

Standards of Public Land Health

Evaluation of 64042 HUGGINS DRAW Allotment

[01/09/2010]

The Roswell Field Office conducted rangeland health assessments at 3 study sites within 64042 HUGGINS DRAW. 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
64042-COGSDALE-E171 (*)	X			X			N/A		
64042-MIDDLE-E170	X			X			N/A		
64042-POLLARD-E178	X			X			N/A		

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

- Plant Mortality/Decadence
- 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 Huggins Draw allotment, 64042. 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 "M" (Maintain) category.

This allotment contains 6,780 acres of public land. Two of the studies are located in Loamy SD-3 ecological sites, while the third is located in a Loamy CP-3 ecological site.

Rationale: In the Cogsdale Pasture, 7 of the Soil/Site Stability indicators were ranked “None to Slight” or “Slight to Moderate”, 3 were ranked as “Moderate”, 5 of the indicators for the Hydrologic Function were ranked as either “None to Slight” or “Slight to Moderate”, the remaining indicators, the remaining 6 in this category were ranked as “Moderate”, being influenced by the presence of mesquite. Of the Biotic Integrity indicators, 7 of the indicators were ranked as either “None to Slight” or “Slight to Moderate”. This category did have two indicators ranked as “Moderate to Extreme” – the Plant Mortality/Decadence and the Invasive Plant indicators. Both of these ratings reflected the amount of mesquite and that the mesquite had recently been treated and was dying.

In the Middle Pasture, all of the indicators except the Functional Structural Group and Invasive Plants were ranked as either “None to Slight” or “Slight to Moderate”; the Functional Structural Group and Invasive Plants were both ranked at “Moderate: due to the level of mesquite. A mesquite land treatment is planned.

In the Pollard Pasture, the results were similar to the Middle Pasture except for a notation on Gullies- gully development was noted in the bottom of the Huggins Draw. This also where salt cedar populations were documented. The specialists did recommend that the salt cedar be mapped and evaluated for land treatment.

Recommendations: Continue rangeland monitoring studies to insure proper stocking rates are maintained and perennial grass cover remains. Evaluate potential for brush control in Pollard pasture for salt cedar treatment, complete brush control if warranted. Continue to follow up on the success of the mesquite brush control treatment.

RFOs Upland and Biotic Standard Assessment Summary Worksheet

SITE 64042-COGSDALE-E171

Legal Land Desc	NENW 25 0050S 0230E Meridian 23	Acreage	1894
Ecosite	042CY007NM LOAMY SD-3	Photo Taken	Y
Watershed	13060003160 HUGGINS		
Observers	ARNOLD, ORTEGA	Observation Date	01/09/2010
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	HRB	Soil Taxon Name	HOLLOMEX
Texture Class	NM644 L	Soil Phase	HOLLOMEX- MILNER-REEVES
Texture Modifier	NM644 MOIST LOAMS		
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

		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:	Open bare ground areas, not connected.					
S H	Pedestals and/or Terracettes			X		
Comments:						

S H	Bare Ground				X	
Comments:	Bare ground patches thru-out the site.					
S H	Gullies			X		
Comments:	Gullies active in bottoms.					
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:	Stablizing agents in patches.					
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff			X		
Comments:	Mesquite present, but has been treated recently.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Mesquite present, but recently treated.					
B	Plant Mortality/Decadence		X			
Comments:	Mesquite dying due to treatment.					
H B	Litter Amount				X	
Comments:						
B	Annual Production				X	
Comments:	Estimated at 80%					
B	Invasive Plants		X			
Comments:	Common, but treated.					
B	Reproductive Capability of Perennial Plants					X
Comments:	Seed heads present					
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	4	5	1
H	Hydrologic	0	0	5	4	2
B	Biotic	0	2	2	3	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	4	6
Hydrologic		0	5	6
Biotic	The Biotic Integrity indicators include the Plant Mortality and Invasive Plants, both which were rated at 'Moderate to Extreme' due to the presence of mesquite. The mesquite was treated in this pasture in 2008 & 2009 and the treatment was effective. The remaining vegetation appears to be healthy, reproduction levels are good as is the amount of	2	2	7

	annual production. New grass plants were noted in the mesquite skeletons.			
Site Notes: The recent mesquite treatments in this pasture appear to be effective. Bush muhly responsive in the mesquite skeletons.				

RFOs Upland and Biotic Standard Assessment Summary Worksheet

SITE 64042-MIDDLE-E170

Legal Land Desc	NESW 10 0050S 0230E Meridian 23	Acreage	2026
Ecosite	042CY007NM LOAMY SD-3	Photo Taken	Y
Watershed	13060003160 HUGGINS		
Observers	ARNOLD, ORTEGA	Observation Date	01/09/2010
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	HRB	Soil Taxon Name	HOLLOMEX
Texture Class	NM644 L	Soil Phase	HOLLOMEX- MILNER-REEVES
Texture Modifier	NM644 MOIST LOAMS		
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

		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:	Patches					
S H	Gullies				X	
Comments:	Bottoms of draws.					
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:	Mesquite present					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Mesquite present, land treatment planned for spring 2010.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:						
B	Annual Production				X	
Comments:						
B	Invasive Plants			X		
Comments:	Mesquite, land treatment planned for spring 2010.					
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	5	5
H	Hydrologic	0	0	0	6	5
B	Biotic	0	0	2	2	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	Mesquite invasion, land treatment is planned for this pasture in the Spring of 2010.	0	2	9

Site Notes:

RFOs Upland and Biotic Standard Assessment Summary Worksheet

SITE 64042-POLLARD-E178

Legal Land Desc	SENW 33 0040S 0230E Meridian 23	Acreage	2860
Ecosite	070BY052NM LOAMY CP-2	Photo Taken	Y
Watershed	13060003160 HUGGINS		
Observers	ARONOLD, ORTEGA	Observation Date	01/09/2010
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	RNA	Soil Taxon Name	REEVES
Texture Class	NM644 L	Soil Phase	REEVES-MILNER- HOLLOMEX
Texture Modifier	NM644 LOAM,MOIST		
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

		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:						

S H	Gullies			X		
Comments:	Gullies in the bottoms of the draw.					
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:	Mesquite influence.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Modified groups; mesquite and salt cedar in bottoms of draw.					
B	Plant Mortality/Decadence			X		
Comments:	Due to mesquite treatment					
H B	Litter Amount					X
Comments:						
B	Annual Production				X	
Comments:	about 80%					
B	Invasive Plants			X		
Comments:	Mesquite, but was recently treated.					
B	Reproductive Capability of Perennial Plants					X
Comments:	Plenty of seed heads.					
S	Physical/Chemical/Biological Crusts					
Comments:						
B	Wildlife Habitat					X
Comments:						

B	Wildlife Populations					X
Comments:						
B	Special Status Species Habitat					X
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	1	4	4
H	Hydrologic	0	0	1	5	5
B	Biotic	0	0	2	3	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	8
Hydrologic		0	1	10
Biotic		0	2	10

Site Notes: The pasture looks good, low utilization by livestock. The pasture should be revisited for mapping of land treatment for salt cedar.

Determination of Public Land (Rangeland) Health for 64042 HUGGINS 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 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 Huggins Draw, allotment #64042, 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

02/19/2010
Date