DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LAS CRUCES DISTRICT OFFICE

Project: July 2012 Oil and Gas Lease Sale
EA Log Number: DOI-BLM-NM-L000-2012-0021-EA
Location: Various Locations in Hidalgo County New Mexico.

Finding of No Significant Impact

Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined the preferred alternative is not expected to have significant impacts on the environment. The impacts of offering fluid minerals leases in the areas described with this EA have been previously analyzed in the 1993 Mimbres RMP and the 2008 Special Status Species RMPA. The lease stipulations that accompany the tracts offered for lease would mitigate the impacts of future development on these tracts. Therefore, preparation of an Environmental Impact Statement is not warranted.

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BUREAU OF LAND MANAGEMENT
LAS CRUCES DISTRICT OFFICE

ENVIRONMENTAL ASSESSMENT FOR July 2012 COMPETITIVE OIL AND GAS LEASE SALE DOI-BLM-NM-L000-2012-0021-EA

1 INTRODUCTION

It is the policy of the Bureau of Land Management (BLM) as derived from various laws, including the Mineral Leasing Act of 1920, as amended [30 U.S.C. 181 *et seq*.] and the Federal Land Policy and Management Act of 1976 (FLPMA) as amended, to make mineral resources available for disposal and to manage for multiple resources which include the development of mineral resources to meet national, regional and local needs.

The BLM New Mexico State Office (NMSO) conducts a competitive quarterly lease sale to offer available oil and gas lease parcels in New Mexico, Oklahoma, Texas, and Kansas. A Notice of Competitive Lease Sale (NCLS), which lists lease parcels to be offered, is published by the NMSO at least 90 days before the auction is held. Lease stipulations applicable to each parcel are specified in the Sale Notice. The decision as to what public land and minerals are open for leasing and what leasing stipulations may be necessary, based on information available at the time, is made during the land use planning process. Surface management of non-BLM administered land overlaying Federal minerals is determined by BLM in consultation with the appropriate surface management agency or the private surface owner.

In the process of preparing a lease sale the BLM NMSO sends a draft parcel list to any Field Offices in which parcels are located. Field Office staff then review legal descriptions of the parcels to determine if they are in areas open to leasing; if appropriate stipulations have been included; if new information has become available which might change any analysis conducted during the planning process; if appropriate consultations have been conducted; what appropriate stipulations should be included; and if there are special resource conditions of which potential bidders should be made aware. The parcels nominated for this sale, along with the appropriate stipulations from the RMP, are posted online for a two week public scoping period. Comments received are reviewed and incorporated into the Environmental Assessment (EA).

Once the draft parcel review is completed and returned to the NMSO, a list of available lease parcels and stipulations is made available to the public through the NCLS. On rare occasions, additional information obtained after the publication of the (NCLS), may result in deferral of certain parcels prior to the day of the lease sale.

This EA documents the Las Cruces District Office (LCDO) review of the 6 parcels nominated for the July 2012 Competitive Oil and Gas Lease Sale that are under the administration of the NMSO and LCDO. It serves to verify conformance with the approved land use plan and provides the rationale for deferring or dropping parcels from a lease sale as well as providing rationale for attaching additional lease stipulations to specific parcels.

1.1 Purpose and Need

The purpose is to consider opportunities for private individuals or companies to explore for and develop oil and gas resources on public lands through a competitive leasing process.

The need of the action is established by the BLM's responsibility under the MLA, as amended, to promote the exploration and development of oil and gas on the public domain. The MLA also establishes that deposits of oil and gas owned by the United States are subject to disposition in the form and manner provided by the MLA under the rules and regulations prescribed by the Secretary of the Interior, where consistent with the FLPMA, the National Environmental Policy Act (NEPA) of 1969, as amended (Public Law 91-90, 42 USC 4321 iet seq.*)*, and other applicable laws, regulations, and policies.

The BLM will decide whether or not to lease the nominated parcels and, if so, under what terms and conditions.

1.2 Conformance with Applicable Land Use Plan and Other Environmental Assessments

The applicable land use plan for this action is the 1993 Mimbres Resource Management Plan (RMP). The RMP designated approximately 125,981 acres of Federal minerals open for continued oil and gas development and leasing under Standard Terms and Conditions. The RMP also describes specific stipulations that would be attached to new leases offered in certain areas. Therefore, it is determined that the alternatives considered conform to fluid mineral leasing decisions in the 1993 Mimbres RMP is consistent with the goals and objectives for natural and cultural resources.

Pursuant to 40 Code of Federal Regulations (CFR) 1508.28 and 1502.21, this EA is tiered to and incorporates by reference the information and analysis contained in the 1993 Mimbres Resource Management Plan (RMP) and Final Environmental Impact Statement. The Final Resource Management Plan was approved by the Record of Decision (ROD) signed December 1993.

While it is unknown precisely when, where, or to what extent well sites or roads would be proposed, the analysis of projected surface disturbance impacts, should a lease be developed, is based on potential well densities listed in the Reasonable Foreseeable Development (RFD) Scenario included in the 1993 Mimbres RMP. While an appropriate level of site-specific analysis of individual wells or roads would occur when a lease holder submits an Application for Permit to Drill (APD), assumptions based on the RFD scenario may be used in the analysis of impacts in this EA.

1.3 Federal, State or Local Permits, Licenses or Other Consultation Requirements

Purchasers of oil and gas leases are required to comply with all applicable Federal, state, and local laws and regulations including obtaining all necessary permits required should lease development occur.

Potential for effects to threatened and endangered (T&E) species of oil and gas lease sales were analyzed at the Land Use Plan level in the 1993 Mimbres Resource Management Plan (MRMP). Consistent with Section 7 of the Endangered Species Act (ESA), consultation with the US Fish and Wildlife Service was completed for the MRMP (consultation # 2-22-96-F-330).

In 1999, a lease sale was conducted that included 4 of the parcels included in this analysis. The July 2012 lease sale parcels 23, 24, 25 and 22 were consulted on under Section 7 ESA as part of the analysis for the 1999 lease sale (consultation # 2-22-98-F-133). The Biological Opinion resulting from that consultation included mandatory measures and terms and conditions to be implemented with the proposed action. New information is available since the previous consultation re-affirming the necessity for consultation on these parcels. The July 2012 parcels 20 and 21 were not part of a previous lease sale proposal and thus were not consulted on. However, habitat in the parcels is similar and consultation may be necessary prior to any surface occupancy in these parcels also.

Compliance with Section 106 responsibilities of the National Historic Preservation Act are adhered to by following the Protocol Agreement between New Mexico Bureau of Land Management and New Mexico State Historic Preservation Officer (Protocol Agreement), which is authorized by the National Programmatic Agreement between BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers, and other applicable BLM handbooks.

In Section 1835 of the Energy Policy Act of 2005 (43 U.S.C. 15801), Congress directed the Secretary of the Interior to review current policies and practices with respect to management of federal subsurface oil and gas development activities and their effects on the privately owned surface. The Split Estate Report, submitted in December 2006, documents the findings resulting from consultation on the split estate issue with affected private surface owners, the oil and gas industry, and other interested parties.

In 2007, the Legislature of the State of New Mexico passed the Surface Owners Protection Act. This Act requires operators to provide the surface owner at least five business days notice prior to initial entry upon the land for activities that do not disturb the surface; and provide at least 30 days notice prior to conducting actual oil and gas operations. At the New Mexico Federal Competitive Oil and Gas Lease Sale conducted on October 17, 2007, the BLM announced the implementation of this policy. Included in this policy is the implementation of a Notice to Lessees (NTL), a requirement of lessees and operators of onshore federal oil and gas leases within the State of New Mexico to provide the BLM with the names and addresses of the surface owners of those lands where the Federal Government is not the surface owner, not including lands where another federal agency manages the surface.

The New Mexico State BLM office would then contact the surface owners and notify them of the expression of interest and the date the oil and gas rights would be offered for competitive bidding. The BLM would provide the surface owners with its website address so they may obtain additional information related to the oil and gas leasing process, the imposition of any stipulations on that lease parcel, federal and state regulations, and best management practices. The surface owners may elect to protest the leasing of the minerals underlying their surface.

If the BLM receives a protest, the parcel would remain on the lease sale; however, the BLM would resolve any protest prior to issuing an oil and gas lease for that parcel. If the protest is upheld, the BLM would return the payments received from the successful bidder for that parcel. After the lease sale has occurred, the BLM would post the results on its website and the surface owner may access the website to learn the results of the lease sale.

2 DESCRIPTION OF PROPOSED ACTIONS AND ALTERNATIVES

2.1 Alternatives Including the Proposed Action

2.2 Alternative A - No Action

The BLM NEPA Handbook (H-1790-1) states that for EAs on externally initiated proposed actions, the No Action Alternative generally means that the proposed action would not take place. In the case of a lease sale, this would mean that an expression of interest to lease (parcel nomination) would be denied or rejected, and the parcels would not be offered for lease during the July 2012 Competitive Oil and Gas Lease Sale. Surface management and any ongoing oil and gas development on surrounding federal, private, and state leases would continue under current guidelines and practices. The no action alternative would not preclude these parcels from being nominated and considered in a future lease sale.

2.3 Alternative B – Proposed Action

The Proposed Action is to lease the 6 parcels of federal minerals nominated by the public, covering 9,818 acres administered by the RFO, for oil and gas exploration and development. Standard terms and conditions as well as stipulations listed in the RMP would apply. A complete description of these parcels, including any stipulations, is provided in Section 2.4.

All development activities proposed under the authority of these leases within the 6 parcels would be subject to compliance with Section 106 of the National Historic Preservation Act (NHPA) and Executive Order 13007.

Once sold, the lease purchaser has the exclusive right to use so much of the leased lands as is reasonably necessary to explore and drill for all of the oil and gas within the lease boundaries, subject to the stipulations attached to the lease (43 CFR 3101). Oil and gas leases are issued for a 10-year period and continue for as long thereafter as oil or gas is produced in paying quantities. If a lease holder fails to produce oil and gas, does not make annual rental payments, does not comply with the terms and conditions of the lease, or relinquishes the lease, exclusive

right to develop the leasehold reverts back to the federal government and the lease can be reoffered in another lease sale.

Drilling of wells on a lease would not be permitted until the lease owner or operator meets the site specific requirements specified in 43 CFR 3162.

2.4 Alternative C - Preferred Alternative

The Preferred Alternative is to lease for oil and gas 6 nominated parcels of federal minerals, covering 9,818 acres administered by the LCDO.

One new stipulation has also been developed to protect resources within the 6 nominated parcels in the District. Those resource conflicts consist of areas that contain suitable Chihuhua scurfpea habitat. The following is the new stipulations presented in full:

> CHIHUAHUA SCRUFPEA HABITAT CONTROLLED SURFACE USE STIPULATION
>
> Operations will be designed to avoid known populations of Chihuahua scurfpea. Upon submission of an APD or other proposal for surface disturbance, a survey will be required to determine presence. Species specific survey protocols will be required. Timing of surveys will be to match favorable growing conditions to ensure plants are above ground and visible. Survey timing will be determined based on growth of plants in the known population area and will only occur when those plants are actively growing. It may require several years for weather conditions that result in active growth to occur.
>
> Should individual specimens or populations be discovered, surface-disturbing activities may be relocated beyond 0.125 miles but not more than 0.25 miles from occupied habitat, depending on the species requirements. This stipulation shall apply throughout the year and for the duration of the lease.
>
> Location: Species-specific. Stipulation applies to all known and later discovered locations throughout the lease.
>
> Plants: Chihuahua scurfpea.
>
> Objective: To avoid adverse impacts to the species and associated habitat.
>
> Waiver: None
>
> Modification: None
>
> Justification: Stipulating controlled surface use is deemed necessary to minimize adverse impacts on special status species and their habitats, as required by BLM guidance. Closing these areas to leasing or stipulating no surface occupancy is deemed overly restrictive since BLM allows other surface-disturbing activities within the area. Under standard lease terms and conditions, the requirements described above would be

the same; however, the stipulation for controlled surface use informs the lessee of the resource concern at the time the lease is acquired.

Parcel numbers, locations, stipulations, and acreages for the 6 parcels are listed below. Lease stipulations (as required by Title 43 Code of Federal Registration 3101.3) would be added to the 6 parcels to address site specific concerns.

Once sold, the lease purchaser has the exclusive right to use so much of the leased lands as is necessary to explore and drill for all of the oil and gas within the lease boundaries, subject to the stipulations attached to the lease (Title 43 Code of Federal Registration 3101.1-2).

Oil and gas leases are issued for a 10-year period and continue for as long thereafter as oil or gas is produced in paying quantities. If a lessee fails to produce oil and gas, does not make annual rental payments, does not comply with the terms and conditions of the lease, or relinquishes the lease; exclusive right to develop the lease reverts back to the federal government and the lease can be reoffered in another lease sale. Drilling of wells on a lease is not permitted until the lease owner or operator secures approval of a drilling permit and a surface use plan specified under Onshore Oil and Gas Orders listed in Title 43 Code of Federal Registration 3162. A permit to drill would not be authorized until site-specific NEPA analysis is conducted.

All development activities proposed under the authority of these leases within the 6 parcels are subject to compliance with Section 106 of the NHPA and Executive Order 13007. Standard terms and conditions, stipulations listed in the RMP, and any new stipulations developed through the parcel review and analysis process to address site specific concerns or new information not identified in the land use planning process would apply as appropriate to each lease. In addition, site specific mitigation measures and Best Management Practices (BMPs) would be attached as Conditions of Approval (COAs) for each proposed exploration and development activity authorized on a lease.

Parcels recommended for leasing under the Preferred Alternative with stipulations are presented below:

Las Cruces District Office
Nominated Parcels for July 18, 2012 Oil and Gas Lease Sale

NM-201207-020 2398.600 Acres
T.0290S, R.0140W, NM PM, NM
Sec. 020 NENE, S2N2, S2;
029 ALL;
030 LOTS 2-4;
030 E2, E2W2;
031 LOTS 1-4;
031 E2, E2W2;
Hidalgo County
Stipulations:
LC-14 CSU Threatened & Endangered Species Habitat

LC-48 TCP Traditional Cultural Properties
LC-49 CSU Special Status Species – Chihuahua Scurfpea
NM-11-LN Cultural Resource Lease Notice
WO-ESA-7 Endangered Species Act Consultation

NM-201207-021 2560.000 Acres
T.0290S, R.0140W, NM PM, NM
Sec. 021 ALL;
022 ALL;
027 ALL;
028 ALL;
Hidalgo County
Stipulations:
LC-14 CSU Threatened & Endangered Species Habitat
LC-48 TCP Traditional Cultural Properties
LC-XX CSU Special Status Species - Chihuahua Scurfpea
NM-11-LN Cultural Resource Lease Notice
WO-ESA-7 Endangered Species Act Consultation

NM-201207-022 1384.560 Acres
T.0300S, R.0140W, NM PM, NM
Sec. 001 LOTS 1-14;
001 S2NW, SW;
012 LOTS 1-12;
012 W2;
Hidalgo County
Stipulations:
LC-14 CSU Threatened & Endangered Species Habitat
LC-48 TCP Traditional Cultural Properties
LC-49 CSU Special Status Species - Chihuahua Scurfpea
NM-11-LN Cultural Resource Lease Notice
WO-ESA-7 Endangered Species Act Consultation

NM-201207-023 1394.360 Acres
T.0300S, R.0140W, NM PM, NM
Sec. 013 LOTS 1-12;
013 W2;
024 LOTS 1-12;
024 W2;
Hidalgo County
Stipulations:
LC-14 CSU Threatened & Endangered Species Habitat
LC-48 TCP Traditional Cultural Properties
LC-49 CSU Special Status Species - Chihuahua Scurfpea
NM-11-LN Cultural Resource Lease Notice
WO-ESA-7 Endangered Species Act Consultation

NM-201207-024 1920.000 Acres
T.0300S, R.0140W, NM PM, NM
Sec. 014 ALL;
022 ALL
023 ALL
Hidalgo County
Stipulations:
LC-14 CSU Threatened & Endangered Species Habitat
LC-48 TCP Traditional Cultural Properties
LC-49 CSU Special Status Species - Chihuahua Scurfpea
NM-11-LN Cultural Resource Lease Notice
WO-ESA-7 Endangered Species Act Consultation

NM-201207-025 160.000 Acres
T.0300S, R.014W, NM PM, NM
Sec. 029 NE;
Hidalgo County
Stipulations:
LC-14 CSU Threatened & Endangered Species Habitat
LC-48 TCP Traditional Cultural Properties
LC-49 CSU Special Status Species - Chihuahua Scurfpea
NM-11-LN Cultural Resource Lease Notice
WO-ESA-7 Endangered Species Act Consultation
Depending on the outcome of the environmental analysis, the following stipulations may be attached to portions of the above parcels:
LC-2 NSO Study Plots
LC-5 NSO State Register of Historic Places & Sites
LC-6 ND State Register of Historic Places & Sites

3 AFFECTED ENVIRONMENT

This section describes the environment that would be affected by implementation of the alternatives described in Section 2. Elements of the affected environment described in this section focus on the relevant major resources or issues. Only those aspects of the affected

environment that havepotential to be significantly impacted are described in detail. The following elements are not present: Prime or Unique Farmlands, Wild and Scenic Rivers, Wetlands /Riparian Zones, Wilderness or Wilderness Study Areas, and Wild Horses and Burros.

The offered lease parcels are located in Hidalgo County, New Mexico. These parcels are described in the 1997 Mimbres RMP. Additional general information on air quality in these areas is contained in Chapter 3 of the Mimbres Draft RMP/Environmental Impact Statement.

3.1 Air Resources

3.1 Air Resources

Air quality and climate are components of air resources which may be affected by BLM applications, activities, and resource management. Therefore, the BLM must consider and analyze the potential effects of BLM and BLM-authorized activities on air resources as part of the planning and decision making process. Much of the information referenced in this section is incorporated from the Air Quality Technical Report for BLM Oil and Gas Development in New Mexico, Kansas, Oklahoma, and Texas (herein referred to as Air Quality Technical Report). This document summarizes the technical information related to air resources and climate change associated with oil and gas development.

3.1.1 Air Quality

The Air Quality Technical Report describes the types of data used for description of the existing conditions of criteria pollutants (USDI BLM 2011), how the criteria pollutants are related to the activities involved in oil and gas development (USDI BLM 2011), and provides a table of current National and state standards. EPA's Green Book web page (EPA, 2010a) reports that Hidalgo County, where all the proposed leases are located, is in attainment of all National Ambient Air Quality Standards (NAAQS) as defined by the Clean Air Act. The area is also in attainment of all state air quality standards (NMAQS). There are currently no air quality monitors in Hidalgo county which reflects the fact that there are few major sources of air pollutants. The closest monitors are at Hurley, approximately 70 miles to the north in Grant County and Deming, approximately 50 miles to the northeast in Luna County. Both of these monitors are downwind of Hidalgo County and too far away to be considered representative. Air Quality monitors in neighboring Cochise County, Arizona are also in excess of 50 miles from the proposed lease area.

3.1.1.2 Hazardous Air Pollutants

The Air Quality Technical Report discusses the relevance of hazardous air pollutants (HAPs) to oil and gas development and the particular HAPs that are regulated in relation to these activities (USDI BLM 2011). The EPA conducts a periodic National Air Toxics Assessment (NATA) that quantifies HAP emissions by county in the U.S. The purpose of the NATA is to identify areas where HAP emissions result in high health risks and further emissions reduction strategies are necessary. A review of the results of the 2005 NATA shows that cancer,

neurological and respiratory risks in Hidalgo County are well below statewide and national levels. (EPA, 2011a).

3.1.2 Climate

The planning area is located in an arid to semiarid climate regime typified by dry windy conditions and limited rainfall. Summer maximum temperatures are generally in the 90s to low 100s (Fahrenheit) and winter minimum temperatures are generally in the 20s or 30s. Temperatures have reached above 100 ^{o}F in every month from May to September and have occasionally dipped below zero in December, January and February. Precipitation is divided between summer thunderstorms associated with the Southwest Monsoon and winter rain and snowfall as Pacific weather systems drop south into New Mexico. Table 3.1 shows climate normals for the 30 year period from 1981-2010 for Hatchita which is the closest observation site to the proposed lease parcels for which normals are available. Hatchita is located approximately 15 miles to the NNW of the project area.

Table 3.1. Climate Normals 1981-2010 (NOAA, 2011).

Hatchita	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Average Temperature (^{o}F)	42.5	46.6	52.1	59.2	67.9	76.7	78.8	76.6	71.8	61.5	49.9	42.3
Avg Max Temperature (^{o}F)	58.8	63.5	70.3	78.2	86.9	95.1	94.1	91.0	87.8	78.6	66.7	57.9
Avg Min Temperature (^{o}F)	26.2	29.7	33.9	40.1	48.8	58.2	63.6	62.3	55.7	44.4	33.1	26.7
Avg Precipitation (inches)	0.65	0.57	0.47	0.24	0.25	0.62	3.20	2.39	1.01	0.80	0.76	1.08

3.2 Areas of Critical Environmental Concern

The west-most boundary of parcel 20 is 1 mile from a nominated ACEC. The area was nominated, and meets the Relevance and Importance Criteria for designation as an ACEC. The ACEC was nominated to provide protection to Chihuahua scurfpea (*Pediomelum pentaphyllum)*. Land adjacent to and near the ACEC has not been surveyed for this species. The possibility exists that plants occur in one or more of the lease parcels. Any plants in the lease parcels are part of the same population and are important to the viability of the species. Just as land inside this nomination area shall be managed to maintain the values for which the ACEC was nominated, land surrounding the ACEC that contains habitat for the species are managed to ensure population viability and thus species.

3.3 Cultural and Paleontology Resources

Once the decision is made by the lessee to develop a lease, area specific cultural records review would be done to determine if there is a need for a cultural inventory of the areas that could be affected by the subsequent surface disturbing activities. Generally, a cultural inventory will be required and all historic and archaeological sites that are eligible for listing in the National Register of Historic Places or potentially eligible to be listed would be either avoided by the undertaking or have the information in the sites extracted through archaeological data recovery prior to surface disturbance.

Parcels in this lease sale may contain vertebrate fossils and the same cultural reviews would apply for the Paleontology Resources.

3.4 Native American Religious Concerns

A review of existing information indicates the proposed actions are outside any known Traditional Cultural Property.

3.5 Environmental Justice

Executive Order 12898 requires Federal agencies to assess projects to ensure there is no disproportionately high or adverse environmental, health, or safety impacts on minority and low-income populations. A review of the parcels offered for lease indicates there are no impacts on minority and low-income populations.

3. 6 Invasive, Non-native Species

Once the decision is made by the lessee to develop a lease, area specific Invasive and Non-native species (Weed) inventory review is done to determine if there is a need for a weed inventory of the areas to be affected by surface disturbing activities. Generally, an Invasive and Non-native species (Weed) inventory would be required. While there are no known populations of invasive or non-native species on the propose parcels, infestations of noxious weeds can have a disastrous impact on biodiversity and natural ecosystems. Noxious weeds affect native plant species by out-competing native vegetation for light, water and soil nutrients. Noxious weeds cause estimated losses to producers $2 to $3 billion annually. These losses are attributed to: (1) Decreased quality of agricultural products due to high levels of competition from noxious weeds; (2) decreased quantity of agricultural products due to noxious weed infestations; and (3) costs to control and/or prevent the noxious weeds.

Furthermore, noxious weeds can negatively affect livestock and dairy producers by making forage either unpalatable or toxic to livestock, thus decreasing livestock productivity and potentially increasing producers' feed and animal health care costs. Increased costs to operators are eventually borne by consumers.

Noxious weeds also affect recreational uses, and reduce realty values of both the directly influenced and adjacent properties.

Recent federal legislation has been enacted requiring state and county agencies to implement noxious weed control programs. Monies would be made available for these activities from the federal government, generated from the federal tax base. Therefore, all citizens and taxpayers of the United States are directly affected when noxious weed control prevention is not exercised.

3.7 Special Status Species

Special Status Species (SSS) are federally listed or proposed species, and Bureau sensitive species, which include both federal candidate species and delisted species within 5 years of delisting. A

comparison of current lists for Hidalgo County (http://www.fws.gov/southwest/es/EndangeredSpecies/lists/) with species habitat requirements, distribution information and habitats in the lease parcels indicates there is potential for 3 federally listed species to occur in the 2012 lease parcels. Mexican and lesser long-nosed bats (*Leptonycteris nivalis* and *Leptonycteris curasoae*, respectively) may utilize habitat in parcels 20, 21, 23, 24 and 22. There is potential for Aplomado falcon *(Fálco femorális)* to occur in parcels 20, 21, 24 and 25.

BLM Sensitive species with potential to occur in the lease parcels at least apart of the year are listed in Table 1.

Table 1. BLM Sensitive Species with potential to occur in the lease parcels.

Bald eagle	Burrowing owl
Arizona grasshopper sparrow	Baird's sparrow
Chestnut collared longspur	Mexican long-tongued bat
Spotted bat	Townsend's big-eared bat
Allen's lappet-eared bat	White-nosed coati
Night-blooming cereus*	Chihuahua scurfpea
*Known to be present in parcel 20	

3.8 Wastes, Hazardous or Solid

On leased parcels that could have subsequent proposed surface disturbing projects from proposed and approved APDs, no waste material would be removed from the project areas and upon reclamation of the surface disturbed activities, such as the reserve pit areas for example, the more stringent New Mexico Oil Conservation Division pit reclamation guidelines would be imposed where applicable to contain any oil or gas field hazardous or solid waste.

3.9 Water Quality – Surface/Ground

Surface water within the area is affected by geology, precipitation, and water erosion. Factors that currently affect surface water resources include livestock grazing management, oil and gas development, recreational use and brush control treatments. No perennial surface water is found on public land in the proposed lease areas. Intermittent streams and rivers are located within the area of the proposed lease sale. Ephemeral surface water within the area may be located in tributaries, playas, alkali lakes and stock tanks.

Groundwater within the area is affected by geology and precipitation. Factors that currently affect groundwater resources in the area include livestock grazing management, oil and gas development, groundwater pumping, and possible impacts from brush control treatments. Most of the groundwater in the area is used for industrial, rural, domestic and livestock purposes.

3.10 General Topography/Surface Geology

Topographic characteristics and/or regional setting of the project area are: Land involved in this lease sale has topographic forms that naturally vary, not only to the nature of the land, but in differences in rock and soil texture and composition. Lease parcel areas may vary from hilly uplands to flat land and with different degrees of sloping from place to place. Horizontal strata of the leasable areas have small mountains, plateau escarpments and other topographical features that are etched out by weathering. Topographic details of land in this lease sale are dependent upon differences in rock structure, texture, and attitude that give rise to prominences of semi-arid desert type surface features.

3.11 Soil

The Soil Survey of Hidalgo County, New Mexico, (USDA -Soil Conservation Service 1973) was used to describe and analyze impacts to soil from this proposed action. The soil map units represented in the project area are:

Rough Broken Land and Rock Land - Lehman's association: This map unit has rock outcrops make up 30 to 45%. It is very shallow to shallow, moderately fine-textured, gently sloping to very steep, rocky and stony soil, rough broken land and rock land on hills and mountains. *Rough Broken land and Rock land (RU)* is a steep and very steep land type that occurs throughout the highest and steepest mountainous parts of the county. Throughout areas of this land type are pockets of soil material that differs considerably in texture, depth, and reaction. Where there is soil material, the effective rooting zone is generally 10 to 30 inches. Runoff is rapid to very rapid. Erosion hazard ranges from moderate to severe due to present of stones everywhere. This land type is used for range, wildlife habitat, and watershed management. *Lehman* soil is classified as clayey, montmorillonitic, thermic lithic Argiustolls. This soil has moderately slow permeability. Runoff is rapid. Available water holding capacity is 2 to 3 inches. Effective rooting depth is 15 to 20 inches. Hazard of water erosion is slight. This map unit is used for range, wildlife habitat, and watershed management.

Nickel-Upton-Tres Hermanos association: Very shallow to deep, medium-textured and moderately fine-textured, gently sloping to very steep, limy soil on uplands. This association included three soils. *Nickel* soil is classified as loamy-skeletal, mixed, thermic, Typic Calciorthids. This soil has moderate permeability. Runoff is medium. The available water holding capacity is 1 to 2 inches. Effective rooting depth is 10 to 20 inches. Hazard of water erosion is moderate. This map unit is used for range, wildlife habitat, and watershed management. *Upton* soil is classified as loamy, carbonatic, thermic, shallow, Typic Paleorthids. This soil has moderate permeability. Runoff is medium. Available water holding capacity is 0.5 to 1 inches. Effective rooting depth is 4 to 12 inches. Hazard of water erosion is moderate. This map unit is used for range, wildlife habitat, and watershed management. *Tres Hermanos* soil is classified as fine loamy, mixed, thermic, Typic Haplargids. This soil has moderate permeability. Runoff is medium to slow. The available water holding capacity is 4 to 5 inches. Effective rooting depth is 40 inches. Hazard of water erosion is high. This map unit is used for range, wildlife habitat, and watershed management.

Mohave-Stellar-Forrest association: Deep, moderately fine-textured and fine-textured, nearly level to gently sloping soil on old alluvial fans. This association included three. *Mohave* soil is classified as fine-loamy, mixed, thermic, Typic Haplargids. This soil has moderate permeability. Runoff is medium. Available water holding capacity is 9 to 11 inches. Effective rooting depth is 60 inches. Hazard of water erosion is moderate. This map unit is used for range, wildlife habitat, and watershed management. *Stellar* soil is classified as fine, mixed, thermic, Ustollic Haplargids. This soil has low permeability. Runoff is low. Available water holding capacity is 8 to 9.5 inches. Effective rooting depth is 60 inches. Hazard of water erosion is slight. This map unit is used for range, wildlife habitat, and watershed management. *Forrest* soil is classified as fine, mixed, thermic ustollic Haplargids. This soil has slow permeability, with medium runoff. Available water holding capacity is 5 to 7 inches. Effective rooting depth is about 30 inches. This soil has moderate soil erosion. This map unit is used for range, wildlife habitats and watershed management.

Hondale-Playas association: Deep, moderately fine-textured and fine-textured, nearly level to gently sloping soil on alkali flats. *Hondale* soil is classified as fine, mixed, thermic, Typic Natrargids. This soil has very slow permeability. Runoff is slow. Available water holding capacity is 2 to 3 inches. Effective rooting depth is 60 inches. Hazard of water erosion is slight. This map unit is used for range, wildlife habitat, and watershed management. *Playas* consists of barren, flat, generally dry, un-drained basins. It consists mainly of clay and silt clay sediments. Playas are very strongly alkaline and are non-saline to slightly saline due to periodic flooding. Hazard of soil blowing is moderate during periods of high winds.

3.12 Watershed – Hydrology

Watershed and hydrology in the area is affected by land and water use practices. The degree to which hydrologic processes are affected by land and water use depends on the location, extent, timing and the type of activity. Factors that currently cause short-lived alterations to the hydrologic regime in the area include livestock grazing management, recreational use activities, groundwater pumping and also oil and gas developments such as well pads, permanent roads, temporary roads, pipelines and power lines.

3.13 Vegetation

The parcels indicate portions of the following Plant Communities Chihuahuan Desert-Grassland plant community with Ecological Site-SD-3. Vegetation includes mesquite, snakeweed, soaptree yucca, four-wing saltbush, Mormon tea, tarbush, burrograss, sand dropseed, black grama, tobosa, and vine mesquite.

Mixed Desert Shrub

Lease parcels are within the plant community as identified in the Mimbres Resource Management Plan/Environmental impact Statement (RMP/EIS). Appendix 11 of the RMP/EIS describes the Desired Plant Community (DPC) concept and identifies the components of each community. The primary consideration in listing range sites under this community type is

topography influenced by higher hills and mountains with juniper, pinon or mountain mahogany in the description of the potential plant community.

3.14 Livestock Grazing

The proposed lease action is located within William Hurt's BLM grazing allotment, #02027. This allotment is authorized yearlong grazing cow/calf herds. A range trend study plot is associated with these parcels contained within this grazing allotment. Mitigation is included in reference to any possible impacts to these BLM study areas.

3.15 Wildlife

Field visits to examine habitat within the lease parcels were conducted Sept 17, 2010 and Aug 11, 2011. These lease parcels contain a significant portion of the Sierra Rica Mountains with elevation ranging from near 5,500ft. on Doyle Peak in parcel 20 to 4,260ft. in parcel 25 on the margin of Hachita Draw. Habitat is composed of Desert Scrub vegetation associations (Dick-Peddie 1993). Creosote bush dominated bajadas surround the Sierra Ricas. The mountain slopes support habitats comprised primarily of grass and shrubs with a few juniper trees scattered throughout. The lower elevation areas have relatively small inclusions of grassland and arroyo habitats. BLM standard habitat sites (SHS) occurring in the parcels include creosote rolling uplands, creosote hills, mixed shrub rolling uplands mixed shrub hills, half-shrub hills and a small amount of grass flats.

Executive Order 13186 directs federal agencies to take certain actions to further implement the Migratory Bird Treaty Act and contribute to the conservation and management of migratory birds and their habitats. As categorized by Rustay and Norris (2007) in the New Mexico Bird Conservation Plan, habitat in the lease parcels is primarily Chihuahuan Desert Scrub (CDS) with a smaller amount of Chihuahuan Desert Grassland (CDG) habitat. This plan ascribes 3 levels of priority to migratory bird habitats based on importance to birds and level of threat (highest, high, moderate to low) and a conservation opportunity score. CDG habitat was rated in the highest priority category with a moderate conservation opportunity relative to other New Mexico migratory bird habitats. CDS habitat was rated high priority with a low score for conservation opportunity. The plan lists 21 species with a breeding association with CDG and 44 species for CDS. The plan also designates priority bird species, based on importance to species conservation (SC) and/or biodiversity conservation (BC). Priority bird species with reasonable potential to occur in the lease parcels for breeding or wintering, and in a few cases foraging only are listed in Table 2.

Table 2. Priority bird species (Rustay and Norris 2007) with reasonable potential to occur in some or all of the lease parcels.

Species	Priority Conservation Designation and Level of Concern Score	Species	Priority Conservation Designation and Level of Concern Score
Grasshopper Sparrow	SC 1	Aplomado Falcon*	BC 1
McCown's longspur	SC 1	Peregrine Falcon	BC 1
Swainson's Hawk	SC 2	Lucifer Hummingbird	BC 1
Prairie Falcon	SC 2	Sprague's Pipit	BC 1

Scaled Quail*	SC 2	Botteri's Sparrow	BC 1
White-throated Swift	SC 2	Baird's Sparrow	BC 1
Loggerhead Shrike	SC 2	Golden Eagle	BC 2
Crissal Thrasher	SC 2	Varied Bunting	BC 1
Black-throated Sparrow	SC 2	Hooded Oriole	BC 1
SC = Species Conservation. BC = Biodiversity Conservation. Conservation Opportunity Score: 1= high. 2 = Moderate. * Not migratory.			

The parcels contain habitat suitable to expect occurrence of a number of species listed under the Wildlife Conservation Act by the New Mexico Department of Game and Fish and U.S. Fish and Wildlife Service species of concern. A comparison of current lists for Hidalgo County (http://nmrareplants.unm.edu, http://www.fws.gov/southwest/es/EndangeredSpecies/lists/ and http://www.bison-m.org/index.aspx), species habitat requirements, distribution information and habitats in the lease parcels indicates a potential for 7 State listed or USFWS species of concern species to occur within the parcels at least part of the year Table 3.

Table 3. Species listed under the New Mexico Wildlife Conservation Act and Fish and Wildlife Service species of concern with potential to occur in habitat in the lease parcels.

Species	**Status***
Aplomado Falcon	FNEP, NME
American Peregrine Falcon	FWSS, NMT
Arctic Peregrine Falcon	FWSS, NMT
Broad-billed Hummingbird	NMT
Lucifer Hummingbird	NMT
Gray Vireo	NMT
Pale Townsend's Big-eared Bat	FWSS
*Status: FWSS=Fish and Wildlife Service Species Of Concern, NME=New Mexico Endangered, NMT=New Mexico Threatened,	

3.16 Visual Resources

Visual Resource Management (VRM) on public land is conducted in accordance with BLM Handbook 8410 and BLM Manual 8411.

3.17 Recreation

Lease areas are primarily used by recreational visitors engaged in hunting, caving, sightseeing, driving for pleasure, off-highway vehicle use, and other recreational activities. Non-recreation visitors include oil and gas industrial workers and ranchers.

3.18 Lands & Realty

These nominated lease areas are accessible by existing roads. However, legal access for roads does not exist. There are no other existing or pending rights-of-ways (ROW) on these nominated parcels.

3192 Cave/Karst

Karst refers to a geomorphic landscape created by the dissolution of a layer or layers of soluble bedrock; usually carbonate rock such as limestone. Characteristic landforms in karst regions can include caves, springs, sinkholes, blind valleys, disappearing streams and cenotes. In New Mexico, karst landforms are most commonly associated with near-surface outcrops of limestone, dolomite or other soluble sedimentary rocks. Geologic mapping of the subject parcels (Scholle, 2003) indicates that undifferentiated Pennsylvanian-Permian carbonate bedrock outcrops in limited portions (500 acres or less) of nominated parcels 20 and 21. The potential for karst resources is considered low; however, field verification may be necessary for specific surface disturbing proposals.

3.20 Public Health and Safety

The area containing the lease parcels has been under oil and gas development for many years. Leasing of the parcels analyzed in this EA would present no new or unusual health or safety issues not covered by existing state and Federal laws and regulation.

3.21 Unplugged Well Agreements and Liability

There are no unplugged wells within any of the parcels listed in this July Lease Sale or parcels in reference to this EA.

3.22 Unitization or Communitization

None of these parcels listed for the July 2012 Lease sale or parcels in reference to this EA are within an authorized or proposed Unitization or Communitization Agreement.

4 ENVIRONMENTAL IMPACTS

Environmental Consequences and Proposed Mitigation Measures

4.1 Assumptions for Analysis

The act of leasing parcels would, by itself, have no impact on any resources in the RFO. All impacts would be linked to as yet undetermined future levels of lease development.

If lease parcels were developed, short-term impacts would be stabilized or mitigated within 5 years and long-term impacts are those that would substantially remain for more than 5 years. Potential impacts and mitigation measures are described below.

Cumulative impacts include the combined effect of past projects, specific planned projects and other reasonably foreseeable future actions such as other infield wells being located within these leases. Potential cumulative effects may occur should an oil and gas field be discovered if these parcels are drilled and other infield wells are drilled within these leases or if these leases become part of a new unit. All actions, not just oil and gas development may occur in the area, including foreseeable non-federal actions.

Estimates of total surface disturbance for this lease sale action are based on full field development. Full field development assumes development of every spacing unit and has a total complement of roads, pads, power lines, gravel sources and pipelines. Exploration and development of hydrocarbon resources outside of well-developed areas increases the distance required for roads, pipelines and power lines. The parcels offered are not within or near well-developed fields.

Surface disturbance assumptions shown in the following paragraph are examples of possible impacts associated with oil and gas exploration and development drilling activities in these areas.

- Access Roads: 14 foot wide travel way, 3.0 acres disturbance per access road
- Drill Pads: 1.4 acres disturbance per average well pad (250 feet x 250 feet)
- Pipelines: 3.6 acres initial disturbance per producing well (30 feet right-of-way width)
- Power lines: 1.0 acre initial disturbance per producing well
- **Total Surface disturbance: 9 acres per well**

4.2 Effects from the No Action Alternative

Under the No Action Alternative, the proposed parcels would not be leased. There would be no subsequent impacts from oil and/or gas construction, drilling, and production activities. The No Action Alternative would result in the continuation of the current land and resource uses in the proposed lease areas. The No Action Alternative is also used as the baseline for comparison of alternatives.

It is an assumption that the No Action Alternative (no lease option) may result in a slight reduction in domestic production of oil and gas. This would likely result in reduced Federal and State royalty income, and the potential for Federal land to be drained by wells on adjacent private or state land. Consumption is driven by a variety of complex interacting factors including energy costs, energy efficiency, availability of other energy sources, economics, demography, and weather or climate. If the BLM were to forego its leasing decisions and potential development of those minerals, the assumption is that the public's demand for the resource would not be expected to change. Instead, the resource foregone would be replaced in

the short and long-term by other sources that may include a combination of imports, using alternative energy sources (e.g. wind, solar), and other domestic production. This displacement of supply would offset any reductions in emissions achieved by not leasing the subject tracts in the short-term**.**

4.3 Analysis of the Action Alternatives

4.3.1 Air Resources

Leasing the subject tracts would have no direct impacts to air quality. Any potential effects to air quality from sale of lease parcel would occur at such time that the lease is developed. Potential impacts of development of the proposed lease could include increased air borne soil particles blown from new well pads or roads, exhaust emissions from drilling equipment, compressors engines, vehicles, flares, and dehydration and separation facilities, and volatile organic compounds during drilling or production activities.

There are three phases in the development of a well that result in different levels of emissions. The first phase occurs during the first year of development and may include pad construction, drilling, completion, interim reclamation, and operation of the completed well. The first year results in the highest level of emissions due to the large engines required during the construction and drilling, and the potential release of natural gas to the atmosphere during completion.

The second phase of the well begins after the well is completed and is put on line for production. Emissions during the production phase may include vehicle traffic, engines to pump oil if necessary, compressor engines to move gas through a pipeline, venting from storage tanks, and storage tank heaters. A workover of the well may occasionally be required, but the frequency of workovers is not predictable. The final phase is to plug and abandon the well and rehab the pad.

Potential Mitigation: The BLM encourages industry to incorporate and implement "Best Management Practices" (BMPs), which are designed to reduce impacts to air quality by reducing emissions, surface disturbances, and dust from field production and operations. Typical measures include: adhere to BLM's Notice to Lessees' (NTL) 4(a) concerning the venting and flaring of gas on Federal leases for natural gas emissions that cannot be economically recovered, flare hydrocarbon gases at high temperatures in order to reduce emissions of incomplete combustion; water dirt roads during periods of high use in order to reduce fugitive dust emissions; collocate wells and production facilities to reduce new surface disturbance; implement directional drilling and horizontal completion technologies whereby one well provides access to petroleum resources that would normally require the drilling of several vertical wellbores; require that vapor recovery systems be maintained and functional in areas where petroleum liquids are stored; and perform interim reclamation to re-vegetate areas of the pad not required for production facilities and to reduce the amount of dust from the pads.

An application for permit to drill (APD) is required for each proposed well to develop a lease. Onshore Oil and Gas Order No. 1 issued under 43 CFR 3160 authorizes BLM to attach Conditions of Approval (COA) to APDs during the permitting process. Additional analysis

will be done at such time as an APD is requested and a determination will them be made on the need for mitigation based on the estimated level of emissions.

4.3.1.1 Greenhouse Gases

Information about (GHGs) and their effects on national and global climate is presented in the Air Quality Technical Report (USDI BLM 2011). Analysis of the impacts of the proposed action on GHG emissions will be discussed below. Only the GHG emissions associated with exploration and production of oil and gas will be evaluated here because the environmental impacts of GHG emissions from oil and gas consumption, such as refining and emissions from consumer-vehicles, are not effects of the proposed action as defined by the Council on Environmental Quality because they do not occur at the same time and place as the action. Thus, GHG emissions from consumption of oil and gas do not constitute a direct effect that is analyzed under NEPA. Nor is consumption an indirect effect of oil and gas production because production is not a proximate cause of GHG emissions resulting from consumption. However, emissions from consumption and other activities are accounted for in the cumulative effects analysis.

Leasing the subject tracts would have no direct impacts to climate change as a result of GHG emissions. Any potential GHG emissions from sale of the lease parcel would occur at such time that the lease was developed.

The two primary GHGs associated with the oil and gas industry are carbon dioxide (CO_2) and methane (CH_4). Because methane has a global warming potential that is 21-25 times greater than the warming potential of CO_2, the EPA uses measures of CO_2 equivalent (CO_2e) which takes the difference in warming potential into account for reporting greenhouse gas emissions. Emissions will be expressed in metric tons of CO_2 equivalent in this document.

Oil and Gas production in New Mexico is concentrated in the northwest corner, the San Juan Basin, and the southeast corner, the Permian Basin. Production in the San Juan Basin is mostly natural gas while production in the Permian Basin is mostly oil. Production statistics developed from EPA and New Mexico Oil Conservation Division for 2008 are shown in Table 10 for the US, New Mexico and for wells on federal leases in each basin while Table 11 shows an estimate of greenhouse gas emissions for oil and gas field production based on the assumption that emission are proportional to production. There are currently no producing wells in Hidalgo County, therefore it is impossible to quantify emissions based on potential production but it can be concluded that any GHG emissions would be very small compared to the more active production areas in New Mexico which each account for only 0.01% of US GHG emissions.

Because oil and gas leaves the custody and jurisdiction of the BLM after the production phase and before processing or refining, only emissions from the production phases are considered here. It should also be remembered that following EPA protocols, these numbers do not include fossil fuel combustion which would include such things as truck traffic, pumping jack engines, compressor engines and drill rig engines. Nor does it include emissions from power plants that generate the electricity used at well sites and facilities. Note that units of Metric

tons CO_2e have been used in Table 11 to avoid very small numbers. For comparison one million metric tons is equal to one teragram.

Table 10: 2008 Oil and Gas Production

	Oil Barrels (bbl)	% U.S. Total	Gas (MMcf)	% U.S. Total
United States	1,811,816,000	100	25,754,348	100
New Mexico	60,178,252	3.32	1,473,136	5.72
Federal leases in New Mexico	25,700,000	1.42	920,000	3.57
San Juan Basin	1,600,000	0.09	709,000	2.75
Permian Basin	24,100,000	1.33	211,000	0.82

Table 11: 2008 Oil and Gas Field Production Emissions

	Oil		Gas		Total O&G Production	%U.S. Total GHG missions
(Metric Tons CO_2e)	CO_2	CH_4	CO_2	CH_4		
United States	500,000	28,400,000	8,500,000	14,100,000	51,500,000	0.74
New Mexico	16,607	943,287	486,196	806,513	2,252,603	0.03
Federal leases in New Mexico	7,092	402,844	303,638	503,682	1,217,257	0.02
San Juan Basin	442	25,080	233,999	388,164	647,684	0.01
Permian Basin	6,651	377,765	69,639	115,518	569,573	0.01

Table 11 provides an estimate of direct emissions that occur during exploration and production of oil and gas. This phase of emissions represents a small fraction of overall emissions of GHGs from the life cycle of oil and gas. For example, acquisition (drilling and development) of petroleum is responsible for only 8% of the total lifecycle GHG emissions, whereas transportation of the petroleum to refineries represents about 10% of the emissions, and final consumption as a transportation fuel represents fully 80% of emissions (U.S.DOE, NETL, 2008).

Potential Mitigation: The EPA's inventory data describes "Natural Gas Systems" and "Petroleum Systems" as the two major categories of total US sources of GHG gas emissions. The inventory identifies the contributions of natural gas and petroleum systems to total CO_2 and CH_4 emissions (natural gas and petroleum systems do not produce noteworthy amounts of any of the other greenhouse gases). Within the larger category of "Natural Gas Systems", the EPA identifies emissions occurring during distinct stages of operation, including field production, processing, transmission and storage, and distribution. "Petroleum Systems" sub-activities include production field operations, crude oil transportation and crude oil refining. Within the two categories, the BLM has authority to regulate only those field production operations that are related to oil and gas measurement, and prevention of waste (via leaks, spills and unauthorized flaring and venting).

The BLM encourages industry to incorporate and implement "Best Management Practices" (BMPs), which are designed to reduce impacts to GHG emissions from field production and operations. Typical measures include: adhere to BLM's Notice to Lessees' (NTL) 4(a) concerning the venting and flaring of gas on Federal leases; for natural gas emissions that cannot be economically recovered, flare hydrocarbon gases at high temperatures in order to reduce emissions of incomplete combustion; implement directional drilling and horizontal completion technologies whereby one well provides access to petroleum resources that would normally require the drilling of several vertical wellbores; and require that vapor recovery systems be maintained and functional in areas where petroleum liquids are stored.

4.3.2 Cultural and Paleontological Resources

While the act of leasing a parcel would produce no impacts, subsequent development of the lease could have impacts on archaeological and paleontological resources. Required archaeological surveys would be conducted upon all subsequent actions that are expected to occur from the lease sale to avoid disturbing cultural and/or paleontological sites.

4.3.2.1 Direct and Indirect Impacts

Consequential project construction has the potential to impact cultural and paleontological resources.

4.3.2.2 Potential Mitigation

Avoidance measures would be imposed were ever cultural and/or paleontological resources are impacted.

4.3.3 Socio-economics and Environmental Justice

4.3.3.1 Direct and Indirect Impacts

No minority or low income populations would be directly affected in the vicinity of the proposed actions from subsequent proposed oil or gas projects. Indirect impacts could include impacts due to overall employment opportunities related to the oil and gas and service support industry in the region, as well as the economic benefits to State and County governments related to royalty payments and severance taxes. Other impacts could include a small increase in activity and noise disturbance in areas used for grazing, wood gathering or hunting. However, these impacts would apply to all public land users in the project area.

4.3.3.2 Potential Mitigation - None required.

4.3.4 Floodplains

4.3.4.1 Direct and Indirect Impacts

The act of leasing Federal minerals produces no impacts to floodplains. However, the subsequent development may produce impacts in the form of surface disturbance. Surface disturbance from development of well pads, access roads, pipelines and power lines can result in impairment of floodplain values from removal of vegetation, wildlife habitat, impairment of water quality, decreased flood water retention and ground water recharge.

4.3.4.2 Potential Mitigation

For the purpose of protecting streams, rivers and floodplains, surface disturbance will not be allowed within up to 200 meters of the outer edge of 100-year floodplains, to protect the integrity of those floodplains.

4.3.5 Invasive, Non-native Species

4.3.5.1 Direct and Indirect Impacts

While the act of leasing Federal minerals produces no impacts, subsequent development produces impacts in the form of surface disturbance. Construction of an access road and well pad may unintentionally contribute to the establishment and spread of noxious weeds. Noxious weed seed could be carried to and from the project areas by construction equipment, drilling rig and transport vehicles. The main mechanism for seed dispersion on the road and well pad is by equipment and vehicles that were previously used and or driven across or through noxious weed infested areas. Potential for the dissemination of invasive and noxious weed seed may be elevated by the use of construction equipment typically contracted out to companies that may be from other geographic areas in the region. Washing and decontaminating the equipment prior to transporting onto and exiting the construction areas would minimize this impact.

Impacts by noxious weeds will be minimized due to requirements for the company to eradicate the weeds upon discovery. Multiple applications may be required to effectively control the identified populations.

4.3.5.2 Potential Mitigation

In the event noxious weeds are discovered during construction of any access roads and well pads, measures will be taken to mitigate those impacts.

4.3.6 Wastes, Hazardous or Solid

These lease parcels fall under environmental regulations that impact exploration and production waste management and disposal practices and impose responsibility and liability for protection of human health and the environment from harmful waste management practices or discharges.

4.3.6.1 Direct and Indirect Impacts

Direct impact would follow a lease sale project when solid waste is discarded and contaminates the land surface either by solid, semi-solid, liquid or contained gaseous material. The indirect impact is the Environmental Protection Agency (EPA) definition of solid wastes that have been designated as exempt and nonexempt and if it is hazardous, civil and criminal penalties may be imposed if waste is not managed in a safe manner, and according to regulations.

4.3.6.2 Potential Mitigation

These lease sale parcels are regulated under the Resource Conservation and Recovery Act (RCRA) Subtitle C regulations which are extremely stringent. As well as, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that provides for the exclusion of petroleum, including crude oil or any fraction thereof from the definition of hazardous substance, pollutant, or contaminant. The mitigation would include the stringiest regulation of waste containment within the project areas.

4.3.7 Water Quality: Surface and Groundwater

4.3.7.1 Direct and Indirect Impacts

While the act of leasing a parcel would produce no impacts, subsequent development of the lease would lead to surface disturbance from the construction of well pads, access roads, pipelines, and power lines can result in degradation of surface water quality and groundwater quality from non-point source pollution, increased soil losses, and increased gully erosion.

Potential direct impacts that would occur due to construction of well pads, access roads, pipelines, and power lines include increased surface water runoff and off-site sedimentation brought about by soil disturbance: increased salt loading and water quality impairment of surface waters; channel morphology changes due to road and pipeline crossings; and possible contamination of surface waters by produced water. The magnitude of these impacts to water resources would depend on the proximity of the disturbance to the drainage channel, slope aspect and gradient, degree and area of soil disturbance, soil character, duration and time within which construction activity would occur, and the timely implementation and success or failure of mitigation measures.

Direct impacts would likely be greatest shortly after the start of construction activities and would likely decrease in time due to natural stabilization, and reclamation efforts. Construction activities would occur over a relatively short period; therefore, the majority of the disturbance would be intense but short lived. Direct impacts to surface water quality would be minor, short-term impacts which may occur during storm flow events. Indirect impacts to water-quality related resources, such as fisheries, would not occur.

Petroleum products and other chemicals, accidentally spilled, could result in surface and groundwater contamination. Similarly, possible leaks from reserve and evaporation pits could degrade surface and ground water quality. Authorization of the proposed projects would require full compliance with BLM directives and stipulations that relate to surface and groundwater protection.

4.3.7.2 Potential Mitigation

Use of a plastic-lined reserve pits would reduce or eliminate seepage of drilling fluid into the soil and eventually reaching groundwater. Spills or produced fluids (e.g., saltwater, oil, and/or condensate in the event of a breech, overflow, or spill from storage tanks) could result in contamination of the soils on-site, or off-site, and may potentially impact surface and groundwater resources in the long term. Casing and cementing requirements imposed on proposed wells would reduce or eliminate the potential for groundwater contamination from drilling muds and other surface sources.

4.3.8 General Topography /Surface Geology

General topography and surface geology of the lease parcels are generally impacted by the construction projects that are permitted as a result of subsequent APD actions.

4.3.8.1 Direct and Indirect Impacts

The direct impact from a lease sale is that the land involved could fall within an environmental sensitive area and subsequent lease actions could impact the issues of environmental concern. Split estate is an issue of concern on a lease sale when and if a private surface landowner is not in agreement with the proposed project which could create an environmental sensitive area until the issues are resolved with the surface owner. Indirectly the proposed projects could fall within protected areas that would require changing the spacing requirements of a well by moving the location or road.

4.3.8.2 Potential Mitigation

This lease sale could have mitigation measures imposed on the proposed subsequent action when and if the concern involves the issuance of such mitigation measures that are deemed necessary to resolve the environmental predicament.

4.3.9 Soil

4.3.9.1 Direct and Indirect Impacts

While the act of leasing a tract would produce no impacts, subsequent development of the lease would physically disturb the topsoil and would expose the substratum soil on subsequent project areas. Direct impacts resulting from the oil and gas construction of well pads, access roads, and reserve pits include removal of vegetation, exposure of the soil, mixing of horizons, compaction, loss of top soil productivity and susceptibility to wind and water erosion. Wind erosion would be expected to be a minor contributor to soil erosion with the possible exception of dust from vehicle traffic. These impacts could result in increased indirect impacts such as runoff, erosion and off-site sedimentation. Activities that could cause these types of indirect impacts include construction and operation of well sites, access roads, gas pipelines and facilities.

Contamination of soil from drilling and production wastes mixed into soil or spilled on the soil surfaces could cause a long-term reduction in site productivity. Some of these direct impacts can be reduced or avoided through proper design, construction and maintenance and implementation of best management practices.

Additional soil impacts associated with lease development would occur when heavy precipitation causes water erosion damage. When water saturated segment(s) on the access road become impassable, vehicles may still be driven over the road. Consequently, deep tire ruts would develop. Where impassable segments are created from deep rutting, unauthorized driving may occur outside the designated route of access roads.

4.3.9.2 Potential Mitigation

The operator would stockpile the topsoil from the surface of well pads which would be used for surface reclamation of the well pads. Impacts to the soil would be remedied upon reclamation of well pads when the stockpiled soil that was specifically conserved to establish a seed-bed is spread over well pads and vegetation re-establishes.

Reserve pits would be re-contoured and seeded as described in attached Conditions of Approval. Upon abandonment of wells and/or when access roads are no longer in service the Authorized Officer would issue instructions and/or orders for surface reclamation/restoration of the disturbed areas as described in attached Conditions of Approval.

Road construction requirements and regular maintenance would alleviate potential impacts to access roads from water erosion damage.

For the purpose of protecting slopes or fragile soil, surface disturbance will not be allowed on slopes over 20%. Activities on critical soil on slopes over 20% will require special mitigation.

4.3.10 Watershed - Hydrology

4.3.10.1 Direct and Indirect Impacts

While the act of leasing a parcel would produce no impacts, subsequent development of the lease would result in long and short-term alterations to the hydrologic regime. Peak flow and low flow of perennial streams, ephemeral, and intermittent rivers and streams would be directly affected by an increase in impervious surfaces resulting from the construction of the well pad and road. Potential hydrologic effects to peak flow is reduced infiltration where surface flows can move more quickly to perennial or ephemeral rivers and streams, causing peak flow to occur earlier and to be larger. Increased magnitude and volume of peak flow can cause bank erosion, channel widening, downward incision, and disconnection from the floodplain. Potential hydrologic effects to low flow is reduced surface storage and groundwater recharge, resulting in reduced base-flow to perennial, ephemeral, and intermittent rivers and streams. The direct impact would be that hydrologic processes may be altered where the perennial, ephemeral, and intermittent river and stream system responds by changing physical parameters,

such as channel configuration. These changes may in turn impact chemical parameters and ultimately the aquatic ecosystem.

Long-term direct and indirect impacts to the watershed and hydrology would continue for the life of wells and would decrease once all well pads and road surfacing material has been removed and reclamation of well pads, access roads, pipelines and power lines has taken place. Short-term direct and indirect impacts to the watershed and hydrology from access roads that are not surfaced with material would occur and would likely decrease in time due to reclamation efforts.

4.3.10.2 Potential Mitigation

The operator would stockpile the topsoil from the surface of well pads which would be used for surface reclamation of the well pads. Reserve pits would be re-contoured and seeded as described in attached Conditions of Approval. Upon abandonment of the wells and/or when access roads are no longer in service the Authorized Officer would issue instructions and/or orders for surface reclamation/restoration of the disturbed areas as described in the attached Conditions of Approval.

4.3.11 Vegetation

4.3.11.1 Direct and Indirect Impacts

At this stage (lease sale) there are no impacts. Impacts (both direct and indirect) would occur when the lease is developed in the future. Potential impacts would be analyzed on a site specific basis prior to oil and gas development.

4.3.11.2 Potential Mitigation

At the lease stage there are no impacts to vegetation study trend plots.

4.3.12 Livestock Grazing

4.3.12.1 Direct and Indirect Impacts

At the lease stage there are no impacts to livestock grazing.

4.3.12.2 Potential Mitigation

None

4.3.13 Special Status Species

4.3.13.1 Direct and Indirect Impacts

The potential for direct and indirect impacts to SSS can't be analyzed until the site specific APD stage of development. All of the parcels have habitat that may support federally listed and/or BLM sensitive species. Site specific biological surveys would be required at the APD stage and development proposals may require Section 7 consultation under ESA. If development is proposed in habitat suitable for Chihuahua scurfpea, survey efforts may require more than 1 growing season to complete do to the fact the plant does not grow above ground every year.

4.3.13.2 Potential Mitigation
LC-49CSU to 2012 parcels 20, 21, 23, 24, 22
WO-ESA-7 to 2012 parcels 20, 21, 23, 24, 25, 22
Scurfpea stip to parcels 20, 21, 23, 24, 25, 22.

4.3.14 Wildlife

4.3.14.1 Direct and Indirect Impacts

Potential direct and indirect impacts can't be analyzed until site-specific proposals are analyzed at the APD stage of development.

4.3.14.2 Potential Mitigation

Deferred until the APD stage of development.

4.3.15 Recreation

While the act of leasing Federal minerals produces no impacts, subsequent development of a lease would generate impacts to recreation activities. In public land that are small or land locked by private or state land, recreation opportunities that could occur in this area would be limited or non-existent due to land patterns. In isolated tracks of public land that generally do not have access through state land or county or state roads, oil and gas activities would have little or no affect on the recreational opportunities in this area. In larger blocks of public land recreation activities that could occur within this area are limited to access from BLM land, county roads or through state land during hunting seasons.

4.3.15.1 Direct and Indirect Impacts

None

4.3.15.2 Potential Mitigation

None

4.3.16 Visual Resources

Visual resource management is broken into four VRM classes. In the tract proposed for leasing only VRM classes III and IV are represented.

The VRM Class III objective is to partially retain existing landscape character. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate a casual observer's view. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. Facilities, such as produced water, condensate or oil storage tanks that rise above eight feet, would provide a geometrically strong vertical and horizontal visual contrast in form and line to the characteristic landscape and vegetation, which have flat, horizontal to slightly rolling form and line. The construction of an access road, well pad and other ancillary facilities, other than facilities greater in height than eight feet, would slightly modify the existing area visual resources. Facilities, such as condensate and produced water or oil storage tanks that rise above eight feet, would provide a geometrically strong vertical and horizontal visual contrast in form and line to the characteristic landscape and vegetation, which have flat, horizontal to slightly rolling form and line. Under visual resource Class III, the method for repeating the basic elements would be to remove strong vertical and horizontal contrast through use of low-profile facilities as reflected in the Mimbres RMP. Depending on the production nature of the well site, multiple low-profile condensate and/or oil or produced water tanks would be necessary to accommodate the project. Through color manipulation, by painting well facilities to blend with the rolling to flat vegetative and/or landform setting with a flat gray-green color, the view is expected to favorably blend with the form, line, color and texture of the existing landscape. The flat color Olive Drab from the supplemental environmental colors also closely approximates the gray green color of the setting. All facilities, including the meter building, would be painted this color. Cumulative adverse visual impacts can be avoided by gradually moving into a more appropriate vegetative/landform setting color scheme. Facilities with low-profile horizontal line and form would facilitate favorable blending as older facilities go out of production and are removed.

The VRM Class IV objective is to provide for management activities which require major modification of the existing landscape character. Every attempt, however, should be made to reduce or eliminate activity impacts through careful location, minimal disturbance, and repeating the basic landscape elements. Facilities, such as condensate and produced water or oil storage tanks that rise above eight feet, would provide a geometrically strong vertical and horizontal visual contrast in form and line to the characteristic landscape and vegetation, which have flat, horizontal to slightly rolling form and line. The construction of an access road, well pad and other ancillary facilities would slightly modify the existing area visual resources. Through color manipulation, by painting well facilities to blend with the rolling to flat vegetative and/or landform setting with a gray-green color. The view is expected to favorably blend with the form, line, color and texture of the existing landscape. The flat Olive Drab from the supplemental environmental colors also closely approximates the gray green color of the setting. All facilities, including the meter building, would be painted this color. Cumulative adverse visual impacts can be avoided by gradually moving into a more appropriate vegetative/landform setting color scheme.

4.3.16.1 Direct and Indirect Impacts

Through color manipulation, by painting well facilities to blend with the rolling to flat vegetative and/or landform setting with a gray-green the view is expected to favorably blend with the form, line, color and texture of the existing landscape

4.3.16.2 Potential Mitigation

The flat color Juniper Green from the Standard Environmental Colors Chart is to be used on all facilities to closely approximate the vegetation within the setting. All facilities, including the meter building, would be painted this color. If the proposed area is in a scenic corridor a low profile tank less than eight feet in high may be recommended for the proposed action.

4.3.17 Lands & Realty Impacts

Leasing of these nominated parcels would create a need for legal access in order for the operator to conduct exploration and drilling processes.

4.3.17.1 Potential Mitigation

The operator would be required to apply for and obtain a right-of-way over public land for legal access. Site specific information of access roads would be analyzed during an APD process. A ROW application would be required to be filed with the Las Cruces District Office. Special ROW stipulations would apply.

4.3.18. Cave/Karst

Tracts proposed for leasing may be located in a low, medium or high karst potential area. If the lease is in a low karst potential area there may be very little challenges in producing petroleum products from this location. If the proposed lease is in a medium or high karst potential area there could be the potential of adverse impact to known cave entrances or karst features is present within the lease area.

4. 3.18.1 Direct and Indirect Impacts

Leasing does not in itself cause a problem to a cave or karst area.

4.3.18.2 Potential Mitigation

NONE

4.3.19 Public Health and Safety

Public Health and Safety would not be impacted by leasing of the parcels.

4.3.19.1 Direct and Indirect Impacts

Subsequent construction, drilling, and production operations could have direct impacts on public health and safety during the conduct of oil and gas activities on the lease. Indirectly if the operations on subsequent lease actions are carried out in a safe workman-like manner, no impacts are anticipated.

4.3.19.2 Potential Mitigation

Upon subsequent proposed projects mitigation measures may be attached to the condition of approval if the operations are not conducted in a professional constructive manner.

4.20 Cumulative Impacts

The NMSO manages approximately 41 million acres of Federal mineral estate. Of the 41 million acres, 35 million acres are available for oil and gas leasing. Approximately 17% of the 35 million acres is currently leased (73% of the leases are in production and 63% of the lease acres are in production). The NMSO received 45 parcel nominations (29,916.88 acres) for consideration in the July 2012 Oil & Gas Lease Sale, and is proposing to lease 29 (25,237.99 acres) of the 45 parcels. If these 29 parcels were leased, the percentage of Federal minerals leased would not substantially change. The Farmington, Oklahoma and Carlsbad Field Office parcels are analyzed under separate EAs. Three parcels were nominated for the Rio Puerco Field Office (RPFO) in Sandoval County. These parcels have been deferred due to RPFO's ongoing RMP revision, and the parcels will not be considered until the revision is complete. The stipulations proposed for inclusion in the RMP would impact any parcel nominated within the RPFO.

Table 5A. Actual - Acres of Federal Minerals/Acres Available/Acres Leased:

State	Federal O&G Mineral Ownership	Acres Available	Acres Leased	Percent Leased
KS	744,000	596,147	129,378	22%
NM	34,774,457	30,699,038	5,140,073	17%
OK	1,998,932	1,810,000	329,765	18%
TX	3,404,298	1,774,545	450,425	25%
Totals/Average	40,921,687	34,879,730	6,049,641	17%

Table 5B. Parcels Nominated & Offered in the July 2012 Oil & Gas Lease Sale:

Field Office	No. of Nominated Parcels	Acres of Nominated Parcels	No. of Parcels to be Offered	Acres of Parcels to be Offered
Carlsbad	6	3,117.28	3	998.08
Farmington	12	2,637.46	2	400
Las Cruces	6	9,817.52	6	9,817.52
Oklahoma	5	531.31	5	531.31
Rio Puerco	3	322.23	0	0
Texas	13	13,491.08	13	13,491.08
Totals	45	29,916.88	29	25,237.99

Table 5C. Foreseeable - Acres of Federal Minerals/Acres Available/Acres Leased:

State	Federal O&G Mineral Ownership	Acres Available	Acres Leased	Percent Leased
KS	744,000	596,147	129,378	22%
NM	34,774,457	30,699,038	5,162,105	17%
OK	1,998,932	1,810,000	330,638	18%
TX	3,404,298	1,774,545	463,916	26%
Totals/Average	40,921,687	34,879,730	6,086,037	17%

4. 4.1 Cumulative Effects on Air Resources

The following analysis of cumulative impacts of the proposed action on air quality will be limited to Hidalgo County, New Mexico. The cumulative impacts of GHG emissions and their relationship to climate change are evaluated at the national and global levels in the Air Resource Technical Report (USDI BLM 2011).

4. 4.1.1 Effects of Other Past, Present, and Reasonably Foreseeable Actions on Air Resources

The primary activities that contribute to air pollution and GHG emissions in Hidalgo County include vehicle travel and non-road mobile equipment (EPA, 2011x). The Air Quality Technical Report includes a description of the varied sources of national and regional emissions that are incorporated here to represent the past, present and reasonably foreseeable impacts to air resources (USDI BLM 2011). It includes a summary of emissions on the national and regional scale by industry source. Sources that are considered to have notable contributions to air quality impacts and GHG emissions include electrical generating units, fossil fuel production (nationally and regionally) and transportation. The only major source of emissions in Hidalgo County at this time is a natural gas pipeline compressor station near Lordsburg, approximately 50 miles northwest of the proposed leases. Other emissions in the county are transportation related.

4. 4.1.2 Cumulative Effects of the Proposed Action on Air Resources

4. 4.1.2.1 Cumulative Effects of the Proposed Action on Air Quality

The very small increase in emissions that could result from approval of the proposed action would not result in any Hidalgo County exceeding the NAAQS for any criteria pollutants. The applicable regulatory threshold for HAPs is the oil and gas industry National Emissions Standards for Hazardous Air Pollutants, which are currently under review by the EPA. The emissions from the proposed well are not expected to impact any criteria pollutant standards in Hidalgo County.

4. 4.1.2.2 Cumulative Effects of the Proposed Action on Climate Change

The very small increase in GHG emissions that could result from approval of the proposed action would not produce climate change impacts that differ from the No Action Alternative. This is because climate change is a global process that is impacted by the sum total of GHGs in the Earth's atmosphere. The incremental contribution to global GHGs from the proposed action cannot be translated into effects on climate change globally or in the area of this site-specific action. It is currently not feasible to predict with certainty the net impacts from the proposed action on global or regional climate.

The Air Quality Technical Report (USDI BLM, 2011) discusses the relationship of past, present and future predicted emissions to climate change and the limitations in predicting local and regional impacts related to emissions. It is currently not feasible to know with certainty the net impacts from particular emissions associated with activities on public lands.

6.0 Consultation/Coordination

This section includes individuals or organizations from the public and its' users, external agencies, the interdisciplinary team, and permittees that were contacted during the development of this document.

BLM Interdisciplinary Team

Joseph Navarro, Environmental Protection Specialist
Jennifer Montoya, Planning and Environmental Coordinator
Phil Smith, Rangeland Management Specialist
Tom Holcomb, Archaeologist
Mohammad Nash, Hydrologist
Oswaldo Gomez, Outdoor Recreation Planner
Joe Sanchez, Natural Resource Specialist
Michael Smith, Geologist
Jack Barnitz, Wildlife Biologist
Edward Seum, Supervisory-Lands & Minerals
Ray Hewitt, GIS Specialist
Kendrah Penn, Realty Specialist

On February 13, 2012 a briefing (to review Field Office recommendations for nominated parcels) was held at the New Mexico State Office with Deputy State Director-Tony Herrell, Doug Burger, Adrienne Brumley, Bill Merhege, Megan Stouffer, Jay Spielman, Marcos Molinar and Dario Lunardi. Members of the Fluid Minerals team included Gloria Baca, Bernadine Martinez, Julie Serrano were also present along with Las Cruces District Geologist-Michael Smith, Joseph Navarro-Environmental Protection Specialist and Supervisor for Lands & Minerals-Edward Seum.

6.1 Public Involvement

The parcels nominated for this sale, along with the appropriate stipulations from the RMP, were posted online for a two week review period, January 30th through February 13th. Scoping comments from Trout Unlimited were received. This EA will be made available for public review and comment for 30 days beginning March 1,2012.

7.0 References

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New Mexico Oil Conservation Division. 2010b. Statistics, Production Summary Report. Available at http://www.emnrd.state.nm.us/ocd/statistics/Production/ProductionSummaryReport.aspx

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Rustay and Norris (2007). New Mexico Bird Conservation Plan.

Scholle, P. A., 2003, Geologic Map of New Mexico, 1:500,000: New Mexico Bureau of Geology and Mineral Resources.

U.S. Department of the Interior, Bureau of Land Management. 1993. Mimbres Proposed Resource Management Plan and Final Environmental Impact Statement. Las Cruces, New Mexico.

U.S. Department of the Interior, Bureau of Land Management. 1993. Mimbres Approved Resource Management and Plan Record of Decision. Las Cruces, New Mexico.

USDI. BLM. 2011. Air Quality Technical Report. New Mexico State Office. http://www.blm.gov/nm/st/en/prog/more/air_resources/air_resources_technical.html.

7.1 Authorities

Code of Federal Regulations (CFR) 3100
40 CFR All Parts and Sections inclusive Protection of Environment, Revised as of July 1, 2001.
43 CFR, All Parts and Sections inclusive - Public Lands: Interior. Revised as of October 1, 2000.

U.S. Department of the Interior, Bureau of Land Management and Office of the Solicitor (editors). 2001. The Federal Land Policy and Management Act, as amended. Public Law 94-579.

Appendix 1

Controlled Surface Use Stipulation
Chihuahua Scurfpea Habitat

Operations will be designed to avoid known populations of Chihuahua scurfpea. Upon submission of an APD or other proposal for surface disturbance, a survey will be required to determine presence. Species specific survey protocols will be required. Timing of surveys will be to match favorable growing conditions to ensure plants are above ground and visible. Survey timing will be determined based on growth of plants in the known population area and will only occur when those plants are actively growing. It may require several years for weather conditions that result in active growth to occur.

Should individual specimens or populations be discovered, surface-disturbing activities may be relocated beyond 0.125 miles but not more than 0.25 miles from occupied habitat, depending on the species requirements. This stipulation shall apply throughout the year and for the duration of the lease.

Location: Species-specific. Stipulation applies to all known and later discovered locations throughout the lease.

Plants: Chihuahua scurfpea.

Objective: To avoid adverse impacts to the species and associated habitat.

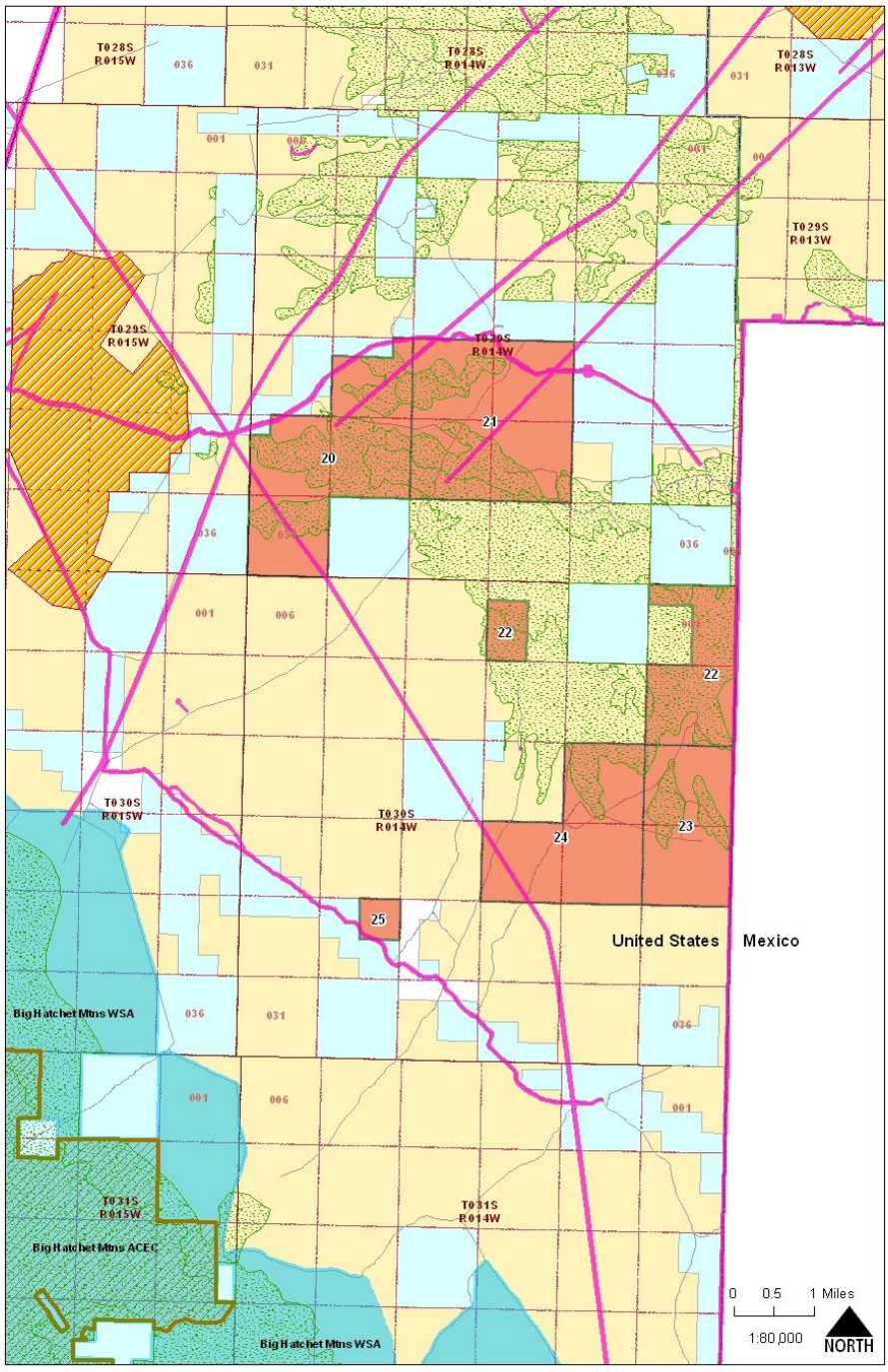
Waiver: None **Modification: None**

Justification: Stipulating controlled surface use is deemed necessary to minimize adverse impacts on special status species and their habitats, as required by BLM guidance. Closing these areas to leasing or stipulating no surface occupancy is deemed overly restrictive since BLM allows other surface-disturbing activities within the area. Under standard lease terms and conditions, the requirements described above would be the same; however, the stipulation for controlled surface use informs the lessee of the resource concern at the time the lease is acquired.

New Mexico State Office **LC-49 CSU**
Las Cruces Field Office **April 2009**

Map Attachments:

July 2012 Sale Draft Parcels - Map 1

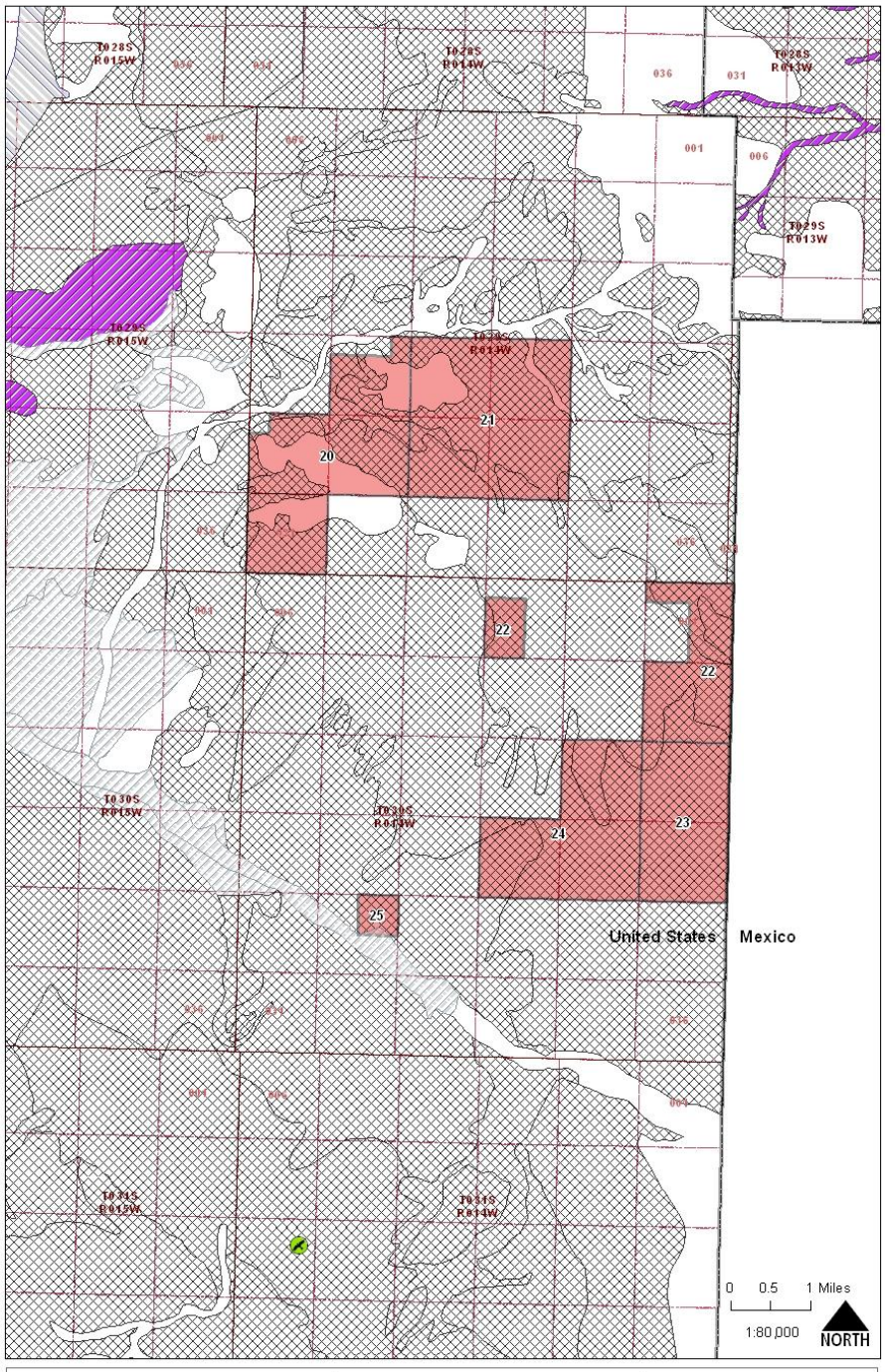


No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject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

ARCHEOLOGY_Survey_Polys
Sale July12 Draft
Completed Vegetation Treatments
Agave Cell
Areas of Critical Environmental Concern
Wilderness Study Area

BLM GIS
Las Cruces District Office

July 2012 Sale Draft Parcels - Map 2



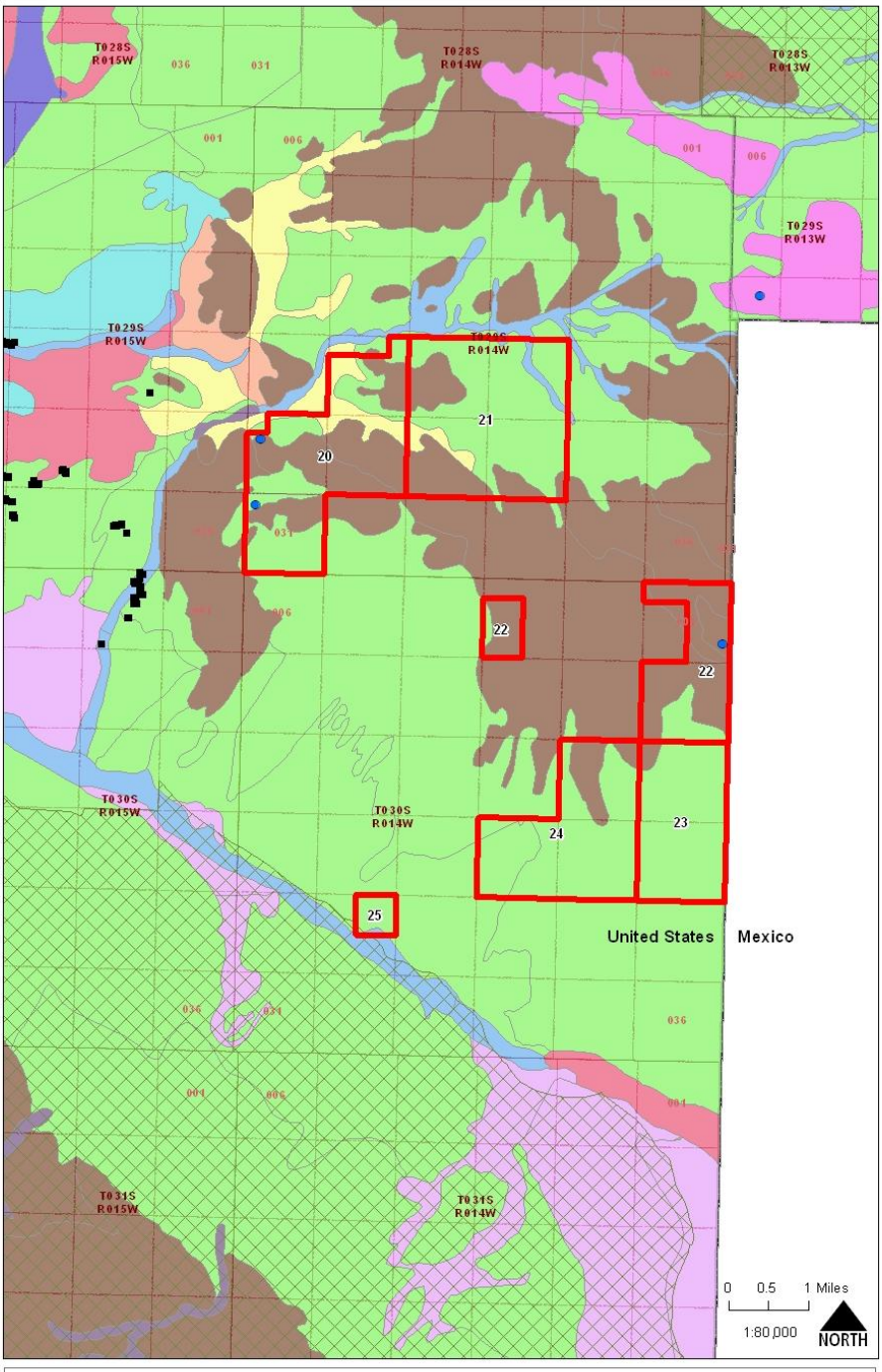
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject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

Aplomado Falcon Sighting
Sale July12 Draft

Aplomado Model Verified
SUITABLE
HIGH SUITABILITY
MODERATE SUITABILITY
LOW SUITABILITY
NO SUITABILITY

BLM GIS
Las Cruces District Office

July 2012 Sale Draft Parcels - Map 3



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