

## **Determination of Public Land (Rangeland) Health for 65016 WEST VEST LAKE**

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. Based on the assessments, it is my determination that the public land within West Vest Lake, allotment #65016, meets the Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. 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 65016 WEST VEST LAKE Allotment

### [ 11/27/2006 ]

The Roswell Field Office conducted Rangeland Health Assessments at one study site within #65016 West Vest Lake. These assessments evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of this study site. Existing monitoring data was incorporated into and in support of this field assessment. A summary of each assessment is attached and shown in the following table.

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
65016-SOUTH-C025	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on West Vest Lake, allotment #65016. 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 study location within this allotment were utilized to make rangeland health determinations. Quantitative evaluations are performed by the Roswell Field Office, which include some or all of the following: ground and vegetative cover and composition, production, frequency and ecological condition. These collections which were initiated in the late 1970's/early 1980's, are scheduled and conducted approximately every 5 years. This allotment is a "C" custodial category Section 15 due to small amounts of public land present.

A total of 108 AUM's are permitted to graze yearlong on this allotment. Acreage on this CP-2 Sand Hills ecological site is 960 or 388 hectares on a Faskin (FaA) soil phase, fine sand on high terraces in eastern parts of area surveyed. Elevation is from 3,800 ft/1,151 m to 4,200 ft/1,272 m on 0 to 2 percent slopes. This soil association is deep, well-drained and formed in alluvial and eolian deposits. Jalmar and Roswell soil is also found in association with this soil on scattered dunes moderately deep to indurated caliche. Evidence of past livestock use was observed, but no use at present. Majority of indicators assessed rated None to Slight and Slight to Moderate. Plenty of litter was observed in the form of shinnery oak (*Quercus havardii*) with an overwhelming estimate of 70 percent. Plenty of grass cover was also observed with the usual compliment of forb and shrub cover. *Yucca* (*Yucca spp.*) was observed scattered throughout and rate invasives as Moderate. All other indicators assessed fell within normal range of variability from expected parameters.

Wildlife - Evaluation of the integrity of biotic community considered several indicators as attribute indices for this 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 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. The vegetation 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). Amount, condition and juxtaposition of these habitat features are used as habitat indicators for this assessment. This assessment begins by determining if this 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 this assessment.

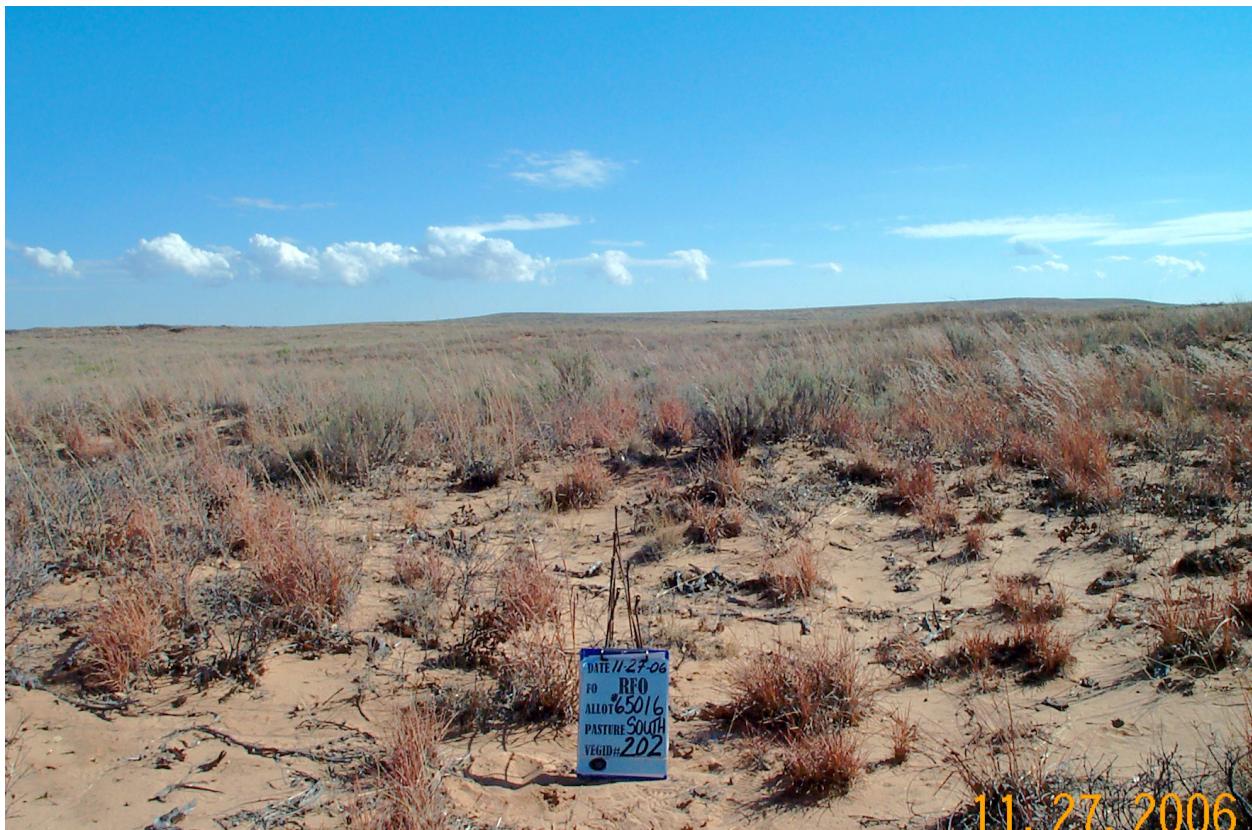
This area of interest does fall within the Core Area. Leks were recorded in 1988 just north and west of this site. This area does appear to provide suitable habitat for sand dune lizard. Pronghorn and desert mule deer inhabit this allotment and vicinity with habitat features in excellent condition and additionally conducive to upland game birds.

Special status species habitat rates Slight to Moderate as bluestem grass species are present and provide for nesting cover. Vegetational heights are adequate for lesser prairie chickens to nest and provide cover, but may provide suitable booming grounds as well with open areas adjacent to roads and well pads. Not very many large clumps were observed however of those desirable grasses. Pocket gopher (*Geomys spp.*) activity was also observed all over interdunal areas and blowouts as well.

In the professional opinion of Assessment Team, public land within West Vest Lake, allotment #65016 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.

**Recommendations:** The usual compliment of deep sand vegetative components are more than adequate for this allotment. Management of livestock and proper water distribution has more than helped this area recover from recent dry conditions.

Proper pasture management for off-shinnery use should continue and allow those certain areas to receive deferment and rest for those periods. Leks surveys will continue thru the spring of 2007 for this allotment and those surrounding.



11.27.2006



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## RFOs Upland and Biotic Standard Assessment Summary Worksheet

### SITE 65016-SOUTH-C025

Legal Land Desc	SWNE 11 0080S 0310E Meridian 23	Acreage	960
Ecosite	070BY061NM SAND HILLS CP- 2	Photo Taken	Y
Watershed	13060007050 WHITE LAKES		
Observers	NAVARRO/MOE	Observation Date	11/27/2006
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	FaA	Soil Taxon Name	FASKIN
Texture Class	NM644 LFS	Soil Phase	FASKIN
Texture Modifier	NM644 FINE SAND		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	17.17	NOAA Growing Season Precipitation	13.7
NOAA Avg Annual Precipitation	14.2	NOAA Avg Growing Season Precipitation	12.18
Disturbances and Animal Use:	No livestock observed or recent evidence of use. This site is located off the main Hanover Rd. on an oil and gass access road to a gas pad.		

### 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:	30% is the estimate.						
S H	Gullies						X
Comments:							
S	Wind-scoured, Blowouts, and/or						X

	Deposition Areas					
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:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:	Current estimate is 70% comprised mostly of shinnery oak.					
B	Annual Production				X	
Comments:	700-800 lbs/ac or kg/ha is the current estimate.					
B	Invasive Plants				X	
Comments:	yucca scattered					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	physical crusts exist					
B	Wildlife Habitat					X
Comments:	excellent deer and pronghorn habitat					
B	Wildlife Populations					X
Comments:	good deer and pronghorn pops.					
B	Special Status Species Habitat				X	
Comments:	Nesting grasses (Scsc & Anha) abundant - Not many large clumps.					
B	Special Status Species Populations					
Comments:						

### 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	0	4	6
H	Hydrologic	0	0	0	5	6
B	Biotic	0	0	1	4	7

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	0	10
Hydrologic		0	0	11
Biotic		0	1	11

Site Notes: No livestock use at present is evidenced on this site. Pocket gophers are burrowing in the blowout areas where vegetation is sparse. Forb growth has all but ceased due to weather conditions. Natural progression of dune formation is evident here. Oil and gas activity is evident here as this site was accessed via an oil and gas access road to a well pad.