

## FINDING OF NO SIGNIFICANT IMPACT/RATIONALE

### DOI-BLM-NM-P010-2010-042-EA

**FINDING OF NO SIGNIFICANT IMPACT:** I have reviewed this environmental assessment including the explanation and resolution of any potentially significant environmental impacts. I have determined the proposed action will not have significant impacts on the human environment and that preparation of an Environmental Impact Statement (EIS) is not required.

**Rationale for Recommendations:** The proposed action would not result in any undue or unnecessary environmental degradation. The proposed action will be in compliance with the 1007 Roswell Resource Management Plan and Record of Decision and the 2001 New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management.

/s/ J H Parman  
J H Parman  
Acting Assistant Field Manager Resources

6/9/10  
Date

**Proposed Decision:** It is my decision to implement the proposed action as described in DOI-BLM-NM-P010-2010-042-EA and issue grazing permits for allotments analyzed in this document. The mitigation measures identified in the attached EA have been formulated into terms and conditions that will be attached to the grazing permits. This decision incorporates, by reference, those conditions identified in the attached Environmental Assessment.

**Rationale:** Based on the rangeland health assessments (RHAs) and previous monitoring, resource conditions on these allotments are sufficient and sustainable to support the level of use outlined in the ten (10) year grazing permit. The Proposed Action is in conformance with the 1997 Roswell Resource Management Plan, and the 2001 New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management.

**Right of Protest and Appeal:** If you wish to protest this proposed decision, you are allowed 15 days from receipt of this notice within which to file a protest with the Field Manager, Bureau of Land Management, 2909 West 2<sup>nd</sup>, Roswell, NM 88201, under Sec. 43 CFR 4160.1 and 4160.2. This protest should specify, clearly and concisely, why you think the proposed action is in error.

In the absence of a protest within the time allowed, the above decision shall constitute my final decision, in accordance with 43 CFR 4160.3 (a). In accordance with 43 CFR 4160.3(b) upon a timely filing of a protest, after a review of protests received and other information pertinent to the case, the authorized officer shall issue a final decision.

Any applicant, permittee, lessee or other person whose interest is adversely affected by the final decision may file an appeal in accordance with 43 CFR 4.470 and 43 CFR 4160.4. The appeal must be filed within 30 days following receipt of the final decision, or within 30 days after the date the proposed decision becomes final as provided for in 43 CFR 4160.3(a). The appeal may be accompanied by a petition for a stay of the decision. The appeal and petition for a stay must be filed in the office of the authorized officer, as noted above. The appeal shall clearly and concisely state the reasons why the appellant thinks the final decision is in error, and otherwise complies with the provisions of 43 CFR 4.470.

Appeals can be filed at the following address:

Field Office Manager  
Bureau of Land Management  
Roswell Field Office  
2909 West Second Street  
Roswell, NM 88201

ENVIRONMENTAL ASSESSMENT

GRAZING AUTHORIZATIONS

For

ALLOTMENT 64064  
South 13 Mile Draw

Grazing  
Allotment

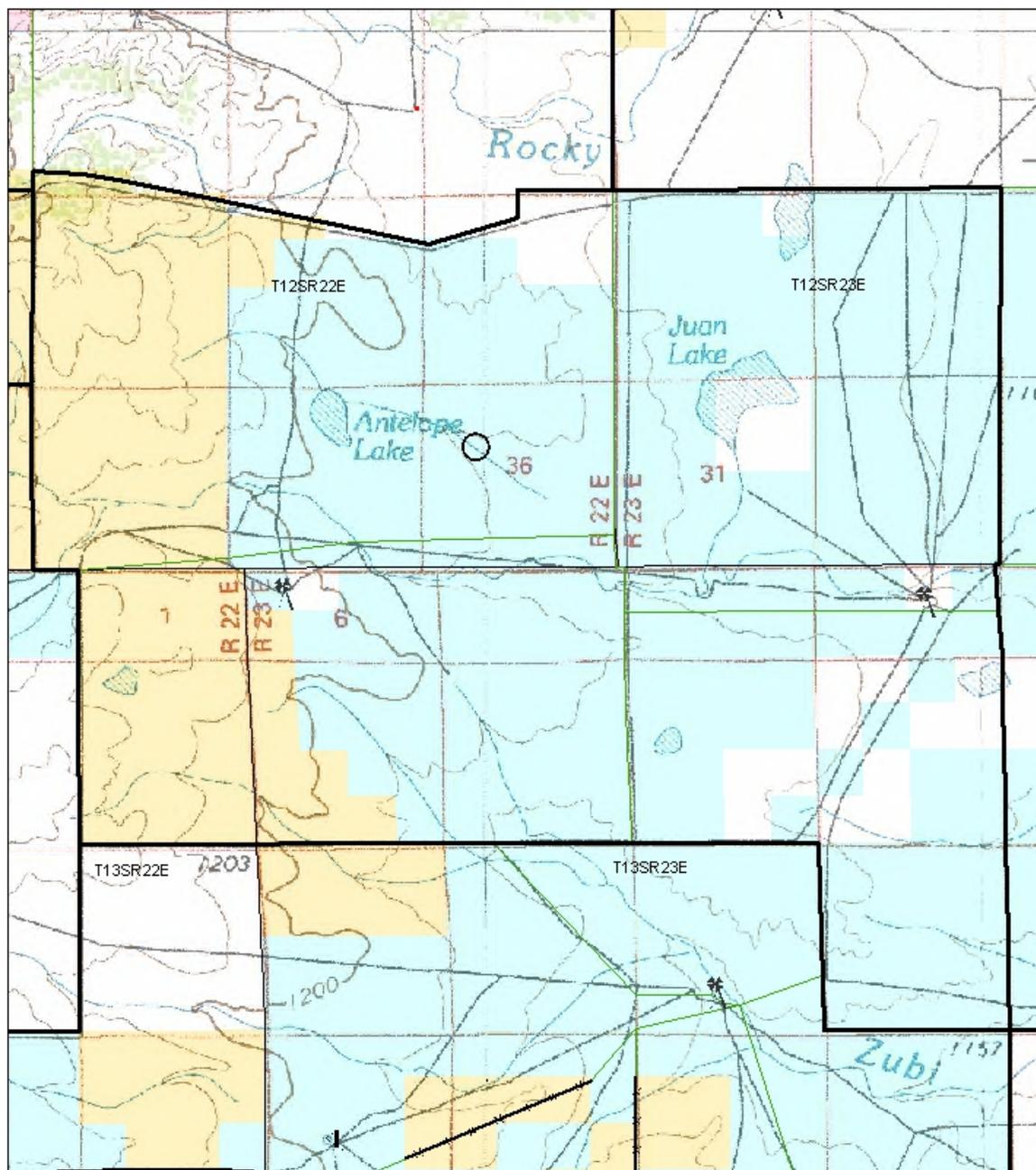
DOI-BLM-NM-P010-2010-042-EA

November 2009

U.S. Department of the Interior  
Bureau of Land Management  
Roswell Field Office  
Roswell, New Mexico



# - 64064 - South 13 Mile Draw -



0 0.2 0.4 0.8 1.2 Miles

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## **I. BACKGROUND**

### **Purpose And Need For The Proposed Action**

The purpose of issuing a new grazing permit would be to authorize livestock grazing on public range on Allotment 64064 South 13 Mile Draw. When authorizing livestock grazing on public range, the Bureau of Land Management (BLM) must conduct a site-specific NEPA analysis before issuing a permit to authorize livestock grazing. This environmental assessment fulfills the NEPA requirement by providing the necessary site-specific analysis of the effects of issuing a new grazing permit on this allotment. The permit would be needed to specify the types and levels of use authorized, and the terms and conditions of the authorization pursuant to 43 CFR §§4130.3, 4130.3-1, 4130.3-2, and 4180.1.

The scope of this environmental assessment is limited to the effects of issuing a new grazing permit on this allotment. Over time, the need could arise for subsequent management activities which relate to grazing authorization. These activities could include vegetation treatments (e.g., prescribed fires, herbicide projects), range improvement projects (e.g., fences, water developments), and others. Future rangeland management actions related to livestock grazing would be addressed in project-specific NEPA documents as they are proposed.

Though this environmental assessment specifically addresses the impacts of issuing a grazing permit on these allotments, it does so within the context of overall BLM management goals. Allotment management activities would have to be coordinated with projects intended to achieve those other goals. For example, a vegetation treatment designed to enhance watershed condition or wildlife habitat may require rest from livestock grazing for one or more growing seasons. Requirements of this type would be written into the permit as terms and conditions.

### **Conformance with Land Use Planning**

The proposed action conforms to the 1997 Roswell Approved Resource Management Plan (RMP) and Record of Decision and the 2000 New Mexico Standards for Public Land health and Guidelines for Livestock Grazing Management and Record of Decision as required by 43 CFR 1610.5-3.

### **Relationships to Statutes, Regulations, or Other Plans**

The proposal to renew the livestock grazing permit on this allotment is in conformance with the 1994 Environmental Impact Statement for Rangeland Reform; the Federal Land Policy and Management Act of 1976 (FLPMA) (43 U.S.C. 1700 et seq.); the Taylor Grazing Act of 1934 (TGA) (43 U.S.C. 315 et seq.); the Public Rangelands Improvement Act of 1978 (PRIA) (43 U.S.C. 1901 et seq.).

## **II. PROPOSED ACTION AND ALTERNATIVES**

### **Proposed Action - Current Livestock Management**

The proposed action is to issue a ten-year permit to graze cattle on this allotment as described in Table 1. Current permitted use is based on long term monitoring and rangeland conditions.

Additionally a rangeland health assessment has been completed and the allotment meets the Standards for Public Land Health.

**Table 1. Animal Units/Animal Unit Months**

Allotment Number	Allotment Name	Acres of Public Land	Percent Public Land	Animal Units Authorized	Animal Unit Months Authorized	Permitted Animal Units	Permitted Animal Unit Months
64064	South 13 Mile Draw	2635	25	180	540	180	540
<b>Totals</b>		2635	25	180	540	180	540

There would be no changes from current livestock management as conducted by the permittee, or to existing range improvements already in place. Future projects or activities identified by the permittee or the BLM can still be considered for implementation. Rangeland monitoring would continue on the allotment and changes to livestock management would be made as necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken to mitigate those impacts.

**Alternative 2 - No Action**

Alternative two is to issue a ten-year permit to graze cattle on this allotment as described in Table 2. Current permitted use is based on long-term monitoring and rangeland conditions. Additionally a rangeland health assessment has been completed and the allotment meets the Standards for Public Land Health.

**Table 2. Animal Units/Animal Unit Months**

Allotment Number	Allotment Name	Type Use	Acres of Public Land	Percent Public Land	Animal Units Authorized	Animal Unit Months Authorized	Permitted Animal Units	Permitted Animal Unit Months
64064	South 13 Mile Draw	Active	2635	25	160	480	160	480
		Temporary Non-renewable		25	20	60	20	60
<b>Totals</b>			2635	25	180	540	180	540

There would be no changes from current livestock management as conducted by the permittee, or to existing range improvements already in place. Future projects or activities identified by the permittee or the BLM can still be considered for implementation. Rangeland monitoring would continue on the allotment and changes to livestock management would be made as necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken to mitigate those impacts.

### Alternative 3

Alternative Three is to issue a ten-year permit to graze cattle on this allotment as described in Table 3. Current permitted use is based on long-term monitoring and rangeland conditions. Additionally a rangeland health assessment has been completed and the allotment meets the Standards for Public Land Health.

**Table 3. Animal Units/Animal Unit Months**

Allotment Number	Allotment Name	Type Use	Acres of Public Land	Percent Public Land	Animal Units Authorized	Animal Unit Months Authorized	Permitted Animal Units	Permitted Animal Unit Months
64064	South 13 Mile Draw	Active	2635	25	160	480	160	480
<b>Totals</b>			2635	25	160	480	160	480

This Alternative would change the current livestock management as conducted currently by removing the 20 Animal Units that are currently in a Temporary Non-Renewable status.

### Alternative 4 No Grazing Alternative

Under this alternative a new grazing permit would not be issued for this allotment. No grazing would be authorized on federal land on this allotment under this alternative. Under this alternative and based on the land status pattern within the allotment, new fences would be required to exclude grazing on the federal land.

### Alternatives Considered But Not Analyzed

Grazing with reduced numbers – BLM considered authorizing grazing with reduced numbers on this allotment. Grazing with reduced numbers would produce impacts similar to the proposed action. Additionally, this allotment meets the Standards for Public Land Health and monitoring studies do not indicate changes are necessary. Therefore, BLM will not analyze this alternative.

## III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

### General Setting

This allotment is located in Chaves County, approximately 10 miles southwest of Roswell, NM.

The climate is semi-arid with normal annual temperatures ranging from 20°F to 95°F at Bitter Lake National Wildlife Refuge. Average annual precipitation is approximately 13-16 inches, primarily as rainfall. Annual precipitation has ranged from 3.11 inches to 21.08 inches.

## **Affected Resources**

The following resources or values are not present or would not be affected by the authorization of livestock grazing on these allotments: Areas of Critical Environmental Concern, Cultural Resources, Native American Religious Concerns, Prime or Unique Farmland, Minority/Low Income Populations, Hazardous or Solid Wastes, Wild and Scenic Rivers, and Wilderness. Prior to authorizing range improvements, a Class III Cultural Survey must be completed ensuring cultural resources will not be affected. There are no known cultural resources within the allotment on which controlled livestock grazing will have an effect. Affected resources and the impacts resulting from livestock grazing are described below.

## **Vegetation**

### Affected Environment

This allotment is within the Grassland Vegetative Community and the Mixed Desert Shrub Vegetative Community as identified in the Roswell Resource Management Plan/Environmental Impact Statement (RMP/EIS). Vegetative communities managed by the Roswell Field Office are identified and explained in RMP/EIS. Appendix 11 of the draft RMP/EIS describes the Desired Plant Community (DPC) concept and identifies components of each community.

Primary ecological (range) sites on this allotment are Loamy and Shallow SD-3. Ecological site descriptions are available for review at the Roswell BLM office or any Natural Resources Conservation Service office or may be accessed at [www.nm.nrcs.usda.gov](http://www.nm.nrcs.usda.gov).

Rangeland monitoring studies have been established in two key areas within the allotment. One is situated in a Loamy SD-3 ecological site complex and the other is situated on a Shallow SD-3 ecological site complex.

Monitoring data has been collected in fiscal year 2003. Analysis of the monitoring data indicates range condition is good, range trend is static and that with a 45 percent use factor, there is sufficient forage for the number of AUs which have been permitted in the past. The long-term vegetative production, ground cover and trend data for this allotment are available at the following website address: <http://nm.blm.gov/rfo/index.htm>.

**Noxious and Invasive Weeds:** Noxious weeds affect both crops and native plant species in the same way, by out-competing for light, water and soil nutrients. Losses are attributed to decreased quality and quantity of agricultural products due to high levels of competition from noxious weeds and infestations. Noxious weeds can negatively affect livestock productivity by making forage unpalatable to livestock thus decreasing livestock productivity and potentially increasing producer's feed costs. Potential noxious weed species include African rue, non-native thistles (*Cirsium* spp.), leafy spurge, and goldenrod. There are known populations of African rue on surrounding allotments therefore monitoring for noxious weeds on the allotment is necessary.

### Environmental Impacts

Under the proposed action the vegetation in the Mixed Desert Shrub and Grassland communities will continue to be grazed and trampled by domestic livestock as well as other herbivores. The area has been grazed by livestock since the early part of the 1900's, if not

longer. Ecological condition and trend is expected to remain stable and/or improve over the long term at the permitted number of livestock.

Upland sites would reflect a static ecological condition trend at the existing permit level. In the long term, upland vegetation would continue to improve in all pastures from the implementation of a rest-rotation system.

Range monitoring data indicate that the vegetation is sustainable to meet multiple resource requirements and forage at the permitted use level under the Proposed Action and Alternatives. Data indicate that livestock grazing is compatible with vegetation cover and composition objectives. In addition to the upward trend in ecological condition, monitoring data show the vegetative resources have been improved and sustained since monitoring began in 1981.

Under the No Grazing Alternative, no impacts to vegetation resources would occur on public lands from authorized livestock grazing. Vegetation cover would increase over the long term in some areas. Grasslands in the uplands would increase in cover and composition, but composition would be tempered by a dominating the shrub component.

## **Soils**

### Affected Environment

The Soil Survey of Chaves County, New Mexico (USDA Soil Conservation Service 1983) was used to describe and analyze impacts to soils on these allotments. The soil units represented in the allotment on public land are described below, more in depth information can be found in the soil survey.

Ector-Rock outcrop complex, 0 to 9 percent slopes (EcC) Runoff is rapid and the medium of water erosion is moderate and soil blowing is slight. Rock outcrop is rapid.

Lozier-Tencee complex, 1 to 9 percent slopes (Lt) For the Lozier and Tencee soil, runoff is medium, the hazard of water erosion is slight or moderate, and the hazard of soil blowing is slight.

Reakor-Pecos association, 0 to 3 percent slopes (RH) Runoff is medium or slow, the hazard of water erosion is moderate, and the hazard of soil blowing is slight.

Tencee Upland Complex, 0 to 9 percent slopes (Tg) Runoff of the unit soil is medium, the hazard of water erosion is moderate, and the hazard of soil blowing is slight.

### Environmental Impacts

Under the Proposed Action, livestock would remove some of the cover of standing vegetation and litter, and compact the soil by trampling. If livestock management were inadequate, these effects could be severe enough to reduce infiltration rates and increase runoff, leading to greater water erosion and soil losses (Moore et al. 1979, Stoddart et al. 1975). Producing forage and protecting the soil from further erosion would then be more difficult. The greatest impacts of removing vegetation and trampling would be expected in areas of concentrated livestock use, such as trails, waters, feeders, and shade.

Under the Proposed Action rangeland monitoring would help ensure that adequate vegetation cover is maintained to protect the soil from erosion. Low/moderate forage quality plants provide

protection to the soils resource. Cumulative long term monitoring data reflect the soils are being adequately protected.

Under the No Grazing Alternative, any adverse impact from livestock grazing would be eliminated. However, it is possible that removing grazing animals from an area where they were a natural part of the landscape could result in poor use of precipitation and inefficient mineral cycling (Savory 1988). Bare soil could be sealed by raindrop impact, and vegetation could become decadent, inhibiting new growth. Therefore, the results of no grazing could be similar to those of overgrazing in some respects.

## **Water Quality**

### Affected Environment - Ground Water

Fresh water sources are in the San Andres Aquifer. Depth to water in nearby wells in the shallow aquifer ranges from 327 to 345 feet (New Mexico Office of the State Engineer Groundwater Data).

### Environmental Impacts - Ground

Direct impacts to surface water quality would be minor, short-term impacts during stormflow. Indirect impacts to water quality related resources, such as fisheries, would not occur. The proposed action would not have a significant effect on ground water. Livestock would be dispersed over the allotment, and the soil would filter potential contaminants.

### Affected Environment – Surface Water

No perennial surface water is found on the Public Land on this allotment.

### Environmental Consequences – Surface Water

No impacts.

## **Wildlife**

### Affected Environment

The allotment provides a variety of habitat types for terrestrial wildlife species. The diversity and abundance of wildlife species in the area is due to the presence of a mixture of grassland habitat and mixed desert shrub vegetation.

Numerous avian species use the area during spring and fall migration, including non-game migratory birds. Common bird species are mourning dove, mockingbird, white-crowned sparrow, black-throated sparrow, blue grosbeak, northern oriole, western meadowlark, Crissal thrasher, western kingbird, northern flicker, common nighthawk, loggerhead shrike, and greater roadrunner. Raptors include northern harrier, Swainson's hawk, American kestrel, and occasionally golden eagle and ferruginous hawk.

Common mammal species using the area include mule deer, pronghorn, coyote, gray fox, bobcat, striped skunk, porcupine, raccoon, badger, jackrabbit, cottontail, white-footed mouse, deer mouse, grasshopper mouse, kangaroo rat, spotted ground squirrel, and woodrat.

A variety of herptiles also occur in the area such as yellow mud turtle, box turtle, eastern fence lizard, side-blotched lizard, horned lizard, whiptail, hognose snake, coachwhip, gopher snake, rattlesnake, and spadefoot toad.

### Environmental Impacts

Under the Proposed Action, livestock grazing management and range improvement projects designed with consideration for wildlife would generally enhance the quality of wildlife habitat. Vegetation condition, forage production, and habitat diversity would improve, and wildlife species distribution and abundance would increase. The construction of livestock waters in previously unwatered areas would promote increased wildlife distribution and abundance, but may potentially increase grazing pressure in those same areas. Short-term impacts of range improvement projects would be the temporary displacement of wildlife species during construction activities.

Under the No Grazing Alternative, there would no longer be direct competition between livestock and wildlife for forage, browse and cover. Wildlife habitat would moderately improve. The limitation for improvement would continue to be the existing invading species component (e.g., mesquite, snakeweed) affecting plant composition. Since livestock grazing would not be permitted, range improvement projects that benefit wildlife, such as water developments, would be abandoned. New range improvement projects that would also benefit wildlife habitat, such as brush control, may not be implemented because these projects are primarily driven and funded through range improvement efforts.

### **Special Status Species, Including Threatened and Endangered Species**

#### Affected Environment

Surveys have been conducted in New Mexico for the mountain plover in 1995, for the New Mexico Department of Game and Fish. No known breeding populations or wintering locales were found in the Roswell Field Office area. In addition, mountain plover surveys were conducted in 1998 at BLM selected sites by New Mexico Natural Heritage Program. No mountain plovers were observed at the sites.

As mountain plovers prefer short vegetation and actually seek out grazed pastures, the cumulative impacts from grazing are not anticipated to adversely affect the bird. Grazing practices which maintain or improve ground cover to the greatest extent possible could decrease mountain plover habitat. The preferred alternative will continue to emphasize proper watershed management, but is unlikely to adversely affect this species or its habitat in the mixed desert shrub area.

Since no known wintering locales or breeding sites have been found and no known prairie dog towns are located within this allotment, proper grazing management is not likely to jeopardize, destroy or adversely modify the habitat for the mountain plover or the black-tailed prairie dog (the black-tailed prairie dog has been removed from the listing).

#### Environmental Impacts

Under any of the alternatives, there would be no change to habitat of special status species.

### **Air Quality**

#### Affected Environment

The allotment is in a Class II area for the Prevention of Significant Deterioration of air quality as defined by the federal Clean Air Act. Class II areas allow a moderate amount of air quality degradation.

Air quality in the region is generally good, with winds averaging 10-16 miles per hour depending on the season. Peak velocities reach more than 50 miles per hour in the spring. These conditions rapidly disperse air pollutants in the region.

### Environmental Impacts

Dust levels resulting from allotment management activities would be slightly higher under the Proposed Action or Alternative B than the No Grazing Alternative. The cumulative impact on air quality from the allotment would be negligible compared to all pollution sources in the region.

## **Climate**

### Affected Environment

Climate is the composite of generally prevailing weather conditions of a particular region throughout the year, averaged over a series of years.

Greenhouse gases (GHGs), including carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>), and the potential effects of GHG emissions on climate, are not regulated by the EPA under the Clean Air Act. However, climate has the potential to influence renewable and non-renewable resource management. The EPA's Inventory of US Greenhouse Gas Emissions and Sinks found that in 2006, total US GHG emissions were over 6 billion metric tons and that total US GHG emissions have increased by 14.1% from 1990 to 2006. The report also noted that GHG emissions fell by 1.5% from 2005 to 2006. This decrease was, in part, attributed to the increased use of natural gas and other alternatives to burning coal in electric power generation.

The levels of these GHGs are expected to continue increasing. The rate of increase is expected to slow as greater awareness of the potential environmental and economic costs associated with increased levels of GHGs result in behavioral and industrial adaptations.

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

In 2001, the Intergovernmental Panel on Climate Change (IPCC) predicted that by the year 2100, global average surface temperatures would increase 1.4 to 5.8°C (2.5 to 10.4°F) above 1990 levels. The National Academy of Sciences (2006) supports these predictions, but has acknowledged that there are uncertainties regarding how climate change may affect different regions. Computer model predictions indicate that increases in temperature will not be equally distributed, but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be greater than during the summer, and increases in daily minimum temperatures is more likely than increases in daily maximum temperatures.

A 2007 US Government Accountability Office (GAO) Report on Climate Change found that, "federal land and water resources are vulnerable to a wide range of effects from climate change, some of which are already occurring. These effects include, among others: 1) physical effects such as droughts, floods, glacial melting, and sea level rise; 2) biological effects, such as increases in insect and disease infestations, shifts in species distribution, and changes in the timing of natural events; and 3) economic and social effects, such as adverse impacts on tourism, infrastructure, fishing, and other resource uses." It is not, however, possible to predict

with any certainty regional or site specific effects on climate relative to the proposed lease parcels and subsequent actions.

In New Mexico, a recent study indicated that the mean annual temperatures have exceeded the global averages by nearly 50% since the 1970's (Enquist and Gori). Similar to trends in national data, increases in mean winter temperatures in the southwest have contributed to this rise. When compared to baseline information, periods between 1991 and 2005 show temperature increases in over 95% of the geographical area of New Mexico. Warming is greatest in the northwestern, central, and southwestern parts of the state.

### Environmental Impacts

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

### **Livestock Management**

#### Affected Environment

In the past, this allotment has been permitted to be grazed yearlong by cattle. This allotment has been permitted for 160 AU's. However it has been authorized for 180 AU's with 20 AU's being in Temporary Non-Renewable. Grazing is by a cow/calf operation.

The allotments contain about 10,963 total acres (see Location Map). Landownership consists of approximately 599 acres of private land, 2635 acres of federal land, and 7704 acres of state land. Current range improvement projects for the management of livestock include earthen tanks, wells, and several drinking troughs with associated pipelines, pasture and boundary fences and corrals.

#### Environmental Impacts

Under the Proposed Action, livestock would continue to graze public lands within the allotments. Existing pasture configurations and water developments would remain the same. Livestock management would still follow the single-herd rotation system.

Under the No Grazing Alternative, there would be no livestock grazing authorized on public lands. The public lands would have to be fenced apart from the private lands or livestock would be considered in trespass if found grazing on public land (43 CFR 4140.1(b)(1)). Exclusion of livestock from the public land would cost approximately \$12,000 per mile. This expense would be borne by the private landowner. Range improvements on public land would not be maintained and the BLM would have to compensate the permittee if any of the improvements were cost shared at the time of their authorization.

Cumulative impacts of the grazing and no grazing alternatives were analyzed in Rangeland Reform '94 Draft Environmental Impact Statement (BLM and USDA Forest Service 1994) and in the Roswell Resource Area Draft RMP/EIS (BLM 1994). The no livestock grazing alternative was not selected in either document.

## **Visual Resources Management**

### Affected Environment

The allotment is in a Class III and IV area for visual resources management. The Class III objective is to: Partially retain existing landscape character. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate a casual observer's view. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. The objective of Class IV is to: "Provide for management activities which require major modification of the existing landscape character...Every attempt, however, should be made to reduce or eliminate activity impacts through careful location, minimal disturbance, and repeating the basic landscape elements."

### Environmental Impacts

The basic elements of the landscape would not change within the allotment under any management alternative. Potential impacts to visual resources would be analyzed and mitigated as allotment management activities are proposed in the future.

## **Recreation**

### Affected Environment

The allotment provides habitat for numerous game species including desert mule deer, pronghorn, mourning dove and scaled quail. Predator and feral pig hunting may occur on the allotment, as well as trapping for predators or furbearers.

General sightseeing, wildlife viewing and photography are non-consumptive recreational activities that may occur. Rock collectors can find various minerals unique to the area, such as Pecos diamonds.

### Environmental Impacts

Game and non-game wildlife species could realize long-term benefits through the improvement of habitat. It is expected that hunter success and wildlife viewing opportunities would be enhanced.

Under the No Grazing Alternative, no conflicts between ranching activities and recreational use would occur on public lands. Success of hunts and non-consumptive opportunities would remain the same or slightly improve. Vandalism could still occur to range improvements. Conflicts with OHV use would continue.

## **Cave and Karst**

### Affected Environment

This allotment is located within a designated area of medium Cave or Karst Potential. A complete significant cave or karst inventory has not been completed for the public land located in this grazing allotment. Presently, no known significant caves or karst features have been identified within this allotment.

### Environmental Impact

Since no caves or major karst features have been identified on this grazing allotment, grazing would not affect these resources. If a significant cave or karst feature were discovered on

public land within this allotment, that cave or feature may be fenced to exclude livestock and off-highway vehicle use.

#### **IV. CUMULATIVE IMPACTS**

A cumulative impact is defined in 40 CFR 1508.7 as:

“the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

The incremental impact of issuing a grazing permit on these resources must be analyzed in the context of impacts from other actions. Other BLM actions that could have impacts on the identified resources include: livestock authorization on other allotments in this area; oil and gas activities on the uplands; rights-of-way crossing the area; and recreation use, particularly off-highway vehicles. All authorized activities which occur on BLM land can also take place on state and private land.

Many of the actions which could contribute to cumulative impacts have occurred over many years. Impacts from open-range livestock grazing in the last century are still being addressed today. Oil and gas activities began in the early part of the 20th century. These activities are still occurring today, and are expected to continue into the foreseeable future to some degree.

The Proposed Action would not add incrementally to the cumulative impacts to threatened and endangered species or to water quality. The conclusions, that impacts to these resources from grazing authorization would not be significant, are discussed in detail in this EA.

If the No Grazing Alternative were chosen, some adverse cumulative impacts would be eliminated, but others would occur. Grazing would no longer be available as a vegetation management tool, and BLM lands within the allotment would be less intensively managed.

#### **V. MITIGATION MEASURES**

Vegetation monitoring studies will continue if a new grazing permit were issued under the Proposed Action. Changes to livestock management would be made if monitoring data showed adverse impacts to the vegetation.

If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken at that time to mitigate those impacts.

#### **VI. RESIDUAL IMPACTS**

Residual impacts are direct, indirect, or cumulative impacts that would remain after applying the mitigation measures. Residual impacts following authorization of livestock grazing would be insignificant if the mitigation measures are properly applied.

#### **VII. Socio-Economic Factors**

The proposed action or Alternative two or three as outlined in this document are not anticipated to alter the socio-economic conditions for either the permittees or Chaves County. Should the no livestock grazing alternative be adopted, economic impacts would occur. Chaves County would lose tax revenues on approximately 160 to 180 head of cattle annually.

Under the no livestock grazing alternative, it would be the responsibility of the permittees to prevent livestock from grazing on the public lands. To accomplish this, the permittees would most likely have to construct fences to exclude the public land. New fence would be needed at a cost of approximately \$12,000 per mile. BLM would also have to provide compensation to the permittees for their interest in authorized range improvements due to the exclusion of livestock grazing. These costs could be reduced or mitigated by land exchanges with either the state or the permittees to block up the public land.

#### **IX. BLM Team Members**

Helen Miller - Rangeland Management Specialist  
Kyle Arnold - Rangeland Management Specialist  
Mike McGee - Hydrologist  
Rebecca L. Hill – Archaeologist  
Howard Parman – Environmental Coordinator

#### **XI. LITERATURE CITED**

- Bureau of Land Management. 1994. Roswell resource area draft resource management plan/environmental impact statement. BLM-NM-PT-94-0009-4410.
- Bureau of Land Management. 1997. Roswell approved resource management plan and record of decision. BLM-NM-PT-98-003-1610. 71 pp.
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- Bureau of Land Management and USDA Forest Service. 1994. Rangeland reform '94, draft environmental impact statement.
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**Bureau of Land Management, Roswell Field Office  
Environmental Assessment Checklist, DOI-BLM-NM-P010-2010-042-EA**

Resources	Not Present on Site	No Impacts	May Be Impacts	Mitigation Included	BLM Reviewer	Date
Air Quality			X	X	SWA Spec/Hydro. /s/ Michael McGee	2/23/10
Soils			X	X		
Watershed Hydrology			X	X		
Floodplains			X	X		
Water Quality - Surface			X	X		
Water Quality - Ground			X	X	Geologist/Hydrologist /s/ Michael McGee	2/23/10
Cultural Resources	X				/s/Rebecca L. Hill  Archeologist	12Jan2010
Native American Religious Concerns	X					
Paleontology	X					
Areas of Critical Environmental Concern	X				/s/J H Parman Plan & Env. Coord.	1/20/10
Farmlands, Prime or Unique		X			Realty /s/Sanderford	1/11/2010
Rights-of-Way		X				
Invasive, Non-native Species			X	X	/s/ Helen CJ Miller Range Mgmt. Spec.	1/13/2010
Vegetation			X	X		
Livestock Grazing			X	X		
Wastes, Hazardous or Solid		X			/s/ Jared Reese Nat. Resource Spec.	3/29/2010
Threatened or Endangered Species	X				/s/ Randy Howard  Biologist	3/8/2010
Special Status Species	X					
Wildlife			X	X		
Wetlands/Riparian Zones	X					
Wild and Scenic Rivers	X				/s/Bill Murry  Outdoor Rec. Plnr.	1/8/10
Wilderness	X					
Recreation		X				
Visual Resources		X				
Cave/Karst		X				
Environmental Justice	X				/s/ Jared Reese Nat. Resource Spec.	1/20/2010
Public Health and Safety		X				
Solid Mineral Resources		X			/s/ Jerry Dutchover Geo/SPS	01/11/10
Fluid Mineral Resources		X			Geologist /s/ John S. Simitz	1/8/2010