Nomination for the:

Otero Mesa Grasslands Wildlife
Area of Critical Environmental Concern

Submitted by: The Coalition for Otero Mesa

Submitted to: Bureau of Land Management
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I. Introduction on the Need to Protect Otero Mesa Desert Grasslands through an Area of Critical Environmental Concern Designation

The unique and valuable resources of the Otero Mesa desert grasslands merit protection through designation of an Otero Mesa Grasslands Wildlife Area of Critical Environmental Concern (ACEC) comprising 583,837 acres. This area represents an incredible opportunity to preserve one of the last and largest remaining fragments of intact Chihuahuan Desert grasslands in the U.S., along with the many species it supports. Home to a stunning array of grasslands birds, critical colonies of black-tailed prairie dogs, and what is likely New Mexico’s last native pronghorn herd, the area’s extraordinary values are unmatched in the region. The relatively pristine habitat, robust wildlife populations, and large size of the proposed ACEC would ensure more than the mere survival of these species: if designated, the Otero Mesa Grasslands Wildlife ACEC would protect a thriving grassland ecosystem of international importance.

The Federal Land Policy and Management Act (FLPMA) obligates the U.S. Bureau of Land Management (BLM) to “give priority to the designation and protection of areas of critical environmental concern [ACECs].” 43 U.S.C. § 1712(c)(3). ACECs are areas “where special management is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes.” 43 U.S.C. § 1702(a).

BLM’s guidance provides additional detail on the criteria to be considered in ACEC designation, as discussed in the applicable regulations, as well. See, Manual 1613, Section .1 (Characteristics of ACECs); 43 C.F.R. § 8200. An area must possess relevance and importance, and require special management attention to protect its values. The proposed Otero Mesa Grasslands Wildlife ACEC meets the above requirements. BLM should therefore protect this unique landscape with ACEC designation and highly protective management prescriptions.

A critical piece of the regional ecosystem, the proposed Grasslands Wildlife ACEC contains one of the largest tracts of black grama grassland remaining in the Chihuahuan Desert.1 The area provides habitat for a unique pronghorn herd, grassland birds such as northern aplomado falcons, ferruginous hawks and burrowing owls, and 11 black-tailed prairie dog colonies, a formerly widespread species now imperiled in the Southwest.2 The proposed Grasslands Wildlife ACEC also supports a high diversity of cacti and other plants.3 Because of its relatively pristine habitat, the lands within the Grasslands Wildlife ACEC provide additional opportunities to support the restoration of the endangered northern aplomado falcon to the Southwest. This area also offers hope for restoring desert bighorn sheep to their historic range in New Mexico, as several sites on or adjacent

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2Id.
3Id.
to Otero Mesa have been identified as potential reintroduction sites for desert bighorn sheep.\textsuperscript{4}

These natural values have clear importance to the entire region. Once widespread, Chihuahuan desert grasslands are among the most endangered ecosystems in North America today, transformed by drought, livestock grazing, and habitat conversion into desert scrub.\textsuperscript{5} Where grasslands still exist, they are generally too isolated and small to support the full array of wildlife once found on them.\textsuperscript{6} The area included in the nominated Grasslands Wildlife ACEC is the exception, providing vital habitat to a variety of plants and animals uniquely adapted to these rare and fragile desert grasslands.\textsuperscript{7} Many of these values are unique: wildlife officials believe the Grasslands Wildlife ACEC pronghorn population is one of the few, or perhaps the only, herd of native pronghorns remaining in New Mexico.\textsuperscript{8} The area’s prairie dogs are a keystone species, essential for maintaining the integrity and functionality of grassland ecosystems. Approximately 140 vertebrate species benefit from prairie dogs and the habitat they create.\textsuperscript{9} The added opportunities to facilitate the return of aplomado falcon and desert bighorn sheep populations increase the ecological significance of these lands.

The Otero Mesa Grasslands Wildlife ACEC’s incredible values will not endure without special management attention. Oil and gas development threatens the area’s unique ecosystems and wildlife – BLM’s plan allows drilling on 95 percent of the area.\textsuperscript{10} Impacts from such drilling will be ecologically disastrous, including soil compaction and erosion, loss of soil biota, stress on wildlife, change in wildlife movement and activity patterns, increased poaching of wildlife, reduced plant growth, spills and leaks of produced water and drilling chemicals, habitat fragmentation, penetration of the underlying caliche layer, and the introduction of noxious weeds. These impacts will cause even greater damage to wildlife populations struggling to survive.\textsuperscript{11} Though oil

\textsuperscript{4} Id.
\textsuperscript{6} The Last Desert Grasslands, op. cit.
\textsuperscript{7} Id.
\textsuperscript{8} Id. and New Mexico Department of Game and Fish. 2001. Comments on Draft Resource Management Plan Amendment for Fluid Minerals Leasing and Development in Sierra and Otero Counties. Letter dated April 13, 2001. See p. 3.
\textsuperscript{11} Id.; The Last Desert Grasslands, op. cit.; and New Mexico Department of Game and Fish 2001, op. cit.
and gas development remains the largest threat, as we describe in this nomination, target shooting, poor grasslands management, sylvatic plague, habitat fragmentation, and fencing are additional problems requiring special attention. The proposed ACEC would address oil and gas drilling and the rest of these threats.

**Nomination**

Pursuant to FLPMA, 43 U.S.C. § 1701, et seq., the undersigned formally nominate and petition the BLM to designate the below-described area as an ACEC to protect the area’s wildlife and grasslands ecosystem (see Maps 1 & 2). We respectfully submit this nomination as part of the ongoing Tri-Country Resource Management Plan revisions and as interested parties, pursuant to BLM Manual 1617.81B (2000) and section 553(e) and 555(e) of the Administrative Procedures Act, 5 U.S.C. § 553(e) et seq., which grants members of the public an independent right to nominate areas of BLM-administered lands for ACEC designation. We have identified this area, which we refer to as the proposed Otero Mesa Grasslands Wildlife ACEC, as a potential ACEC based on the criteria set out in applicable laws and regulations, and as outlined in BLM Manual 1613.
Map 1. Proposed Otero Mesa Grasslands Wildlife Area of Critical Environmental Concern.
Map 2. Proposed Otero Mesa Grasslands Wildlife Area of Critical Environmental Concern, showing aplomado falcon habitat.
II. The Special Values of Otero Mesa’s Desert Grasslands

a. Introduction: why Otero Mesa needs upgraded protections

As described above, Otero Mesa is ecologically valuable given that it is one of the largest and most intact tracts of Chihuahuan Desert grassland remaining in the U.S. For its part, the Chihuahuan Desert is among the most biodiverse desert ecoregions in the world.\textsuperscript{12} This ecoregion, and Otero Mesa in particular, are internationally recognized as conservation priorities.\textsuperscript{13} Chihuahuan Desert grassland is the most endangered ecosystem or plant community type in North America.\textsuperscript{14} But under the BLM’s management, Otero Mesa’s desert grasslands are imminently threatened with irreversible degradation and loss of their natural values.

Among the most striking natural values on Otero Mesa are the wildlife species that find refuge in this special place. The Mesa’s pronghorn herd appears to be a rare remnant herd, unlike much of the West’s pronghorn herds, which were largely reintroduced after the species was driven to the edge of extinction by market-hunting a century ago.\textsuperscript{15} The black-tailed prairie dog was more intentionally targeted for extermination due to perceived conflicts with ranching. As a result, it is now found in only 2\% of its historic range.\textsuperscript{16} Several prairie dog colonies persist on Otero Mesa and need protection. Grassland breeding birds abound on Otero Mesa, but across their ranges, this guild of birds is the most rapidly declining in North America, likely due to habitat loss.\textsuperscript{17} Finally, the grasslands ecosystem in which these vibrant and vital wildlife species flourish is important to protect in its own right: it is recognized as an increasingly rare habitat type given extensive brush encroachment and other threats.\textsuperscript{18}

As we will demonstrate in a later section, the current ACECs designated on Otero Mesa are too small to adequately represent or protect the area’s natural values. These values are well worth protecting. It is time for the BLM to formally designate a landscape-level ACEC with sufficiently protective management prescriptions to safeguard the valuable and fragile natural values of this special place.

\textsuperscript{13}\textit{Id.}
\textsuperscript{14}\textit{Id.}
\textsuperscript{16}Forest Guardians et al. 2007. Petition to list the black-tailed prairie dog under the Endangered Species Act. Submitted to the U.S. Fish and Wildlife Service on August 1, 2007. See pp. 4-5.
\textsuperscript{18}The Last Desert Grasslands, op. cit.; Hoyt 2002, op. cit.; Pidgeon et al. 2001, op. cit.
b. Pronghorn: a rare remnant herd

The pronghorn (*Antilocapra americana*) is the sole surviving member of a family endemic to North America. The alternate common name, Antelope, is due to the superficial similarity the species has with African antelopes in the Family Bovidae. It is also sometimes called pronghorn antelope. The pronghorn is a member of the Family Antilocapridae and as such is one of the most distinct mammals found in North America. This species was once found from Washington to southern Manitoba south to Baja California and northwestern Mexico. The species was extirpated from much of its range. Historically it was thought that the total population was in the neighborhood of 35,000,000 animals, shrinking to just 20,000 by the 1920’s. Some researchers have estimated the number at 60,000,000 animals. In New Mexico the population in 1926 was only 2,950 animals in 39 groups and found in only 22 of the 33 counties in the state, according to a survey done by J. Stokely Ligon. Ligon reported that the band occupying Otero Mesa in 1926 consisted of only 32 animals and was isolated from all other New Mexico populations.

Of five pronghorn subspecies, two are listed as critically endangered, one occurring only in Baja California and the other in northwestern Mexico and southwestern Arizona. The subspecies found on Otero Mesa is not clear as it could either be *Antilocapra americana americana* or *A. a. mexicana*. The *mexicana* subspecies is listed by the IUCN as conservation-dependent, meaning that the population needs to be monitored carefully as numbers are close to being considered for threatened status.

Overall the species has declined dramatically, from approximately one million individuals in 1983 to less than 700,000 in 1997. While this species almost became extinct a century ago and has recovered somewhat, current numbers are still at less than 3% of the historic numbers. Many of the contemporary threats are potentially even more threatening to the species than those which faced it a century ago. While market hunting is no longer a threat, habitat destruction has more of a long-term impact on the

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20 Id.
23 Byers, op. cit.
24 Findley, J. S., A. H. Harris, D. E. Wilson, and C. Jones, op. cit.
26 Ligon, J. S. 1927. Wild Life of New Mexico. State Game Commission. Santa Fe, NM.
27 Id.
28 Hall and Kelson, op. cit.
species. Current factors limiting pronghorn recovery include fencing (which can restrict access to forage and water sources), poaching, and habitat fragmentation.\textsuperscript{31}

In the Carlsbad area populations have declined in concert with areas which were developed for oil and gas production. A Breeding Bird Route near Lakewood, Eddy County was started in 1979 and has been run annually since 1985, and participants have provided yearly observations of pronghorn numbers. During the past decade many oil and gas wells have been put in this area and some houses have been built. The increased traffic, wells, pads, pipelines, powerlines, etc. have all resulted in a severe decline in the pronghorn population along this route. A population of several hundred has declined to fewer than 2 dozen in recent years.\textsuperscript{32}

From the low point of 32 animals, the Otero Mesa population of pronghorn has recovered nicely but is still well below historic numbers.\textsuperscript{33} Between 1936 and 1957, more than 4,000 pronghorn were transplanted to New Mexico to supplement local populations and to reestablish them in areas of former range. This has complicated the subspecies allocation in several areas. While the reintroductions were occurring across the state, apparently none were released onto Otero Mesa, making this perhaps the only genetically pure population of historic pronghorn in the state of New Mexico.\textsuperscript{34} The uniqueness of this population, its significant decline in numbers from a century ago and the impact oil and gas development has on the species all give weight to protecting this population from further harm.

The following potential threats should be considered when addressing management needs of the Otero Mesa population of pronghorn:

\textbf{Oil and gas development:} In the Carlsbad area, the species has declined in areas that have been developed for oil and gas due to a number of factors. Oil and gas activities result in a great deal of habitat fragmentation, increased road traffic, potential toxic spills, and air pollution. Observations in the Lakewood, New Mexico area have documented a decline in numbers of pronghorn and included animals being hit by vehicles.\textsuperscript{35} In Sublette County, Wyoming, 21 pronghorn were struck by a vehicle in a single accident on January 15, 2007 in the Jonah gas field outside Pinedale. The collision occurred in broad daylight and the driver had apparently obeyed the posted speed limit.\textsuperscript{36}

Additional threats from oil and gas development include increased habitat fragmentation and poaching. Roads, pipelines, powerlines, pads, and other structures will severely degrade Otero Mesa. Many species will be impacted by this infrastructure and activity (some grassland birds in the Lakewood area have declined by over 85%) but pronghorn

\textsuperscript{32}West, S. personal observations on Lakewood Breeding Bird Route, 1979-2007
\textsuperscript{33}Ligon, op. cit.
\textsuperscript{34}Pers. comm. Brian Novosak, NM Department of Game and Fish, February 25, 2008.
\textsuperscript{35}West, op. cit. personal observations on Lakewood Breeding Bird Route, 1979-2007.
will be especially harmed because of their need for open areas and intact habitat.\textsuperscript{37} New road construction will also result in increased human access to pronghorn habitat. This can increase the threat of poaching especially when there is a low level of game law enforcement.

\textbf{Fencing:} Healthy pronghorn populations need large expanses of open land. The species is the fastest terrestrial mammal in North America. Herds have been clocked at 64-72 km/hr (40-45 mph) with a maximum speed of 86.5 km/hr (53.7 mph) over a hard surface.\textsuperscript{38} Fencing can eliminate access to water sources and feeding areas. Death has occurred in some southeastern New Mexico populations when fences were constructed with animals being isolated from food or water.\textsuperscript{39}

While the species has somewhat recovered from a very low population, the threats that confront this species today are no less serious than those of a century ago. As such, it is critical that areas are protected to ensure that this species remains part of our nation and part of our culture. Without doing so we will again see this species gradually drop in numbers and like it did a century ago, and blink out altogether in certain areas. The Lakewood area population has almost died out from healthy numbers just 20 years ago. This could happen on Otero Mesa if oil and gas is allowed to increase and if proactive steps are not taken to protect this population. As currently managed, hunting does not appear to be a threat to this population.

The Otero Mesa Grasslands Wildlife ACEC would do much to secure this unique pronghorn population. With increasing urbanization and habitat fragmentation throughout the West, much of it on prime pronghorn habitat, protecting this area becomes even more critical.

Across the Chihuahuan Desert in the United States and Mexico there are very few expanses of open grassland left such as is found on Otero Mesa and protecting this area with appropriate ACEC stipulations will help preserve this herd.

c. \textit{Black-tailed prairie dog: an imperiled keystone species}

The black-tailed prairie dog (\textit{Cynomys ludovicianus}) is the most common and widespread of five species in the genus \textit{Cynomys}.\textsuperscript{40} They are a member of the Order Rodentia, the largest order of mammals, with over 2,050 species or 40\% of all mammals in the world.\textsuperscript{41} The five species have been one of the most persecuted groups of mammals. All have declined drastically from historic numbers, with one species listed under the Endangered Species Act (ESA) as endangered (Mexican prairie dog, \textit{Cynomys mexicanus}), one listed as threatened (Utah prairie dog, \textit{Cynomys parvidens}), and one designated a candidate for

\textsuperscript{37}Schmidly, op. cit.
\textsuperscript{38}Byers, op. cit.
\textsuperscript{39}New Mexico Department of Game and Fish personnel, pers. comm., with Steve West regarding Lea County population of Pronghorn.
ESA listing (Gunnison’s prairie dog, *Cynomys gunnisoni*).\(^{42}\) Several conservation groups and scientists have petitioned the U.S. Fish and Wildlife Service to list the three unprotected prairie dogs: the black-tailed, Gunnison’s, and white-tailed (*C. leucurus*).\(^{43}\) The Service has acknowledged that protecting prairie dogs is integral to protecting the prairie dog ecosystem.\(^{44}\) The black-tailed prairie dog has declined by as much as 98\% over the past century. At its maximum range, black-tailed prairie dogs once occupied over 1,416,400 square kilometers (546,875 square miles) in 11 western states, southern Canada and Mexico. Historic numbers have been estimated in excess of one billion animals.\(^{45}\)

Members of this genus are not dogs but stout, short-legged and short-tailed colonial squirrels. They are highly social animals and have provided many interesting studies of their behavior.\(^{46}\) They once occurred in large and extensive towns or colonies with one in Texas occupying over 64,000 square kilometers (24,711 square miles or 15.8 million acres).\(^{47}\) The complex social nature found in prairie dogs is unique in mammalian species. Prairie dogs are able to recognize individual humans and have different alarm calls for different predators.\(^{48}\)

Prairie dogs are considered to be a keystone species because they serve as prey and create habitat for a large number of other wildlife species. Researchers have estimated that more than 140 vertebrate species benefit from prairie dogs and their towns. As new studies continue this number will undoubtedly grow.\(^{49}\)

Prairie dog towns on Otero Mesa are critically important to the long term survival of the species and associated wildlife. A review by the Bureau of Land Management showed 11 colonies in the proposed ACEC area with others on the adjacent McGregor Range.\(^{50}\) These colonies, for various reasons, are small and are isolated from any other colonies. The closest ones in New Mexico are in the Roswell and Hobbs area to the far east or ranches to the south of Guadalupe Mountains National Park in Texas. With the exception of reestablished colonies on Gray Ranch in Hidalgo County, the colonies on Otero Mesa and McGregor range are the southwestern-most in New Mexico.\(^{51}\) The species formerly ranged widely across southwestern New Mexico with a study in the early 1900’s showing

\(^{42}\)50 C.F.R. § 17.11; 73 Fed. Reg. 6660-6684.
\(^{44}\)Forest Guardians et al. 2004, Exhibit 1.
\(^{48}\)Long, op. cit.
\(^{49}\)Id.
\(^{50}\)Bureau of Land Management office in Las Cruces, NM, pers. comm. (provided map of all known colonies).
\(^{51}\)Findley, Harris, Wilson, Jones, op. cit.
over 6.4 million of them in Grant County alone.\textsuperscript{52} There are none known in the county now.

Black-tailed prairie dogs are threatened by a wide variety of sources. The following potential threats should be considered when addressing management of the Otero Mesa populations of black-tailed prairie dogs.

**Oil and gas development:** Oil and gas development will fragment habitat for this and other native species on Otero Mesa. Oil exploration and thumping will disturb colonies, in some cases probably collapse burrows, and may harm prairie dog hearing (which is vital to their communication).\textsuperscript{53} Toxins may be released, which will degrade prairie dog habitat and potentially destroy colonies. Regardless of assurances made by the industry, New Mexico has a history of oil and gas spills and a lack of timely and adequate cleanup. Decline of air quality could adversely impact this and any other species.

**Target shooting:** New road construction results in better access to prairie dog colonies. This will increase the threat of target shooting especially when there is a low level of game law enforcement. Currently there is not supposed to be any target shooting of prairie dogs on BLM land in New Mexico but expended shells continue to be found around some colonies. With more human traffic on Otero Mesa and no oversight of what is happening on the ground this problem is only going to get worse.

**Grassland resource management:** Poor grassland management has an impact on a large array of grassland species, including prairie dogs. Better management of grasslands of Otero Mesa will provide a healthier ecosystem for a wide range of species and help halt the encroachment of mesquite and creosote. Scientists have found that prairie dogs maintain grasslands by limiting shrub encroachment through their grazing and clipping.\textsuperscript{54} Better management of grassland resources on Otero Mesa will enable the small colonies of prairie dogs to expand.

**Sylvatic plague:** An extremely serious threat to prairie dog colonies is sylvatic plague, an Old World bacterial disease carried by fleas which first appeared in the New World about 1900. While this disease is impacting many species, colonial prairie dogs are especially at risk. Colonies are frequently wiped out and many of them are never re-occupied.\textsuperscript{55} Many prairie dog towns exist in a delicate balance, and a firestorm of fleas carrying \textit{Yersinis pestis} could easily wipe out the prairie dog towns on Otero Mesa. Recently the prairie dog towns on the Kiowa Grasslands were entirely wiped out.\textsuperscript{56} It is

\textsuperscript{52}Id.

\textsuperscript{53}West, S., personal observations.


\textsuperscript{55}Long, op. cit.

possible that additional human activity (especially shooting and poisoning) and habitat fragmentation may make prairie dogs more vulnerable to this threat.\textsuperscript{57}

Healthy prairie dog towns will benefit a number of other species including those which have declined greatly in recent years. For example, ferruginous hawks feed heavily on prairie dogs, mountain plovers often use prairie dog towns to breed, and burrowing owls nest in prairie dog burrows.\textsuperscript{58} All of these species have been considered for endangered or threatened status previously and currently have very low numbers throughout their range.\textsuperscript{59}

While some prairie species have recovered from low populations over the past century, the prairie dog is one that has not. Outlying colonies continue to die out and that is a very real long-term threat to the Otero Mesa sites. There are few expanses of land left in the Chihuahuan Desert that provide a large landscape for the survival of this species. While the species can live in urban areas, there are constant human threats in those areas. Otero Mesa would provide a landscape for the species that, with proper management, could mimic the natural conditions that existed for this species a century ago.

The Otero Mesa Grasslands Wildlife ACEC proposal will do much to secure the resident populations of prairie dogs. Better management of the grasslands can increase their numbers and assist other species which have declined with the range-wide decrease in prairie dog numbers. With this species having declined by 98\% (and which has been considered for endangered/threatened status), protecting these populations with more protective management and ACEC status will be a positive move for the species and for biodiversity on Otero Mesa.

\textit{d. Grassland breeding birds: songbirds in rapid decline}

The following list and narrative deals with birds which are designated as endangered, threatened, sensitive or species of concern by one or more Federal or State agencies. It should be noted that Breeding Bird Surveys conducted by government biologists and volunteers have shown a serious decline in almost all grassland species over the past 20 years. This includes many of the following species as well as others not listed here. Grasslands such as those on Otero Mesa are important to some of these because they provide breeding habitat (Swainson’s hawk for example), migration habitat (mountain plover), overwintering habitat (Sprague’s pipit), or for habitat for year-round residents (eastern meadowlark and Cassin’s sparrow).

\textsuperscript{57}Nowak, op. cit.
\textsuperscript{58}Long, op. cit.
**Bald eagle, *Haliaeetus leucocephalus***

The bald eagle is known from the general Otero Mesa area as a wintering bird.\(^{60}\) Previous researchers have reported a small wintering population along the south flank of the Sacramento Mountains, especially along the Sacramento River. These individuals are known to occasionally use Otero Mesa where they will sometimes feed on black-tailed prairie dogs.

While this species is not known to nest in the area, for at least some individuals, the open grasslands of Otero Mesa provide important winter habitat.

**Swainson’s hawk, *Buteo swainsoni***

This hawk is a relatively common nesting species across much of the grassland areas of the southwest. They breed from southern Canada to northern Mexico and travel the second longest distance of any raptor in the world from breeding to wintering grounds. The overwhelming majority of them spend the northern winter on the pampas grasslands of South America. In spite of their large numbers, the long distance migration and habitat destruction on both ends of their range make this a vulnerable species. Tens of thousands of these birds died in the mid-1990’s on their wintering grounds because of a particularly deadly pesticide. When raising young they feed primarily on rodents, rabbits and reptiles but at other times feed at a high rate (usually above 40%) on insects.

Some populations of Swainson’s hawks have been able to adapt from prairie to farmland but in some areas populations have declined by as much as 90%. This species needs open grasslands with a minimum of habitat fragmentation in order to sustain numbers in the face of many threats to the species (pesticides, shooting, mortality during migration, etc.).\(^{61}\)

**Ferruginous hawk, *Buteo regalis***

This open country species is highly dependent on grasslands, especially grasslands with prairie dogs. Nesting from southern Canada at least to central New Mexico, this species has declined over much of its range because of prairie conversion to farmland but even more so to the destruction of more than 95% of prairie dogs in North America. Populations fluctuate widely due to prey or lack of prey with the species feeding also on rabbits and ground squirrels. The bird seems especially dependent on prairie dogs in the southern part of their wintering range.

While population declines have been noted mostly along the edges of their range, the species has declined overall. The total world population of the ferruginous hawk is from


approximately 6,000-14,000 individuals. In winter the largest densities are found adjacent to prairie dog towns. In the Carlsbad, Eddy County area of New Mexico, the species was the most common *Buteo* in the 1930’s but is uncommon to rare in that area now, likely due to habitat fragmentation by oil and gas and loss of prairie dog colonies.

It is possible the species once nested on Otero Mesa and might do so again with proper management of habitat. The ferruginous hawk already uses the Otero Mesa area in winter and numbers there are higher than in adjacent areas (Rio Grande Valley, Pecos Valley). Relatively large numbers winter in the area of the large prairie dog towns in the Janos grasslands of northern Chihuahua, Mexico, just south of the Mexico-New Mexico border.

This species, which has declined severely over much of its range and occurs in low population numbers, needs open areas and especially areas with healthy prairie dog towns.\(^{62}\)

**Northern aplomado falcon, *Falco femoralis septentrionalis***

This occupant of Neotropical grasslands from the American southwest to the tip of South America has largely disappeared from the northern part of its range. One small population exists on the eastern coast of Mexico and an even smaller one spans northern Chihuahua, Mexico and southwestern New Mexico.\(^{63}\) Formerly common across the American southwest a variety of factors were probably responsible for its disappearance: egg collecting both for museums and private collections, specimens collected for museums, shooting, and habitat alteration. The species disappeared as a nesting species in the United States about 1950 when the last nest north of the border was found in New Mexico.\(^{64}\)

In the past decade there have been a series of sightings, many of which have been documented with photographs and even a few individuals have returned to nest in southwestern New Mexico. Otero Mesa has been a hotspot for recent sightings: in 2005-2007, there have been at least eight sightings of falcons in this area.\(^{65}\) Furthermore, a predictive model designed by the New Mexico Cooperative Fish and Wildlife Research Unit found much of the area included in the proposed Grasslands Wildlife ACEC to have moderate to high habitat suitability for aplomado falcons (see Map 2).\(^{66}\) Added to this


\(^{65}\)Sighting records on file with WildEarth Guardians.

\(^{66}\)Young, K.E., B.C. Thompson, R. Valdez, W.R. Gould, and A. Lafon Terrazas. 2005. Assessment of predictive values from the aplomado falcon habitat suitability model: validation information for
are many individuals which have been released as a part of a captive breeding program in west Texas and more recently in southern New Mexico. This experiment in cooperation with the US Fish and Wildlife Service has designated all aplomado falcons (even those which have naturally re-colonized their historic range) as an experimental, non-essential population under section 10J of the Endangered Species Act, thereby removing all of the significant habitat protections this listed subspecies would otherwise enjoy. They still cannot be shot or collected but this designation gives land managers more leeway in making land management decisions, including authorizing oil and gas drilling.

This species does best in open grasslands with scattered yuccas and abandoned hawk and raven nests which it uses. Thus, Otero Mesa is a perfect area for this species. They feed largely on medium sized birds (e.g., mourning doves, meadowlarks). Part of the historic decline of this species was probably due to the collapse of many northern prairie bird populations because of conversion of those areas to farmland in the Dakotas, Nebraska and other areas. Many of those species winter in this region and the combination of collecting of eggs and adults, plus shooting for sport or whatever reason, were largely behind the extirpation of this species.

Proper management including protecting potential nest sites and good grass management could result in aplomado falcons eventually nesting on Otero Mesa. The area is within the historic nesting range of the species, there is a good prey base and there are adequate nests of ravens and Swainson’s hawks for them to use as prey. There is hardly a better place north of the border for this species. Added urgency is that the northern Chihuahuan population is under threat from agricultural development and may well disappear in the next few years.

**Peregrine falcon, *Falco peregrinus***

This species uses the Otero Mesa area primarily as a migrant but since it nests sparingly in all surrounding areas it might be expected to nest someday on one of the Cornudas Mountains. Few birds are more cosmopolitan in range than this species yet a generation ago chemical contamination of the environment came close to wiping it out in North America. While the species is best known as feeding on waterfowl, which are limited in numbers of Otero Mesa, they are know to take a very wide variety of birds depending on the area. Doves, swifts, nighthawks, flickers, thrushes, bats and even birds as small as hummingbirds have been taken.  

As a passage area, Otero Mesa is important because of the large expanse with relatively few fences and powers lines and abundant prey. The possibility of the birds nesting in the area should also be seriously considered.

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Mountain plover, *Charadrius montanus*

This species is often difficult to detect, at least in part due to its cryptic plumage and to serious declines in its numbers as grasslands have been converted to farmland or pastureland and prairie dog colonies, on which it nests, have been severely reduced. It formerly nested from extreme southern Canada south to central New Mexico with an isolated population to the south in the Davis Mountains of west Texas. It is likely that the species formerly nested in the intervening habitat, as well. This species depends on short grass prairies where it can see potential predators.

Large wintering concentrations (250+ birds) have been found in nearby Dell City, Texas on the southeastern edge of Otero Mesa and it is likely that the species regularly uses the Mesa at least in overflight. It is highly likely that the species winters in small numbers. They are often found on or adjacent to prairie dog towns, as prairie dog colonies provide important nesting habitat.

The species has been considered for addition to the endangered species list and several provinces and states have considered this designation also. The maximum world population for this species has been estimated to be as low as 5,000 individuals, just a small fraction of what must have been the historical population and what is needed to ensure the survival of this species into the foreseeable future.

Burrowing owl, *Athene cunicularia*

Burrowing owls are closely associated with prairie dog towns although many far west populations occur in areas where prairie dogs do not occur. The populations in the Great Plains are more frequently found in association with prairie dog towns and as prairie dogs have declined, so have burrowing owls.

Probably because of the open space and several prairie dog towns, burrowing owls occur in high densities on Otero Mesa. Any change to land practices will cause these numbers to drop as would removal of any of the prairie dog towns.

In many of the areas where the species has declined the Burrowing Owl is listed as endangered (Minnesota, Iowa) or of “special concern” (Washington, Oregon, California, Montana, Wyoming, North Dakota, Florida, Idaho, Oklahoma, Oregon, South Dakota and Utah). In a recent survey of states and provinces, it was felt to be declining in over half of the entities. None reported it as increasing.

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71 *Id.*
(Southwestern) willow flycatcher, *Empidonax traillii extimus*

This subspecies of the common and widespread willow flycatcher is listed as Endangered by the US Fish and Wildlife Service. It formerly bred across much of the southwestern US from California at least to west Texas and north to Utah. As riparian areas were converted to agriculture and urban settings, the species declined. Other reasons for the decline include exotic species and cowbird parasitism.72

This species does not breed on Otero Mesa but individuals of this species (and probably this subspecies) use Otero Mesa as a passage area in migration. The world population of this subspecies is thought to be less than 1,000 individuals.

**Loggerhead shrike, *Lanius ludovicianus***

This widespread North American species has suffered serious declines across much of its range and is on numerous state endangered, threatened or watch lists. In much of the southwest populations seem to be somewhat stable. Across much of southern New Mexico and west Texas, the loggerhead shrike can be found some of the highest wintering densities of this species.73

On Otero Mesa this species is widespread and is found in open grassland areas as well as in brushy areas where it nests. It requires a steady supply of insects on which it primarily feeds but will also take small vertebrates on occasion.

**Bell’s vireo, *Vireo bellii***

This species is listed as endangered in New Mexico and in several other states. Its range on Otero Mesa is marginal but it has been found regularly in arroyos with shrubby vegetation. While not a true grassland species, it undoubtedly forages on insects that use surrounding grassland.74 Many of the areas this species has been found in are surrounded by grassland and for convenience would be included within a broad designation protecting Otero Mesa grasslands.

**Sprague’s pipit, *Anthus spragueii***

Sprague’s Pipit is another grassland breeding bird species that has declined precipitously with the conversion of those areas to agriculture and other uses. Because of its cryptic plumage and habits it is still considered to be one of the least known birds in North America. It breeds in the northern Great Plains from South Dakota to Saskatchewan and

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winters widely from Arkansas to central Arizona and then south to central Mexico. This much larger winter range makes it even more difficult to understand the bird on its wintering grounds. There has been significant contraction of the breeding range as those areas are converted to other uses, overgrazed, or invaded by exotic species.75

This species is known as a regularly occurring species on Otero Mesa in spring and fall and in smaller numbers through the winter. Because of the difficulty in finding this bird it is likely it is more widespread on Otero Mesa than is currently known.

Cassin’s sparrow, *Aimophila cassinii*

The Cassin’s sparrow is dependent on intact grasslands and because of this its numbers can fluctuate widely from year to year based on rainfall and overgrazing.76 Large populations occur in some years on Otero Mesa. As with many other grassland species, this species has declined over much of its range but in some places, but in places such as Otero Mesa, populations still seem healthy. In areas near Carlsbad where very dense populations were once found, most of the birds disappeared after habitat fragmentation by oil and gas activities.

Baird’s sparrow, *Ammodramus bairdii*

Once considered to be one of the most common of northern prairie birds, this species has declined severely. Its breeding range was originally from southern Alberta southeast to South Dakota with wintering populations from southeastern Arizona to north-central Mexico. Some of the breeding range has contracted and throughout all of its breeding and wintering range densities are much lower than before. Breeding Bird Surveys showed a yearly average decline from 1966-79 of -4.7%. It is listed as threatened in Canada.77

While Baird’s sparrows pass through New Mexico, the majority go undetected. In recent years studies have shown them to winter on Otero Mesa grasslands. This area with large expanses of native grass and relatively minor habitat fragmentation offers ideal wintering range for this declining species. In other areas where it is known to winter this broad, intact landscape is not available to them, as habitat degradation (including northern Mexico) continues to occur.

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A fundamental trait making Otero Mesa so priceless is its vast unroaded acreage. According to mapping by the New Mexico Wilderness Alliance conducted in accordance with federal guidelines, over half a million acres in the Otero Mesa area qualify for wilderness designation.

This low road density makes possible the persistence of a natural ecosystem bounding with biodiversity. In addition to the wildlife we have previously discussed, other wildlife using Otero Mesa includes mountain lions, mule deer, badgers, bobcats, some 250 bird species, reptiles, and butterflies. The habitat sustaining this broad suite of animal life comprises extensive stretches of black grama, ocotillo, 25-foot-tall yucca, prickly pear, a high diversity of cacti, and an array of wildflowers. The predominant soils are light, shallow, and sandy, and are extremely vulnerable to erosion when vegetation is denuded.

The Chihuahuan Desert is one of the most biodiverse desert ecoregions in the world, with plant diversity second only to the Namib-Karoo deserts of southwestern Africa. Otero Mesa boasts outstanding plant diversity, including a high variety of cacti. Plants on Otero Mesa includes including a number of rare species such as Guadalupe mescalbean (*Sophora gypsophila var. gaudalupensis*), Guadalupe needlegrass (*Stipa curvifolia*), the gray sibara (*Sibara grisea*), the cliff nama (*Nama xylopodum*) and the five-flower rockdaisy (*Prityle quinqueflora*).

The distinctness of Otero Mesa as a key biodiversity hotspot is coupled with its potential attractiveness to area residents and visitors as a scenic landscape, the value of which would be degraded with oil and gas and other activities that cause habitat loss. In short, Otero Mesa is unique, valuable, and urgently needs protection.

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79 The Last Desert Grasslands, op. cit.
III. The Bureau of Land Management’s Requirements on Designating Areas of Critical Environmental Concern

The Federal Land Policy and Management Act (FLPMA) obligates the BLM to “give priority to the designation and protection of areas of critical environmental concern [ACECs].” 43 U.S.C. § 1712(c)(3). As demonstrated in this proposal, the proposed Otero Mesa Grasslands Wildlife ACEC meets the requirements for ACEC designation. Having been informed of these special values and their need for protection, it is BLM’s obligation to give priority to designation and protection of an Otero Mesa Grasslands Wildlife ACEC in the Tri-County RMP revision.

BLM’s ACEC Manual (1613) provides additional detail on the criteria to be considered in ACEC designation, as discussed in the applicable regulations, as well. See, Manual 1613, Section .1 (Characteristics of ACECs); 43 C.F.R. § 8200. An area must possess relevance (such that it has significant value(s) in historic, cultural or scenic values, fish & wildlife resources, other natural systems/processes, or natural hazards) and importance (such that it has special significance and distinctiveness by being more than locally significant or especially rare, fragile or vulnerable). In addition, the area must require special management attention to protect the relevant and important values (where current management is not sufficient to protect these values or where the needed management action is considered unusual or unique), which is addressed in special protective management prescriptions. Once these criteria are met, then designation of the ACEC is required.

The Manual also sets out more specific requirements for how consideration of ACECs should be conducted during the land use planning process. Manual 1613 specifically requires that each area recommended for consideration as an ACEC, including when externally nominated, be considered by BLM, through collection of data on relevance and importance, evaluation by an interdisciplinary team and then, if they are not to be designated, the analysis supporting the conclusion “must be incorporated into the plan and associated environmental document.” Manual 1613, Section .21 (Identifying Potential ACECs).

Once the relevant and important values are identified, along with a need for special management attention, the designation and management prescriptions are required to ensure protection of these special values. Management prescriptions are to be “fully developed” in the RMP. Manual 1613, Section .22 (Develop Management Prescriptions for Potential ACECs). BLM’s guidance on this issue includes size requirements and mineral withdrawal. Manual 1613, Section .22.B.2 (Size of area to receive special management attention) states that an ACEC is to be as large as is necessary to protect the important and relevant values. The ACEC Manual explicitly recognizes mineral withdrawal as an appropriate management prescription for protecting ACEC values. 1613, Section .33.C (Provision for Special Management Attention).
IV. The Proposed Otero Mesa Grasslands Wildlife Area of Environmental Concern Meets Legal Requirements

The incredible resources, pristine habitat, and large size of the proposed Otero Mesa Grasslands Wildlife ACEC offer an unmatched opportunity for landscape-level protection of Chihuahuan Desert grasslands. The area would thrive under proper protective management as an ACEC. Protective management is critical, as without protection these fragile resources will be lost to fragmentation, degradation, and outright destruction. The special values of this crucial and fragile ecosystem meet the requirements for ACEC designation: relevance, importance, and the need for special management to protect the area’s resources. BLM acknowledged the value of part of the proposed ACEC in the ROD for the RMP Amendment for Federal Fluid Minerals Leasing and Development in Otero and Sierra Counties (Oil and Gas RMP Amendment), restricting leasing on 121,000 acres to protect grasslands habitat and closing three aplomado falcon habitat zones within the grasslands to leasing. Having already determined the value of the core of this area, and having been apprised of the valuable resources of the surrounding lands, BLM should, as part of the ongoing Tri-County RMP revision, designate the proposed Otero Mesa Grasslands Wildlife ACEC.

a. BLM has Already Acknowledged the Value and Need for Protection of the Resources of the proposed Otero Mesa Grasslands Wildlife ACEC

The value of 105,000 acres of the proposed Otero Mesa Grasslands Wildlife ACEC is well-described in the Questions and Answers page of BLM’s ROD for the Oil and Gas RMP Amendment. The Q&A states:

BLM developed a variety of protections for Chihuahuan desert grasslands within the planning area, including permanent protection for 35,790 acres of potential habitat for the endangered Aplomado falcon. BLM determined that the Otero Mesa area in southern Otero County and the Nutt Grasslands in southern Sierra County represented important grasslands with values as wildlife and special status species habitat. The most intact portions of these two areas combined, encompass approximately 121,000 acres. Within that, BLM identified three separate parcels as representing potential Aplomado falcon habitat.

The Q&A also describes the protective management prescriptions for the area:

In order to provide future opportunities for this endangered species [northern aplomado falcon] to occupy these areas (there are currently no resident populations in either county), BLM closed the potential habitat areas to leasing.

In the remainder of the grassland areas, leasing will be allowed, but under several constraints. Newly leased lands will have a stipulation that limits surface disturbance to 5 percent of the lease and also requires that lessees form an

exploratory unit prior to development of their leases. A unique feature of the unitization requirement is it will require greater planning and coordination of development activities on the part of the oil and gas industry. There will be less surface disturbance because BLM will be working with one unit operator rather than numerous lease holders and therefore avoid the disturbance that comes from the duplication of wells, pipelines, and roads.

The justification for protective stipulations is expanded in the ROD, p. B6: “The Otero Mesa and Nutt areas contain large blocks of generally undisturbed Chihuahuan Desert Grassland habitat that are important to the maintenance of numerous desert grasslands species that inhabit them.” The ROD approached the need for protection by applying a stipulation for controlled surface use in the grasslands.

b. The Existence of Other ACECs and Special Management Areas on Otero Mesa Highlight the Many Important Values of the Grasslands, but do not Provide Adequate Protection for this Ecosystem.

The 1986 White Sands Resource Management recognized some of the values described in this ACEC proposal. The plan included the Sacramento Escarpment ACEC, the Alamo Mountain Petroglyphs area, and the Alamo Mesa pronghorn area, as well as forage and population increase projections for pronghorn and mule deer. In the 1997 Otero County RMP Amendment, six ACECs were designated; these were also reiterated in the 2005 Oil and Gas RMP Amendment. An overview of each existing ACEC, the values for which it was designated and applicable management prescriptions is provided below:

(1) Three Rivers Petroglyph Site ACEC – approximately 1,036 acres - nominated to protect and manage cultural resources.
   Management prescriptions:
   – closure to mineral entry,
   – ORVs limited to designated roads and trails,
   – acquisition of State trust land through a cooperative land exchange,
   – acquisition of private subsurface mineral estate from a willing seller,
   – issuance of realty actions subject to protective stipulations,
   – improvement and protection of riparian areas,
   – improvement of recreation facilities,
   – closing of county road B031, except for administrative and ranch access following relinquishment by Otero County,
   – management of fire for maximum fire suppression and use of prescribed fire, and
   – fencing of the ACEC boundary.

(2) Sacramento Escarpment ACEC – 5,365 acres – designated for protection and management
   Management prescriptions:
   – closure to all forms of mineral development,
VRM Classes I and II,
ORVs limited to designated roads and trails,
closure of approximately 5 miles of redundant roads and trails (including closure of approximately \(\frac{1}{4}\) mile of road in San Andres Canyon, except for administrative and ranch pipeline maintenance access),
limitations or exclusion of new realty actions,
exclusion of rights-of-way,
acquisition of access easements and private land from a willing seller,
improvement and protection of riparian areas,
permitting of existing spring developments, and
management of fire for conditional least-cost suppression with no surface disturbance in Visual Class I or arroyo areas. Prescribed fire could be used for vegetation management, if needed.

(3) Cornudas Mountain ACEC – approximately 850 acres - nominated to protect and manage visual resources, cultural resources, and sensitive plants.
Management prescriptions:
closure to all forms of mineral development,
VRM Class I,
ORVs limited to designated roads and trails,
closure to the establishment of new roads and trails,
exclusion of the area from authorization of rights-of-way,
permitting of other realty actions subject to protective stipulations,
closure to vegetation sales,
management of barbary sheep,
designation of a BLM sensitive species,
allowing public access to portions of the ACEC by permit,
closure to camping, and
fire management for conditional least-cost suppression with no surface disturbance and no use of slurry or blading in certain areas.

(4) Alamo Mountain ACEC – approximately 2,690 acres - nominated to protect and manage visual and cultural resources.
Management prescriptions:
closure to all forms of mineral development,
VRM Class I,
ORVs limited to designated roads and trails,
exclusion of the area from authorization of rights-of-way,
permitting of other realty actions subject to protective stipulations,
closure to vegetation sales,
management of barbary sheep,
designation of a BLM sensitive species,
establishment of a vehicle parking area,
closure to camping in portions of the ACEC, and
fire management for conditional least-cost suppression with no surface disturbance and no use of slurry or blading in certain areas.
(5) Wind Mountain ACEC – approximately 2,506 acres - nominated to protect and manage visual resources, cultural resources, and unique and sensitive plants and animals.

Management prescriptions:
- closure to all forms of mineral development,
- VRM Class I,
- ORVs limited to designated roads and trails,
- exclusion of the area from authorization of rights-of-way,
- permitting of other realty actions subject to protective stipulations,
- closure to vegetation sales,
- management of barbary sheep,
- designation of a BLM sensitive species, and
- fire management for conditional least-cost suppression with no surface disturbance and no use of slurry or blading in certain areas.

(6) Alkali Lakes ACEC – approximately 6,359 acres - nominated to protect and manage endangered and sensitive plants and the plant community in which they occur.

Management prescriptions:
- Closure to all forms of mineral development,
- VRM Class III,
- ORV use limited to within 30 feet of the center line of designated roads and trails,
- exclusion of the area from authorization of rights-of-way,
- permitting of other realty actions subject to protective stipulations,
- acquisition of State trust land through a cooperative land exchange,
- closure to vegetation sales,
- closure to camping and the use of campfires, and
- fire management for conditional least-cost suppression with no surface disturbance and no use of vehicular equipment off of established roads and trails.

The designation of these ACECs and the protective management prescriptions (including closures of all six to oil and gas leasing and to geophysical exploration) underscore the BLM’s recognition of the values of the Otero Mesa area and the need to impose restrictive management to maintain them. However, the existing ACECs were designated for subsets of the values of these grasslands and, as a result, are too small to provide the landscape-level management needed to ensure that these Chihuahuan desert grasslands thrive.

c. The Grassland and Wildlife Resources of the Proposed Otero Mesa Grasslands Wildlife Meet the ACEC Relevance Requirements.

A critical piece of the regional ecosystem, the proposed Grasslands Wildlife ACEC contains one of the largest tracts of black grama grassland remaining in the Chihuahuan
Desert. The area provides habitat for a unique pronghorn herd, grassland birds such as ferruginous hawks and burrowing owls, and 11 black tailed prairie dog colonies, a formerly widespread species now uncommon in the Southwest. The proposed Grasslands Wildlife ACEC also supports a high diversity of cacti and other plants. Because of its pristine habitat, the lands within the Grasslands Wildlife ACEC provide additional opportunities to support the recovery of the endangered northern aplomado falcon in the Southwest. This area also offers hope for restoring desert bighorn sheep to their historic range in New Mexico, and several sites on or adjacent to Otero Mesa have been identified as potential reintroduction sites for desert bighorn sheep. The importance of these values is furthered by their presence in a currently functioning ecosystem.

d. The Grasslands and Wildlife Resources of the Proposed Otero Mesa Grasslands Wildlife ACEC Meet the ACEC Importance Requirements.

Pronghorn

Otero Mesa’s rare remnant pronghorn herd is of critical importance to both the local ecosystem and as a sustainable population of a species which is still struggling to return to historic numbers. As detailed in Section II, the uniqueness of this population, its huge decline in numbers from a century ago and the impact oil and gas development has on the species all give weight to protecting this population from further harm.

Black-tailed Prairie Dog

As described in Section II, the black-tailed prairie dog colonies of the proposed Otero Mesa Grasslands Wildlife ACEC play a crucial role in the ecosystem health of the region, and are an important population of a species that has seen drastic decline from historic numbers. With this species having declined by 98% (and having been considered for endangered/threatened state), protecting this population with better management and ACEC status will fulfill BLM’s obligations to protect the area’s rich wildlife resources.

Aplomado Falcons and other Grassland Birds

Home to over a dozen species designated as endangered, threatened, sensitive or species of concern by one or more federal or state agencies, Otero Mesa is a critical safe haven for grassland birds, which have shown a serious decline in almost all species over the past 20 years. Otero Mesa’s grasslands are especially important because they provide habitat for different birds in all phases of life: breeding habitat for some, migration habitat for others, overwintering habitat for still others, and even habitat for year-round residents.

Bighorn Sheep

The proposed Otero Mesa Grasslands Wildlife ACEC also offers hope for restoring desert bighorn sheep to their historic range in New Mexico, and several sites on or adjacent to Otero Mesa have been identified as potential reintroduction sites for desert bighorn sheep.
Rare plants

Otero Mesa boasts outstanding plant diversity, including a high variety of cacti. Plants on Otero Mesa includes including a number of rare species such as Guadalupe mescalbean (*Sophora gypsophila var. gaudalupensis*), Guadalupe needlegrass (*Stipa curvifolia*), the gray sibara (*Sibara grisea*), the cliff nama (*Nama xylopodum*) and the five-flower rockdaisy (*Prityle quinqueflora*).

\[ e. \text{ The Need for Special Management to Protect the Resources of the Proposed Otero Mesa Grasslands Wildlife ACEC.} \]

The rich wildlife and grassland resources of the proposed Otero Mesa Grasslands Wildlife ACEC will not persist without protective management. Impacts from oil and gas development, target shooting, poor grasslands resource management, sylvatic plague, habitat fragmentation, and fencing all threaten the area’s vibrant ecosystem. Evidence of devastating impacts to surrounding areas that lack protection makes the need for special management stipulations clear.

*Oil and Gas Development*

Impacts from drilling rigs, road construction, truck traffic, noise, air and water pollution, and habitat fragmentation pose serious threats to all of the area’s wildlife. The effects of oil and gas development on unprotected lands are clear, and devastating. In the Carlsbad area populations have declined in concert with areas which were developed for oil and gas production. A Breeding Bird Route near Lakewood, Eddy County was started in 1979 and has been run annually since 1985, and participants have also provided yearly surveys of pronghorn numbers. During the past decade many oil and gas wells have been put in this area and some houses have been built. The increased traffic, wells, pads, pipelines, powerlines, etc. have all resulted in a several decline in the pronghorn population along this route. A population of several hundred has declined to fewer than 2 dozen in recent years.

Oil and gas also has serious impacts to black-tailed prairie dog colonies, habitat fragmentation among the most important. Oil exploration and thumping will disturb colonies and in some cases probably collapse burrows. Toxins will inevitably be released, which will also degrade the habitat and potentially destroy colonies. Regardless of assurances made by the industry, New Mexico has a history of oil and gas spills and a lack of timely and adequate cleanup. Decline of air quality will impact this and all other species in the area.

*Other Threats*

- Poaching: New road construction related to oil and gas development results in better access to pronghorn habitat. This can increase the threat of poaching, especially when there is a low level of game law enforcement.
- Habitat Fragmentation: Roads, pipelines, powerlines, pits, pads and other structures will completely degrade Otero Mesa. Many species will be impacted by this (some grassland birds in the Lakewood area have declined by over 85% after oil and gas development) but pronghorn will be especially harmed because of their need for open areas.

- Fencing: Healthy pronghorn populations need large expanses of open land. The species is the fastest terrestrial mammal in North America. Herds have been clocked at 64-72 km/hr (40-45 mph) with a maximum speed of 86.5 km/hr (53.7 mph) over a hard surface. Fencing can eliminate access to water sources and feeding areas. Death has occurred in some southeastern New Mexico populations when fences were constructed with animals being isolated from food or water.

- Target Shooting: New road construction related to oil and gas development results in better access to prairie dog colonies. This will increase the threat of target shooting especially when there is a low level of game law enforcement. Currently there is not supposed to be any target shooting of prairie dogs but expended shells continue to be found around some colonies. With more human traffic out there and no oversight of what is happening on the ground this is only going to get worse.

- Sylvatic Plague: An extremely serious threat to prairie dog colonies is sylvatic plague, an Old World bacterial disease carried by fleas which first appeared in the New World about 1900. While impacting many species, colonial prairie dogs are especially at risk. Colonies are frequently wiped out and many of them are never re-occupied. Many prairie dog towns exist in a delicate balance and a firestorm of flees carrying Yersinis pestis could easily wipe out the prairie dog towns on Otero Mesa. Recently the prairie dog towns on the Kiowa Grasslands were entirely wiped out. If Otero Mesa’s prairie dog populations are protected by an ACEC, BLM may be more likely to manage plague through use of insecticide, as well as curtail other threats to prairie dogs such as shooting and poisoning.

- Poor Grasslands Resource Management: Poor grassland management has an impact on a large array of grassland species including prairie dogs. Better management of grasslands of Otero Mesa will provide a healthier ecosystem for a wide range of species. Better management of grassland resources on Otero Mesa will enable the small colonies of prairie dogs to expand.

- Off-Road Vehicles: ORV use causes habitat fragmentation and destruction.

The combined effect of these threats will be destruction of the incredible wildlife and grassland resources of the proposed Otero Mesa Grasslands Wildlife ACEC.
f. Recommendation

BLM has already acknowledged the resource values of the core of the proposed Otero Mesa Grasslands Wildlife ACEC and created special management stipulations to protect these fragile values in small portions of the area. Unfortunately, given the threats detailed above, the current management approach does not provide adequate protection for the Chihuahuan desert grasslands and species they support. Having been apprised of the relevant and important resource values of the surrounding area and their need for special management to protect them, BLM must follow its FLPMA and BLM ACEC Manual directives to prioritize designation of an ACEC to protect these resources and values.
V. Recommended Boundaries & Management Prescriptions for the Proposed Otero Mesa Grasslands Wildlife Area of Critical Environmental Concern

The diverse grassland and wildlife resources of the proposed Otero Mesa Grasslands Wildlife ACEC require special management prescriptions for their protection, and FLPMA and the BLM ACEC Manual direct the agency to prioritize such protection. As discussed above, BLM’s Manual requires an ACEC be designated in a size sufficient to protect the relevant and important values. To protect and enhance this functioning grassland ecosystem, a substantial size is required. We have determined the appropriate boundaries for this ACEC as shown on the attached map. Our nominated ACEC encompasses 583,837 acres, including federal, state, and private lands (Table 1).

<table>
<thead>
<tr>
<th>Land ownership</th>
<th>Acreage</th>
<th>Proportion of ACEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLM</td>
<td>411,868</td>
<td>70.5%</td>
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<tr>
<td>U.S. Department of Defense</td>
<td>14,682</td>
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<tr>
<td>State</td>
<td>104,812</td>
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<tr>
<td>Private</td>
<td>52,475</td>
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</tr>
<tr>
<td>Total</td>
<td>583,837</td>
<td>100%</td>
</tr>
</tbody>
</table>

The ACEC prescriptions we outline below would apply only to BLM lands. The BLM should include the goal of acquiring lands within the nominated ACEC in order to preserve and restore its grassland wildlife values and of not disposing of land within the ACEC. In addition, the BLM should pursue cooperative agreements with the Department of Defense, the State Land Office, and private landowners to better protect the irreplaceable natural features of this ACEC.

BLM’s Manual also requires that management prescriptions for an ACEC be included in the RMP and specifically contemplates that mineral withdrawal may be necessary to protect ACEC values. The management prescriptions below should be included as part of the Otero Mesa Grasslands Wildlife ACEC designation.

Management Objectives and Goals:
Manage to protect, restore, and maintain a functioning grassland ecosystem containing all of its native fauna and flora, minimizing habitat fragmentation and other activities that interfere with healthy habitat and native vegetation.

Proposed Management Prescriptions:
Mineral leasing:
- Closed to future oil and gas leasing.
- When existing leases expire, the lands will not be re-leased.
- Existing leases can only be drilled with no surface occupancy within the ACEC and closed loop systems.
- BLM should work to retire existing leases.

Closed to mineral sales.

Vegetative Management/Grazing:
– Restoration of grasslands to a vibrant, native condition, then protecting and maintaining that condition will be the primary focus of vegetative management activities.
– Grazing will be permitted to continue to the extent that the BLM determines that grazing is compatible with protection, restoration and maintenance of the grassland ecosystem for the primary purpose of providing functional habitat for the wildlife for which this ACEC is designated.
– The BLM will develop a monitoring plan to ensure early detection of wildlife/livestock conflicts and will conduct annual monitoring. Any conflicts will be resolved in favor of wildlife, including limitations on livestock numbers and seasons of use, as well as the use of livestock exclosures.

Hunting:
– Hunting is authorized in the ACEC so long as wildlife populations are viable.
– The BLM will develop a monitoring plan, conduct annual monitoring of hunted populations, and adjust permitted hunting levels to maintain robust wildlife populations.
– Hunting will be limited to wildlife with regular seasons identified by the New Mexico Department of Game and Fish; hunting of other species is prohibited.
– Trapping is not permitted.
– Use of lead bullets is prohibited.
– Off-road vehicle use in conjunction with hunting is prohibited.

Management of other natural resources:
– Prairie dog shooting and poisoning is prohibited.
– Collection or hunting of any vertebrate and invertebrate fauna is prohibited, except for collection activities directly associated with university research; a permit from the BLM is required for collection of any rare (e.g., S1-S3, G1-G3) flora species.
– Flora collection is prohibited except for collection activities directly associated with university research or herbariums; a permit from the BLM is required for collection of any rare (e.g., S1-S3, G1-G3) plant species.

Travel management:
- Motorized and mechanized travel is limited to existing roads.
- Only roads designated in the RMP as open will be available for use.
- A road is defined as a linear route, improved and maintained by mechanical means, which is suitable for public travel by means of four-wheeled, motorized vehicles intended primarily for highway use.
- No new roads or trails for motorized or mechanized use will be constructed.
- Camping, hiking and horseback riding are authorized throughout the ACEC, subject to closures where the BLM determines that wildlife habitat is or will be significantly impacted.
- The BLM will develop a monitoring plan for effects of non-motorized use, conduct annual monitoring and limit use if significant adverse effects to wildlife habitat occur or are likely to occur.

Habitat restoration is authorized, using native vegetation. However, use of herbicides and pesticides is restricted as a means of a last resort: manual and mechanical methods and the use of fire are strongly preferred.
Exclusion of rights-of-way and no new utility or communication facilities.


Visual Resource Management: Class II (which strives to “maintain the existing character of the landscape”).

Campfires are prohibited.

Fire management will be conducted with minimum impact suppression techniques that are projected to incur the least cost of suppression and the least loss of resource values.

Federal lands within the ACEC will not be available for disposal and the BLM will seek to acquire state or federal lands within the ACEC.

**BLM should designate an ACEC with the boundaries outlined in Map 1 and adopt the management prescriptions set out above to protect, restore and maintain a functioning grassland ecosystem, minimizing habitat fragmentation and other activities that interfere with healthy habitat and native vegetation in the nominated Otero Mesa Grasslands Wildlife ACEC.**