be minimized to existing fences and other improvements on public land.
- Residences, livestock facilities, and wildlife water supplies will be avoided by distances up to 200 meters.
- The construction of fence exclosures or barriers will be considered in crucial or critical habitat for Federal threatened and endangered, Federal candidate, or state-listed wildlife and plant species to protect all or portions of occupied habitat, specific populations, or to provide for scientific research on a species and its habitat. Fenced exclosures will also be considered to protect special habitat features such as wildlife waters, springs, or to provide for scientific research on a species and its habitat. The intent of using fences in this manner is to protect small areas (less than 10 acres), as opposed to fencing-out large areas of public lands. It is expected that exclosures or

barriers, if used, will be small in size and associated with specific sites.

- Surface disturbance will not be allowed within up to 200 meters of active raptor nests, including burrowing owls, on special, natural habitat features, such as trees, large brush, cliff faces and escarpments.
- Surface disturbance will not be allowed within up to 200 meters of playas and alkali lakes.
- Prior to surveying/flagging locations for pads, routes for roads, and other preliminary activities, during the raptor-breeding season, the project area will be surveyed for raptor nests. Surveys will be conducted by professional biologists or personnel approved by the BLM. All active raptor nests will be avoided during the dates and by the distances listed below. An active raptor nest is defined as any raptor or corvid nest being used during the current nesting season including nesting sites utilized by burrowing owls.
- Power lines will be constructed to standards outlined in the most recent version of "Suggested Practices for Raptor Protection on Power Lines" published by the Edison Electric Institute/Raptor Research Foundation, unless otherwise agreed to by the Authorized Officer. The holder is responsible for demonstrating that power pole designs not meeting these standards are raptor safe. Such proof will be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modifications or additions to power line structures constructed under this authorization, should they be necessary to ensure the safety of large perching birds. The modifications and/or additions will be made by the holder without liability or expense to the United States.
- Facilities will be sited to minimize in-channel excavation.
- Sites will be selected that provide topographic and vegetative screening when feasible.
- Well pads will not be located within drainages.
- Pits containing oil, other hydrocarbons, salt water, or any toxic substances will not be allowed in drainages.
- Fluid containers will be located on the upslope side of drilling pads whenever possible to facilitate early detection of leaks and spills.
- Reserve pits will be netted to exclude birds and bats.
- In constructing the site: Construction will conform to the approved well site and layout plan in the Surface Use Plan of Operations (SUPO).
- Tree and vegetation clearing will be limited to the minimum area required.
- Construction activities will be timed to avoid wet periods.
- All reserve pits will be constructed in 100 percent cut material.
- All reserve pits will be lined with approved materials.
- Reserve pits will not be breached, to facilitate drying.
- Reserve pits will be surrounded by a BLM-standard four-strand barbed-wire fence.
- Above ground structures will be painted to blend with the natural color of the landscape.

Pipeline Siting

- Location of pipeline routes will not be adjacent to live watercourses or in proximity to steep hillsides to the extent practical to minimize the risk of petroleum spills and silt from construction entering ephemeral streams and drainages.
- Pipelines will be located along, but not in existing linear facilities (other pipelines and roads) to the maximum extent practical. Minimize pipeline crossing of undisturbed areas.
- Uprooted vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered over the project area and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer, except that an earthen berm will be left over the ditch line to allow for settling back to grade.

Surfacing Material Source

- The caliche/gravel pit will be constructed so that runoff and sediment does not drain into ephemeral streams and drainages. This may require the installation of sediment traps or barriers (slash or straw bales) to ensure that runoff is adequately filtered.
- During reclamation, the caliche/gravel pit will be regraded to closely match preconstruction conditions and revegetated.

Noxious Weed Control

- The BLM will determine the size and density of the noxious weed infestations requiring implementation of a control program.
- Mechanical, chemical, biological, or other methods approved by the BLM will be used to control infestations of noxious weed in disturbed areas.
- The operator will include provisions for noxious weed prevention and treatment in the SUPO. These may include removal of weed sources that could be picked up and transported by passing vehicles.

Pollution Control and Hazardous Substances Management

- Leaking equipment will be promptly repaired or removed from the site to prevent contamination from spills. Any soil or water that has been contaminated will be placed in appropriate containers and removed from the site. Disposal of vehicle fluids on public land will not be authorized.
- Copies of spill prevention, control, and countermeasure plans are required, and will be provided to the Authorized Officer.
- Use of pesticides and herbicides will comply with applicable Federal and State laws. Prior to use of pesticides, the BLM authorized officer will approve a plan for its use.
- Storage tanks will have a berm constructed around them, of sufficient dimensions to contain the contents of the largest tank, to serve as secondary containment should a spill occur.
- The concentration of hazardous substances in the reserve pit at the time of pit backfilling will not exceed the standards set forth in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).
- All drilling-related CERCLA hazardous substances removed from the location and not reused at another drilling location will be disposed of in accordance with applicable Federal and State regulations.
- All pits and tanks containing liquids or semi-liquids will be covered to prevent the entrapment or contamination of wildlife.

Drilling Operations

All proposed drilling operations and related surface-disturbing activities, as well as any change from an approved APD, will be approved before such activities are conducted. Approval occurs in accordance with (1) appropriate Onshore Oil and Gas Orders, (2) 43 CFR 3160, (3) Notices to Lessees, and (4) lease terms and conditions of approval.

Producing Operations

Portable and temporary facilities located on the drill pad are used to initiate the production from the reservoir. As drilling proceeds and reservoir limits are established, permanent production facilities are designed and installed. The type, size, and number of the facilities are determined by the number of producing wells, expected production rates, volumes of gas and water expected to be produced with the oil, and the number of separate leases involved. Any construction of new, permanent production facilities will conform to the best management practices described above and also must comply with the regulations (CFR), onshore orders, and applicable Notices to Lessees.

Additional considerations may arise from power systems that may be required for pumping (gas or electric) and generate noise; the siting and operation of facilities to separate water from oil, treatment and storage facilities; and the need to

dispose of wastewater that may be saline via evaporation pits or fluid injection.

Fluid minerals operations are subject to the applicable laws, regulations, lease terms and stipulations, orders, notices, and instructions of the BLM Authorized Officer. These include, but are not limited to, conducting operations in a manner that ensures the proper handling, measurement, disposition, and site security of leasehold production; and protecting other natural resources (including groundwater and other mineral deposits, i.e. potash, coal), environmental quality, life, and property:

- All production equipment installed on Federal leases will be constructed to prevent birds and bats from entering them and, to the extent practical, to discourage perching and nesting.
- All unused portions of the drill pad (which are the disturbed areas no longer needed for production operations, will be reclaimed.

Abandonment and Reclamation (Well Pads and Roads)

A reclamation plan will be part of the SUPO. Additional reclamation measures may be required based on the conditions existing at the time of abandonment, and included as part of the conditions of approval of the Notice of Intent to Abandon.

- All materials and equipment used in reclamation will be free of noxious weed seeds.
- The areas disturbed will be recontoured to the original contour or a contour which blends with the surrounding topography and minimizes erosion. The soil will be free of contaminants and will have adequate depth to provide for successful vegetation reclamation.
- Reestablishment of vegetation activities will be initiated prior to or during the next growing season after abandonment.
- Additional agronomic practices such as imprinting, mulching and irrigation will be required until reclamation is successful for areas where natural rainfall or other characteristics such as soil depth and structure are expected to limit seedling establishment.
- Vegetation reclamation will be considered successful when healthy, mature perennials are established with a composition and density that closely approximates the surrounding native vegetation as prescribed by the BLM, and the reclamation area is free of noxious weeds.
- The SUPO will include a restoration plan for habitat of special status species when the BLM determines it is appropriate. The restoration plan will be developed in consultation with the BLM and approved by the BLM. The NM BLM guidance is that affected parties and the grazing permittee will be invited when developing abandonment procedures.

Fences

Any new fence constructed in occupied or suitable lesser prairie-chicken habitat will include spikes or other predator rousting deterrents on fence posts and fence flags to reduce collisions. When determined to be a hazard to lesser prairie-chickens, existing fences will be retro-fitted with these devices.

RESOURCES

- Soil Conservation Service Survey Handbook

- Best Management Practices (BMPs) for Oil and Gas Development on Public Lands-
  http://www.blm.gov/nhp/300/wo310/O&G/Ops/operations.html
  http://www.blm.gov/bmp/index.htm

- New Mexico Oil Conservation Division - http://www.emnrd.state.nm.us/ocd/
- http://www.emnrd.state.nm.us/OCD/Bureaus/Environmental/PIT/PITandBelowGradeTankGuidelines.pdf

- Carlsbad Approved Resource Management Plan Amendment and Record of Decision, October 1997

- Roswell Approved Resource Management Plan and Record of Decision, 1997

Appendix 2

APPENDIX 2
MONITORING AND IMPLEMENTATION

LANDS AND REALTY AND MINERALS

The Pecos District will develop maps that display the land use conflicts within the Planning Area. These maps will be used to aid implementation decisions so that these decisions will be in conformance to land use plans.

In addition to monitoring measure described in the following sections of this appendix, oil and gas development is monitored by BLM personnel to ensure conformance with land use plans, lease stipulations, and conditions of approval for individual wells.

VEGETATION, LIVESTOCK GRAZING, AND STANDARDS FOR PUBLIC LAND HEALTH

Monitoring

Vegetation

Standard protocol for permanent Rangeland Monitoring Study plots will be followed. These study plots include a photo of the nine-square foot plot, photos of the transect or transects totaling 100 feet, pace-point data for ground cover and vegetative composition, clip and weigh data for annual vegetative production, and transects to measure utilization of both overall and key forage species. This data is used to determine trends in cover and composition and to determine a range condition rating. In addition, Robel Pole measurements will be conducted to assess habitat components for the lesser prairie-chicken (see also Wildlife section).

A typical study plot consists of:

1. A 3-foot by 3-foot photo plot. This also serves as the starting point for the pace-point transects.

2. Transect or transects totaling 300 feet. At each point (two steps) ground cover is recorded, either bare ground, litter, small rock (< 2 inches), large rock (> 2 inches), or basal hit on perennial plant. A basal hit on an annual plant is recorded as litter. If a basal hit is not recorded, the nearest perennial plant is also recorded. This gives percent ground cover and percent composition of vegetative component.

3. Three 10-plot clip and weight hoops. At every tenth pace, a hoop (encompassing 4.8 square feet) is dropped to one side of the transect line and current year's growth is clipped and weighed. This gives annual pounds of vegetative production.

4. One utilization transect. This determines the percent of annual production that has been utilized. Utilization is assessed using growth within a small cage as no use and is rated individually on several different key forage grasses as well as an overall reading on all grasses. Utilization classes include:

   - Slight (0-20 percent) – Key forage species slightly used, current year's seed stalks little disturbed
   - Light (21-40 percent) – Range appears skimmed or grazed in patches, 60-80 percent of current year's seed stalks intact

- Moderate (41-60 percent) – Range appears entirely covered, 15-25 percent of current year's seed stalks intact, no more than 10 percent of low forage plants used
- Heavy (61-80 percent) – Range has appearance of complete search, less than 10 percent of current year's seed stalks intact, more than 10 percent of low forage plants used
- Severe (81-100 percent) – Range has mown appearance, no evidence of current year's seed stalks, key plants completed used.

Within a 10-year period, each grazing allotment with studies is scheduled to have a "three line" year completed during three different years. At the end of this 10-year period, the data is summarized and any necessary adjustments to the grazing permit/lease are made. Changes in funding, staffing, or priorities could speed up or slow down this schedule.

For brush control treatments, a 100-foot canopy intercept transect is completed before and after treatment. This gives a percent reduction in brush canopy and is used to assess the success of the treatment.

Standards for Public Land Health

There are different indicators that provide a measure of resource quality and functioning condition upon which the standards for public land health would be assessed. These indicators describe attributes of soil and site stability, watershed function, and biotic (plant and animal) integrity. The assessment process is a combination of qualitative and quantitative techniques that use observations and measurements made in the field to assign numeric values or rankings to each indicator. The indicators are rated relative to the degree of departure from what a healthy site would look like. For instance, if a healthy site is described as having no or few rills and the assessed site has few rills, then it is rated as none to slight departure. Conversely, if the assessed site has many rills, the site is rated as having severe departure. Once each of these indicators has been rated, these rankings are combined to determine soil and site stability, watershed function, and biotic integrity. Some indicators are used in all three of these categories, some in two of the three, and some in only one specific category. The Carlsbad Field Office uses 21 different indicators, while the Roswell Field Office uses 22 indicators.

The assessment process is based on the ecological site description and is done on a watershed basis. Both offices have schedules in place to determine the order in which each watershed area is assessed. The indicators are rated against the soil, vegetation, and animals described as typically present in that ecological site. During the rating process, site capability and current weather patterns are considered. Site capability is a measure of expected conditions such as degree of erosion or pounds per acre of vegetative production. If a site has been degraded over time, from whatever type of disturbance, it would be rated based on its current capacity. Similarly, if a site has experienced abnormal precipitation, either very dry or very wet, then these weather conditions would be factored into the indicator ratings.

The assessments are scheduled by watershed, with all assessments within one being completed before moving to an adjoining watershed. Based on the current schedule, all allotments within the planning area should have an assessment completed by FY 2012. Changes in funding, staffing, or priorities could speed up or slow down this schedule.

Livestock Grazing

The methods described above under Vegetation are used to monitor effects of livestock grazing. In addition, grazing permittees/lessees may be requested to submit actual use records for each grazing year. The data can be used to determine a

carrying capacity in three ways, from the amount of annual forage production, from the amount of AUMs available based on range condition, and from actual use versus utilization.

Within a 10-year period, each grazing allotment with studies is scheduled to have a "three line" year completed during three different years. At the end of this 10-year period, the data is summarized and any necessary adjustments to the grazing permit/lease are made. Generally, the monitoring schedule precedes the permit/lease expiration schedule, so monitoring data is summarized just prior to permit/lease expiration and necessary adjustments can be made as the permit/lease is renewed.

Implementation

Should monitoring indicate a change is necessary, it can be accomplished by vegetative treatment, constructing range improvements such as fences or water pipelines, changing the grazing system, or by modifying the grazing permit/lease.

Vegetation

Changes to the vegetative community, whether by mechanical, chemical, or prescribed fire methods, are generally accomplished 2 years after data indicate a change is warranted. Project planning typically takes 2 years from start to finish, so if monitoring in Fiscal Year 2007 indicates chemical brush control is needed to achieve the desired plant community, then the treatment will occur in Fiscal Year 2009. As with monitoring schedules, funding, staffing, and changing priorities can speed up or slow down implementation.

Livestock Grazing

Changes in livestock grazing practices, be it adjusting the permit or modifying a grazing scheme, are put into place as soon as monitoring data indicates the change is needed. Generally, the third year of monitoring data is collected in the fall and winter prior to permit/lease expiration at the end of February, so if changes are necessary they can be included in the new permit/lease.

Standards for Public Land Health

By regulation, implementation of livestock grazing guidelines must occur as soon as practicable but not later than the start of the next grazing year after determining that existing grazing management practices or levels of use are significant factors in failing to achieve one or more Standards. Should an action other than livestock grazing be the significant factor in failing to achieve one or more Standards, then appropriate action will be taken.

Wildlife

A number of studies will be used to monitor the effectiveness of land use decisions and implementation of the plan. Monitoring studies will include the following.

Lesser Prairie-Chicken

Lek Surveys: Surveys of lesser prairie-chicken lek locations and level of activity will be surveyed during the primary breeding months of March through May. Surveys will consist of a combination of counts of birds using selected lek sites and roadside surveys. Methods used for both survey techniques will follow established protocols and will be coordinated with other cooperating entities conducting surveys in the area. Additional systematic searches will be conducted to determine if leks or breeding activity is occurring in areas where leks are not known to occur. Surveys will also be conducted in the fall in an effort to document new lek sites and distribution of birds.

The lek counts are designed to track the number of birds using different lek sites and monitor movement of birds between

adjacent lek sites over time. The survey routes will assist in obtaining trends in numbers of leks and distribution of leks over a fairly broad area. These studies will assist in monitoring the general trends in the breeding populations, documenting the distribution of breeding birds during the breeding season, determining key areas important to lesser prairie-chicken, monitoring effects of land use management on lesser prairie-chicken populations and distribution.

Robel Vegetation Studies: Residual vegetation will be measured prior to the lesser prairie-chicken breeding season using the Robel pole methodology (Robel, et al. 1970). Study sites are linked to areas with known lek sites and lesser prairie-chicken occurrence. If all lek sites are not surveyed each year, the Robel studies will be conducted near those sites that are surveyed in a given year. These studies will assess the height of cover that exists just prior to the breeding season. This will be an indicator of the availability of adequate cover for lesser prairie-chicken nesting and will be used as one measure in managing the level of grazing use in a given pasture.

Vegetation Trend and Utilization Studies: Tends in key vegetation species and level of vegetation utilized by grazing animal will be monitored in cooperation with the rangeland management program. These data will be important in assessing the status of vegetative conditions and level of use that is occurring by grazing animals.

These studies will be used to monitor such things as vegetative conditions, level of vegetation use, and trends in lesser prairie-chicken breeding numbers and distribution. These data will assist in managing activities that affect vegetation condition and lesser prairie-chicken distribution and numbers including grazing administration, locations or timing for rights-of-way or oil and gas development, and vegetation management decisions.

Sand Dune Lizard

Distribution Surveys and Monitoring: Sand dune lizard distribution will be determined through surveys using established scientific protocol. Continued presence of sand dune lizard in known locations will be monitored on a regular, scheduled basis. Surveys to determine or monitor presence of sand dune lizard will be important in determining where or how surface disturbing activities may be authorized. They will also assist in assessing the effectiveness of authorizations and mitigating measures in protecting sand dune lizard habitats and populations.

Habitat Surveys and Monitoring: The suitability of habitat, in conjunction with the location of suitable habitat, will be assessed throughout the range of the species in the Planning Area. The status of the suitability of the habitat will also be monitored over time. The criteria for suitability will be determined through consultation with recognized experts on the species. The habitat surveys and monitoring studies will assist in documenting presence of the species and suitable habitats, assist in making land use decisions that minimize impacts to the species and its habitats, assist in assessing conservation opportunities, especially as it relates to maintaining dispersal corridors and connectivity, and serves as a vehicle for assessing effectiveness of mitigating measures and land use decisions.

Landscape Analyses: A landscape analysis approach will also be used to monitor both the lesser prairie-chicken and sand dune lizard. This will utilize geographic information systems (GIS) to display a variety of information important in assessing the status of these species and their habitats. Data would include, but not be limited to, distribution of lesser prairie-chicken and sand dune lizard, distribution of vegetation communities, changes in reclamation or disturbance in key habitats, and locations of activities such as roads, rights-of-way, and

oil and gas developments. This information will assist in assessing factors important to the status of these species including connectivity of habitats, degree of fragmentation, and trends in habitat conditions and species distribution on a landscape scale.

Implementation

In addition to the monitoring of the habitat conditions for chickens and lizards, BLM participates in the New Mexico Lesser Prairie-Chicken/Sand Dune Lizard Implementation Team, an outgrowth of the Working Group's Conservation Strategy (Appendix 2). The Strategy and this RMPA are part of an adaptive management process. Any new species information, techniques, or reclamation/restoration methods would be incorporated into the best management practices (BMPs) included in this RMPA. Population and habitat surveys through 2006 serve as a baseline data for this resource management plan amendment. This data includes the *Final Investigation Report: The Lesser Prairie-Chicken in New Mexico* (February 2006) from the New Mexico Department of Game and Fish.

Recreation and Off-Highway Vehicles

The Roswell Field Office has established fee areas in recreation areas, including OHV areas. Monitoring would be accomplished through Recreation Use Permits and volunteers who help maintain these areas and do visitor monitoring. Electronic monitoring devices like traffic counters are also used to monitor visits to the sites. Monitoring data is collected each month and is made a matter of record at the Roswell Field Office.

In the Carlsbad Field Office, monitoring would be accomplished through Recreation Use Permits and volunteers who help maintain these areas and do visitor monitoring. Electronic monitoring devices like traffic counters are also used to monitor visits to the sites. Monitoring data is collected each month and is made a matter of record at the Carlsbad Field Office.

Implementation of the expansion of existing OHV areas or establishing new OHV areas would occur if monitoring of visitor use demonstrates the public's need, and monitoring indicates there would be no conflicts with lesser prairie-chicken and sand dune lizard habitat.

Power Line Removal Credit Program

In order to provide opportunities for expansion of lesser prairie-chicken habitat within the Planning Area, applicants for electric power lines could participate in power line removal credit (PLRC). Under this program applicants would remove 1.5 miles of idle power lines (wire and poles) within lesser prairie-chicken habitat management unit (CMA, PPA, SSPA and IPA) and habitat type (occupied or suitable/potentially suitable) before receiving authorization to construct 1.0 miles of new power line.

The priority for removing idle power lines is, in order, Core Management Area, Primary Population Area, the Habitat Evaluation Areas, Sparse and Scattered Population Area, and Isolated Population Area. Within these management areas, the priority for removing idle power lines is, in order, occupied, and suitable habitat. For purposes of this program potentially suitable habitat would be treated as suitable habitat. The PLRC program would not be applicable in unsuitable habitat, regardless of the management unit (CMA, PPA, SSPA and IPA).

Applicants would be able to substitute power line removal in higher priority areas for construction of new power lines in lower priority areas. For example, 3 miles of power lines removed in occupied habitat within the PPA would meet the requirements for constructing 2 miles of new power lines in suitable habitat within the PPA and lower

priority management units. For an illustration of how the priorities would be applied and the credits allocated see the matrix below.

The Habitat Evaluation Areas are included in the matrix because of their importance as potential building blocks for the expansion of lesser prairie-chicken populations. The Habitat Evaluation Areas which have high potential for reclamation and as habitat for re-establishment of chicken populations would remain as depicted in the matrix below. Those Habitat Evaluation Areas determined to be lacking high conservation value would be managed according to the IPA prescriptions. Criteria for evaluating the Habitat Evaluation Areas can be found in Appendix 8.

Credits accrued by removing power lines (wire and poles) are not dependant on surface ownership. Credits accrued by removing power lines on either State or private surface can be used for new construction on BLM managed surface.

Idle power lines removed by an applicant can be counted or "banked" for future consideration providing the applicant reports the removal to BLM. Applicants may trade, buy or sell credits, providing the applicant reports transactions to BLM. BLM Carlsbad Field Office Realty Program would be the office of record for the PLRC.

Implementing the PLRC

Prior to applying for removal credits, participants would submit to BLM baseline data of overhead power lines within the Planning Area under their control. This data must be in a format compatible with BLM's Geographic Information System (GIS).

To apply for removal credits, a participant would:

- Submit to BLM data files compatible with BLM's GIS. These files would include:

  -- participant's name;

  -- a unique identifying name or number (This is up to the power line participant. If the participant already has a system to identify power lines or segments, then by all means continue to use the system of identification.)

  -- the location of line removed. (The linear distance and location of power lines removed are the key components of the information.)

- After verification, BLM would then overlay the data onto the Planning Area, calculate the linear distance of the removed power lines, and credit the removal to the appropriate management category (see the matrix below). BLM would then total the amount of removal by management category and communicate to the participant the amount of credits available for use.

- Participants participating in the Power Line Removal Credit program would be responsible for communicating to BLM the location and length of new construction within the Planning Area. Data files which include the information described above would be appropriate. BLM would debit the participant's account for removed idle lines and provide an accounting of remaining credits to the participant.

REMOVAL/NEW CONSTRUCTION MATRIX

Mgmt Unit	Occupied	Suitable
CMA	R	B
PPA	B	B
HEA	B	B
SSPA	B	B
IPA	B	B

Mgmt Unit	Occupied	Suitable
CMA	N	R
PPA	B	B
HEA	B	B
SSPA	B	B
IPA	B	B

Mgmt Unit	Occupied	Suitable
CMA	N	N
PPA	R	B
HEA	B	B
SSPA	B	B
IPA	B	B

Mgmt Unit	Occupied	Suitable
CMA	N	N
PPA	N	R
HEA	B	B
SSPA	B	B
IPA	B	B

Mgmt Unit	Occupied	Suitable
CMA	N	N
PPA	N	N
HEA	R	B
SSPA	B	B
IPA	B	B

Mgmt Unit	Occupied	Suitable
CMA	N	N
PPA	N	N
HEA	N	R
SSPA	B	B
IPA	B	B

Mgmt Unit	Occupied	Suitable
CMA	N	N
PPA	N	N
HEA	N	N
SSPA	R	B
IPA	B	B

Mgmt Unit	Occupied	Suitable
CMA	N	N
PPA	N	N
HEA	N	N
SSPA	N	R
IPA	B	B

Mgmt Unit	Occupied	Suitable
CMA	N	N
PPA	N	N
HEA	N	N
SSPA	N	N
IPA	R	B

Mgmt Unit	Occupied	Suitable
CMA	N	N
PPA	N	N
HEA	N	N
SSPA	N	N
IPA	N	R

NOTES: R = for every 1.5 miles of idle power lines Removed, 1.0 mile of new power lines could be built in the management unit; B = 1.0 miles of new power line construction could be Built in this management area, N = No credits available and no new power line construction would be authorized.

Implementing Exceptions, Modifications, and Waivers

The BLM Land Use Planning Handbook, H-1701-1, directs BLM to delineate the conditions under which an exception, modification or waiver would be granted to stipulations applied to oil and gas leases. The following table delineates those conditions for the lease stipulations developed as a result of this resource management plan amendment. Decisions granting exceptions, modifications or waivers would be documented in an appropriate National Environmental Policy Act or environmental review document, which may include opportunities for public comment and participation.

TABLE AP6-1 EXCEPTIONS, MODIFICATIONS, AND WAIVERS			
TYPE OF STIPULATION	**PROTECTED RESOURCE**	**STIPULATION DESCRIPTION**	**EXCEPTIONS, MODIFICATIONS AND WAIVERS**
No Surface Occupancy	Dune Complexes – Sand Dune Lizard Habitat	Stipulation: Dune Complexes. NSO has been applied to all or portions of the lease to prevent surface disturbance in the dune complexes. Purpose: To protect occupied and suitable sand dune lizard habitat.	EXCEPTION: The authorized officer may grant an exception to a portion of this stipulated area if an environmental analysis determines that the action, as proposed or conditioned, would not impair the function or utility of the dune complexes for occupied or suitable sand dune lizard habitat. MODIFICATION: The authorized officer may modify in extent if an evaluation finds that a portion of the NSO area is nonessential, or that the proposed action could be conditioned so as not to impair the function or utility of the dune complexes for occupied or suitable sand dune lizard habitat. WAIVER: This stipulation may be waived by the authorized officer, if after coordinating with the US Fish & Wildlife Service, it is determined that the site has been permanently abandoned or unoccupied; or, site conditions have changed such that there is no reasonable likelihood of site occupation.
Controlled Surface Use	Occupied Sand Dune Lizard Habitat	Stipulation: Sand Dune Lizard Survey. The lessee is required to conduct sand dune lizard occupancy surveys prior to submitting an application for permit to drill. Purpose: To identify occupied sand dune lizard habitat.	Exception: The authorized officer may grant an exception if an evaluation determines the site does not contain the characteristics of sand dune lizard habitat, or a third party not employed by the lessee has already conducted a BLM-approved survey of the site. Modification: The authorized officer may modify in extent if an evaluation finds that a portion of the lease does not contain the characteristics of sand dune lizard habitat, or a third party not employed by the lessee has already conducted a BLM-approved survey of that portion of the lease. Waiver: This stipulation may be waived by the authorized officer if, after coordinating with the US Fish & Wildlife Service, it is determined the entire lease no longer contains suitable sand dune lizard habitat.

TABLE AP6-1 EXCEPTIONS, MODIFICATIONS, AND WAIVERS			
TYPE OF STIPULATION	**PROTECTED RESOURCE**	**STIPULATION DESCRIPTION**	**EXCEPTIONS, MODIFICATIONS AND WAIVERS**
Controlled Surface Use	Lesser Prairie-Chicken and Sand Dune Lizard Habitat	Stipulation: Surface Use Plan of Operations (SUPO) to submitting the first application for permit to drill, the lessee shall submit and obtain approval of a surface use plan of operations (SUPO) for the lease. The SUPO would disclose, to the fullest extent possible, all future well locations; the location and arrangement of well infrastructure (e.g., tank batteries, compressors, power lines and poles); road locations; and ROWs; and identify appropriate environmental best management practices to reduce the environmental effects on Lesser Prairie-Chicken and Sand Dune Lizard habitat. Purpose: To ensure the orderly development of the lease with a minimum of surface impacts in lesser prairie-chicken and sand dune lizard habitat	Exception: The authorized officer may grant an exception if an evaluation indicates the site does not contain habitat characteristics for either lesser prairie-chickens or sand dune lizards. Modification: The authorized officer may modify in extent if an evaluation finds that a portion of the lease does not contain the characteristics of either lesser prairie-chicken or sand dune lizard habitat. Waiver: This stipulation may be waived by the authorized officer if, after coordinating with the US Fish & Wildlife Service, it is determined the entire lease no longer contains characteristics of either lesser prairie-chicken or sand dune lizard habitat.

Appendix 3

APPENDIX 3
HABITAT SUITABILITY CRITERIA
FOR LESSER PRAIRIE-CHICKEN

The 17 Habitat Evaluation Areas are located in the Isolated Population Area (IPA). (See Alternatives A and B in Chapter 2, Map A-1 and Map B-1.) The Habitat Evaluation Areas were established to serve as potential habitat building blocks for expansion of the lesser prairie-chicken. This species is considered nearly extirpated in Lea and Eddy Counties and would be high priority for expanded surveys, habitat improvement, and reserve site establishment. In addition, any areas where lesser prairie-chicken populations face imminent threats of habitat conversion or fragmentation by development would be considered highest priority for strategies aimed at preventing habitat loss or minimizing developmental impacts.

The following criteria have been developed to determine habitat suitability and guide management strategies (primarily leasing) for the 17 Habitat Evaluation Areas identified in the Working Group Strategy (see Appendix B) and Alternatives A and B. This criterion was set forth for the following parameters in relation to the year-round habitat needs of the lesser prairie-chicken within the IPA. Habitat areas that contain 320 acres or more and contains 40 percent or more of suitable habitat (factoring in impact radii) would not be leased, or leased with a no surface occupancy stipulation. Leasing with the no surface occupancy requirement would mean there are acceptable drilling locations outside the lease that would not adversely impact lesser prairie-chicken habitat. Reclamation on adjacent areas should receive high priority due to the size and level of influence these blocks have on habitat connectivity.

If there is a presence of birds with the Habitat Evaluation Areas then the recommendation provided for the Isolated Population Area (IPA) in Alternatives A and B of this amendment would be implemented.

***Note**: Most of the Federal minerals have been leased within these habitat areas and are in some level of development. One assumption to be made is that once it is leased there is a likelihood of some level of development.*

CRITERIA:

1) Occupancy of lesser prairie-chicken- If there is evidence of lesser prairie-chicken within the last 3 years and/or documented historic sightings.

2) Vegetation - Areas must be within the shinnery oak-dune plant community and provide the vegetative composition necessary for seasonal habitat requirements (i.e. nesting, brood rearing and winter thermal cover). If composition of vegetation is sufficient but may lack standing biomass then address those issues in coordination, consultation, and cooperation with the permittee.

3) Development and Fragmentation - The area being evaluated must contain a minimum “patch” size of 320 acres of Federal minerals that is not affected by fragmentation which is defined by impact radii. Studies in Kansas showed that lesser prairie-chickens seldom nest within 200 yards (.1 mile) of oil and gas well heads, 400 yards (.25 mile) of power lines, 860 yards (.5 mile) of improved roads, and 1,370 yards (.75 mile) of large structures. Areas surrounding the “patch” (within 1 mile) may have some development but with a probability that reclamation will be completed in the near future (within 1 to 5 years). The probability of reclamation depends upon the life of the wells or the field at the time of evaluation.

Data needed for evaluation:

- Presence or absence of lesser prairie-chickens (last 3 years)
- Percent vegetative composition (i.e., shrubs, grasses, forbs)
- Vegetative Condition (Range condition, Visual Obstruction readings, and production)
- Range site description
- Are there areas within the poly that are larger than 320 acres
- Estimate level of development (low, mid, high) within and adjacent to habitat polygon
- Evaluate the amount of Robel impact radii on suitable habitat (pads, roads, powerlines, compressors)
- Documented historic lekking activity (yes)

For areas to be considered Habitat Areas; the area needs to meet the occupancy criteria or the vegetation and development/fragmentation criteria or all three.

This criteria was designed for the 17 Habitat Evaluation Areas, but may be used in areas that have suitable habitat along with successful reclamation. When these criteria are used in areas other than the Isolated Population Area, the evaluator should take into account that other plant species may fulfill the role of shinnery-oak. This is particularly evident in the transition zone between the Chihuahuan Desert and the Southern Great Plains.

Appendix 4

APPENDIX 4
GRAZING ALLOTMENTS WITHIN THE PLANNING AREA

The following table lists the grazing allotments either partially or totally within the Planning Area boundary. Allotment numbers beginning with "6" are managed by the Roswell Field Office; those beginning with "7" are managed by the Carlsbad Field Office. Acreage totals exceed those listed in Chapter 1 for the Planning Area as this table reflects all acres within an allotment, while only a portion of the allotment may be in the Planning Area.

ALLOTMENT NUMBER	ALLOTMENT NAME	PUBLIC LAND ACRES	PERMITTED AUMS
61005	Jones Well	880	156
61006	Fritz Place	320	60
61007	Chaveroo	320	60
61008	Gallina Wells	2,831	504
65002	North Gambil Tank	380	72
65003	Bojax Ranch	200	40
65004	Hernandez Draw	3,240	768
65005	Bojax-South	6,222	1,200
65009	Chatten-Muncy	2,921	624
65010	Three Wells	2,478	516
65011	Salt Lake	1,933	516
65012	Barringer Tank	3,841	720
65013	Falsey Draw	1,924	384
65014	Abbott Well	2,050	528
65015	South Hanover Moon	160	12
65016	West Vest Lake	920	144
65017	Hanover Moon	320	60
65018	Cooper Well	3,858	584
65027	Lone Wolf	749	156
65029	Wilcox Wells	6,203	1,400
65030	Vest Lake	320	84
65031	Murdock Well	951	243
65032	Button Mesa	8,479	1,656
65033	Cato Field 3	220	48
65034	White Lakes-Crosby	16,814	3,527
65039	Palla Ranch	1,965	396
65043	Sand Ranch	27,112	4,592
65044	Twin Windmills	1,361	297
65045	Caprock Ranch	1,860	312
65048	Upper Caprock 3	679	144
65049	Sand Wells	5,268	840
65050	East Sand Tank	1,920	468
65051	West Mescalero Point	10,695	1,840
65053	Culp Ranch	31,406	4,992
65063	Shifting Sand 3	2,944	449

ALLOTMENT NUMBER	ALLOTMENT NAME	PUBLIC LAND ACRES	PERMITTED AUMS
65065	Under The Hill	6,124	1,042
65066	Old Spears Place	2,400	413
65073	Derrick Place	2,956	549
65074	Sand Camp Ranch	7,283	1,283
65075	Turkey Track	230,504	37,940
65077	Mescalero Ridge	18,828	2,978
65078	Caudill Ranch	5,792	967
65079	S and S	2,461	377
65085	Caprock West T	2,632	262
65090	South Caprock	3,137	567
65185	Caprock West M	1,773	256
65533	Cato Field 15	480	96
65547	Sand Ranch 15	90	12
65548	Upper Caprock 15	320	102
65563	Shifitng Sand 15	40	8
65566	Old Spears Place 15	120	24
65575	Turkey Track Sec. 15	40	2
76004	Sand Trap	1,740	278
76006	Pump Jack – South	16,760	2,304
76007	Maljamar South	12,448	1,452
76008	Querecho Plains	9,562	1,455
76009	Buckeye North	167	48
76010	Golf Course	480	88
76011	Laguna Tonto Unit	14,238	2,124
76011	Buckeye South Unit	20,014	3,461
76011	Salt Lake Unit	38,248	6,275
76012	Monument Draw	40	2
76013	Record	320	36
76014	White Breaks	260	40
76015	Nadine	1,560	72
76016	Jones City - North	807	75
76017	Eunice	840	236
76018	South Monument Draw	1,240	57
76019	Monument – SW	680	96
76020	Lea Townsite	15,426	3,495
76021	Halfway	14,346	3,617
76022	Laguna Toston	2,825	44
76023	Bilbry Basin	4,947	792
76024	Jones City	120	12
76026	Oil Center – South	1,120	127
76027	San Simon	13,597	1,900
76028	SWAG	11,327	1,805
76029	Playa Dunes	7,177	1,167
76030	Deep Wells	3,826	647
76033	East Rattlesnake	17,009	2,700
76034	Custer Mountain	850	96
76035	Medlin Wells	10,280	1,771

ALLOTMENT NUMBER	ALLOTMENT NAME	PUBLIC LAND ACRES	PERMITTED AUMS
76037	Red Tank	22,016	3,686
76038	Fairview	24,736	3,774
76039	Bobcat Draw	10,660	1,181
76040	Penn Tank	6700	883
76041	Old Baldy	569	84
76043	Javelina Basin	13,256	2,343
76047	Monument-Jal Oilfield	2,612	384
76048	San Simon Swale	5,830	1,524
76049	Hart Ranch	3,520	380
76051	Andrews Flat	13,184	2,040
76053	Ruth Ross Place	10,380	1,732
76056	Brookin West	160	24
76057	Jackson East	1,280	120
76058	Eddy 13	6,400	633
76061	Sand Dune	3,200	598
76104	Sand Trap II	640	84
76106	Pumpjack South II	323	48
76107	Majamar South II	320	24
76120	Lea Townsite – South	306	60
76128	SWAG II	1,280	84
76137	Red Tank II	2,760	348
77003	Taylor Peak	3,600	567
77004	Loco Hills	14,183	1,806
77007	Sand Hill	4,641	714
77008	Cedar Lake	14,622	1,427
77012	Twin Wells – North	82,406	11,664
77013	Clayton Basin	47,059	10,200
77021	West Bilbry	6,004	1,177
77022	Maroon Cliffs	16,245	2,120
77027	Livingston Ridge	38,106	6,483
77032	Antelope Ridge	66,757	9,576
77040	Phantom Banks	53,560	7,478
77042	Twin Wells	37,112	6,646
77043	Little Lake	4,800	691
TOTAL		**1,180,205**	**192,125**