

Standards of Public Land Health Evaluation of #63011 Hays-Byrd Allotment [01/11/2008]

The Roswell Field Office conducted Rangeland Health Assessments at 4 study sites within allotment #63011, Hays-Byrd. 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
63011-BLUFF-E027	X			X			N/A		
63011-HIGHLINE-E029	X			X			N/A		
63011-HOUSE-E028	X			X			N/A		
63011-SINKHOLE-E030	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Hays-Byrd, allotment #63011. Of these 10 assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on 4 trend plot study 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 authorized under a Section 3 Permit, to run 256 cattle yearlong @ 61% public land use for 1,874 AUM's. Located in Lincoln County south of Corona highway in the Gallo Watershed, this allotment is in process of transferring to another allottee. Historical sheep grazing has been occurring on this allotment along with a resident cattle herd. Highline, Bluff, Sinkhole and House Pastures are either shallow or loamy ecological sites displaying fair to good range condition.

Majority of indicators for all attributes fell well within normal range of variability. Soil, hydrologic and biotic attributes for the most part met standards for overall rangeland health and productivity. Cholla (*Opuntia spinosa*) presents a problem and appears to be found scattered throughout indicating Slight to Moderate and Moderate ratings for invasives. Diversity of vegetation mainly grass species adds to overall good condition of this range.

Pronghorn (*Antilocapra americana*) and mule deer (*Odocoileus hemionus*) were ungulates observed here. Drainage corridors and draws are adequate areas for deer cover. Pronghorn herds have plenty of open range and were observed throughout in the rolling topography of this CP-3 major land resource area for New Mexico.

It is the professional opinion of Assessment Team, public land within allotment #63011, Hays-Byrd 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: Current livestock rotation and water distribution is more than adequate for this allotment. If there is a problem, cholla is scattered throughout and potential may exist for cholla infestation in the future. Recommend visits to this allotment to evaluate any brush problems that may arise.

The current monitoring schedule of evaluating range trend and condition as well as production should continue approximately every 5 years. No real concerns for this allotment exist presently.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 63011-BLUFF-E027			
Legal Land Desc	SWSE 26 0020S 0170E Meridian 23	Acreage	1902
Ecosite	070CY113NM SHALLOW CP-3	Photo Taken	Y
Watershed	13060006020 GALLO		
Observers	NAVARRO/POST	Observation Date	08/12/2008
County Soil Survey	NM632 LINCOLN	Soil Var/Taxad	
Soil Map Unit	013	Soil Taxon Name	DEAMA
Texture Class	NM632 L	Soil Phase	DEAMA- PASTURA
Texture Modifier	NM632 VERY COBBLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	9.83	NOAA Growing Season Precipitation	7.66

NOAA Avg Annual Precipitation	9.49	NOAA Avg Growing Season Precipitation	7.58
Disturbances and Animal Use:	No livestock observed; this pasture appears to be deferred at the moment.		

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:		current estimate is 30%				
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:	current estimate is 10%					
B	Annual Production					X
Comments:	current estimate is 900 lbs/ac or kg/ha					
B	Invasive Plants				X	
Comments:	Beargrass (<i>Nolina microcarpa</i>)thistle (<i>Cirseum spp.</i>) and some cholla less than scattered					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts					X
Comments:						
B	Wildlife Habitat				X	
Comments:	very good for pronghorn and mule deer					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	n/a					
B	Special Status Species Populations					X
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	4	6
H	Hydrologic	0	0	0	5	6
B	Biotic	0	0	0	5	8

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: The diversity of vegetation, most notably grass species is above those expected parameters. Slope and aspect are very much lending itself to great diversity. Forbs and shrubs are abundant; beargrass is scattered throughout but not inhibiting this site's potential.

No livestock observed at evaluation. This site is excellent habitat for mule deer and pronghorn.

RFOs Upland and Biotic Standard Assessment Summary Worksheet

SITE 63011-HIGHLINE-E029

Legal Land Desc	NWSW 20 0020S 0180E Meridian 23	Acreage	1528
Ecosite	070CY113NM SHALLOW CP-3	Photo Taken	Y
Watershed	13060005040 FIFTEEN MILE		
Observers	NAVARRO/POST	Observation Date	08/12/2008
County Soil Survey	NM632 LINCOLN	Soil Var/Taxad	
Soil Map Unit	009	Soil Taxon Name	DARVEY
Texture Class	NM632 L	Soil Phase	DARVEY- PASTURA
Texture Modifier	NM632 LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	9.83	NOAA Growing Season Precipitation	7.66
NOAA Avg Annual Precipitation	9.49	NOAA Avg Growing Season Precipitation	7.58
Disturbances and Animal Use:	Some livestock in pasture.		

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 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:						
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:	mostly on snakeweed (<i>Gutierrezia sarothrae</i>)					

H B	Litter Amount					X
Comments:	current estimate is 30%					
B	Annual Production					X
Comments:	900 lbs/ac or kg/ha is the current estimate					
B	Invasive Plants				X	
Comments:	cholla and thistle					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts					X
Comments:						
B	Wildlife Habitat				X	
Comments:	good for deer and excellent for pronghorn					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	n/a					
B	Special Status Species Populations					X
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	3	7
H	Hydrologic	0	0	0	4	7
B	Biotic	0	0	0	5	8

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: Mortality on snakeweed suggests a wetter period in combination with a natural cycle which this shrub takes. This site has a very good diversity of vegetation, most notably grasses.

Excellent wildlife habitat for ungulates and upland birds.

RFOs Upland and Biotic Standard Assessment Summary Worksheet

SITE 63011-HOUSE-E028

Legal Land Desc	SESE 23 0020S 0170E Meridian 23	Acreage	1487
Ecosite	070CY113NM SHALLOW CP-3	Photo Taken	Y
Watershed	13060006020 GALLO		
Observers	NAVARRO/POST	Observation Date	08/12/2008
County Soil Survey	NM632 LINCOLN	Soil Var/Taxad	
Soil Map Unit	053	Soil Taxon Name	PASTURA
Texture Class	NM632 L	Soil Phase	PASTURA
Texture Modifier	NM632 LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	9.83	NOAA Growing Season Precipitation	7.66
NOAA Avg Annual Precipitation	9.49	NOAA Avg Growing Season Precipitation	7.58
Disturbances and Animal Use:	Very conservative use by livestock here. Seed head on just about all grasses. Grama grasses are represented by ;black (<i>Bouteloua eriopoda</i>), blue (<i>B. gracilis</i>), hairy (<i>B. hisuta</i>) and sideoats (<i>B. curtipendula</i>). Dropseeds (<i>Sporobolus</i> spp.), wolftail (<i>Lycurus phleoides</i>), vine mesquite (<i>Panicum obtusum</i>), with scattered cholla. Snakeweed is very limited.		

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:	current estimate is 20%					
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:	20% is the current estimate					
B	Annual Production					X
Comments:	900 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:						
B	Wildlife Habitat				X	
Comments:	Excellent for pronghorn and good for deer.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					X
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	3	7
H	Hydrologic	0	0	0	4	7
B	Biotic	0	0	0	4	9

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: This site is very diverse in grass species with all 4 major grammas, dropseed, vine mesquite, alkali sacaton (*Sporobolus airoides*), inland salt grass (*Distichlis spicata*), muhlys (*Muhlenbergia* spp.), threeawn (*Aristida* spp.) and hairy tridens (*Tridens pilosus*). Cholla is scattered throughout especially on upland benches.

Very conservative grazing here by cattle. Historical sheep range is evident. All dirt tanks are full. Cage is missing.

RFOs Upland and Biotic Standard Assessment Summary Worksheet

SITE 63011-SINKHOLE-E030

Legal Land Desc	SENW 5 0030S 0180E Meridian 23	Acreage	1860
Ecosite	070CY109NM LOAMY CP-3	Photo Taken	Y
Watershed	13060005040 FIFTEEN MILE		
Observers	NAVARRO/POST	Observation Date	08/12/2008
County Soil Survey	NM632 LINCOLN	Soil Var/Taxad	
Soil Map Unit	009	Soil Taxon Name	DARVEY
Texture Class	NM632 L	Soil Phase	DARVEY- PASTURA
Texture Modifier	NM632 LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	9.83	NOAA Growing Season Precipitation	7.66
NOAA Avg Annual Precipitation	9.49	NOAA Avg Growing Season Precipitation	7.58
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

	Departure from Ecological Site
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Attribute	Indicators	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:	current estimate is 50%					
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:	25% is the current estimate					

B	Annual Production				X	
Comments:	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:						
B	Wildlife Habitat				X	
Comments:	Excellent for deer and pronghorn					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					X
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	3	7
H	Hydrologic	0	0	0	4	7
B	Biotic	0	0	0	7	6

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	May	Meets
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		Meet	Need More Info	
Soil		0	0	10
Hydrologic		0	0	11
Biotic		0	0	13
<p>Site Notes: This site is not as productive as the others, but still has the diversity of vegetation, ie, grasses, forbs and shrubs. This paddock is currently the bull pasture with adequate water spacings. Use is at moderate levels. The cage has been smashed and displaced.</p>				

Determination of Public Land (Rangeland) Health for #63011 Hays-Byrd

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 Hays-Byrd, allotment #63011, 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/ _____
Assistant Field Manager

Date