



# State of New Mexico

*Office of the Governor*

Bill Richardson  
Governor

**GOVERNOR BILL RICHARDSON'S CONSISTENCY REVIEW OF  
AND  
RECOMMENDED CHANGES TO  
THE UNITED STATES DEPARTMENT OF THE INTERIOR,  
BUREAU OF LAND MANAGEMENT'S  
PROPOSED RESOURCE MANAGEMENT PLAN AMENDMENT  
AND  
FINAL ENVIRONMENTAL IMPACT STATEMENT FOR  
FEDERAL FLUID MINERALS LEASING AND DEVELOPMENT  
IN SIERRA AND OTERO COUNTIES**

## **I. INTRODUCTION**

### **A. Consistency Review Purpose**

Prior to the approval of a proposed resource management plan, 43 C.F.R. § 1610.3-2 requires the United States Department of the Interior (USDI), Bureau of Land Management (BLM) State Director to submit the proposed plan for review to the Governor of the state where the planning area is located. The review's purpose is to allow the Governor to identify any parts of the proposed resource management plan that are inconsistent with state or local plans, policies, or programs and provide written recommendations for changes to the plan. The State Director must accept the Governor's recommendations if they provide a reasonable balance between the national and state interests.

I have reviewed the BLM's Proposed Resource Management Plan Amendment and Final Environmental Impact Statement for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties (PRMPA/FEIS). This review specifically addresses inconsistencies and focuses important perspective on conserving Chihuahuan Desert ecoregion wildlife and vegetation communities, protecting water supplies, developing alternative and renewable energy, increasing sensitivity to cultural resources, managing noxious weeds, enhancing safety and sensibility of petroleum extraction, and incorporating acknowledged best management practices. I have found numerous inconsistencies with state laws, rules, policies, programs, and plans, particularly those that relate to protecting the Chihuahuan Desert and New Mexico's ground water. I briefly discuss the importance of protecting the Chihuahuan Desert and the state's ground water resources as well as New Mexico's policy to promote the use of alternative energy sources below before outlining the PRMPA/FEIS' inconsistencies with state plans, policies, laws, and programs and providing New Mexico's recommended changes that better balance national and state interests. First, however, I would like to express my concern about imprecise information that was contained in your letter to me of January 5, 2004.

B. Imprecise Information in Linda Rundell's Letter to Governor Concerning Protection of Core Habitat Areas

The letter of January 5, 2004 from the BLM State Director states that the BLM is withholding three core grassland habitat areas encompassing 21,000 acres from oil and gas leasing. It further states that one area is located in the Nutt Grassland of Sierra County and the other two are on Otero Mesa. These appear to be the adaptive management areas for aplomado falcon that are mentioned in the PRMPA/FEIS (Appendix F). Your letter states that the three core habitat areas include 21,000 acres; however, the PRMPA/FEIS states that the three areas contain 35,790 acres. As proposed in Appendix F these three areas would be withheld from leasing. However, this protection is not predictable or definite because the PRMPA/FEIS proposes that the BLM will re-evaluate the closure at 5-year intervals. I am extremely disappointed that the withholding of leasing in these areas is not permanent.

C. Importance of Protecting Chihuahuan Desert

The Chihuahuan Desert is one of the most biologically diverse arid regions in the world. It is also one of the most endangered. The World Wildlife Fund has recently placed this desert on its list of Global 200 ecoregions, which identifies biologically rich areas of global significance. Two features make the Chihuahuan Desert unique: the vast temperate grasslands that skirt the mountain flanks at mid-elevations; and the diversity of yuccas, agaves, and cacti. In fact, 23% of the world's 1,500 cactus species occur in the Chihuahuan Desert, the highest percentage of any ecoregion in the western hemisphere. In addition, the area contains important habitat areas for mule deer, pronghorn, and the aplomado falcon and has potential as desert bighorn sheep habitat. Yet, only 2.5% of the ecoregion is under formal protection, a remarkably insignificant amount for a sparsely populated large area. The BLM in the Draft Resource Management Plan Amendment and Environmental Impact Statement for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties (DEIS, page 4-75) states that Otero Mesa is ". . . one of the largest contiguous grasslands left in the region. Loss of grasslands due to clearing for pads and roads would lead to fragmentation of habitat."

Approximately 70% of the entire Chihuahuan Desert ecoregion lies south of the border in Mexico where there is relatively little long-term protection of this important ecoregion. The remainder is confined to southern New Mexico and western Texas. Private land interests own the vast majority of Chihuahuan Desert in Texas, but the BLM is the most extensive jurisdictional entity within the New Mexican portion of this desert region. The fact that the majority of publicly held lands within this ecoregion are in New Mexico places a greater degree of significance on the land uses the BLM allows in the southern part of this state.



**Chihuahuan Desert**

**D. Legislative Policies Concerning Restoration of Native Vegetation Do Not Support the BLM's PRMPA/FEIS**

The New Mexico Legislature has appropriated millions of dollars for salt cedar removal and for the restoration of native vegetation to those areas where salt cedar is removed. In February 2004, the Legislature appropriated \$4,800,000 to New Mexico State University for restoration and re-vegetation of native species on the Canadian River, the Pecos River, and the Rio Grande and for non-native phreatophyte eradication and control. In addition, it appropriated \$200,000 to the New Mexico Institute of Mining and Technology for an independent study of the effectiveness of phreatophyte eradication and native species restoration and re-vegetation programs. The Legislature also appropriated \$30,000 to the Energy, Minerals and Natural Resources Department for coordination of bosque management and river improvement projects and \$75,000 to New Mexico State University to match federal funds for water conservation and natural resource restoration programs.

In 2003, I allocated \$2,000,000 from federal tax fund monies to restoration of native vegetation in the Rio Grande bosque.

In stark contrast to this policy of restoration and protection of native vegetation, the BLM's PRMPA/FEIS proposes to allow disturbance and fragmentation of the endangered Chihuahuan Desert ecoregion. The BLM should not be promoting further damage to New Mexico's natural environments while the State itself is spending millions of dollars to restore them.

E. Drought and Importance of Protecting State's Water Supplies

On December 17, 2003, the New Mexico Interstate Stream Commission adopted the State Water Plan. It was prepared at my direction in response to a mandate from the Legislature in 2003 to move New Mexico forward to use 21<sup>st</sup> century techniques and technology to conserve and increase the water supply. The State Water Plan is the outcome of months of intensive work by the Office of the State Engineer, the Interstate Stream Commission, and the Water Trust Board, with input from a broad spectrum of New Mexico's citizens and institutions, to develop a vision for strategic management of the state's water resources. As elegantly stated in the State Water Plan:

Water is the common denominator of New Mexico's future and the indispensable element of quality of life for the state's residents. New Mexico must take control of this vital resource at a time when nature is pinching supplies through a drought, and man-made issues – from endangered species matters to interstate water conflicts – are further threatening or squeezing those already dwindling supplies. (Page 1)

The New Mexico Constitution establishes that all water in the state belongs to the public. Approximately 90 percent of New Mexico's population depends on ground water for drinking water and nearly half of all water used in the state for any purpose is ground water. The State must invest in New Mexico's future through active water resource management. The first step in active management is to accurately measure the state's water uses and inventory the water supply's quantity and quality. The State Water Plan is filled with techniques and requests for resources to be able to meet this step. This contrasts dramatically with the cavalier attitude expressed in the PRMPA/FEIS in which the BLM admits that not all basins in the planning area have been studied (PRMPA/FEIS, page 3-14) and acknowledges that portions of the aquifers in the area are highly vulnerable to contamination from surface water discharges.

Despite this acknowledgement, the BLM goes on to make decisions that will create conditions that may impact water sources, while at the same time stating it is not possible to quantify the impact (PRMPA/FEIS, page 4-15). As provided in the PRMPA/FEIS, the BLM would approve drilling in most of the resource area. Proceeding without adequate inventory or measurement conflicts with numerous sections of the State Water Plan. "It was a belief of a majority of the participants of the public involvement process that effective management could not be accomplished without an accurate inventory of the existing water supply available in the state." (State Water Plan, page 22; see also pages 5, 13, 15, 18, 19, 22-24, 34, 39, 66, and 68 for more emphasis on measurements and accurate inventories.) Additionally, the State Water Plan requires no decisions be made without such information: "the State shall seek to ensure that land use decisions are consistent with available water supplies". (State Water Plan, page 34) The BLM's decision-making in ignorance directly conflicts with the State Water Plan.

Furthermore, ground water resources in the Salt Basin, which underlay the Otero Mesa area, are substantial. It is estimated that 8 million acre-feet of potable, recoverable ground water is available in the Salt Basin alone, which is 2.6 trillion gallons of water. Protection of New Mexico's ground water resources is made all

the more important given the fact that New Mexico is suffering from a drought. As of February 17, 2004, the vast majority of the state was in extreme to exceptional drought with the remainder of the state in severe drought. A better understanding of ground water resources is necessary before oil and gas exploration is allowed in the planning area.

F. Alternative Energy Policy

New Mexico has an abundance of environmentally friendly, renewable energy resources including wind, solar, biomass, and geothermal. However, these resources are greatly underutilized. Currently the state produces less than one percent of its annual energy needs from these resources. In order to encourage the use and development of alternative energy, during the 2004 legislative session, the New Mexico Legislature passed a number of bills supporting energy efficiency and use of alternative fuels. These include legislation that requires investor-owned electric utilities to meet a “renewable portfolio standard requirement” by having renewable energy comprise no less than five percent of retail sales by 2006, increasing one percent per year and leveling off at 10 percent by 2011. By way of contrast, the Legislature did not support the BLM's efforts in the PRMPA/FEIS, despite the fact that two legislators introduced memorials in support of the BLM. These two memorials failed to pass out of even one legislative committee.



**Wind Turbines in New Mexico**

The BLM estimates that 35 gas wells and 70 oil wells will be drilled in the planning area and result in production. (PRMPA/FEIS, page 4-56) This would result in the production of approximately 468,246,485 KWh/yr. Approximately 110 wind turbines could replace this production. As a result of the incentives offered by the State's renewable energy production tax credit, there are currently 139 wind turbines in New Mexico, with 206 megawatts of production. With the renewable energy portfolio standard requirements, production is expected to

increase to 700 megawatts annually. This is more than three times the production expected from oil and gas wells in the PRMPA/FEIS planning area. Clearly, the state supports and encourages development of renewable resources over destruction of one of our last Chihuahuan Desert grasslands.

## II. **SPECIFIC INCONSISTENCIES WITH FEDERAL AND STATE LAWS, POLICIES, PROGRAMS, OR PLANS**

The PRMPA/FEIS is inconsistent with numerous state laws, policies, programs, and plans. It is even inconsistent with federal laws, other federal programs, and BLM's own best management practices. These inconsistencies are discussed below.

### A. The BLM's PRMPA/FEIS is Inconsistent with Executive Policy and NAFTA-Sponsored Plan for Chihuahuan Desert Ecoregion Conservation

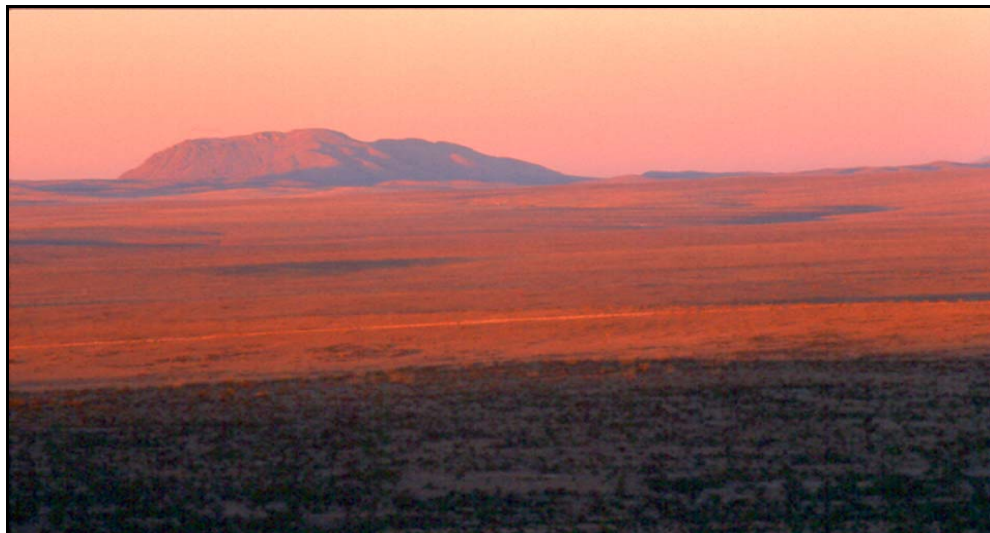
The PRMPA/FEIS is devoid of any mention of the Chihuahuan Desert or its significance as an ecoregion. This is surprising considering the fact that the BLM is the agency with the largest jurisdiction over the Chihuahuan Desert in New Mexico; and the United States and Mexican federal governments along with various border states, including New Mexico, have worked collaboratively towards environmental protection of this border region through the North American Agreement on Environmental Cooperation (NAAEC), a side agreement to the North American Free Trade Agreement (NAFTA). One significant milestone of international effort on behalf of the Chihuahuan Desert was the 1997 to 2000 collaboration of United States and Mexican biologists from governmental and non-governmental organizations under the sponsorship of the Commission for Environmental Cooperation (an NAAEC commission).

This work group produced a biological assessment titled "Ecoregion-Based Conservation in the Chihuahuan Desert" (Dinerstein *et al.* 2000, World Wildlife Fund publication). The assessment identifies the outstanding diversity of species and habitats in the Chihuahuan Desert ecoregion, assesses threats to the region, and nominates priority areas for the conservation of this desert's rich biological resources. New Mexico contributed expertise to this ecoregion-based conservation work group from the University of New Mexico, New Mexico State University, and New Mexico Department of Game and Fish. The Las Cruces District of BLM has been aware of this collaborative effort since the work group's inception in 1997 and the publication of its findings in 2000, but in the PRMPA/FEIS essentially ignored the extensive information collected. The BLM plan completely ignored the policy of protecting large areas to avoid fragmentation.

The Greater Otero Mesa Area of southern New Mexico was identified as a high priority area in the ecoregion-based conservation assessment. The policies of my administration have acknowledged, and acted upon, the need to protect this priority area. First, in my letter to the USDI dated February 18, 2003, I asked the Secretary of Interior to delay issuing the PRMPRA/FEIS until my administration and other stakeholders could reassess large tracts of the Greater Otero Mesa Area for wilderness potential. This request was ignored and the PRMPA/FEIS issued. Thereafter, in Executive Order 2004-005, dated January 31, 2004, I recognized the Chihuahuan Desert ecoregion's significance and directed all

appropriate state agencies to provide support for the utmost protection of the Otero Mesa and Nutt desert grasslands as a matter of State policy. This policy stems from the belief that land managers should not ignore professional and international consensus made in a spirit of regional cooperation; and that conservation of the Chihuahuan Desert environment and biodiversity will require a strategy of large-scale “conservation landscapes” of sufficient size and connectivity to maintain important ecological processes and wide-ranging species. In stark contrast, the BLM’s PRMPA/FEIS fails to even attempt to acknowledge the Chihuahuan Desert in Otero and Sierra counties as an important part of a larger ecoregion; and proposes only a few ad-hoc protections at small, isolated sites.

A poll taken of more than 40 biologists at a Chihuahuan Desert Ecoregion meeting is revealing. Each was asked to identify and rank the overarching threats to this desert region. Water mismanagement and a growing human population were unanimously placed at the top, but nearly half also identified “[l]ack of (ecoregional) perspective in land use planning. . . .” as a common overarching threat to the Chihuahuan Desert. Since the BLM’s Las Cruces District does not acknowledge its presence within the Chihuahuan Desert, the following description will, hopefully, bring much needed perspective.



**Otero Mesa Grasslands**

The Chihuahuan Desert encompasses one of the most biologically diverse arid regions on earth. A study of terrestrial biodiversity among North American ecoregions ranked the Chihuahuan Desert as one of the most biologically diverse ecoregions, even richer than many forested regions (Ricketts *et al.* 1999, *Terrestrial Ecoregions of North America*, Island Press). Its diverse assemblage of terrestrial and fresh water plant and animal communities, including grasslands, fresh water springs, gypsum dunes, and isolated mountain habitats, also elevate the Chihuahuan Desert to a rank of global biological importance. The Global 200 ecoregions study (Olson and Dinerstein 1998, *Conservation Biology* 3:502-512) identified the Chihuahuan Desert as one of the three biologically richest deserts in the world and the only one that supports both globally outstanding terrestrial and freshwater biota. Yet the Chihuahuan Desert remains the overlooked desert

in North America. The low stature of its rich desert scrub and grasslands is visually overshadowed by the dramatic stature of the saguaro cactus – the flagship species of the neighboring Sonoran Desert - or the charismatic Joshua tree of the Mojave Desert. The postcard-like scenes from these adjacent deserts belie the fact that the Chihuahuan Desert dwarfs these other arid ecoregions in species richness and level of endemism (species found nowhere else in the world).

In sum, the Chihuahuan Desert is home to a staggering diversity of species. A survey of the entire desert is not yet complete, but thus far, the United States portion, which makes up less than a third of the desert's total area, is known to contain approximately 2,263 vascular plant species, over 100 mammal species, over 100 reptile species, 250 bird species, 20 to 25 amphibian species, and 250 butterfly species (Dinerstein *et al.* 2000). Springs and rivers in this desert contain numerous endemic fish and mollusks, and some outstanding assemblages of other invertebrates, such as incredibly diverse dragonfly faunas. The Chihuahuan Desert is especially noteworthy for its great diversity of cacti, many of which are endemic to the region. Approximately 350 species occur in this desert, which is 23% of the 1,500 total cactus species in the western hemisphere.



**Cacti on Otero Mesa**

The Chihuahuan Desert's great diversity of habitats, which include arid grasslands, shrub lands, saline playas, yucca woodland and *crassicaule* (habitats rich in agaves, yuccas, and cacti), oak-conifer woodlands, spring cienegas, riparian woodlands, gypsum outcrops, sand dunes, and rock escarpments is as important as its species diversity. Each supports a characteristic flora and resident or migratory fauna. Unfortunately, many of these habitats are heavily degraded – especially riparian areas and grasslands. Rivers and many springs



have been seriously impacted by agricultural and urban aquifer depletion, and most are choked with exotic, weedy tree species. Many of the animals that depend upon these oases in the desert have been extirpated or made rare. Historical accounts report that in the mid-1800s the Chihuahuan Desert grasslands were lush and relatively free of shrubs. Pronghorn, black-tailed prairie dog, and Mexican wolf were abundant. Today, native shrubs dominate throughout the Chihuahuan Desert, including former grasslands and savanna. Populations of native grasses, overgrazed, impacted by roads and other development, and deprived of their natural, fire-based disturbance regime, are disappearing. Pronghorn, prairie dogs, and other grassland animals such as the aplomado falcon and burrowing owl are scarce, and the Mexican wolf is extirpated.

Estimates vary, but most regional plant ecologists believe that human impacts have converted greater than 50%, and as high as 70%, of former Chihuahuan Desert grasslands to desert scrublands during the last 150 years. Today, only 20% of this ecoregion can be classified as desert grassland. The BLM's Las Cruces District Office estimates the loss of desert grassland habitats on BLM jurisdiction in Otero and Sierra Counties to be 62% (PRMPA/FEIS, Section 3.12.1). This is a dramatic loss to New Mexico, the nation, and the Chihuahuan Desert region. Many of these degraded grasslands will not recover in the foreseeable future, if ever. Therefore, land management priorities, which currently favor extractive uses, must also include plans and efforts to perpetuate natural plant and animal communities by arresting, even reversing, this trend of grassland loss. Desert grasslands should be viewed as an irreplaceable, not expendable, resource.

The Chihuahuan Desert Ecoregion-Based Work Group established the following basic conservation goals to which my administration subscribes and biologists employed by the State helped to develop:

- all distinct natural communities should be represented within a network of protected areas or areas primarily managed for conservation of biological diversity; and
- blocks of natural habitat large enough to maintain viable populations of species and ecological phenomena should be conserved.

Implicit in these goals is the understanding that conservation areas of desert grassland should be large enough to support viable populations of keystone species (pronghorn, prairie dogs, predators, etc.) even during periodic changes, such as drought; have sufficient connectivity to ensure movement and migration patterns; and specifically target the habitats of species of concern.

On an ecoregional scale, all Chihuahuan Desert grasslands and other distinctive biological communities in the planning area (Otero and Sierra counties) are important, but the Greater Otero Mesa Area deserves special consideration. The ecoregion-based conservation work group specifically identified this area as a "high priority" for conservation efforts. Several outstanding features contribute to this high priority ranking. First, the Greater Otero Mesa Area is an integral link in a chain of important desert grassland habitats that extend from the Chihuahuan Desert region's northern extreme on the Sevilleta National Wildlife Refuge, south

through a private conservation ranch and Jornada del Muerto, then through White Sands Missile Range and Fort Bliss military reservations to Otero Mesa and adjacent mountains on the Texas border, continuing to the Davis Mountains/Marfa grasslands in Texas, and across the border to the central Chihuahuan grasslands in Mexico. The fact that the Greater Otero Mesa Area is still relatively intact is another important reason for high priority ranking. It contains viable, natural wildlife populations, especially key species, such as native ungulates, prairie dogs colonies, and predators. Ecological phenomena, such as natural fire and animal migrations, are presently functional processes in this area. Ornithologists on the working group identified this area as critical grassland habitat for migrating sparrows, longspurs, pipits, and raptors. It is also suitable nesting habitat for the federally endangered aplomado falcon. Working group mammalogists and the New Mexico Department of Game and Fish identified this area as important pronghorn habitat, and as having suitable desert bighorn sheep reintroduction sites on the Cornudas, Brokeoff, and Guadalupe mountains. Botanists placed special value on the area's large, relatively intact desert grassland and identified several rare and endemic plants in the Crow Flats playa and on the Brokeoff/Guadalupe escarpment. Working group biologists also noted the presence of several endemic reptiles and invertebrates in this area.

The BLM should also be aware that the Greater Otero Mesa Area is one of the least biologically explored areas of New Mexico. Two new plants were described from this area as recently as 1999 and two new ant species and a new isopod (as yet undescribed) have also been found in this region. Additional species requiring special management are very likely to be discovered during future biological surveys of the Greater Otero Mesa Area.

As partners in the conservation of one of the world's most biologically rich warm deserts, the citizens and governments of the United States and Mexico have a joint global responsibility before them. The ecoregional plan identifying conservation landscapes through a system of reserves extending from the northern Chihuahuan Desert in central New Mexico to west Texas and into Mexico is already available. All landowners can contribute to this vision. However, federal lands are the most extensive and contiguous jurisdictions in the New Mexican desert. The United States Department of Defense at White Sands Missile Range has already adopted this plan for Chihuahuan Desert conservation landscapes. This large missile range is presently cooperating with, and funding, The Nature Conservancy to develop an ecological plan and carry out monitoring in the Tularosa Basin. Adjacent BLM jurisdiction, especially the Greater Otero Mesa Area, is a vital link in this ecoregional conservation strategy.

Given the recognized uniqueness of this ecologically sensitive and valuable ecoregion in New Mexico, I am actively pursuing an initiative to create a National Conservation Area (NCA) on the lands that are herein designated as "closed to leasing" and for "no surface occupancy", approximately 643,754 acres. I am currently working with members of New Mexico's congressional delegation on this matter. Therefore, these significant areas of Chihuahuan Desert need to be protected from surface damage, fragmentation, etc. at this stage to preserve the opportunity for this action to be seriously considered. We realize it takes congressional action to create an NCA, and until that can be accomplished, the BLM needs to preserve these special areas' integrity.

As outlined below, the BLM's PRMPA/FEIS for Otero and Sierra counties is inconsistent with New Mexico executive policy, federally sponsored ecoregional plans, and the spirit of international cooperation for conservation of the Chihuahuan Desert ecoregion.

- The PRMPA/FEIS identifies special biological values within the planning area, but fails to recognize the importance of these values within the broader context of a Chihuahuan Desert ecoregion. This parochial perspective leads to a depreciation of biological resource values, inadequate evaluation of threats and degradation trends in region, and insufficient prescriptions for conservation.
- The BLM identifies the desert grasslands and mountains in the Greater Otero Mesa Area as intact, functioning ecological communities, but preempts other more appropriate means of protection by proposing to offer fluid mineral leases over most of this area with only stipulations or conditions that are unlikely to achieve conservation goals. Alternative land management and conservation designations, such as Area of Critical Environmental Concern (ACEC), Wilderness Areas, or NCAs, cannot coexist with active mineral leases or fluid mineral development. These options for greater ecological conservation are only compatible with areas closed to leasing or no surface occupancy leases.
- The six established ACECs and eight nominated ACECs are too small and scattered to achieve conservation goals. These ACECs may protect some populations of special status plants, but are inadequate in size and connectivity to support wide-ranging species or significantly contribute to large-scale ecological functions in the Chihuahuan Desert ecoregion.
- The BLM proposes to allow additional fragmentation of important grassland habitats with the construction of new roads, well pads, and pipelines that will further degrade this rare, disappearing resource by removing or disturbing grassland soils, encouraging the establishment of woody plants and exotic weeds, and disrupting ecological phenomena, such as natural fire.
- The BLM justifies its proposed resource management actions with a false assumption that serious soil disturbances associated with fluid mineral development can be reclaimed and wildlife habitats restored. Arid grasslands are fragile habitats. The BLM has overestimated the oil and gas industry's ability and willingness to reclaim them. Successful reclamation of seriously disturbed grassland soils has not been demonstrated in this region. Drought and inconsistent rainfall patterns will likely cause planting failures, which will require repeated attempts to seed and establish vegetation. Letter 142, Comment HH from the Independent Petroleum Association of New Mexico describes the current industry/BLM reclamation practice of making two good-faith seeding attempts and then walking away from the re-vegetation responsibility. The BLM's response to the comment does not revise this practice. The BLM in its Response S states "*the best management practices should not be construed as rigid requirements*". Therefore, it can only be construed

that all reclamation standards in the planning area are negotiable. Under this lack of standards, re-vegetation attempts could fail without consequence to the petroleum industry and will not achieve restoration of the Chihuahuan Desert grasslands under the scheme described in the PRMPA/FEIS.

- Arid grasslands are biologically diverse, but disappearing, ecological communities in the Chihuahuan Desert ecoregion. Effective land stewardship in this region must subscribe to a goal of no net loss of grasslands to destructive land uses. The PRMPA/FEIS attributes little significance to the percentage of total surface area that will be impacted by fluid mineral development. However, this potential loss of desert grassland is a cumulative increment of impact to a significant ecological community that is already seriously reduced in area and degraded by other land uses.
- Responsible ecoregional planning must encourage the recovery or re-establishment of ecologically important habitats and special status species. Fluid minerals development in the planning area will only further degrade desert grasslands and recovery habitats for aplomado falcon, desert bighorn sheep, and other species, making successful recovery an even greater challenge.

B. The BLM's PRMPA is Inconsistent with the New Mexico Wildlife Conservation Act, NMSA 1978, Sections 17-2-37 through 17-2-46

The Wildlife Conservation Act gives the New Mexico Department of Game and Fish (NMDGF) the authority and responsibility to manage and maintain species of wildlife indigenous to the state that may be found to be threatened or endangered, and to the extent possible, to enhance their numbers within the habitat's carrying capacity. To that end, the NMDGF participates with land management agencies to provide input into the evaluation of any projects that may impact threatened or endangered wildlife species or their habitats.

Consistently, the NMDGF expresses concern about the impacts of development on habitat fragmentation, the division of wildlife habitat into smaller areas separated by physical or other barriers. Gas and oil developments that may contribute to habitat fragmentation include roads, pipelines, well pads, and other industrial developments such as compressors or pump stations. Habitat fragmentation has been associated with declines in numbers in species dependent on large blocks of habitat, loss of genetic diversity, and other detrimental community and population level effects.

The PRMPA/FEIS' change to standard lease terms and conditions in Alternative A (modified) is clearly inconsistent with the policy of minimizing the potential for habitat fragmentation. As stated in the DEIS (page 4-75), "[s]tandard lease terms and conditions would not necessarily allow the BLM to mitigate all impacts on fish and wildlife habitat". Further, the DEIS (page 4-75) goes on to state that Otero Mesa is ". . . one of the largest contiguous grasslands left in the region. Loss of grasslands due to clearing for pads and roads would lead to fragmentation of habitat."

C. The BLM's PRMPA/FEIS is Inconsistent with New Mexico Game Management Plans/Agreements

In addition to habitat fragmentation, the NMDGF is also extremely concerned about the cumulative impacts to wildlife and wildlife habitats. The BLM does not adequately address the issue of cumulative impacts in the PRMPA/FEIS and the issue is therefore very difficult to assess. Based on the information available, the PRMPA/FEIS' change to standard lease terms and conditions in Alternative A (modified) is inconsistent with several of NMDGF's specific endeavors and plans.

1. Antelope

The New Mexico State Game Commission is authorized to “declare closed seasons in any specified locality and on any species of game or fish threatened with undue depletion from any cause” (NMSA 1978, Section 17-1-14). Current drought conditions have significantly impacted antelope herds in the state to the point where the number of hunting permits available has been reduced from previous years. The additional proposed impacts from oil and gas activity in the Otero Mesa and Nutt grasslands are likely to further stress an already stressed habitat, further impacting the corresponding antelope herds. As the BLM stated in the DEIS (page 4-75), “[t]his area is important habitat for pronghorn. Loss of grasslands due to clearing for pads and roads would lead to fragmentation of habitat. Fragmentation and increased road access in this area could have detrimental effects on pronghorn populations.”



**Pronghorn Antelope on Otero Mesa**

2. Desert Bighorn Sheep

The NMDGF recently developed the Plan for the Recovery of Desert Bighorn Sheep (August 2003). When it developed the DEIS, the BLM contacted the NMDGF for information regarding desert bighorn sheep.

As a result of those conversations, the BLM designated areas suitable for desert bighorn sheep reintroduction. As discussed in the DEIS and reiterated in the Plan for Recovery, these areas need to remain closed to oil and gas development. Bighorn sheep may temporarily abandon habitat while activity occurs. Roads related to oil and gas development may provide access to previously undisturbed areas and increase negative impacts associated with human activity.

3. Black-tailed Prairie Dog

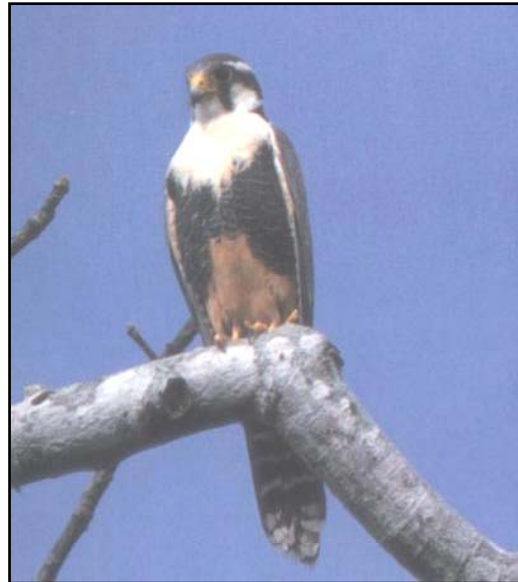
In an effort to keep the species from being listed as threatened or endangered, the NMDGF is involved in a multi-state effort for the conservation and management of the black-tailed prairie dog. One of the effort's objectives is to identify and encourage maintenance of important existing habitats. Numerous studies of black-tailed prairie dogs indicate that larger colonies (100 acres or more) are less susceptible than smaller colonies. Reasons vary from security (more sentry animals) to greater genetic variability. The colonies on Otero Mesa appear to be 10 acres or less in size, thereby making the populations extremely vulnerable. The reason these colonies are so extremely small is unknown, but may be attributed to plague or poisoning. In any case, the fragmentation of habitat as a result of oil and gas development will contradict the objective of maintaining important existing habitats.

In November 2001, the New Mexico Black-Tailed Prairie Dog Working Group developed the Conservation and Management Strategic Plan for Black-Tailed Prairie Dogs in New Mexico. The population and distribution goal was to increase occupied black-tailed prairie dog habitat by approximately 6.5% per year. Habitat loss and fragmentation that will very likely occur under Alternative A (modified) of the PRMPA/FEIS will be counterproductive to this plan's population and distribution goal.

4. Aplomado Falcon

The NMDGF is working with a number of agencies and organizations including the United States Fish and Wildlife Service, the BLM, and The Peregrine Fund to reintroduce endangered aplomado falcons to New Mexico. The DEIS (page D-I-6) states the "grasslands of Otero Mesa are considered essential habitat for recovery". As stated in the DEIS (page 4-77), the standard lease terms and conditions the BLM specified in Alternative A (modified) of the PRMPA/FEIS clearly contradict the necessary habitat management direction for aplomado falcon reintroduction and recovery as it can "offer no specific protective measures for special status species". Alternative A of the DEIS attempted to address this concern by managing the grassland habitats for the aplomado falcon "under a stipulation of controlled surface use, whereby new disturbances would be minimized to reduce loss of habitat and habitat fragmentation and to avoid disturbance and/or displacement of individuals". Recognition of the importance of protecting key habitats as part of the falcon's recovery plan cannot be swept aside. "Additionally,

a timing limitation may be required to avoid impacts on nesting falcon between January 1 and July 31." (Page 4-90)



**Aplomado Falcon**

- D. The BLM's PRMPA/FEIS is Inconsistent with the Noxious Weed Management Act, NMSA 1978, Section 76-7D-1 *et seq.*

The New Mexico Legislature has found that noxious weeds have caused extensive economic damage in New Mexico and that noxious weeds decrease land value and productivity, harm the environment by crowding out native vegetation, and decrease the lease value of state and federal lands. One of the Noxious Weed Management Act's purposes is to improve the state's environment by managing noxious weeds.

The PRMPA/FEIS' reliance on the BLM's best management practices (BMPs) is inconsistent with this purpose. These BMPS have not been effective for prevention and control of noxious weeds. In the San Juan Basin and the Permian Basin, noxious weeds are widely spread along drill pads and oil and gas roads. Once introduced into these disturbed areas, the invasive species are then able to spread into the adjoining rangeland. In those areas where drilling will be allowed, the BLM must step up requirements for weed prevention and control for this sensitive area. The BLM must hold those conducting oil and gas exploration and production accountable for control of invasive species introduced onto public lands through their actions. This should include requiring vehicle wash stations to remove weed seeds and requiring all equipment moved into the area to be cleaned prior to movement. These measures, however, will only be useful if the BLM actively enforces them. Furthermore, companies should be bonded for weed control for the life of the well and 15 years after plugging and abandonment of the well.



### **Noxious Weeds in Southern New Mexico**

In addition to the Noxious Weed Management Act, the Energy, Minerals and Natural Resources Department, Forestry Division has received \$95,000 from the United States Department of Agriculture, Forest Service to fund eradication projects for Class C noxious weeds. It is inconsistent for the BLM to fail to establish requirements that prevent the introduction of noxious weeds, while at the same time another federal agency is funding projects to eradicate such weeds.

#### **E. The BLM's PRMPA/FEIS is Inconsistent with the State Water Plan**

The State Water Plan (Plan) outlines the blueprint necessary to manage New Mexico's vital surface and ground water resources in order to conserve and increase the supply of water. The Plan's purpose, as stated in NMSA 1978, Section 72-14-13.1, is a strategic management tool used for the purpose of:

- promoting stewardship of the state's water resources;
- protecting and maintaining water rights and their priority status;
- protecting the state's diverse customs, culture, environment, and economic stability;
- protecting both water supply and water quality;
- promoting cooperative strategies, based on concern for meeting all New Mexicans' basic needs;
- meeting the state's interstate compact obligations;
- providing a basis for prioritizing infrastructure investment; and
- providing statewide continuity of policy and management relative to our water resources.

The Plan also recognizes that water quality issues have equal standing with water quantity issues.

#### **1. Water Quality**

The BLM's proposed PRMPA/FEIS is inconsistent with the Plan as described below:



- The PRMPA/FEIS does not provide adequate protection for the precious ground and surface water resources present in the area as established in the PRMPA/FEIS, page 4-15:

*"As the conditions that would cause an impact are many and quite complex, it is not possible to quantify the impact."*

It is imperative that an accurate assessment be conducted to identify potential impacts to ground and surface water from oil and gas development in the area. The PRMPA/FEIS is required to assess environmental impacts but states that this is not possible. (PRMPA/FEIS, page 4-15) This is unacceptable.

- The PRMPA/FEIS allows potential impacts to crucial ground water basins including the Jornada del Muerto basin. The PRMPA/FEIS allows oil and gas development near community water supply sources presently being utilized, and in areas containing large volumes of fresh water critical for southern New Mexico's future. Under the BLM's plan, oil and gas wells could be drilled in the vicinity of water sources used by Holloman Air Force Base and communities such as Tularosa and Alamogordo. Development may also occur in areas like the Jornada del Muerto basin that contains an aquifer crucial to the City of Las Cruces and other water users in the region. Water resources within the Salt Basin are a source of supply to meet the demands from future generations within the region. The PRMPA/FEIS does not provide assurance that these vital water resources will be protected (page 4-18):

*"the closed nature of the basin (Jornada del Muerto) with its relatively fresh water could be impacted by contamination, the extent of which would not be expected to be great . . . ."*

The burden of ensuring compliance will fall upon state government, which is already struggling to address the numerous environmental concerns within the state. Also, it should be noted that although the Jornada del Muerto basin is closed to surface water outflow, this does not mean impacts to the water resources will be confined to that basin. Ground water outflow occurs from the Jornada del Muerto basin to the Rio Grande basin. Impacts to the Jornada del Muerto basin, therefore, ultimately have the potential to affect the river.

- The BLM also acknowledges the high vulnerability for ground water contamination from surface water discharges (PRMPA/FEIS, page 3-13):

*"Portions of aquifers located in the Planning area are considered highly vulnerable to contamination from surface water discharges."*

Land disturbance will increase runoff and the potential for contaminants to reach streams and arroyos. The level of land disturbance and increased runoff are highly uncertain. On page 4-6 of the PRMPA/FEIS the BLM estimates a total land disturbance of 432 acres (three acres per well site), but this estimate is dependent upon the degree of new road construction, which is unknown. The location of wells will be largely dependent on exploration surveys that may not be accessed by existing roads. The PRMPA/FEIS is inadequate for a meaningful assessment of the level of increased runoff, and the potential negative affects associated with contamination, erosion, and additional sediment loads to streams. The BLM assumes that land disturbance will be small and relies on this assumption to conclude small negative impacts will result from oil and gas development.

Additionally, depth to ground water in the area is relatively shallow. It occurs 20 feet below ground surface at Holloman Air Force Base and 80 feet below ground surface in Alamogordo. Surface spills, releases, etc. related to oil and gas activities pose an increased risk to this resource due to the close proximity to the surface.



**Waste Pond**

- The BLM in the PRMPA/FIES further acknowledges that resource development could negatively affect the Rio Grande in southern New Mexico and downstream into Texas as well as other waters.

*“Incremental impacts of the actions taken within the Planning Area when added to other past, present, and future actions could adversely affect downstream receiving water.” (Page 4-64)*

The Rio Grande basin's water resources are critical to southern New Mexico's economy, and the quality and quantity of surface and ground water resources must be protected to the fullest

extent. This area is one of the state's fastest growing regions. Lands proposed for potential leasing include lands adjacent to Elephant Butte and Caballo reservoirs, the main source of water for southern New Mexico and far west Texas. New Mexico is presently in dispute with Texas over water supply and water quality issues on the Rio Grande and is seeking to avoid future litigation. Adverse affects due to oil and gas production on this vital river reach, and in any other portion of the study area, are unacceptable.

- The BLM modified the PRMPA/FEIS from the DEIS' proposed alternative to require only Standard Lease Terms and Conditions (SLTC) for control of surface use in watershed areas, as explained by the BLM on page P-2:

*“BLM modified the following: - watershed areas – from a stipulation to **control surface use to standard lease terms and conditions.**”*

Review of the SLTC described in the BLM's Form 3100-11 indicates that the only language regarding prevention of impacts to water resources is vague and likely unenforceable. SLTC only require that impacts to water resources be minimized, not prevented. Furthermore, in situations where water resources are impacted by oil and gas activity, the SLTC include no requirement to abate or restore the resource to its pre-oil and gas activity condition.

Changes the BLM made in the PRMPA/FEIS result in lessening of protections for the state's water resources. The PRMPA/FEIS increases the acreage that would be available through lease under SLTC without surface controls or constraints. These changes are discussed in Alternative A (modified) in the PRMPA/FEIS. Alternative A (modified) nearly doubles the acreage that would be covered by SLTC from 779,093 to 1,406,625, while reducing the No Surface Occupancy (NSO) acreage from 160,435 to 40,526 and the Controlled Surface Use (CSU) acreage from 1,048,872 to 519,925. The large increase in SLTC acreage could negatively impact water quality by removing the higher level of protection afforded by NSO and CSU controls. The revised plan also removes the CSU protection for the five watershed areas and changes the areas to SLTC.

The PRMPA/FEIS will guide BLM management of oil and gas leasing on just under two million acres of federal land in Otero and Sierra counties. The area includes watersheds that are of critical importance to New Mexico with respect to compliance with interstate stream compacts on the Rio Grande and Pecos River, and as sources of water supply for major municipal and irrigation uses in the region. These areas include lands adjacent to Elephant Butte and Caballo reservoirs, lands in the vicinity of

water sources supplying the communities of Alamogordo and Tularosa, and sites in the Pecos River's upper watershed. The potential for oil and gas well exploration and production within these areas raises significant concerns pertaining to possible detrimental impacts to water resources.

The increase in areas covered only by SLTC is contrary to New Mexico's 2003 State Water Plan, which contains the following policy statement (Section C-8): "[t]he State shall support and conduct watershed restoration projects with a high potential to increase the water supply or improve the quality of water". The Tularosa-Salt Basin Regional Water Plan, accepted by the Interstate Stream Commission in 2000, lists watershed restoration to augment supplies as a potential source of up to 15,000 acre-feet of fresh water. Therefore, standard lease terms and conditions are not adequate to properly safeguard such opportunities to ensure that future supplies of fresh water are adequately protected.

## 2. Water Quantity

The BLM in the PRMPA/FEIS recognizes the importance of ground water in New Mexico as stated on page 3-13:

*"Approximately 90 percent of the population of New Mexico depends on ground water for drinking water and nearly one half of all water used in the state for any purpose is ground water."*

The state must protect this valuable resource to meet a variety of current and future needs including drinking water, agriculture, ranching, and interstate water compacts, to name a few. The potential for economical extraction of oil or gas in the subject area has been estimated to be moderate while the ground water resource has been quantified as extremely significant by at least one comprehensive study and referenced in several other publications.

Based on *"Final Report Hypothetical Well Field in Salt Basin in Pipeline to Pecos River"* dated June 11, 2002, authored by John Shoemaker, ground water resources in the Salt Basin are substantial. This report estimates 57 million acre-feet of water in storage of which 8 million acre-feet would be recoverable (assuming 50% recovery of the upper 200 feet of saturation). This equates to 2.6 trillion gallons of water. This is an extremely valuable resource for the area's economic survival that must be protected. While it is difficult to quantify this resource's monetary worth, it is certainly worth millions of dollars. Extracting the water resource in the area also does not require clean up costs typically associated with oil and gas development. It must also be noted that it takes very little contamination of a fresh water source to make it unusable. For example the state's oil and gas fields have experienced a number of condensate (raw gasoline) releases where very small volumes have seeped into the underlying ground water and caused an exceedance of water quality

standards. That is why it is extremely important to implement best management practices in oil and gas operations. Once fresh water is contaminated, it can be very expensive, take a long time, and be very difficult to clean up.

Other publications such as the New Mexico Water Resource Atlas (Plate 5 entitled "Geology and Major Aquifers") also depict Otero and Sierra counties as being dominantly underlain by "local aquifers" or "important aquifers".

F. The BLM's PRMPA/FEIS is Inconsistent with the Water Quality Control Commission (WQCC) Regulations

The New Mexico Water Quality Act, NMSA 1978, Sections 74-6-1 through 74-6-17, as amended, establishes the Water Quality Control Commission and authorizes the Water Quality Control Commission to establish water quality standards. The WQCC regulations are a comprehensive set of regulations designed to protect all ground water with a total dissolved solids (TDS) concentration of 10,000 milligrams per liter or less for present and potential future use as domestic and agricultural water supply. Any exceedence in ground water standards is a quantifiable impact to New Mexico's ground water. NMSA 1978, Section 74-6-12(F) provides that any permitted degradation of water resources "shall not result in impairment of water quality to the extent that water quality standards are exceeded".

The New Mexico Oil Conservation Commission has the power and duty to enforce maintenance of these standards with respect to operations within its jurisdiction pursuant to the New Mexico Oil and Gas Act, NMSA 1978, Section 70-20-12(B)(20)-(22). These statutory provisions and regulations adopted pursuant thereto establish the State's policy that no activity shall be permitted that will cause fresh water to exceed standards. While BLM recognizes this policy (PRMPA/FEIS, page 2-6), the PRMPA/FEIS does not propose specific measures to protect water quality in a region where the BLM recognizes that substantial underground and surface water resources exist.

G. The BLM's PRMPA/FEIS is Inconsistent with Rules Proposed Pursuant to the Oil Conservation Division's Authority Under the Oil and Gas Act

The Oil and Gas Act, NMSA 1978, Section 70-2-12, authorizes the Oil Conservation Commission to regulate the disposition of non-domestic wastes resulting from the exploration, development, production, or storage of crude oil or natural gas to protect public health and the environment. The Energy, Minerals and Natural Resources Department, Oil Conservation Division (OCD) has initiated a proceeding before the Oil Conservation Commission regarding the use of pits and re-injection of water produced from oil and gas operations in Otero and Sierra counties as discussed below.

1. Pit Rules for Otero Mesa

My Executive Order issued on January 31, 2004, requires the OCD to adopt a moratorium prohibiting the use of pits at Otero Mesa.

Additionally, the OCD is to propose rules to prohibit pits associated with any oil and gas drilling at Otero Mesa. The OCD anticipates a hearing before the Oil Conservation Commission that may take place as soon as April 8. My intent is to provide extra protection for both surface and ground water in the area until such time as sufficient information is available to make good decisions about drilling practices. The BLM could have done the same thing, but did not do so even in the areas requiring special stipulations. Again, the BLM's plan is not aligned with New Mexico policies and rules. See earlier references to the State Water Plan's numerous requirements for accurate inventory information before making decisions.

## 2. Injection Rules

My Executive Order issued on January 31, 2004, also requires the OCD to propose regulations to implement produced water re-injection standards and controls to assure full protection of Otero Mesa's ground water resources. The OCD has plans for a hearing on a rule to impose additional location, construction, operation, and testing requirements on injection wells and related facilities used to dispose of produced water in the Otero Mesa area. This is consistent with the State Water Plan, which provides that produced water may be a source of additional water supplies in the future and proposes demonstrations of the prospect. (Plan, page 56) In the meantime, the State intends to offer maximum protection until wise decisions may be made. Again, the BLM proposal makes decisions without adequate information on water inventories and needs and is, therefore, inconsistent with state policy.

Further evidence of the State's policy of additional protection for produced water is found in the 2004 New Mexico Legislature's action on Senate Bill 313, which clarifies the OCD's authority to direct the disposition of produced water. Traditionally, it has been re-injected, but with the need to actively manage all water as seen in the State Water Plan, the OCD is authorized to allow the water to be used for road construction, other construction, and in industrial processes. This clarification of authority again indicates New Mexico's effort to protect and use water more wisely than the PRMPA/FEIS contemplates.

## H. The BLM's PRMPA/FEIS is Inconsistent with the New Mexico Cultural Properties Act, National Historic Preservation Act, American Indian Religious Freedom Act, and the BLM's Own Best Management Practices

The Legislature has recognized that the state's historical and cultural heritage is one of its most valued and important assets and that the destruction of historical and cultural sites and places results in an irreplaceable loss. (See Cultural Properties Act, NMSA 1978, Section 18-6-2 *et seq.*) Therefore, it is the Cultural Properties Act's purpose to preserve and protect such sites in a manner that conforms to, but is not limited by, the National Historic Preservation Act (NHPA), 16 U.S.C. 470 *et seq.* The BLM's PRMPA/FEIS is inconsistent with the Cultural Properties Act as well as the NHPA.



**Petroglyphs on Otero Mesa**

With respect to cultural resources, the PRMPA/FEIS' most prominent shortcoming is the inadequate assessment of the proposed plan's impact on Native American cultural and religious resources (Sections 3.15 and 4.2.1.12). It appears that the BLM has not yet met its obligation to identify and consult with concerned tribes. Moreover, the only specific reference in the document to future plans with regard to cultural resources fails to refer at all to Native Americans.

*"It is anticipated that subsequent Section 106 . . . reviews of individual projects as part of the BLM Federal fluid minerals leasing program would result in avoidance, minimization or mitigation of any identified adverse effects."* (PRMPA/FEIS, Section 4.2.1.12)

This treatment of the issue is inconsistent with Section 106 of the NHPA and its implementing regulations, 36 C.F.R. Part 800, (NHPA regulations) as well as with BLM policy set forth in Handbooks 8160 and 8160-1 (BLM handbook).

1. General Requirement to "Consult" with Native American Tribes

As stated in the NHPA regulations, "[t]he act requires the agency official to consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking. This requirement applies regardless of the location of the historic property". (Section 800.2(c) (2)(B)(ii)) Although it appears the BLM contacted five tribes by letter, receiving written replies from two (DEIS, Section 5-2), this action does not constitute "consultation" as defined by NHPA regulations or the BLM handbook. Under the NHPA regulations, "consultation means the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them . . .". (Sec. 800.16(f)) The BLM handbook defines consultation as:

the active, affirmative process of: (1) identifying and seeking input from appropriate Native American governing bodies, community

groups, and individuals; and (2) considering their interests as a necessary and integral part of the BLM's decision making process. The aim of consultation is to involve affected Native Americans in the identification of issues and the definition of the range of acceptable management options. (H-8160-1, Chapter I, Sec. C)

Furthermore, the BLM handbook specifically states that “[a] tribal council's or Native American organization's failure to respond to an inquiry letter cannot be assumed to indicate that the group is not concerned or does not have information relevant to the action being proposed”. (Chapter III, Sec. A, p. III-7) Additional efforts to identify and contact tribes are required before it can be said that a consultation attempt has occurred. There is no evidence that the BLM has yet made any such additional efforts.

## 2. Identification of Tribes

NHPA regulations require federal agency officials to make “a reasonable and good faith effort” to identify which Indian tribes must be consulted (800.2(c)(2) (A)). The Advisory Council for Historic Preservation (ACHP) maintains a tribal database system for New Mexico on its website containing, for each county in the state, a list of tribes who have indicated that they wish to be notified and consulted about federal agency activity in that county (<http://www.achp.gov/nap.html>). Five tribes are listed for Otero County and nine for Sierra County. These are: Ysleta del Sur Pueblo, Pueblo of Ysleta, Comanche Indian Tribe, Kiowa Tribe of Oklahoma, Mescalero Apaches, White Mountain Apache Tribe, Fort Sill Apache Tribe, Hopi Tribal Council, and the Navajo Nation. The BLM failed to contact the majority of these tribes (Pueblo of Ysleta, Comanche Indian Tribe, Kiowa Tribe of Oklahoma, Hopi Tribal Council, and Navajo Nation) in any manner. A “good faith effort” should surely entail reference to these lists.

## 3. Time at which to Initiate Consultation

The BLM plan postpones assessment of the impact of drilling upon Native American tribes' culture and traditions until individual leases are considered or archaeological finds are made (PRMPA/FEIS, Section 4.2.1.12), noting only that unidentified Native American groups “may very well have traditional cultural interests in Sierra and Otero Counties”. (PRMPA/FEIS, page 3-29) This strategy is not only inefficient and likely ineffective, it is inconsistent with current state and federal approaches to tribal issues, and with federal regulations, which emphasize early participation by tribes. In addition, it moves the identification and consultation to after the BLM sells a lease, which is unfair and potentially costly to industry.

For example, NHPA regulations state that “[c]onsultation [with Native American tribes] *should commence early in the planning process*, in order to identify and discuss relevant preservation issues and resolve concerns about the confidentiality of information on historic properties” (NHPA



regulations, sec. 800.2 (c) (2)(ii)(A)). Similarly, the BLM handbook requires that “[d]uring the collection and evaluation of land use and resource information, before the preparation of land use plans and environmental documents, responsible managers and staff shall employ appropriate techniques to ensure the identification and consideration of Native American cultural and religious values potentially affected by BLM land use decisions”. (8160.06B.1)(emphasis added) In addition, the handbook advises that “[i]n any case where it appears likely that the nature and/or the location of any activity could affect Native American interests or concerns, the BLM manager should initiate appropriate consultation with potentially interested Native Americans, *as soon as possible after the general outlines of the land use plan or the proposed land use decision can be described*”. (H-8160-1.B)(emphasis added)

Thus far, the BLM has failed to engage in consultation. The BLM should undertake curative action immediately to “ensure the identification and consideration” of Native American concerns.

#### 4. Sacred Sites, Other Statutory Issues

##### a. Federal Executive Order 13007

As a consequence of inadequate early consultation procedures, the PRMPA/FEIS’ current assessment of the possible existence of sacred sites is based largely on speculation. In Section 3.15.3, the PRMPA/FEIS states:

*“The hot springs near Truth or Consequences may have been regarded as sacred by the Apache, but these springs do not appear to be part of contemporary sacred or religious practices for any American Indian group.”*

The lack of specific information could lead to difficulties in compliance with Executive Order 13007 (1996). Executive Order 13007 requires federal land management agencies to accommodate access to and ceremonial use of Indian sacred sites and to avoid adversely affecting such sites’ physical integrity. Agencies must also develop procedures for reasonable notification of proposed actions or land management policies that may restrict access to or ceremonial use of, or adversely affect, sacred sites. The burden is on the Native Americans to inform the agency of such sites’ existence. However, identification of sacred sites can form a natural part of consultations regarding the identification and evaluation of historic properties of religious and cultural significance, and integration of the two processes is the preferred federal strategy. The ACHP observes that:

While a Federal agency is not required to integrate the requirements of the executive order in the Section 106 review process, it may be beneficial for both the agency and the tribe to do so. Not only would it be more efficient

to integrate the requirements, but it might also ensure that all issues and values are given appropriate and timely consideration. (“The Relationship Between Executive Order 13007 Regarding Indian Sacred Sites and Section 106”, <http://www.achp.gov/eo13007-106.html>)

b. American Indian Religious Freedom Act (AIRFA)

AIRFA requires consultation directed at identifying traditional Native American religious practitioners' concerns relative to proposed federal actions. Native American practitioners themselves are to be consulted directly. Here again, the BLM handbook advises that “[c]onsultation pursuant to AIRFA should be initiated *as soon as land uses are proposed* which have the potential to affect Native American religious practices”. (H-8160-1, Chapter IV, Section A)(emphasis added) Nothing in the PRMPA/FEIS indicates that such consultation has taken place.

In addition to the federal AIRFA, the state has the New Mexico Religious Freedom Restoration Act, NMSA 1978, Section 28-22-1 *et seq.*, which governs state agencies. The NMRFRA may subject state agencies that issue permits for activities on BLM lands to potential liability if the BLM fails to adequately consult with Native American tribes prior to such activities occurring.

c. Other Statutes

Implementation of procedures required under at least two other federal acts could also benefit by early consultation. First, the Archaeological Resources Protection Act, Sec. 4(c) requires notification of appropriate Indian tribes before the excavation of archaeological resources when it is determined that a location having cultural or religious importance to such tribes may be harmed. The BLM handbook suggests advance consultation with respect to such notification. (H-8160-1, Chapter IV, Section B) Second, since inadvertent discovery of “native American human remains, funerary objects, sacred objects or objects of cultural patrimony” may occur in the course of the proposed project, the Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001 *et seq.*, and its implementing regulations, 43 C.F.R. Part 10, apply. Again, the BLM handbook suggests advance consultation “to reach agreement as to the treatment and disposition of the specific kinds of ‘cultural items’ defined in the Act” (H-8160-1, Chapter IV, Section D). Neither identification of tribes or advance agreement are discussed under the BLM plan even though the BLM estimates that there may be as many as 130,000 archaeological and historical sites in the planning area (PRMPA/FEIS, page 3-28).

5. BLM Best Practices

The BLM's plan for managing cultural resources is inconsistent with the best practices the BLM published to implement the National Energy Policy for the BLM's National Energy Office. (See <http://www.blm.gov/energy/tasks.htm>). This policy identifies approaches to expedite the process of approving Applications for Permits to Drill (APD) specifically with respect to identification, evaluation, and assessment of cultural resources. Issued as Instructional Memorandum 2003-147 (IM 2003-147), the BLM proposes:

State Office (SO) and Field Office (FO) Oil & Gas and Cultural Resource Program leads and specialists should recommend that oil and gas operators and cultural resource contractors coordinate cultural resource consultation and survey requirements with Bureau of Land Management (BLM) cultural resource specialists as early as *possible prior to submitting an APD; use "block" survey designs* that will allow all components of a proposed project or projects – well(s), access roads, pipelines and utilities - - to be sited and assessed for environmental impacts; and *complete surveys prior to a Notice of Staking "onsite."* Operators should record and transmit survey data consistent with BLM cultural resources automated database and Geographic Information System standards (GIS). SOs and FOs shall *support continued automated database and GIS development and regional synthesis and modeling initiatives*, as funding allows. (See <http://www.blm.gov/nhp/efoia/wo/fy03/im2003-147.htm>) (emphasis added)

The PRMPA/FEIS fails to implement these instructions. As proposed in the PRMPA/FEIS, cultural resource surveys will not take place until the application and management decisions occur at the individual component level. That is, a separate cultural resources survey is required for each well pad, access road, pipeline, and utility connection. This inefficient process results in unnecessary impacts to cultural resources, draws out the consultation process, and needlessly increases industry's and government's costs and time delays. This component-based strategy can lead to multiple cultural resource surveys of the same ground, redundant information, and duplication of efforts without improving quality of information to support the Section 106 compliance process.

The New Mexico State Historic Preservation Officer (SHPO) is currently participating in a study, funded by the United States Department of Energy and supported by the BLM and New Mexico Oil and Gas Association, examining more than two decades of archaeological survey associated with oil development in three study areas (in a mature field, a developing field, and a proposed field) in southeastern New Mexico. Preliminary results from one of the study areas, in the Loco Hills area of Lea and Eddy counties, have found that nearly 20% of the study area was

examined more than once – in some places *more than ten times* over a 20-year period. At the same time, 30% of the cultural resource sites were recorded multiple times, with conflicting information.

Following the BLM best practices that focus on defining Geographic Area Development Plans, block surveys, and development of regional models and research designs will result in more effective planning of oil and gas development and minimize adverse effects to archaeological sites and other cultural resources.

The BLM's IM 2003-147 also specifies that the BLM continue to support sharing of cultural resource data with the SHPO and pursue regional data synthesis and modeling initiatives, especially in areas where development will be intense and/or long term. Most areas outside of military installations in Otero County, the Rio Grande Corridor, and United States Department of Agriculture, Forest Service lands have received little or no cultural resources survey -- so little that studies such as those prepared for the current PRMPA/FEIS have little predictive value. Additional archaeological survey and data recovery should be conducted in concert with a regional research design whenever possible.

## 6. Historic Trails

The Butterfield Trail, the Mormon Battalion Trail, the Santa Fe to El Paso Stage Route, and the Jornada del Muerto trails pass through portions of Sierra and/or Otero counties. The BLM's proposal to setback drilling activities from historic trails is problematic because, with few exceptions, only portions of the alignments have been identified and few of the trails have been accurately recorded on the ground. Segments may have been recorded through photogrammetric interpretation but this is not a substitute for actual surface inspection and interpretation. The integrity of trail traces and closely associated cultural features must be identified so that the effects of fluid mineral development can be accurately assessed. These trails are of national significance and could be part of larger cultural landscapes. A cultural landscape is defined as "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values" (National Park Service Preservation Brief No. 36). Identification of the trails in their larger cultural landscape context is essential. A documentation approach that focuses on the trail alignment and features alone provides insufficient information and, therefore, insufficient protections.

### I. The BLM's Changes in the PRMPA/FEIS Alternative A (Modified) are Beyond the DEIS' Scope and Analysis and are Inconsistent with the National Environmental Policy Act and BLM Regulations Providing for State Review and Comment

BLM regulation 43 C.F.R. § 1610-4.8 requires the BLM to submit its draft resource management plan and environmental impact statement to the Governor of the state and other governmental entities. The BLM complied with this requirement, but then significantly changed Alternative A (modified) in the

PRMPA/FEIS from the original Alternative A proposed in the DEIS that was provided to the state and other governmental entities for comment. For example, in the DEIS the BLM provided that no surface occupancy would be allowed within the core habitat area and adjacent buffer zones in the Nutt and Otero Mesa desert grassland habitat areas. (DEIS, page A-VI-14) In a move that rendered comment on Alternative A in the DEIS meaningless, the BLM removed this no surface occupancy provision, which provided substantial protection, from the PRMPA/FEIS' Alternative A (modified). Instead, the BLM now proposes to allow surface occupancy in the Otero Mesa and Nutt desert grassland habitat areas and merely limit use to five percent of leasehold at one time, until the area is re-vegetated.

National Environmental Policy Act regulation, 40 C.F.R. § 1501.7, requires federal agencies to determine the scope of issues to be addressed by the environmental impact statement. Scope is defined as the range of actions, alternatives, and impacts to be considered, 40 C.F.R § 1508.25. In addition, federal agencies may only consider alternatives encompassed by the range of alternatives. Alternative A (modified) in the PRMPA/FEIS exceeds the DEIS' scope and analysis. Not only do these changes exceed the scope of the proposed alternative provided in the DEIS, these changes significantly alter the analysis of the environmental consequences and make the State's comments on the DEIS meaningless. This is an extremely significant issue to the State.

J. Governor's Policy on Government-to-Government Relations with Tribes

This BLM PRMPA/FEIS consistency review process is inconsistent with my policy on Government-to-Government Relations with Tribes. My policy recognizes that tribes are sovereign and that my interactions with the tribes will be based on a government-to-government relationship. The BLM's consistency review process, while it provides for initial input from tribes, does not provide tribal governments the opportunity to "conduct their own consistency review" of the proposed amendment to the resource management plan prior to the BLM State Director's approval. (See 43 C.F.R § 1610.4-1(e)) Instead, it expects the Governor of the state to review and recommend changes for other sovereign governments and does not provide a similar process for tribal governments.

K. Alternative Energy Policy

In order to make New Mexico a leader in developing reliable supplies of energy and energy efficient technologies and practices with a balanced approach towards conserving our renewable and non-renewable resources, the State has a policy of encouraging the development and use of alternative energy and energy conservation and efficiency. Instead of encouraging the use and development of renewable energy and energy conservation and efficiency, the BLM's PRMPA/FEIS would open up one of the last intact areas of Chihuahuan Desert grasslands, which encompasses one of the most biologically diverse arid regions on earth, to disturbance and fragmentation for production of oil and gas that, as mentioned above in my introduction, could be supplanted by approximately 110 wind turbines.

Current state laws encouraging the use and development of alternative energy and energy conservation and efficiency include the Alternative Fuel Acquisition Act, NMSA 1978, Section 13-1B-1 *et seq.*; the Public Facility Energy Efficiency and Water Conservation Act, NMSA 1978, Section 6-23-1 *et seq.*; and the renewable energy production tax credit, NMSA 1978, Section 7-2A-19. The Alternative Fuel Acquisition Act requires that 75% of the vehicles that state agencies and educational institutions acquire be capable of operating on alternative fuel or be gas-electric hybrids. The Public Facility Energy Efficiency Act allows governmental entities to enter into guaranteed utility savings contract to reduce energy operating costs and creates the Public School Utility Conservation Fund to pay for the purchase and installation of energy conservation measures. The renewable energy production tax credit was passed to encourage the development of alternative energy sources. A taxpayer that owns a qualified energy generator, one that operates off alternative fuels such as solar, wind, or biomass, is eligible for a tax credit.

Most recently, the 2004 New Mexico Legislature passed legislation codifying the Renewable Portfolio Standard (RPS), previously adopted by the New Mexico Public Regulation Commission (PRC). I signed this legislation on March 4, 2004. This legislation establishes a requirement that investor-owned electric utilities meet a “renewable portfolio standard requirement” by having renewable energy comprise no less than five percent of retail sales by 2006, increasing one percent per year and leveling off at 10 percent by 2011. The requirement does not apply to rural electric cooperatives or municipal electric utilities. The legislation also requires utilities to offer “green pricing” programs, whereby customers can voluntarily purchase blocks of renewable energy. This legislation essentially codifies in statute the existing PRC Rule #573 for electric utilities.

In addition to the renewable portfolio standard, the 2004 Legislature also passed several other bills that encourage energy conservation and alternative energy use and development. These include:

- House Bill 2, General Appropriations Act of 2004, which funds New Mexico state government operations and provides the following special appropriations: \$1,000,000 to the General Services Department for retrofitting light and climate control fixtures for energy cost savings in state owned facilities; \$200,000 to the Economic Development Department for hydrogen and fuel cell technologies development; and \$500,000 to the Energy, Minerals and Natural Resources Department for establishing and administering a competitive grant program for energy efficiency and renewable energy projects for public-sector entities including municipalities, counties, state agencies, public schools, colleges/universities, and Indian nations, tribes, and pueblos.
- House Bill 251, Advanced Energy Technologies Economic Development Act, which I signed on March 4, 2004, whose purpose is to stimulate the market for and promote the statewide use of advanced energy technologies including renewable energy (*i.e.* solar, wind, geothermal, landfill gas, biomass); alternative fuels such as natural gas, ethanol, and hydrogen; energy efficiency; and fuel cells.

- House Bill 388, which I signed on February 16, 2004, and Senate Bill 226, Use of Neighborhood Electric Cars on Streets, add a new section to the Motor Vehicle Code that authorizes neighborhood electric cars to be driven on certain streets, except where a local authority or the Department of Transportation prohibit. A neighborhood electric car is defined as a four-wheeled electric motor vehicle that has a maximum speed of 25 miles per hour but not less than 20 mph, complies with federal requirements (49 C.F.R. § 571.500), and is equipped with safety equipment such as stop lamps and seat belts.
- Senate Bill 86, No Excise Tax on Fuel-Efficient Vehicles, which I signed on March 4, 2004, amends the Motor Vehicle Excise Tax Act, NMSA 1978, Chapter 7, Article 14, to provide a one-time exemption from the motor vehicle excise tax for the purchase of new gasoline-electric hybrid vehicles at the time of the issuance of the vehicle's original certificate of title. The exemption is targeted solely to gasoline-electric hybrid vehicles with a United States Environmental Protection Agency fuel economy rating of at least 27.5 miles per gallon.
- House Bill 293, Capital Outlay Projects, includes an appropriation of \$2,650,000 to the Energy, Minerals and Natural Resources Department for deployment of clean energy technologies (energy efficiency, solar, wind, biomass) in State and public school facilities.

Furthermore, during the 2003 legislative session, the New Mexico State Legislature passed Senate Joint Memorial 89. In that memorial, the Legislature found that while New Mexico currently has abundant oil, coal, and natural gas resources these energy sources are finite and that renewable energy provides "the state with opportunities for a sustainable energy future, reduced air emissions and water demands, greatly reduced risk of catastrophic fires in state forests, and environmentally sensitive economic development". The Legislature encouraged New Mexico's executive branch to pursue energy policies to implement renewable energy use.

In support of these policies, the Energy, Minerals and Natural Resources Department, Energy Conservation and Management Division has set the following objectives:

- have 10 percent of New Mexico's electricity needs met with renewable energy by 2010;
- position New Mexico among the top three states in wind production by 2007;
- increase the use and public awareness of renewable energy resources for generation of power and production of fuels, heat, or other saleable commodities;
- reduce energy consumption in all sectors of New Mexico's economy;
- facilitate compliance with state and federal mandates for acquisition of alternative fuel vehicles; and
- assist and encourage the increased use of alternative fuels.

New Mexico's renewable energy direction is consistent with the U.S. Department of Energy, Energy Efficiency and Renewable Energy (EERE) Office that seeks to strengthen America's energy security, environmental quality, and economic vitality with public-private partnerships that:

- enhance energy efficiency and productivity;
- bring clean, reliable, and affordable energy technologies to the marketplace; and
- make a difference in the everyday lives of Americans by enhancing their energy choices and their quality of life.

Some specific EERE Office priorities include:

- dramatically reducing or even ending dependence on foreign oil;
- increasing the viability and deployment of renewable energy technologies;
- increasing the reliability and efficiency of electricity generation, delivery, and use;
- increasing the efficiency of buildings and appliances;
- increasing the efficiency/reducing the energy intensity of industry;
- creating the new domestic bioindustry; and
- leading by example through government's own actions.

### **III. GOVERNOR RICHARDSON'S PROPOSED ALTERNATIVE**

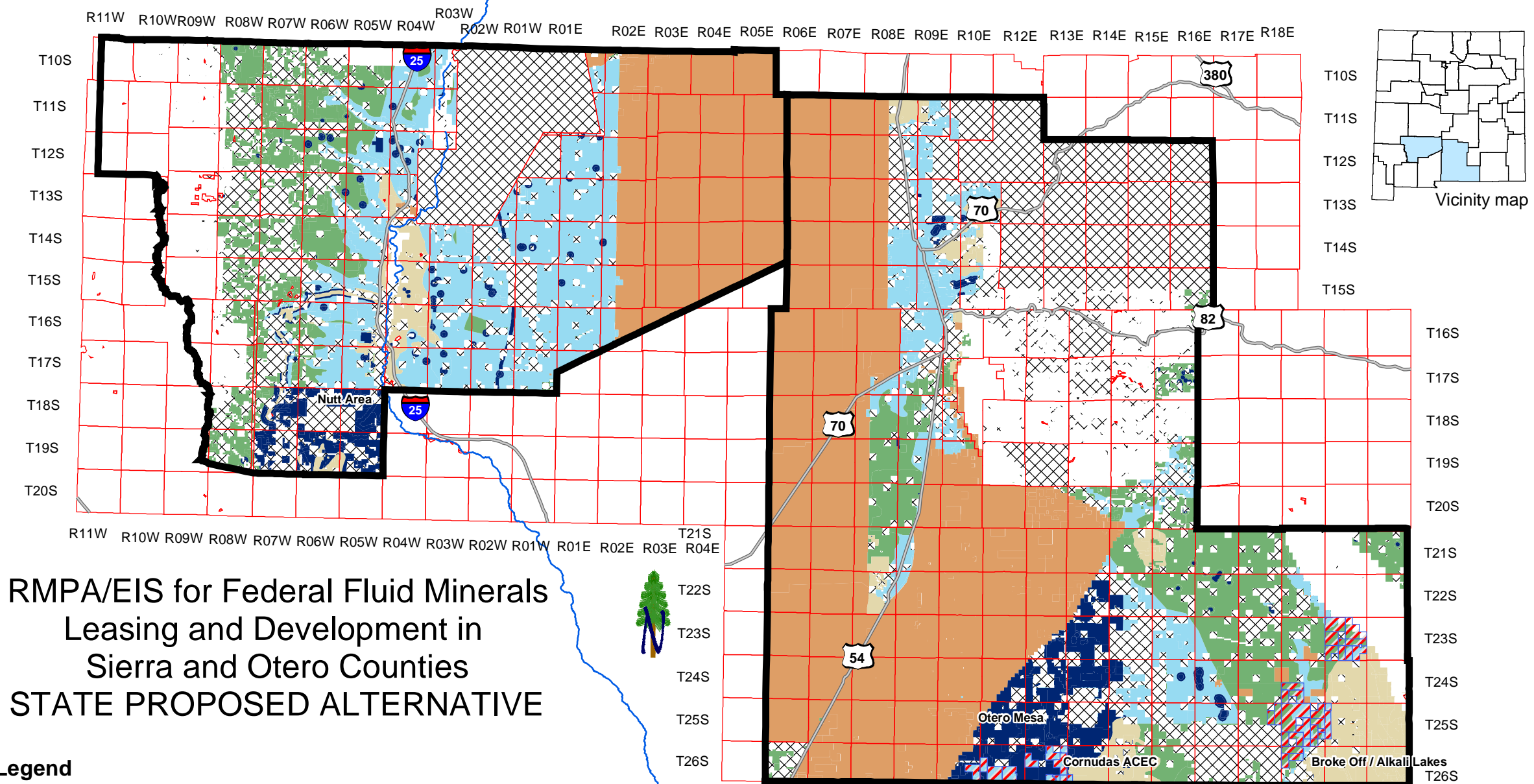
To resolve the inconsistencies, New Mexico proposes the following alternative to the PRMPA/FEIS, so that the value reflected in the state's laws and policies are not lost. These values include the habitat and wildlife values of the Chihuahuan Desert ecoregion, significant ground water resources, and cultural and historical resources such as the Butterfield Trail. The proposed alternative includes areas that are closed to oil and gas leasing, areas that prohibit surface occupancy by oil and gas exploration and production operations, areas that are open to oil and gas drilling with stipulations, and areas that are open for oil and gas drilling under standard lease terms and conditions. See the map on the next page for a visual depiction of New Mexico's proposed alternative.

#### **A. Grassland/Habitat Protections**

##### **1. Closed to Leasing**

Alternative B of the DEIS proposed several discretionary closures of areas with biological, cultural, recreational, and scenic importance. The justifications for these closures are obvious to the BLM and it is apparent that a great deal of thought and concern for the protected resource values went into the development of Alternative B. All of the closed areas in this alternative have multiple resource values identified in the DEIS, which are incompatible with fluid minerals development. For example, the Cornudas Mountains discretionary closure area in Alternative B contains desert grassland habitat for antelope and other grassland species, potential habitat for desert bighorn sheep reintroduction and aplomado falcon recovery, special status plants, a segment of the historic Butterfield Trail, Class I and Class II visual resource management areas, important





# RMPA/EIS for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties STATE PROPOSED ALTERNATIVE

## Legend

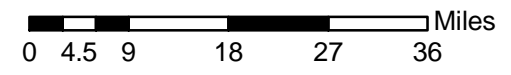
- Nondiscretionary Closure - 2,023,686 acres
- Discretionary Closure - 310,554 acres
- No Surface Occupancy - 333,200 acres
- Open with Stipulations - 894,264 acres
- Open to Standard Leasing Terms and Conditions - 709,350 acres

## Other

- Areas of Other Surface Management Agencies of Ownership Excluded from the RMPA/EIS Analysis
- No Federal Fluid Minerals

## Existing BLM Oil and Gas Leases, estimated

- 72,874 acres under various terms and conditions



Datum: NAD27 Projection: Universal Transvers Mercator, Zone 13N

Data from BLM NM State Office or derived by NM Forestry from BLM data. Current leases sketched in from printed map. No warranties are made regarding the accuracy of this data. Produced by NM EMNRD Forestry Division GIS, 3/3/2004.

watersheds, and highly erosive and fragile soils. The BLM clearly made the case for closing this entire area to leasing, as in Alternative B, but chose instead an alternative that is open for leasing except for three small ACECs on mountaintops. This entire area should be coalesced into one large (Cornudas Mountains) ACEC or, at least, closed to fluid mineral leases as shown in Alternative B.

The State proposes all areas of discretionary closure identified in the DEIS Alternative B on Table S-1 and Map 2-3 as suitable areas of closure for the reasons identified in the DEIS with the following modifications:

- The entire region of the Brokeoff Mountains, Alkali Lakes, and Guadalupe Escarpment will be coalesced into a single large area of discretionary closure because of multiple resource values including Brokeoff Mountains WSA, a buffer for this wilderness, numerous special status plant species, potential habitat for desert bighorn sheep reintroduction, maintenance of habitat connectivity with the Guadalupe Escarpment on the adjacent Lincoln National Forest, highly erosive and fragile soils in the Alkali Lakes, an important view shed from Guadalupe Mountain National Park in adjacent Texas, and maintenance of good air quality in this national park.
- The Red Sands ORV area is already a highly impacted site and can remain open to leasing with standard terms and conditions.

## 2. No Surface Occupancy

The State proposes that all areas open to leasing with a condition of 'No Surface Occupancy' identified in the DEIS Alternative B on Table S-1 and Map 2-3 be leased only on condition of no surface occupancy for the reasons identified in the DEIS with the following modifications:

- All federally leased minerals on Otero Mesa east of the McGregor Range and west of the middle of Range 14 East will be leased with a condition of no surface occupancy. This area is vital to the Chihuahuan Desert ecoregion. It contains thousands of acres of intact desert grassland habitats and is an ecological and migratory connection between grasslands in Mexico and Texas through the Tularosa Basin to central New Mexico. The Otero Mesa matrix of grassland and Chihuahuan Desert shrub land is also critical habitat for pronghorn, prairie dogs, and other grassland species including the endangered aplomado falcon.



**Black-tailed Prairie Dog**

- A 'No Surface Occupancy' condition will be attached to all federal leases east of the Lake Valley Back-country Byway and within the six townships of T18S and T19S, R5W – R7W. This area, called the Nutt grassland habitat, contains a resident herd of pronghorn and is potential recovery habitat for the endangered aplomado falcon. It is also an important scenic byway with abundant historic cultural resources.

3. Open to Leasing with Stipulations

Except for those areas changed by the above designations, the State proposes that all areas open to leasing with stipulations identified in the DEIS on Map 2-3 be leased with a minimum of the following stipulations:

- Stipulation 1: All drilling operations must be timed to (1) avoid surface disturbance during seasons of high wind, in order to minimize wind erosion, (2) avoid conducting operations during livestock/wildlife calving/fawning seasons, and (3) to the extent not incompatible with the foregoing objectives, arrange to conclude operations prior to anticipated moist seasons so that re-vegetation can begin promptly. The BLM in consultation with NMDGF shall prescribe the appropriate time window for operations at each proposed site.
- Stipulation 2: Drilling shall be limited to one surface location per 1440 acres. Since the applicable spacing under statewide rules is one well per 160 acres for all gas zones (160-acre units with one well per unit for shallow zones, and 320-acres units with two wells

per unit for deep zones), this would involve locating up to nine wells on a pad.

- Stipulation 3: Existing roads shall be used to the maximum extent possible. Pipelines, flow lines, and electric conduits will be laid adjacent to existing or constructed roads to minimize the number of lateral cuts.



**Jonah Gas Field, Wyoming**

- Stipulation 4: Federal Exploratory Units must be formed prior to commencement of operations. The terms of the Unit Agreements and Unit Operating Agreements for such units shall include special provisions that would (1) authorize the continued use of drilling pads and deviated well bores by the unit operator even if the tract on which the surface installations were placed were not included in a participating area and were contracted out of the unit, and (2) authorize use of the consolidated pads and associated facilities for subsequent drilling to bottom-hole locations underlying tracts that might be contracted out of the unit, whether such subsequent operations were conducted by the same or another lessee.
- Stipulation 5: Compression facilities shall be consolidated to the maximum extent feasible. All compressors and pump motors shall be electric in order to reduce noise. Power lines shall be installed in underground conduits.
- Stipulation 6: Re-vegetation with native plant species or restoration of drilling pads shall commence as soon as practicable after conclusion of drilling operations, and in case of other disturbed areas, as soon as practicable after disturbance. Areas being re-vegetated shall be fenced sufficiently to prevent grazing. If re-vegetation or restoration efforts fail, they shall be repeated in

successive seasons, with such alterations as the BLM may direct, until satisfactory vegetation cover is established for a set number of years before the BLM releases the operator from financial assurance obligations.

- Stipulation 7: All equipment shall be cleaned prior to moving in order to prevent the spread of noxious weeds or plant species that would be undesirable in the area.
- Stipulation 8: Produced water injection wells and related facilities shall comply with the following requirements: (1) the volume of fluids that may be injected will be limited so that the radius of influence does not exceed 75% of the area of review; (2) all casing strings shall be cemented to the surface and pipe in all fresh water zones shall be of double casing; (3) produced water transportation lines shall be constructed of double-walled pipe or shall be laid adjacent to roads; and (4) lined berms or impermeable secondary containment will be in place for all tanks associated with a produced water injection well.
- Stipulation 9: Due to the uncertainty of the location of fresh water formations in the region, cement shall be circulated to the surface on all casing strings except the production string. For the production string, cement shall be circulated to at least 100 feet above the base of the intermediate casing.
- Stipulation 10: Closed drilling systems shall be used for all wells. Reserve pits and disposal pits shall be prohibited.
- Stipulation 11: No water wells shall be drilled in connection with oil and gas drilling activities.
- Stipulation 12: Satellite monitoring (SCADA) systems shall be used for all producing wells in order to minimize inspection and maintenance traffic.

#### 4. Open with Standard Lease Terms and Conditions

Except for those areas changed by the above designations, the State concurs with all areas open to leasing with standard terms and conditions as illustrated on Map 2-3 of Alternative B in the DEIS.

#### B. Protection from Introduction of Noxious Weeds

In order to prevent the introduction of noxious weeds, New Mexico's alternative would require oil and gas producers to comply with, and the BLM to actively enforce, the following best management practices:

- establish vehicle wash stations to remove weed seeds and require all equipment moved into the area to be cleaned prior to movement;
- provide bonds for weed control for the life of the well and 15 years after plugging and abandonment of the well.

### C. Water Resource Protection

In order to comply with state and local policies, plans, and programs, standards must be mandated in sufficient detail to ensure that compliance will accomplish necessary protection of water supply and quality. The BLM's Alternative A (modified) lacks adequate protection. It does not include an assessment of the surface and ground water resources, identify potential impacts, or outline specific measures to mitigate these impacts.

Furthermore, the BLM's selected Alternative A (modified) increases the acreage that would be available through lease under SLTC without surface controls or constraints. Alternative A (modified) nearly doubles the acreage that would be covered by SLTC from 779,093 to 1,406,625, while reducing the NSO acreage from 160,435 to 40,526 and the CSU acreage from 1,048,872 to 519,925. The large increase in SLTC acreage could negatively impact water quality by removing the higher level of protection afforded by NSO and CSU controls. The revised plan also removes the CSU protection for the five watershed areas and changes the area to SLTC.

New Mexico's proposed alternative, on the other hand, does protect the region's valuable water resources. By delineating areas that warrant a higher level of protection (Nutt habitat, Otero habitat, Brokeoff habitat, and the Salt Basin alluvial aquifer) and by requiring oil and gas operators to comply with specific requirements in those areas open to drilling with stipulations the end result will be protection of the area's water resources.

### D. Cultural Resource Protection

The BLM shall engage in early, integrated, direct consultation with Native Americans on major issues that could arise in the course of drilling for fluid minerals in the proposed area, and negotiating agreement on standard procedures for dealing with them if and when the need occurs. Such issues shall include:

- BLM decisions relating to identified Native American cultural resources;
- notification about and evaluation of archaeological sites;
- handling of Native American human remains, funerary objects, and the like;
- site-specific consultation with respect to protection of and access to sacred sites; and
- follow BLM best practices (IM 2003-147) for cultural resource survey design and timing at the lease level.

This consultation process shall include:

1. Prior to Final Decision Regarding Whether and Where Land Should be Open for Drilling

Prior to the final decision regarding whether and where land should be open for drilling, the person whose contact information is on the ACHP

website for each tribe on the relevant county lists will be sent an initial letter, which will

- inform them of the proposed opening of the area for leasing;
- solicit broad information regarding the general nature of traditional values and the general locations of culturally significant traditional places within the planning area;
- suggest an initial list of issues, including establishment of a time frame allowing for meaningful evaluation and thoughtful response by the tribe; and
- identify the relevant agency contacts.

The letters will be followed up by telephone calls and a face-to-face meeting will be arranged with representatives from the BLM, the SHPO, and the interested tribes.

- Prior to the meeting an agenda stating the meeting's purpose and the issues to be addressed and listing the participants will be prepared and shared.
- At the meeting, participants will agree on follow-up action items and arrange future meeting dates and locations as appropriate.
- Following the meeting, summaries will be prepared and distributed to participants.

## 2. On a Continuing Basis

Regular consultation with relevant tribes will continue until such time as agreement is reached on procedures to follow with respect to major issues. Tribes will be notified in a timely manner before specific BLM leasing and drilling decisions, so that they may identify any site-specific concerns. Consultation through the standard processes developed in the initial phase will occur as needed.

## 3. Historic Trails

Prior to leasing and exploration, an on-the-ground survey of affected trails and adjacent areas to locate and record closely associated features such as smaller stage stops, camping locations, burials, dumps, and so on will take place. The survey should be coordinated with the State Land Office and other landowners to promote a consistent identification and evaluation strategy. Application of view shed analysis techniques using GIS technology should be conducted prior to any leasing. Analysis should take current landscape features and proposed development effects into account. Actual setback requirements from the recorded trail segments should be based on the results of GIS analysis rather than on some predetermined distance.

## 4. Cultural Resources Survey Design and Best Practices

The State's alternative endorses the best practices outlined in the BLM's IM 2003-147 for cultural resource survey design and timing. Specifically,

cultural resource surveys should be conducted as early as possible in the APD process and should be conducted in large blocks. The cultural resource data will contribute to regional syntheses and modeling initiatives. In southern New Mexico, these initiatives integrate cultural resource survey with geomorphic and geophysical studies.

**IV. HOW THE NEW MEXICO GOVERNOR'S ALTERNATIVE IS REASONABLE, MEETS STATE LAWS AND POLICIES, AND BETTER BALANCES STATE AND NATIONAL INTERESTS**

**A. Desert Lands Protected in NM Compared to Adjacent States and Alternative A (Modified)**

The Chihuahuan Desert ecoregion is a vast area of 390,600 square miles of which about 30% occurs north of the border in the United States. The United State portion of Northern Chihuahuan Desert subregion is about 60% in west Texas and about 40% in southern New Mexico. The majority of these desert lands in Texas are privately owned. However, there is extensive federal jurisdiction over the Chihuahuan Desert in New Mexico, especially BLM and United States Department of Defense. Portions of these many millions of arid acres must be managed as natural habitats for a great diversity of plants and wildlife and for passive recreation, which is an increasingly important economic asset. Since federal jurisdictions are dominant in southern New Mexico, federal agencies, especially the BLM, must take a dominant role for natural area management.

A few comparisons are in order to point out how inadequate the amount of natural area protection and management is in the Chihuahuan Desert of southern New Mexico. The agencies with the largest jurisdictions over protected, natural habitats in southern New Mexico are the United States Department of the Interior's Fish & Wildlife Service and National Park Service (see table below). Even the State has acquired and protected more land than the BLM has set aside as natural areas or wilderness. In fact, there is not one BLM Wilderness in the New Mexican Chihuahuan Desert. There are about 15 BLM Wilderness Study Areas in southern New Mexico that still lack permanent protection. Natural areas protected in the southern New Mexican desert are also typically small in size and scattered about. BLM has created 21 ACECs in southern New Mexico (total 157,430 acres), but these areas are not effectively managed for natural habitats, so do not appear in the table below. Experience has shown that New Mexico's ACECs are not always protected from new roads, pipelines, and power lines. In sum, adjacent Texas with its large national and state parks, wildlife management areas, and preserves owned by The Nature Conservancy (TNC) has protected 2.2 times more natural Chihuahuan Desert habitats than all the various land jurisdictions in New Mexico.



**Northern Chihuahuan Desert Subregion – Natural Area Management**

	New Mexico		Texas	
	Sites	Acres	Sites	Acres
National Parks & Monuments	2	193,301	2	887,579
State Parks (Natural Areas)	0	0	3	338,151
Research Natural Area – BLM	8	28,121	0	0
Natural Area – BLM	1	2,800	0	0
Federal Wildlife Refuge	4	370,338	0	0
State Wildlife Mgt. Area	5	40,000	4	142,562
Wilderness – BLM	0	0	0	0
National Conservation Area	0	0	0	0
Preserves – TNC	2	173	8	38,391
<b>Total</b>	<b>22</b>	<b>634,733</b>	<b>16</b>	<b>1,406,683</b>

Grand Total of New Mexico plus Texas = 2,041,416 acres of natural area management in northern Chihuahuan Desert.

The Chihuahuan Desert ecoregion has greater biological diversity than the adjacent Sonoran Desert (Dinerstein *et al.* 2000), but the Sonoran Desert receives more care and attention from land managers than the Chihuahuan. The northern Sonoran Desert of southern Arizona and southeastern California makes a useful comparison because it is about the same size as the northern Chihuahuan subregion in New Mexico and Texas. The difference in protection is striking. The acreage protected and managed as natural habitats in the northern Sonoran Desert (4,165,822 acres) is twice that of the acreage protected in the northern Chihuahuan Desert subregion (2,041,416 acres). The BLM's commitment to the Sonoran Desert is also elevated to the point of administering three national monuments, a National Conservation Area, and about thirty wilderness areas. The BLM administers none of those three protective land classifications on its Chihuahuan Desert jurisdictions in New Mexico.

**Northern Sonoran Desert Subregion – Natural Area Management**

	Arizona		California	
	Sites	Acres	Sites	Acres
National Parks & Monuments	5	1,113,228	0	0
State Parks (Natural Areas)	0	0	1	600,000
Research Natural Area – BLM	?	?	?	?
Natural Area – BLM	0	0	0	0
Federal Wildlife Refuge	3	1,539,400	0	0
State Wildlife Mgt. Area	3	2,431	?	?
Wilderness – BLM	20	578,335	10	267,095
National Conservation Area	1	58,000	0	0
Preserves – TNC	2	7,333	0	0
<b>Total</b>	<b>35</b>	<b>3,298,727</b>	<b>11</b>	<b>867,095</b>

Grand Total of Arizona plus California = 4,165,822 acres of natural area management in northern Sonoran Desert.

These comparisons distinctly illustrate the deficiencies of sustainable, protective management in the northern Chihuahuan Desert subregion. The situation is even more serious in the larger portion of the Chihuahuan Desert ecoregion in Mexico where there are few enforceable, formal protections for natural lands. The United States federal government and its border states must rise to the challenges for natural habitat

protection in this fragile and biologically diverse desert. Maintaining options for alternate land management designations is key to future success. The alternative proposed in this consistency response does this, whereas, Alternative A (modified) in the PRMPA/FEIS forecloses almost all options for the USDI. How can Congress ever possibly envision a future National Conservation Area or National Monument in the Greater Otero Mesa Area if all the BLM lands are threatened with oil or gas development? Future wildlife refuges, wilderness areas, or even ACECs are incompatible with the fluid mineral-leasing scheme proposed in the BLM's Alternative A (modified). New Mexico's alternative maintains future land management options for the Otero Mesa and Nutt desert grasslands, and the Brokeoff, Cornudas, and Caballo mountains.

In addition, it provides more protective stipulations for those areas that are open to leasing with stipulations to minimize surface impacts in this ecologically significant area.

- Stipulation 1 addresses the timing of drilling operations. In many areas of Southern New Mexico, wind erosion can be a significant problem when surface vegetation is removed to construct drilling pads or lay flow lines. Highest winds usually occur in the early spring, generally from mid-March to mid-May. The BLM has identified wind erosion as a significant factor in the region (PRMPA/FEIS, page 3-11), but has not proposed any region-wide measures to address this problem. Postponing commencement of drilling operations until mid-May will avoid disturbance of large areas until after the windiest season. If operations are completed by mid-September, progress in re-vegetating disturbed areas can be made during the autumn when greater precipitation often occurs, thus reducing the exposed surface areas subject to wind erosion prior to the commencement of the windiest season of the following year. Generally these time frames should also avoid operations during seasons that would be most sensitive for livestock and wildlife. However, the exercise of discretion is necessary in fixing the best season for operations, based on site-specific wildlife, erosion, and soil conditions. Compared to the standard lease terms, this would provide greater protection to both surface and wildlife.
- Stipulations 2, 3, and 4 are designed to reduce lease activity's surface footprint. Most important for reducing the overall surface impact of fluid mineral development is Stipulation 2 that would require drilling multiple wells from a single drilling pad. The applicable spacing of gas wells under Oil Conservation Division statewide rules is one well per 160 acres. We believe that deviated well technology would reasonably permit the drilling of up to nine wells from a single pad, so that only one well pad would be needed to fully develop an area of 1,440 acres. On this assumption, we estimate resulting surface disturbance as follows:

For nine wells drilled directionally from a single pad:

well site	1.5 acres
one line of new road and one mile of new pipeline/flow line	<u>1.2 acres</u>
surface disturbance for nine wells	2.7 acres

For nine wells drilled vertically from separate pads:

nine well sites	10 acres
four miles of new road and four miles of new pipeline/flow line	<u>4.8 acres</u>
surface disturbance for nine wells	14.8 acres

Reduction in surface disturbance area in a fully developed field - 81.75%

The proposed stipulation would undoubtedly occasion some increase in drilling costs and some consequent reduction in the economic feasibility of producing the resource. However, we believe that effect is unlikely to be pronounced. Based on the resource that has actually been found in the Otero Mesa area (Canyon formation at a depth of approximately 2,200 feet), we estimate that the requirement for deviated drilling would increase the probable cost of a well from approximately \$431,000 to approximately \$542,000. Some prospects may be rendered non-commercial on this basis, but, at a gas price of \$4/mcf or higher, a directional well expected to produce as much as 250,000 to 300,000 mcf from this zone should be a commercial prospect. The economic effects would, of course, vary depending on the depth and characteristics of the formations where the resource was found. However, we would expect some rough proportionality to the figures suggested.

This approach would utilize the market's efficiencies to achieve maximum environmental protection at minimum cost to the public in terms of resource availability and to the government in terms of royalty income. The locations that would not be drilled because of the stipulation would be the most marginal locations that would contribute only minimally to resource availability and government income, and the environmental costs of the more productive wells that would be drilled anyway would be substantially reduced.

- Stipulation 6 is designed to achieve maximum re-vegetation. In contrast to the BLM policy implementing standard terms that has required two attempts at re-vegetation, this stipulation requires efforts to continue until success is achieved. We believe this is necessary due to prevailing drought conditions that render the timeframes for re-vegetation unpredictable.

B. Habitat Protection Compared to Alternative A (Modified)

Habitat fragmentation is of the utmost concern to the State in regard to the state's vegetative and wildlife resources. In the development of New Mexico's alternative, the State has made specific effort to provide as much protection as possible to as much contiguous habitat as possible while still providing opportunity for oil and gas development.

Specific information about the impacts of habitat fragmentation has been discussed previously and is well known by the BLM as referred to numerous times in the DEIS. To briefly reiterate, the BLM defines habitat fragmentation (DEIS, page G-10) as "the disruption (by division) of extensive habitats into

smaller habitat patches. The effects of habitat fragmentation include loss of habitat area and the creation of smaller, more isolated patches of remaining habitat.”

By imposing the more restrictive protections of closed and expanded ACECs, increasing the acreage where no surface occupancy will be permitted, and increasing the acreage of habitat that will be open with very specific stipulations as appropriate to the area, the State is emphasizing a commitment to protecting as much of the remaining Chihuahuan grasslands as possible. Specifically, the stipulations proposed for areas open to leasing with special stipulations would protect the grasslands and wildlife habitat as follows:

- Stipulation 3 would achieve additional footprint reduction through concentration of lateral cuts. Stipulation 4 provides for the legal arrangements that would be necessary to preserve the one-well-per-1440-acre pattern throughout various scenarios for field development. The very substantial reduction in surface footprint and reduced dispersion of surface disturbance and human activity achieved as a result of Stipulations 2, 3, and 4 would provide greatly improved protection to plant ecosystems and also reduce interference with grazing resources and wildlife environments. In this connection, the BLM identifies wildlife habitat fragmentation as a probable adverse effect (PRMPA/FEIS at S-4) and adverts to the possibility of co-location of facilities, but advances no specific proposals to address these issues.
- Stipulation 5 requires the use of electric rather than internal combustion engines. This would significantly reduce noise, thereby reducing interference with the region's grazing, wildlife, and recreational uses. There would be some trade-off in the form of additional surface disturbance necessitated to install underground electric lines. However, this would be minimized by application of Stipulation 3 that would require such lines to follow the same corridors as pipelines, flow lines, and roads.

During the current period of drought in the state, the Chihuahuan desert grasslands are particularly vulnerable. Additional stress on the habitat from increased oil and gas activity may create a situation that makes it nearly impossible to restore the habitat. It is also important to note that the State is well aware of the difficulty in stopping an activity once it has been permitted. However, even if climatic conditions were different and the grasslands were not under any climatic stress at this time, the State would continue to encourage the protection of the habitat. Once oil and gas development is permitted, the activity cannot be halted at a later time to provide protection to the habitat if environmental conditions worsen.

By implementing the protections New Mexico proposes, oil and gas development will be allowed to occur. Additionally, the restrictions will be such that a unique ecosystem in New Mexico is protected while flexibility to react to special circumstances is made available through specific stipulations.

C. Noxious Weed Management Compared to Alternative A (Modified)

New Mexico's best management practices for noxious weed management will better protect the planning area from introduction of noxious weeds by requiring vehicle wash stations. This will keep noxious weed seed from being introduced into areas where oil and gas exploration and production activities are occurring and spreading to adjacent rangelands. In addition, by requiring companies to post bonds for the life of the well and 15 years after plugging and abandonment of the well, money will be available for eradication of any noxious weeds that are missed by the vehicle wash station requirement.

D. Cultural Resources Protection Compared to Alternative A (Modified)

1. Native American Consultation

The State's alternative procedures for handling Native American issues are more consistent with federal and state policies and regulations, which call for early identification of and direct consultation with relevant tribes. The ACHP also recommends consultation at a project's various critical phases. The state plan also recognizes tribal sovereign status. The provisions for ongoing consultation respect the tribes' sovereign status and the fiduciary nature of their relationship to the federal government. Recognizing the special fiduciary duty owed by the federal government to Native American tribes, the State's plan provides a sympathetic, rather than a minimalist, interpretation of the manner in which consultation should be undertaken.

2. Better Basis for Decisions

Decision-making will be improved by the attainment of concrete information about Native American culture directly from the tribes. Also, it is quite likely that Native Americans may have good suggestions about how to address their concerns (BLM handbook). In addition, the State's plan promotes more effective identification efforts by following the BLM's best practices. State and federal agencies can cooperatively manage future development using the developed GIS models and database elements. The distribution and types of cultural resources in Otero and Sierra counties are poorly understood at present and additional study or survey is necessary for the BLM and industry to plan appropriately. Cultural resource sensitivity maps could be developed, based on predictive models, which can be made available to industry and will lead to better management decisions.

3. Streamlines Drilling Process

The project will be streamlined through the use of a standard procedure. Lessees will not have to wait for an indefinite, prolonged period to obtain decisions and permissions from the BLM that require tribal input. Nor will they need to expend monies awaiting an uncertain outcome to drill. This increase in efficiency is consistent with the BLM's plan for expediting the process of approving drilling permits in its implementation of the National

Energy Policy (<http://www.blm.gov/energy/tasks.htm>). Advance planning and procedural agreements on future consultation have become the policy of many federal and state entities.

E. Water Resource Protection Compared to Alternative A (Modified)

The State's alternative protects valuable surface and ground water resources by increasing the number of acres closed to leasing for oil and gas development, increasing the acreage where no surface occupancy is allowed, and by providing for stricter stipulations in those areas open to surface occupancy with conditions. Those areas include the Nutt habitat, Otero habitat, Brokeoff habitat, and the Salt Basin alluvial aquifer. The plan also incorporates the State's Water Plan into the overall management of New Mexico's resources.

In contrast, the BLM's selected Alternative A (modified) increases the acreage that would be available through lease under SLTC without surface controls or constraints. Alternative A (modified) nearly doubles the acreage that would be covered by SLTC from 779,093 to 1,406,625, while reducing the NSO acreage from 160,435 to 40,526 and the CSU acreage from 1,048,872 to 519,925. The large increase in SLTC acreage could negatively impact water quality by removing the higher level of protection afforded by NSO and CSU controls. The revised plan also removes the CSU protection for the five watershed areas and changes the areas to SLTC.

In addition, Stipulations 8 through 11 proposed in New Mexico's alternative for areas open to drilling with stipulations are designed for protection of ground water. All of these measures, except Stipulation 9 regarding cementing of casing, are being considered for implementation by the State pursuant to Executive Order No. 2004-005, and are necessary and appropriate in view of the uncertainty of the quantities and depth of ground water that may be encountered in this region. Stipulation 10, prohibiting pits, will further protect surface resources, including soils, rangeland, and native plants. Although these matters are within the zone of State regulation, their imposition as lease stipulations will facilitate enforcement.

F. Alternative Energy

The State's alternative recognizes that state policy and laws encouraging the development and use of renewable energy sources will result in the production of more than three times the amount of energy produced by the oil and gas wells proposed for PRMPA/FEIS' planning area. Therefore, there is no need to disturb and fragment the Otero Mesa and Nutt grassland areas for energy that can easily be supplied through development of renewable energy sources.

V. **CONCLUSION**

This following quote comes from the State Water Plan and expresses public opinion about the protection of New Mexico's natural environment:

“Stewardship was probably the most passionately articulated topic. Inevitably, discussion about protecting our water resources led to conservation. Significant

**VI. RECOMMENDATION**

The BLM needs to revise the proposed resource management plan amendment to be consistent with New Mexico's current policies and its vision for the future. Therefore, I am recommending the BLM provide the public with an opportunity to comment on my recommendations as provided by 43 C.F.R. §1610.4-1(e); that the BLM hold at least two public meetings, one in Albuquerque and one in Las Cruces, concerning my recommendations; that the BLM continue suspension of leasing and drilling activities during the comment period and review of my proposed alternative; and that the BLM adopt the changes included in my proposed alternative. I will continue to pursue establishment of a National Conservation Area in the Otero Mesa and Nutt grassland habitat areas with New Mexico's congressional delegation.

Signed this 5th day of March 2004.

A handwritten signature in black ink that reads "Bill Richardson". The signature is written in a cursive style with a long, sweeping underline.

**Bill Richardson**  
**Governor of New Mexico**

---