

Standards of Public Land Health Evaluation of 63075 MILAGRO HILL Allotment [12/16/2009]

The Roswell Field Office conducted rangeland health assessments at 2 study sites within 63075 MILAGRO HILL. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The 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
63075-MILAGRO HILL 2-F023	X			X	*		N/A		
63075-NORTH #1-F022	X			X	*		N/A		

The (*) indicates that the assessment had one or more indicator(s) rated moderate. 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.

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on the Milagro Hill allotment, 63075. Ten of these assessed soil site stability, 11 hydrologic functions and 13 assessed biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected at the trend study plot 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 5 years. This allotment is in the "I" (Improve) category.

This allotment contains 1,702 acres of public land. The studies are located on two ecological sites; Gravelly SD-2, and Loamy SD-2.

The first study (Milargo Hill 2) location is in a Gravelly SD-2 ecological site. All of the indicators for this location fell into either the None to Slight or Slight to Moderate category or Moderate category; Plant Community Composition and Distribution Relative to Infiltration and Runoff, Litter amount, Annual production, Plant Mortality/Decadence, Functional/Structural Groups and Invasive Plants all were rated as a Moderate degree of departure due to the presence or encroachment of mesquite, snakeweed and creosote.

The North study (No. 1) located in a Loamy SD-2 ecological site had six indicators rated as Moderate: Water Flow Patterns, Pedestals and/or Terracettes, Soil Surface Resistance to Erosion and Soil Surface Loss or Degradation, Plant Community Composition and Distribution Relative to Infiltration and Runoff, and Invasive Plants. Each of these indicators were influenced by the level of invasive mesquite and creosote. The remaining indicators were rated as None to Slight or Slight to Moderate. The team indicated that the creosote dominates on the slopes in this pasture.

Due to the presence and encroachment of creosote, the interdisciplinary team recommended that this area be considered for a land treatment, to maintain the diversity of the area and to prevent the establishment of a monoculture with little or no understory.

There are no riparian areas on the public land within this allotment.

Recommendations: With a majority of the indicators falling in the None to Slight or Slight to Moderate category, this allotment is rated as “Meeting” the standards for Rangeland Health. Continue the rangeland monitoring studies to insure proper stocking rates are maintained and that the perennial grass cover and good plant composition remains. Continue to monitor and evaluate the potential for brush control and complete a land treatment for creosote or mesquite if warranted. As the amount of public land within this allotment makes up approximately 40% of the allotment, and state lease land is another 42% of the allotment, it would be recommended to coordinate with other agencies, such as Natural Resources Conservation Service and the New Mexico State Land office, to implement an effective land treatment.

RFOs Upland and Biotic Standard Assessment Summary Worksheet

SITE 63075-MILAGRO HILL 2-F023

Legal Land Desc	NESW 17 0090S 0090E Meridian 23	Acreage	968
Ecosite	042BY010NM GRAVELLY SD-2	Photo Taken	Y
Watershed	13050003060 COTTONWOOD		
Observers	ORTEGA & VINSON	Observation Date	12/16/2009
County Soil Survey	NM632 LINCOLN	Soil Var/Taxad	
Soil Map Unit	068	Soil Taxon Name	REFLECTION
Texture Class	NM632 FSL	Soil Phase	REFLECTION- MALARGO
Texture Modifier	NM632 FINE SANDY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation		NOAA Growing Season Precipitation	
NOAA Avg Annual Precipitation		NOAA Avg Growing Season Precipitation	
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:	rocky country					
S H	Water Flow Patterns			X		
Comments:						
S H	Pedestals and/or Terracettes			X		
Comments:	exposed creosote roots					
S H	Bare Ground				X	

Comments:						
S H	Gullies			X		
Comments:	high flow area, large gully to the south					
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:	good rock cover					
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:	dominated by creosote					
S H B	Compaction Layer			X		
Comments:						
B	Functional/Structural Groups			X		
Comments:						
B	Plant Mortality/Decadence					X
Comments:	broom snakeweed mortality					
H B	Litter Amount			X		
Comments:						
B	Annual Production			X		
Comments:	very few grasses					
B	Invasive Plants			X		
Comments:	creosote, mesquite and snakeweed					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Only in protected areas					
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	4	5	1
H	Hydrologic	0	0	7	4	0
B	Biotic	0	0	5	5	1

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	4	6
Hydrologic		0	7	4
Biotic		0	5	6

Site Notes: Creosote needs to be mapped for possible brush control treatment.

RFOs Upland and Biotic Standard Assessment Summary Worksheet

SITE 63075-NORTH #1-F022

Legal Land Desc	SWSW 3 0090S 0090E Meridian 23	Acreage	734
Ecosite	042BY014NM LOAMY SD-2	Photo Taken	Y
Watershed	13050003060 COTTONWOOD		
Observers	ARNOLD & VINSON	Observation Date	03/29/2010
County Soil Survey	NM632 LINCOLN	Soil Var/Taxad	
Soil Map Unit	034	Soil Taxon Name	MALARGO
Texture Class	NM632 L	Soil Phase	MALARGO- BLUEPOINT
Texture Modifier	NM632 LOAM,LOAMY FINE SA		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation		NOAA Growing Season Precipitation	
NOAA Avg Annual Precipitation		NOAA Avg Growing Season Precipitation	
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:	creosote & mesquite coming in.					
B	Plant Mortality/Decadence					X
Comments:	Snakeweed mortality					
H B	Litter Amount			X		
Comments:						
B	Annual Production			X		
Comments:	very few grasses					
B	Invasive Plants			X		
Comments:	Creosote, mesquite & snakeweed					
B	Reproductive Capability of Perennial Plants				X	
Comments:						

S	Physical/Chemical/Biological Crusts				X	
Comments:	in protected areas					
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	4	5	1
H	Hydrologic	0	0	6	4	1
B	Biotic	0	0	5	4	2

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	4	6
Hydrologic		0	6	5
Biotic		0	5	6

Site Notes: Consider treating the creosote here, but look at other adjacent treatments to determine if it would be effective and improve the site overall.

Determination of Public Land (Rangeland) Health for 63075 MILAGRO HILL

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 Milagro Hill, allotment #63075, 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

04/14/2010
Date