

## Standards of Public Land Health Evaluation of #64006 Buck Springs-East Allotment [ 03/18/2008 ]

The Roswell Field Office conducted Rangeland Health Assessments at 2 study sites within allotment #64006, Buck Springs-East. These assessments evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data and Ecological Site Descriptions were 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
64006-EAST-F165	X			X			N/A		
64006-HOME-F166	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Buck Springs-East, allotment #64006. Ten of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with ecological site descriptions and quantitative information gathered from previous data collected on 2 trend plot locations 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 located at Highway 285 junction and Ft. Sumner cutoff in the Salt Creek 100K. There is one study on each side of this Highway, both SD-3 loamy ecological sites on similar elevation. Both East and Home Pastures have light to conservative use by livestock on comparable vegetation types and soil complexes. Trailing by livestock was evident here. Most indicators fell well within normal range of variability for all soil, hydrologic and biotic attributes. There was evidence of burned patches in the vicinity of East Pasture study site. It appears these fires were set by the allottee to reduce some cholla (*Opuntia imbricata*) which has encroached intermittently off the two-track on private land. Mesquite (*Prosopis glandulosa*) has also found its way scattered throughout but appears not to be increasing in density for both sites. Dirt tanks here have evidence of recent African rue (*Peganum harmala*) infestation. Dormant plants are abundant adjacent to the pushed-up ground at the base of these structures. Invasive plants rate Moderate for both pastures.

Pronghorn (*Antilocapra americana*) and mule deer (*Odocoileus hemionus*) habitat is satisfactory. Buck Springs Draw is potentially a good cover area for these two species. Evidence of burrowing activity by rodents is found throughout this allotment. Lagomorphs are also plentiful. Adequate food and water is conducive to all wildlife. No special status species concerns exist here.

It is the professional opinion of the Assessment Team, public land within allotment #64006, Buck Springs East meets Upland and Biotic Standards. There are no Riparian issues present therefore this standard was not addressed. See site notes, comments and recommendations for further information regarding this assessment.

**Recommendations:** Recommend possible prescribed burn projects to control cholla in the draws. Fuel levels would fluctuate due to precipitation. A Cooperative Agreement between BLM and the allottee would ensure proper timing to schedule these projects.

All dirt tanks, ranch roads, corrals and cattle guards should be plotted and evaluated for African rue infestation and treated aggressively with either boom sprayers or backpack. These treatments must be repeated later in the year as rue is biennial in nature. Application before setting seed would reduce this seed source and control any flowering plants.

The current conservative use and rotation of livestock is adequate for watershed protection. Present watering points are evenly distributed also. Recommend the current monitoring schedule be continued and proactively evaluate the noxious weed populations here.

## RFOs Upland and Biotic Standard Assessment Summary Worksheet

### SITE 64006-EAST-F165

Legal Land Desc	SENW 8 0050S 0230E Meridian 23	Acreage	1,404 ac (568 ha)
Ecosite	042CY007NM LOAMY SD-3	Photo Taken	Y
Watershed	13060003160 HUGGINS		
Observers	NAVARRO/ARNOLD	Observation Date	03/25/2008
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	ACA	Soil Taxon Name	ALAMA
Texture Class	NM644 L	Soil Phase	ALAMA-POQUITA
Texture Modifier	NM644 LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	9.15	NOAA Growing Season Precipitation	7.66
NOAA Avg Annual Precipitation	9.18	NOAA Avg Growing Season Precipitation	7.58
Disturbances and Animal Use:	Some use by livestock and rodent burrowing activity. Burned areas just east along two-track were also observed.		

### Part 2. Attributes and Indicators

Attribute	Indicators	Departure from Ecological Site Description/Ecological Reference Areas				
		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:	20-30% 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:	Soil ped sample melted readily using the soil site stability test.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Some horizon loss is evident.					
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:	Mesquite encroachment is somewhat inhibiting this pasture although the F/S groups are well represented.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	30% is the current estimate.					
B	Annual Production				X	
Comments:	3/4 of ESD and long-term data potential still exists.					
B	Invasive Plants			X		
Comments:	Mesquite is scattered and encroaching.					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts			X		
Comments:	A weak physical crust exists.					
B	Wildlife Habitat				X	
Comments:	Excellent for pronghorn and fair for deer and upland birds. Burrowing activity by					

	rodents also.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:						
B	Special Status Species Populations					X
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	2	4	4
H	Hydrologic	0	0	1	7	3
B	Biotic	0	0	2	8	3

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	2	8
Hydrologic		0	1	10
Biotic		0	2	11

Site Notes: Light use by livestock is present with trailing through this site was observed. Rodent burrowing activity is present. The usual species of grasses exist, but mesquite encroachment could pose a problem.

Burned patches just east of study suggests either a Rx or wildfire. Tobosa (*Pleuraphis mutica*), burrograss (*Scleropogon brevifolius*) and grama (*Bouteloua* spp.) grasses are the main graminoids present.

## RFOs Upland and Biotic Standard Assessment Summary Worksheet

### SITE 64006-HOME-F166

Legal Land Desc	NWNE 10 0050S 0220E Meridian 23	Acreage	1,583 ac (640 ha)
Ecosite	042CY007NM LOAMY SD-3	Photo Taken	Y
Watershed	13060003200 FIVE MILE		
Observers	NAVARRO/ARNOLD	Observation Date	03/25/2008
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	ACA	Soil Taxon Name	ALAMA
Texture Class	NM644 L	Soil Phase	ALAMA- POQUITA
Texture Modifier	NM644 LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	9.15	NOAA Growing Season Precipitation	7.66
NOAA Avg Annual Precipitation	9.18	NOAA Avg Growing Season Precipitation	7.58
Disturbances and Animal Use:	No real disturbances exists except maybe some light livestock use and insectivory.		

### Part 2. Attributes and Indicators

Attribute	Indicators	Departure from Ecological Site Description/Ecological Reference Areas				
		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:	Less O.M. in soil than expected.					
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:	40% is the current estimate.					
B	Annual Production				X	
Comments:	700-800 lbs/ac or kg/ha is the current estimate.					
B	Invasive Plants					X
Comments:						
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	weal physical/good biotic					
B	Wildlife Habitat				X	
Comments:	Excellent for pronghorn.					
B	Wildlife Populations				X	
Comments:						

B	Special Status Species Habitat					X
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Comments:

B	Special Status Species Populations					X
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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	1	4	5
H	Hydrologic	0	0	1	4	6
B	Biotic	0	0	1	5	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	1	9
Hydrologic		0	1	10
Biotic		0	1	12

Site Notes: This site is in very good ecological condition with very little invasive problems. Mesquite is in draw at least 1/2 mile east. Very light livestock use is present. Cage has been removed but this circular area is now an ant hole. Grama grass component is present along with dropseed (*Sporobolus* spp.) and some snakeweed (*Gutierrezia sarothrae*).

## **Determination of Public Land (Rangeland) Health for #64006 Buck Springs-East**

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 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 these assessments, it is my determination that public land within Buck Springs-East, allotment #64006, meets the (1) 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/ Brad Pendley \_\_\_\_\_  
Assistant Field Manager

\_\_\_\_\_ May 7, 2009 \_\_\_\_\_  
Date