Determination of Public Land (Rangeland) Health for 65533 SEC 15 CATO BROS

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 the 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 the assessments, it is my determination that the public land within the Cato Field 15 allotment #65533 meets the 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/ Jerry Dutchover .	07/24/2012
Assistant Field Manager	Date

Standards of Public Land Health
Evaluation of 65533 SEC 15 CATO BROS Allotment
[09/28/2010]

The Roswell Field Office conducted Rangeland Health Assessments at 2 study sites within Cato Field15, allotment #65533. These assessments evaluated 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 these field assessments. 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
65533-HW187A-C078	X			X	*		N/A		
65533-JT188-C079	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for the public land on the Cato Field 15 allotment #65533. Ten (10) of these assessed soil site stability, 11 hydrologic function and 13 addressed biotic integrity. These qualitative assessments in conjunction with previous data collected on two locations within the allotment were utilized to make rangeland health determinations. This allotment is in the "C" (custodial) management category due to the small amount of public land present. 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 were initiated in the late 1970's/early 1980's, are scheduled and conducted approximately every 5 to 10 years.

This allotment contains 480 acres of public land. The studies are located on a Sandy Plains CP-2 ecological site and on a Shallow Sand CP-2 ecological site. At each of the study locations a majority of the 22 indicators were rated as either 'None to Slight' or 'Slight to Moderate' degree of departure from the Ecological Site description and/or Ecological Reference Area except for the indicators for Invasive Plants, Special Status Species Habitat and Special Status Species Populations. Each of these indicators was rated as a Moderate departure from the ecological site description. The amount of the mesquite encroachment caused the rating to be considered a Moderate level for Invasive Species and also was an influencing factor for Special Status Species Habitat. The closest known active lek to either of the study locations is approximately 0.75 miles to the east. The population level of lesser prairie chickens here would be influenced by both the amount of mesquite and the ongoing Oil & Gas activity.

Recommendations: As a majority of the indicators fall in the 'None to Slight' or 'Slight to Moderate' category, this allotment is rated as "Meeting" the standard for Rangeland Health.

Continue the rangeland monitoring studies to insure proper stocking rates are maintained and that the perennial grasscover and good plant composition remains. The team recommends that the mesquite populations be mapped, and if warranted, the areas considered for a vegetative treatment. As the public land lay intermingled with private and state lease holdings, it would also be a good opportunity to work with the private land owner and other agencies such as New Mexico State Land Office and Natural Resource Conservation Service (NRCS) to implement the vegetation treatments.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65533-HW187A-C078			
Legal Land Desc	NENE 10 0080S 0300E Meridian 23	Acreage	160
Ecosite	070BY062NM SHALLOW SAND CP-2	Photo Taken	Y
Watershed	13060007050 WHITE LAKES		
Observers	TRAUTNER & R. HOWARD	Observation Date	09/28/2010
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	RBA	Soil Taxon Name	RATLIFF
Texture Class	NM644 FSL	Soil Phase	RATLIFF-REDONA
Texture Modifier	NM644 FINE SANDY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	5.6	NOAA Growing Season Precipitation	4.15
NOAA Avg Annual Precipitation	3.76	NOAA Avg Growing Season Precipitation	3.32
Disturbances and Animal Use:	This assessment location is also in a mixed ecological area of both Shallow Sand CP-2 and Sandy Plains CP-2, showing attributes of both. Many new oil and gas pads and powerlines in this vicinity.		

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:	Pedestals on a few plants					

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:	Higher composition of shrubs					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount			X		
Comments:						
B	Annual Production				X	
Comments:	Production is good, but more should be from grasses					
B	Invasive Plants			X		
Comments:	Mesquite					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts					X
Comments:	Physical crusts					

B	Wildlife Habitat			X		
Comments:	being influenced by oil field operations					
B	Wildlife Populations			X		
Comments:	being influenced by oil field operations					
B	Special Status Species Habitat			X		
Comments:	Recommend mesquite/snakeweed vegetation treatment to help the habitat. Alot of ongoing Oil & gas activity here may also be affecting the habitat.					
B	Special Status Species Populations			X		
Comments:	This area is at least 1 mile from the closest active lek, population levels here are unknown.					

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	1	3	7
B	Biotic	0	0	6	4	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	0	10
Hydrologic		0	1	10
Biotic		0	6	7

Site Notes: Vegetation species noted here include: buckwheats, all key gramas, three-awns, yucca, sand sage and dropseeds.

Recommend consideration of mesquite treatment.

This area is hard to evaluate due to the influence of new oil/gas well pads and associated powerlines.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65533-JT188-C079			
Legal Land Desc	NWNW 13 0080S 0300E Meridian 23	Acreage	320
Ecosite	070BY055NM SANDY PLAINS CP-2	Photo Taken	Y
Watershed	13060007050 WHITE LAKES		
Observers	TRAUTNER & R. HOWARD	Observation Date	09/28/2010
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	FaA	Soil Taxon Name	FASKIN
Texture Class	NM644 LFS	Soil Phase	FASKIN
Texture Modifier	NM644 FINE SAND		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	5.6	NOAA Growing Season Precipitation	4.15
NOAA Avg Annual Precipitation	3.76	NOAA Avg Growing Season Precipitation	3.32
Disturbances and Animal Use:	The assessment area is in a mixed ecological area - containing attributes of a Sandy Plains CP-2 and a Shallow Sand CP-2 site.		

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:	Estimated to be at 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:	a little loss of the A horizon					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:	Increased level of shrubs					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	shrub component is heavy in mesquite and snakeweed					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:						
B	Annual Production					X
Comments:	Within 80% of the expected level of production					
B	Invasive Plants			X		
Comments:	Mesquite encroachment					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts					X
Comments:	Physical crusts present					
B	Wildlife Habitat				X	
Comments:	Too much mesquite for pronghorn, but good for mule deer					

B	Wildlife Populations				X	
Comments:	many wildlife tracks noted					
B	Special Status Species Habitat			X		
Comments:	Poor lesser prairie chicken habitat					
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	1	9
H	Hydrologic	0	0	0	3	8
B	Biotic	0	0	3	5	5

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	3	10

Site Notes: Vegetative species noted here include: nightshade, all key grama species, sand dropseed and three awns, mesquite and scattered snakeweed.

Consider vegetation treatment for mesquite.