

## **Determination of Public Land (Rangeland) Health for 65004 HERNANDEZ DRAW**

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. While habitat parameters may meet the Biotic standard, the habitat requirements for Special Status Species (lesser prairie chicken and sand dune lizard) habitat are a concern. Factors such as the mesquite encroachment in some areas and the low composition of the tall grass species required for nesting success must continue to be addressed to improve the existing habitat and prevent lost of habitat from fragmentation.

Based on these assessments, it is my determination that public land within Hernandez Draw, allotment #65004, meets the Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard, but not at the desired level. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/Karen Kelleher  
Field Manager

5/25/07  
Date

# Standards of Public Land Health

## Evaluation of 65004 HERNANDEZ DRAW Allotment

### [ 10/15/2006 ]

The Roswell Field Office conducted Rangeland Health Assessments at one study site within 65004 Hernandez Draw. These assessments evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of this study site. Existing monitoring data if available was incorporated into and in support of these field assessments. A summary of each assessment is attached and shown in the following table. This allotment is categorized as "C" custodial, due to small amounts of public land present.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
65004-HW173-C072 (*)	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Hernandez Draw, allotment #65004. Ten (10) of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with previous data collected on one location within this allotment were utilized to make rangeland health determinations. This allotment is in the "C" (custodial) management category due to small amounts of public land present.

A total of 552 AUM's are permitted to graze yearlong on this allotment. Acreage on this CP-2 Sand Hills ecological site is 1,324 or 536 hectares on a Roswell-Jalmar (RPD) soil association, fine sands, hilly on high terraces in eastern parts of area surveyed. Elevation is from 3,900 ft/1,182 m to 4,100 ft/1,242 m on 0 to 25 percent slopes. This soil association is deep, well-drained and formed in alluvial and eolian deposits. Jalmar and Roswell soil is found on depressional/interdunal areas and hummocky sand dunes respectively. Evidence of past livestock use was observed as it appears this pasture was vacated earlier in 2006. Majority of indicators assessed rated None to Slight and Slight to Moderate. Moderate deviation in functional/structural groups was noted as bluestem species most notably sand bluestem (*Andropogon hallii*) was down from previous observations. Litter was observed in the form of shinnery oak (*Quercus havardii*). Plenty of grass cover was also observed with heights of vegetation suitable for LPC cover on little bluestem (*Schizachyrium scoparium*), dropseed (*Sporobolus spp.*) and other grasses. All other herbaceous forage plants did not exhibit any hedging or clipping which will only provide more cover for wildlife. Bare ground was Moderate with a 40 percent estimate with obvious organic matter in the form of leaves, stems and other decaying material in interspaces and under canopy. Mesquite (*Prosopis glandulosa*) is the invasive most notable and is common in parts of this site. It is encroaching southward and at watering points. Raptor nests were found in the mesquite and soapberry (*Sapindus spp.*) trees just south and east. The remainder of indicators assessed fell within normal range of variability.

**Wildlife** - Evaluation of the integrity of biotic community considered several indicators as attribute indices for the area of interest. Biotic indicators are interrelated with several other indicators, including soil/site stability, hydrologic function and vegetation. Several indicators are singularly biotic and address the vegetative aspect of the ecological site description, such as functional/structural groups and plant mortality & decadence.

In addition to the standard worksheet biotic factors, four specific wildlife indicators and descriptors are included in this evaluation. A unique assemblage of terrestrial species and avifauna can be expected to use this ecosystem. Of significance are the sand dune lizard (*Scleroporus arenicola*) and lesser prairie chicken (*Tympanuchus pallidicinctus*) known only to occur within the vicinity of this ecosystem. This vegetative community of interest is the shinnery oak-tall grass type only found in portions of this Field Office area. Key habitat components include sand bluestem, shinnery oak, sand dune lizard habitat features (dune blowouts), and lesser prairie chicken habitat features (booming grounds & nesting areas). The amount, condition and juxtaposition of these habitat features are used as habitat indicators for this assessment. This assessment begins by determining if the site is within "Core Areas" for lesser prairie chicken. Other important wildlife species and their habitats, such as desert mule deer (*Odocoileus hemionus*), pronghorn (*Antilocapra americana*) and a variety of game and non-game species are also considered in the assessment.

This area of interest does fall within the Core Area. There are known sightings of LPC on flats leading into this site. Leks were recorded in 2006 just north of this study area. This area does appear to provide suitable habitat for sand dune lizard. Pronghorn and desert mule deer inhabit this allotment and vicinity as visible sign was recorded. In the professional opinion of Assessment Team, public land within Hernandez Draw, allotment #65004 meets Upland and Biotic standards. There are no Riparian issues present, therefore this standard was not addressed. See site notes and recommendations for further information regarding evaluations on this allotment.

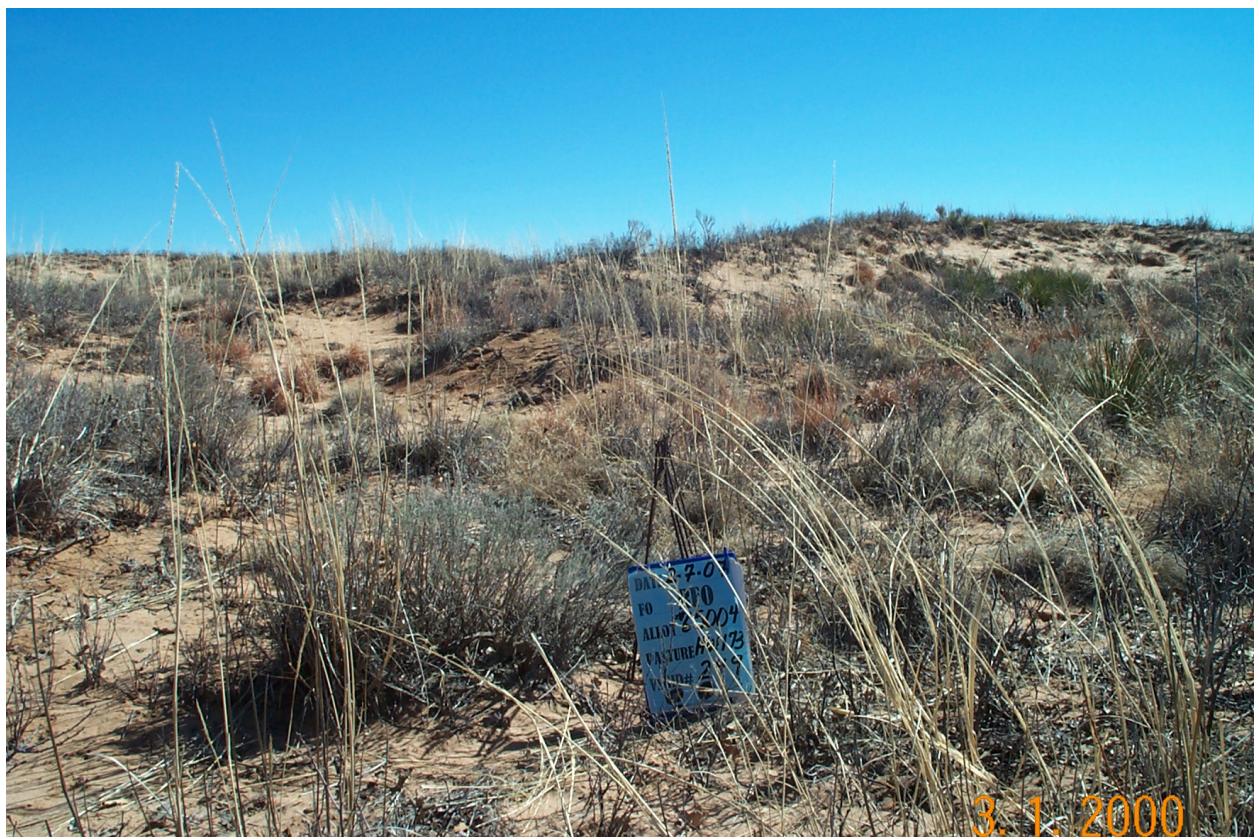
The (\*) indicates that the assessment had one or more indicator(s) rated moderate/extreme or extreme. These indicators are:

- Invasive Plants

These indicators by themselves are not enough to rate the site as not meeting a standard but may warrant future monitoring.

**Recommendations:** This allotment is scheduled for LPC surveys in 2007. 2006 surveys indicate known recorded leks on this allotment and those immediatey surrounding it. The current livestock rotational grazing system in place should continue.

Off-shinnery pastures are currently handling the amount of livestock for those periods. Continued collaborative efforts between the BLM and the allottee will only improve the overall condition of the ranch and those surrounding.





3. 1. 2000

## RFOs Upland and Biotic Standard Assessment Summary Worksheet

### SITE 65004-HW173-C072

Legal Land Desc	SESW 13 0050S 0280E Meridian 23	Acreage	1538
Ecosite	070BY061NM SAND HILLS CP-2	Photo Taken	Y
Watershed	13060003180 HERNANDEZ		
Observers	NAVARRO/MOE	Observation Date	02/07/2007
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	RPD	Soil Taxon Name	ROSWELL
Texture Class	NM644 FS	Soil Phase	ROSWELL-JALMAR
Texture Modifier	NM644 FINE SANDS,HILLY		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	19.55	NOAA Growing Season Precipitation	15.86
NOAA Avg Annual Precipitation	15.73	NOAA Avg Growing Season Precipitation	13.34
Disturbances and Animal Use:	No livestock at present. Mule deer sign exists along with LPC.		

### Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground			X		
Comments:	40% is the current estimate.					
S H	Gullies					X
Comments:						

S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	All compliment of structural groups observed and recorded. Sand bluestem species down somewhat.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	40% is the current estimate.					
B	Annual Production				X	
Comments:	Current estimate ranges from 1200 lbs/ac or kg/ha to 1500 bls/ac or kg/ha in the mesquite and shinnery areas respectively.					
B	Invasive Plants		X			
Comments:	Mesquite is quite common but does not impose a threat at present. An abandoned stock tank/feeding area just southeast is where the majority of mesquite is found. This encroachment however is reduced in size closer to the study area.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	weak physical crust					
B	Wildlife Habitat					X
Comments:	Excellent deer, quail habitat-good pronghorn.					
B	Wildlife Populations					X
Comments:	Excellent deer, quail. Good pronghorn.					

B	Special Status Species Habitat					X	
Comments:	LPC habitat is in good shape - Nesting, brood and booming grounds.						
B	Special Status Species Populations						X
Comments:	LPC populations are excellent in this immediate area (2006 lek surveys).						

### Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	6	3
H	Hydrologic	0	0	1	7	3
B	Biotic	0	1	1	5	6

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	1	9
Hydrologic		0	1	10
Biotic		1	1	11

Site Notes: Sand bluestem, little bluestem and dropseed is available for nesting - Interdunal flats potential lek sites. Flats to south are being invaded by mesquite. Permanent study plot established at this time.

LPC potential is great here. As per conversation with wildlife biologist, leks are active in the vicinity of this site. Mule deer sign in the form of tracks and droppings was observed. Vegetational heights of the dropseed and bluestem is adequate for nesting cover. Flats leading into this site is where leks have been recorded.

Mesquite is encroaching to the south and on the watering point. Raptor nests were observed in the soapberry and mesquite trees.