

**FINDING OF NO SIGNIFICANT IMPACT AND RATIONALE**

**EA No. NM-510-2005-0042**

**Finding of No Significant Impact:**

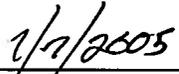
I have reviewed this environmental assessment for Allotment 65060, including the explanation and resolution of any potentially significant environmental impacts. I have determined that the proposed action and alternatives will not have significant impacts on the human environment, and that preparation of an Environmental Impact Statement (EIS) is not required.

**Rationale for Recommendations:**

The proposed action and alternatives would not result in any undue or unnecessary environmental degradation. The proposed action will be in compliance with the Roswell Approved Resource Management Plan and Record of Decision (October 1997).

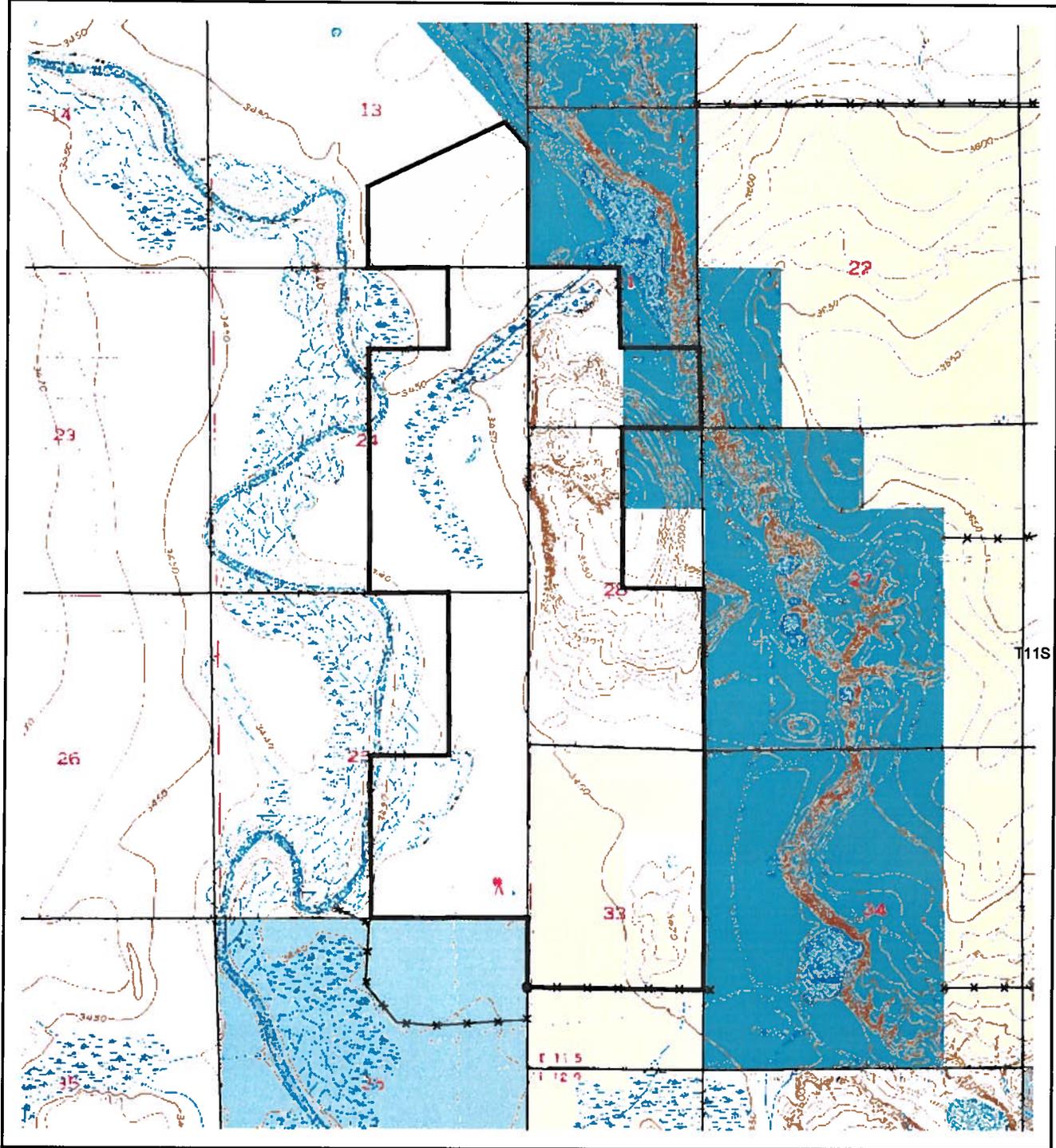
  
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T.R. Kreager

Acting Assistant Field Office Manager - Resources

  
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Date



# Bottomless Ranch - 65060



R25E 0 0.25 0.5 1 Miles R26E

- |               |              |                |           |                           |  |                           |
|---------------|--------------|----------------|-----------|---------------------------|--|---------------------------|
|               |              |                |           | <b>BASE WATERS IN RED</b> |  | <b>WINDMILL</b>           |
| <b>Public</b> | <b>State</b> | <b>Private</b> | <b>SP</b> |                           |  | <b>Allotment Boundary</b> |
|               |              |                |           |                           |  | <b>Pasture Boundary</b>   |
|               |              |                |           |                           |  | <b>Barbed Wire Fence</b>  |

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Produced by the RFO GIS Specialist on April 4, 2005.

**ENVIRONMENTAL ASSESSMENT**

**for**

**Section 3**

**GRAZING AUTHORIZATION**

**on**

**ALLOTMENT 65060**

**Township 11 South, Range 26 East  
Sections 33 (part)**

**NM-510-2005-0042**

**April 2005**

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

## **I. BACKGROUND**

### **A. Introduction**

When authorizing livestock grazing on public range, the Bureau of Land Management (BLM) has historically relied on a land use plan and environmental impact statement to comply with the National Environmental Policy Act (NEPA). A decision by the Interior Board of Land Appeals, however, affirmed that the 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 Allotment 65060.

The scope of this environmental assessment is limited to the effects of issuing a new grazing permit on Allotment 65060. 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 (e.g., wildlife habitat improvement projects). 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 Allotment 65060, it does so within the context of overall BLM management goals. Allotment management activities would have to be coordinated with projects intended to achieve other resource management 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.

### **B. 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 65060. 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.

### **C. Conformance with Land Use Planning**

The proposed action conforms with the Roswell Approved Resource Management Plan (RMP) and Record of Decision (BLM 1997) as required by 43 CFR 1610.5-3.

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

The proposed action and alternatives are consistent with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1700 et seq.); the Taylor Grazing Act of 1934 (43 U.S.C. 315 et seq.), as amended; the Clean Water Act (33 U.S.C. 1251 et seq.), as amended; the Endangered Species Act (16 U.S.C. 1535 et seq.) as amended; the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); Executive Order 11988, Floodplain Management; and Executive Order 11990, Protection of Wetlands.

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

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

The proposed action is to issue Mr. Steve Patterson a ten-year permit to graze cattle on Allotment 65060. Permitted use is for three (3) animal units (AUs), corresponding to 36 animal unit months (AUMs).<sup>1</sup> Total permitted use includes 3 AUs (36 AUMs) for cattle distributed yearlong among the pastures at 100 percent public range.

There would be basically no change 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.

### **B. No Grazing Alternative**

Under this alternative no grazing would be authorized on federal land and a new grazing permit would not be issued for Allotment 65060.

## **III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS**

### **A. General Setting**

This BLM grazing allotment lies within the boundaries of the Roswell Grazing District established subsequent to the Taylor Grazing Act (TGA). Grazing authorization on public lands inside the boundary is governed by Section 3 of the TGA. Livestock numbers for the ranch are controlled under a Section 3 Permit, the permittee is billed for the amount of forage available for livestock on federal land. Vegetation monitoring studies are used to determine the allowable number of livestock on the ranch.

Allotment 65060 is in Chaves County about 10 miles east of Roswell, New Mexico. Elevations range from 3,695 feet on the uplands in northwest portion of the allotment down to 3,520 feet at Commanche Draw in the southeast portion of the allotment.

The climate is semi-arid with normal annual temperatures ranging from 20EF to 95EF at Bitter Lake National Wildlife Refuge (Kunkel 1984). Observed minimum and maximum temperatures were -22EF and 113EF, respectively. Average annual precipitation is 11.6 inches, primarily as rainfall (Owenby et al. 1992). Annual precipitation has ranged from 3.11 inches to 21.08 inches (Kunkel 1984).

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<sup>1</sup> For a cattle operation, an animal unit (AU) is defined as one cow with a nursing calf or its equivalent. An animal unit month (AUM) is the amount of forage needed to sustain that cow and calf for one month.

## **B. Affected Resources**

The following resources or values are not present or would not be affected by the authorization of livestock grazing on Allotment 65060: Areas of Critical Environmental Concern, Cultural Resources, Native American Religious Concerns, Prime or Unique Farmland, Minority/Low Income Populations, Hazardous or Solid Wastes, Floodplains, Wild and Scenic Rivers, and Wilderness. Affected resources and the impacts resulting from livestock grazing are described below.

### **1. Livestock Management**

#### Affected Environment

In the past, the allotment has been permitted to be grazed yearlong by cattle. The permit authorized 3 AUs, and stated that grazing will be in accordance with a 1996 Rangeland Agreement. Grazing is by a cow/calf operation.

The allotment consists of two pastures (see map). The allotment includes approximately 221 acres of federal land and 1,084 acres of private land. The public range is generally well-blocked within Home Pasture of the allotment.

No monitoring studies have been established on the allotment. The last vegetative data was collected during the East Roswell Vegetation Inventory completed in 1977-79.

The allotment was placed in the custodial ("C" Category) in 1982 based on the small amount of public land within the allotment.

No historical springs are located on the allotment based on USGS topographic maps, although a portion of the allotment can be inundated with water from the Bottomless Lakes State Park.

The allotment is grazed yearlong using a single herd rotation system. Currently, one herd between 20 and 30 head is run yearlong in both North and Home Pasture.

The only manmade source of water on the allotment is one well and storage located at the headquarters in the southern portion of the allotment. A city pipeline supplies water to the headquarters and can be used to supply water to the storage tank in the event the well is down.

#### Environmental Impacts

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

Under Alternative B, 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 lands (43 CFR 4140.1(b)(1)).

The expense of fencing would be borne by the private landowner.

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.

## **2. Vegetation**

### **Affected Environment**

Allotment 65060 is comprised of the Grassland vegetation community as identified in the Roswell RMP. The distinguishing feature for the grassland community is that grass species typically comprise about 75% or more of the potential plant community.

Tobosa grass, burrograss, sand dropseed, alkali sacaton, three-awn, black grama, gyp grama, bush muhly and fluffgrass are common. Tobosa grass is the dominant species. The grassland sites also have a fourwing saltbush, broom snakeweed shrub, or cacti (*Opuntia*) component.

The public land is in the Gyp Land SD-3 range site. The description for this range site was developed by the Soil Conservation Service (now referred to as the National Resource Conservation Service) in their ecological site guides. The range condition methodology compares collected rangeland monitoring information with the potential vegetation community *in terms of species composition by weight*.

The National Resource Conservation Service (NRCS) has recently revised the methodology for determining ecological range condition. This methodology is called the Similarity Index (SI) which has been adopted by the BLM. The SI also compares collected rangeland monitoring information with the potential vegetation community described in the NRCS ecological site guide. The index is based on a scaled of 0 to 100 with 100 being the actual representative site. For the Gyp Upland SD-3 range site, the normal year production is about 600 pounds per acre. The index takes into account vegetation species present and the *relative amount of production for each species* when compared to the potential for the range site.

The RFO is currently in the process of integrating the revised methodology into current monitoring schemes. The standard range condition rating method is still utilized for comparison purposes. The Similarity Index data is only informational at this time with representative sites being updated on a statewide basis.

**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 musk thistle and Russian knapweed. There are

no known populations of noxious weeds on the allotment.

### Environmental Impacts

Under the Proposed Action, grassland vegetation would continue to be grazed and trampled by livestock in all pastures, primarily the key grass species in each range site. Growing season impacts to bottomland plant species would occur each year. Upland sites would reflect a static ecological condition trend at the existing permit level.

Noxious and Invasive Weeds: Cattle stocked on the allotment, supplemental feeds, and a variety of equipment may unintentionally contribute to the establishment and spread of noxious weeds. Noxious weed seeds could be carried onto the allotment by livestock, feed and equipment. The main mechanism for seed dispersion is by equipment that were previously used in noxious weed-infested areas.

Infestation of noxious weeds can have a potentially disastrous impacts on biodiversity and natural ecosystems. In order to combat the negative effects of noxious weeds on crop lands, grazing lands and waterways, herbicidal and other weed control strategies can be implemented at further costs to producers and government agencies. Increased cost to producers are eventually borne by consumers. The potential for the dissemination of invasive and noxious weed seed on public lands would remain low on the allotment due to the limited use of the lands and increased public awareness of the noxious weed problem. Any populations of noxious weeds found on the allotment would be treated according to prescribed control methods for the particular species encountered.

Under Alternative C, 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 broom snakeweed somewhat dominating the shrub component. Alkali sacaton in the bottomlands would, in the short term, increase in cover and composition but would then taper off in the long term, becoming decadent from the lack of standing vegetation removal by grazing. Alkali sacaton composition would also be tempered by saltcedar dominating certain areas of the draws.

## **3. Soils**

### Affected Environment

The *Soil Survey of Chaves County, New Mexico, Southern Part (USDA Soil Conservation Service 1983)* was used to describe and analyze impacts to soils on Allotment 65060. There are four soil map units represented on the allotment (in order of predominance):

Holloman-Gypsum land complex, 3 to 5 percent slopes (HrC) occurs on the uplands over the majority of the allotment. Runoff is medium and the hazard of water erosion and soil blowing is moderate.

Holloman-Gypsum land complex, 0 to 3 percent slopes (Hp) occurs in the east one-third of the allotment and includes Commanche Draw. Runoff is medium, the hazard for water erosion and soil blowing are moderate.

Holloman-Gypsum land complex, 3 to 5 percent slopes (HSE) occurs as a narrow band straddling a large draw in the southwest portion of the allotment. Runoff is rapid, the hazard of water erosion is severe, and the hazard of soil blowing is moderate.

Russler silty clay loam, 0 to 3 percent slope (RU) is a small soil unit that occurs on the uplands in the northwest corner of the allotment. Runoff is medium, hazard of water erosion moderate, and the hazard for 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.

Under Alternative C, 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.

## **4. Water Quality**

### Affected Environment - Surface Water

The Pecos River does not cross the allotment although this allotment is adjacent to a river segment identified by the New Mexico Water Quality Control Commission (WQCC) which has specific designated uses and water quality standards. Segment 2206 is an 89-mile reach of the Pecos River from Salt Creek south to the Rio Penasco. Under the authority of the federal Clean Water Act, the WQCC (1995) designated uses for streams in New Mexico. Designated uses for Segment 2206 include irrigation, livestock watering, wildlife habitat, and secondary contact (e.g., wading). In addition, Segment 2206 has a warmwater fishery.

### Environmental Impacts - Surface Water

In general, livestock grazing is considered a potential cause of nonpoint source pollution, with sediment as the primary contaminant. Livestock grazing on the allotment, however, is not expected to be significant cause of sediment loading to the Pecos River under any management alternative. The NMED conducted an intensive assessment of Pecos River water quality in 1997. They concluded that no water quality standards have been exceeded in the past ten years on Segment 2206 (NMED 1998a).

Bacteria and nutrients are other potential contaminants that can be related to livestock grazing. Elevated levels of ammonia may be noted, but livestock grazing on the allotment does not appear to have a significant impact on water quality.

### Affected Environment - Ground Water

The allotment lies at the northern end of the Roswell Basin monitoring area (New Mexico State Engineer 1995, Wilkins and Garcia 1995). Ground water is found in the alluvial aquifer at depths ranging from less than 10 feet near the river, to more than 75 feet in the uplands (Hudson and Borton 1983). Yields of 100 gallons per minute or more are possible from the alluvium (Geohydrology Associates, Inc. 1978). Ground-water quality is generally acceptable for stock use, though data are limited. Depth to usable water for stock has been found at approximately 250 feet in the San Andres Formation (New Mexico State Engineer Office data).

### Environmental Impacts - Ground Water

The WQCC has the primary responsibility for ground-water quality management in New Mexico. In their most recent report on water quality in New Mexico, the WQCC (1996) did not find livestock grazing on rangelands to be an important potential source of contamination to ground water.

Wilson (1981) also presented potential sources of ground-water contamination and the relative vulnerability of aquifers in New Mexico. He identified animal confinement facilities (e.g., dairies, feedlots) as potential sources of contamination elsewhere in New Mexico, including areas in the Pecos valley downstream from the allotment. Wilson did not identify livestock grazing on rangelands, however, as an important potential source of ground-water contamination.

Livestock grazing would not be expected to have a significant impact on ground-water quality under any management alternative. Livestock would be dispersed over the allotment, and the soil would filter potential contaminants.

Cumulative impacts to ground-water quality from grazing on Allotment 65060 would be negligible. Grazing impacts would be insignificant when compared to other potential sources of contamination, such as mineral development, saline intrusion, and agriculture.

## **5. Riparian/Wetland Areas**

### Affected Environment

There are no historical spring locations on the allotment based on USGS maps.

### Environmental Impacts

Under the Proposed Action, livestock utilization of Comanche Draw and associated riparian areas would continue annually on a seasonal basis. The greatest vegetation impacts would occur at livestock concentration areas such as watering areas, crossings, and shaded areas. Some bank sloughing would continue to occur from trampling. Utilization of grass species such as alkali sacaton would be heavy due to annual use of the area, or when upland pastures do not provide adequate forage causing heavy use of the draws. Surface waters within the Draw would remain open to livestock grazing impacts.

Under Alternative B, vegetation condition would moderately improve. Grasses would initially increase, but plant vigor could decline from lack of vegetation removal, making ground cover species rank. Since livestock grazing would not be permitted, range improvement projects such as brush control and exotic species control would be less likely to be implemented through the range program.

## **6. Wildlife**

### Affected Environment

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

Numerous avian species use the area during spring and fall migration, including nongame migratory birds. The Bitter Lake National Wildlife Refuge (BLNWR) is located a few miles northeast from the allotment, and serves as a major focal point for migratory birds (e.g., ducks, geese, sandhill cranes, waterbirds). The Bottomless Lakes State Park is located east of the allotment. 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 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 antelope, 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 Alternative A, livestock grazing, if not properly managed, could continue to impact wildlife and habitat diversity by potential over-utilization of vegetation that provides forage, browse and cover for a variety of wildlife species.

Under Alternative B, 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., goldenrod, saltcedar, snakeweed) affecting plant composition.

## **7. Threatened and Endangered Species**

The Pecos sunflower is a federally listed species that has the potential to occur on the allotment. Federal candidate species include the Pecos pupfish. The status and presence of these species in the RFO area are discussed in the following section.

### **Pecos (Puzzle) Sunflower (*Helianthus paradoxus*) - Federal Threatened**

#### Affected Environment

The Pecos sunflower is found along alkaline seeps and cienegas of semi-desert grasslands and short-grass plains (4,000-7,500 ft.). Plant populations are found both in water and where the water table is near the ground surface.

In the RFO area, the sunflower is found in only a few areas outside of the BLNWR. In 1994, a new population was found growing on the margins of Lea Lake and its outflow at Bottomless Lakes State Park. Lloyd's Draw, east of the Pecos River, has the only known Pecos sunflower population on BLM land, which only became evident following a prescribed fire. Potential habitat also occurs on BLM land within the Overflow Wetlands Wildlife Habitat Area.

No Pecos sunflower populations have been found on the allotment to date. Endangerment factors include dewatering of riparian or wetland areas where the sunflower is found, surface disturbing activities, and excessive livestock grazing. Potential habitat for the sunflower occurs on the allotment within Comanche Draw.

#### Environmental Impacts

Under all alternatives, there would be no impact to the sunflower as it currently does not exist on the allotment, although potential habitat would remain for the Pecos sunflower. Under Alternative B, livestock grazing management and associated habitat improvement projects, including riparian area protection and enhancement, would increase potential habitat for the sunflower. Populations of the sunflower may become

established following saltcedar control in certain areas, if seeds are available in the soil.

### **Pecos Pupfish (*Cyprinodon pecosensis*) - Federal Candidate**

#### Affected Environment

The Pecos pupfish is found in a variety of habitats from saline springs and gypsum sinkholes to desert streams with highly fluctuating conditions. Pecos pupfish populations are most dense in the gypsum sinkholes on BLNWR. The species apparently thrives in these saline waters that support few other fish species. It occasionally occupies fresher waters in the Pecos River, but is uncommon in such habitats. In the river, this pupfish is most often found in backwater areas and side pools that lack sunfish or other predators (NMDGF 1988; Sublette et al. 1990; NMDGF 1997). The pupfish also inhabits the Overflow Wetlands Wildlife Habitat Area adjacent to the Bottomless Lakes State Park.

Endangerment factors include habitat loss caused by groundwater pumping and channel alterations, hybridization and/or replacement by the sheepshead minnow, and predation by non-native fish species. Potential impacts to habitat may occur from surface disturbing activities at or near springs or seeps. Other activities that severely impact habitat are not within the purview of the BLM, such as transportation and utilization of water associated with agricultural irrigation. Livestock grazing may impact springs or seeps but most of these sites have been protected with exclosures.

#### Environmental Impacts

Under all alternatives, there would be no impact to the Pecos pupfish since it currently does not exist on the allotment, although potential habitat would remain for the pupfish. Aquatic habitat would be improved to a greater extent under Alternative B.

## **8. Visual Resources Management**

#### Affected Environment

The entire allotment is in a Class III area for visual resources management. In a Class III area, contrasts to the basic elements caused by a management activity may be evident and begin to attract attention in the landscape. The changes, however, should remain subordinate to the existing landscape.

#### 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.

## **9. Recreation**

### Affected Environment

Few roads provide access to public, private, and state lands within the allotment, legal public access is limited. Access to most of the private and state lands is currently controlled by fences and locked gates. The BLM has designated off-highway vehicle use on public lands in the area as limited to existing roads and trails.

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

### Environmental Impacts

Under the Proposed Action, there would be no direct negative impacts to recreational activities on public lands. There could be potential conflicts between recreationists and ranching activities, depending on hunting seasons and livestock use in a given pasture. Vandals could damage range improvements.

Under Alternative B, 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.

## **10. 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 lands located in this grazing allotment. Presently, no known significant caves or karst features have been identified within this allotment.

### Environmental Impacts

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

## **11. 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 Alternative C. The cumulative impact on air quality from the allotment would be negligible compared to all pollution sources in the region.

## **12. Floodplains**

### Affected Environment

Portions of the allotment are located in the 100-year floodplain of the Pecos River floodplain. Portions of the allotment are located in Zone A or "Area of the 100-year flood". The floodplain ranges in width from less than one-half mile to more than one mile in the area. Channel banks are generally stable, but are actively being cut in some locations. This is most likely due to entrenchment of the channel rather than disturbance associated with land use activities. The channel material is primarily a sand and gravel bed with small cobbles and silt. The stream gradient is relatively flat (0.25 percent).

For administrative purposes, the 100-year floodplain serves as the basis for floodplain management on public land. It is based on Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (1983). Current development on the floodplain consists of two-track roads and several miles of boundary fence in the area.

### Environmental Impacts

The floodplain may be affected or impacted by new soil disturbances and loss of vegetation. The impact from new soil disturbances and loss of vegetation from grazing is minimal.

## **IV. CUMULATIVE IMPACTS**

A cumulative impact is defined 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" (40 CFR 1508.7).

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: oil and gas activities on the uplands;

rights-of way; and recreation use.

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 conclusion that impacts to these resources from grazing authorization would not be significant are discussed in detail in Section III of the EA. Incremental impacts to riparian/wetland habitat from livestock grazing are possible, however.

If the No Grazing Alternative were chosen, some adverse cumulative impacts to riparian/wetland habitat 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. For example, alkali sacaton in the bottomlands would likely become decadent without livestock impact, and control of exotic plant species such as saltcedar would be less likely.

## **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.

## **V. Public Land Health**

The fundamentals of rangeland health are identified in 43 CFR §§4180.1 and pertain to watershed function, ecological processes, water quality and habitat for threatened and endangered (T&E) species and other special status species. Based on the available data and professional judgment, the conditions identified in the fundamentals of rangeland health exists on the allotment.

Public Land (Rangeland) Health assessments were completed on the allotment during 2004. Based on the assessments and monitoring data a Determination was made that the public land within this livestock grazing allotment are in conformance with the Standards for Public Land Health and Guidelines for Livestock Grazing Management.

A copy of these assessments can be accessed at <http://nm.blm.gov/rfo/index.htm>.

## **VIII. BLM TEAM MEMBERS**

Dan Baggao, John Spain, Irene Gonzales, Jerry Dutchover, Rand French, Pat Flannery, Michael McGee, Tim Kreager and Howard Parman.

## **IX. PERSONS AND AGENCIES CONSULTED**

Chaves County Public Land Use Advisory Committee

Steve Patterson - Permittee

New Mexico Department of Game and Fish

New Mexico Energy, Minerals, and Natural Resources Department

- Forestry and Resource Conservation Division

New Mexico Environment Department - Surface Water Quality Bureau

New Mexico State Land Office

U.S. Fish and Wildlife Service - Ecological Services

U.S. Fish and Wildlife Service - Fishery Resources Office

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## ENVIRONMENTAL ASSESSMENT-CHECKLIST

EA Number: <b>NM-510-2005-0042</b> Serial No.: Preparer: <b>Baggao</b>			Action Type: <b>Grazing Permit Renewal</b> Project Name: <b>Bottomless Ranch 65060</b>		
Resource / Activity	Not Present	Not Affected	**May Be Affected	Reviewer	Date
Air Quality*			x	/s/ Michael McGee <i>Michael McGee</i> Hydrologist	6/7/05
Floodplains*			x		
Soils/Watershed			x		
Water Quality- Drinking/Ground*			x	/s/ Michael McGee <i>Michael McGee</i> Hydrologist/Geologist***	6/7/05
Vegetation			x	/s/ John Spain <i>John Spain</i>	4/28/05
Livestock Grazing			x	Rangeland Management Spec	
Invasive, Nonnative Species*			x	<i>John Spain</i> /s/ John Spain Range Mgmt Spec/Nox. Weed Spec	4/28/05
Wastes, Hazardous or Solids*				Hazardous Waste Spec.	
Prime/Unique Farmlands*	x			Irene M. Gonzales	05-03-05
Lands/Realty/ROW		x		Realty Specialist	
Fluid Minerals		✓		<i>Paul C. Lopez</i> Pet Eng/Geologist/Sur. Prof. Spec.	6/29/05
Mining Claims		✓		<i>Stitch</i> Geologist	6/28/05
Mineral Materials	✓				
Threatened or Endangered Species*		✓		<i>Gene D. Jozzy</i>	6/27/05 6-27-05
Wetlands/Riparian Zones*			✓		
Wildlife Habitat			✓	Wildlife Biologist	
Native American Religious Concerns*		✓		<i>Pat Flanary</i>	6/24/05
Cultural Resources*		✓		Archaeologist	
Areas of Critical Environmental Concern*	x			<i>JH Pannan</i>	4/14/05
Low Income & Minority Population Concerns		x		Planning & Env. Coordinator	
Wild/Scenic Rivers*	x			Bill Murry	5/17/05
Wilderness*	x				
Cave/Karst Resources			x		
Outdoor Recreation		x			
Visual Resources			x		
Access/Transportation		x	ENVIRON	<i>Richard Hill</i> Sur. Prot. Spec.	7/6/05

\* "Critical Element" - must be addressed in all NEPA documents.

\*\* "Affected Element" - must be addressed in the attached Environmental Assessment.

\*\*\* "Hydrologist/Geologist" - Hydrologist will be the primary lead for "Water Quality- Drinking/Ground" with Resource projects such as fire, fuels, and grazing EA's etc... The Petroleum Geologist will be the primary lead for "Water Quality- Drinking/Ground" with Minerals or oil and gas projects such as Application For Permit To Drill and Sundry Notices etc...