

## Standards of Public Land Health Evaluation of 63076 CROCKETT Allotment [ 12/12/2008]

The Roswell Field Office interdisciplinary team conducted Rangeland Health Assessments at 4 study sites within the Crockett allotment, 63076. These assessments evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of the study locations. Existing monitoring data was incorporated into and in support of the field assessment. A summary of these 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
63076-MALPAIS-F028	X			X			N/A		
63076-MIDDLE-F026 (*)	X			X			N/A		
63076-NYBAR NORTH-F025	X			X			N/A		
63076-SOUTH-F027	X			X			N/A		

Twenty-two indicators for Rangeland Health were evaluated for the public land on Crockett Place, allotment#63076. Ten of these assessed soil site stability, 11 hydrologic functions and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on the 4 trend plots and study locations within the allotment were utilized to make rangeland health determinations. Quantitative evaluations are performed by the Roswell Field Office interdisciplinary teams, which include some or all of the following: ground and vegetative cover and composition, production frequency and ecological condition. The collections, which were initiated in the late 1970's/early 1980's, are scheduled and conducted approximately every five years. This allotment is in the "I" Improve category.

The Crockett allotment is approximately 13,134 acres in size. Approximately 86% of the allotment is public surface, and contains four pastures. Studies are located within each pasture; 2 are located in a Loamy SD-2 ecological site, with the others are in a Malpais SD-2 and a Limestone Hills SD-2 ecological site.

Only the Middle Pasture assessment included an indicator that fell into the moderate/extreme degree of departure. This was in the category of Invasive Plants, due to the amount of creosote and cholla. The Nybar-North Pasture and the South Pasture also had a rating of Moderate in this category for cholla, creosote or mesquite. These indicators by themselves are not enough to rate the site as not meeting a standard but may warrant future monitoring.

**Recommendations:** The majority of the rangeland health indicators for this allotment fell either into the None to Slight or the Slight to Moderate levels. It would be recommended to continue to monitor the allotment to insure proper stocking rates are maintained and that the perennial grass cover remains. Land treatments have been completed in North Nybar and Middle Pastures. Continue to evaluate the invasive plant populations and if necessary plan a land treatment such as mesquite or creosote herbicide treatment or a prescribed fire.

As the Invasive Plants indicator was the only one to fall into the Moderate to Moderate/Extreme category, and the remaining categories were either None to Slight or Slight to Moderate, this allotment is rated as “Meeting” the standards for Rangeland Health.

## RFOs Upland and Biotic Standard Assessment Summary Worksheet

### SITE 63076-MALPAIS-F028

Legal Land Desc	SENE 4 0080S 0090E Meridian 23	Acreage	0
Ecosite	042BY037NM MALPAIS SD-2	Photo Taken	Y
Watershed	13050003050 MALPAIS		
Observers	NAVARRO & POST	Observation Date	12/12/2008
County Soil Survey	NM632 LINCOLN	Soil Var/Taxad	
Soil Map Unit	031	Soil Taxon Name	LAVA FLOWS
Texture Class	NM632 UWB	Soil Phase	LAVA FLOWS
Texture Modifier	NM632 LAVA		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.75	NOAA Growing Season Precipitation	5.38
NOAA Avg Annual Precipitation	5.24	NOAA Avg Growing Season Precipitation	3.48
Disturbances and Animal Use:			

#### 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:						
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:						
B	Plant Mortality/Decadence				X	
Comments:						
H B	Litter Amount					X
Comments:						
B	Annual Production				X	
Comments:						
B	Invasive Plants				X	
Comments:	Cholla and crosote are both present at this site.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts					X
Comments:						
B	Wildlife Habitat					X

Comments:						
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	0	0	10
H	Hydrologic	0	0	0	1	10
B	Biotic	0	0	0	3	10

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	0	13

Site Notes: Professionals indicate the site is considered in Good condition for the vegetative type.

## RFOs Upland and Biotic Standard Assessment Summary Worksheet

### SITE 63076-MIDDLE-F026

Legal Land Desc	NENW 4 0080S 0090E Meridian 23	Acreage	3805
Ecosite	042BY021NM LIMESTONE HILLS SD	Photo Taken	Y
Watershed	13050003050 MALPAIS		
Observers	NAVARRO & POST	Observation Date	12/12/2008
County Soil Survey	NM632 LINCOLN	Soil Var/Taxad	
Soil Map Unit	033	Soil Taxon Name	LOZIER
Texture Class	NM632 GRV-L	Soil Phase	LOZIER
Texture Modifier	NM632 VERY GRAVELLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.75	NOAA Growing Season Precipitation	5.38
NOAA Avg Annual Precipitation	5.24	NOAA Avg Growing Season Precipitation	3.48
Disturbances and Animal Use:			

### 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:						
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:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:						
B	Annual Production					X
Comments:						
B	Invasive Plants		X			
Comments:	Site shows invasives which include creosote and cholla					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:						
B	Wildlife Habitat					X
Comments:						
B	Wildlife Populations					X

Comments:						
B	Special Status Species Habitat					X
Comments:						
B	Special Status Species Populations					X
Comments:	No special status species populations known to utilize this site.					

### 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	1	0	2	10

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		1	0	12

Site Notes: This location is in overall good condition, exclusive of the invasive plants. This area should or may be considered for treatment of creosote.

## RFOs Upland and Biotic Standard Assessment Summary Worksheet

### SITE 63076-NYBAR NORTH-F025

Legal Land Desc	SWNW 28 0070S 0090E Meridian 23	Acreage	4144
Ecosite	042BY014NM LOAMY SD-2	Photo Taken	Y
Watershed	13050003050 MALPAIS		
Observers	NAVARRO & POST	Observation Date	12/12/2008
County Soil Survey	NM632 LINCOLN	Soil Var/Taxad	
Soil Map Unit	033	Soil Taxon Name	LOZIER
Texture Class	NM632 GRV-L	Soil Phase	LOZIER
Texture Modifier	NM632 VERY GRAVELLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.75	NOAA Growing Season Precipitation	5.38
NOAA Avg Annual Precipitation	5.24	NOAA Avg Growing Season Precipitation	3.48
Disturbances and Animal Use:			

### 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:	This indicator is between None to Slight and Slight to Moderate, high Slight.					
S H	Bare Ground					X
Comments:						
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:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:						
B	Annual Production					X
Comments:						
B	Invasive Plants			X		
Comments:	Invasive species include cholla and creosote					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts					X
Comments:						
B	Wildlife Habitat					X
Comments:						
B	Wildlife Populations					X

Comments:						
B	Special Status Species Habitat					
Comments:	Not applicable					
B	Special Status Species Populations					
Comments:	Not applicable					

### 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	1	9
H	Hydrologic	0	0	0	2	9
B	Biotic	0	0	1	0	10

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	10

Site Notes: Conditions are good except for invasion by creosote, recommend treatment.

## RFOs Upland and Biotic Standard Assessment Summary Worksheet

### SITE 63076-SOUTH-F027

Legal Land Desc	NWSW 6 0080S 0090E Meridian 23	Acreage	3564
Ecosite	042BY014NM LOAMY SD-2	Photo Taken	Y
Watershed	13050003050 MALPAIS		
Observers	NAVARRO/POST	Observation Date	12/12/2008
County Soil Survey	NM632 LINCOLN	Soil Var/Taxad	
Soil Map Unit	033	Soil Taxon Name	LOZIER
Texture Class	NM632 GRV-L	Soil Phase	LOZIER
Texture Modifier	NM632 VERY GRAVELLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.75	NOAA Growing Season Precipitation	5.38
NOAA Avg Annual Precipitation	5.24	NOAA Avg Growing Season Precipitation	3.48
Disturbances and Animal Use:			

### 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:	two-track is gullying over on way to site					

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:	grama grass should be more abundant					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	20% is the current estimate					
B	Annual Production				X	
Comments:	850 lbs/ac or kg/ha is the current estimate					
B	Invasive Plants			X		
Comments:	creosote and mesquite both are scattered and potentially could increase					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:						
B	Wildlife Habitat				X	
Comments:	Pronghorn, deer and gemsbok use this allotment. there are plenty of corridors where these animal travel.					
B	Wildlife Populations				X	
Comments:						

B	Special Status Species Habitat					X
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Comments: N/A

B	Special Status Species Populations					X
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Comments: N/A

**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	7	3
H	Hydrologic	0	0	0	9	2
B	Biotic	0	0	2	7	4

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	2	11

Site Notes: This site shows invasion by creosote and mesquite, treatment could be recommended.

# **Determination of Public Land (Rangeland) Health for 63076 CROCKETT**

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 Office 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 the Crockett allotment, 63076, 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/ J. Howard Parman  
Acting Assistant Field Manager

2/16/2010  
Date