

## Standards of Public Land Health

### Evaluation of 62073 ARSENIO SANCHEZ Allotment

[ 11/05/2008 ]

The Roswell Field Office conducted Rangeland Health Assessments at 1 location within Arsenio Sanchez, allotment #62073. These assessments evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of this site. Existing monitoring data and ecological site descriptions were incorporated into and in support of this field assessment. A summary of this 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
62073-IDSU-A074 (*)	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Arsenio Sanchez, allotment #62073. Ten of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with ecological site descriptions, field observations and quantitative information gathered from previous data collected at 1 location within this allotment were utilized to make rangeland health determinations. This allotment is a "C" custodial category due to small amounts of public land present.

This allotment is a Section 15 with 362 acres (146 hectares) public land on a CP-3 shallow plains ecological site. Also referred to as Scattered Tracts, this allotment encompasses Puerto de Luna village west of the Pecos River in Guadalupe county. Current lease authorizes 5 cattle to graze yearlong @ 100% use for a total of 60 AUM's. Soil phase is a Pastura-Clovis fine sandy loam association on 0 to 8% slope with inclusions of lesser soil types. Elevation is between 4,700 ft/1,424 m and 6,200 ft /1,878 m. Parent material for this association is eolian and alluvial materials derived from sandstone, limestone, shale and mixed sources located on ridges, foot and toe slopes or swales.

Majority of indicators assessed, fell well within normal range of variability. Ground cover was more than adequate for site protection with an enormous amount of perennial grass. Grama (*Bouteloua* spp.) grasses were well represented. Blue grama (*Bouteloua gracilis*), black grama (*Bouteloua eriopoda*), sideoats grama (*Bouteloua curtipendula*) and hairy grama (*Bouteloua hirsuta*) dominate this grass component. Sacahuista (*Nolina microcarpa*), cholla (*Opuntia imbricata*), one-seed juniper (*Juniperus monosperma*), mesquite (*Prosopis glandulosa*), dalea (*Dalea formosa*), sumac (*Rhus* spp.) and dogweed (*Dyssodia* spp.) were the shrubs observed. Juniper is encroaching an old lake bed where this evaluation was performed as well as this entire allotment. Invasive plants rate Moderate to Extreme as juniper and cholla are common throughout with plenty recruitment of propagules. Paddocks are currently not being grazed and has resulted in excess forage adding to annual production estimates in excess of 1000 lbs/ac or

kg/ha. Functional/structural groups rate Moderate as the large amount of shrub encroachment limits some of this site's capability.

Mule deer (*Odocoileus hemionus*) habitat is good to excellent. Cover, water and food are plentiful here. In conversation with allottee, mule deer are traversing the toe slopes and drainage ways along floodplain and upland areas from the river corridor. Populations are remaining stable here. Due to large amounts of private land, access for hunting is limited. Current infrastructure of internal and boundary fencing and the scattered nature of these tracts limits vehicle traffic. Only an agreement between land owners permits access through private gates that are locked.

It is the professional opinion of Assessment Team, public land within allotment #62073 Arsenio Sanchez, 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.

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

**Recommendations:** These scattered tracts of public land have been identified in the past for disposal. Either a land trade or sale would help dispose of these tracts. Due to logistics, ie time, effort and money, this allotment takes as much to administer as a Section 3 or "I" category.

Aerial (fixed-wing) brush herbicidal treatments were scheduled for 2008 to improve private and public land portions. Due to logistical problems which compromised our treatment window, these mesquite treatments were postponed until 2009. Recommend follow-up to ensure these projects are put on the ground before contract is expired. Consult closely with allottee and NRCS for this upcoming year to prevent any delays in treatment. Explore alternate mechanism for treatment in event current methods are not working.

Current improvements are adequate, but allottee proposes a water pipeline to move water to this side of the ranch. Recommend, additional watering points for future livestock use in the lake bed pasture. Drinkers and tubs would also provide water for wildlife. This proposal skirts the dry lake bed and stretches east-west across this allotment. Will follow-up with a COOP agreement for all these projects.

<b>RFOs Upland and Biotic Standard Assessment Summary Worksheet</b>			
<b>SITE 62073-IDSU-A074</b>			
Legal Land Desc	SWNW 19 0070N 0220E Meridian 23	Acreage	362

Ecosite	070BY072NM SHALLOW SANDSTONE	Photo Taken	Y
Watershed	13060001190 GUADALUPE MINE		
Observers	NAVARRO/HILL/FLANARY	Observation Date	11/06/2008
County Soil Survey	NM019 GUADALUPE	Soil Var/Taxad	
Soil Map Unit	077	Soil Taxon Name	CARDENAS
Texture Class	NM019 LFS	Soil Phase	CARDENAS-PALMA
Texture Modifier	NM019 LOAMY FINE SAND		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	1.24	NOAA Growing Season Precipitation	1.17
NOAA Avg Annual Precipitation	2.69	NOAA Avg Growing Season Precipitation	2.18
Disturbances and Animal Use:	Only two-tracks and hunter activity is disturbing this site. No livestock were observed but deer activity is in this area and east toward the river.		

### 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:	30-40% is the current estimate.					
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or					X

	Deposition Areas					
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:	20-30% is the current estimate.					
B	Annual Production				X	
Comments:	800-900 lbs/ac or kg/ha is the current estimate					
B	Invasive Plants		X			
Comments:	Juniper is common and increasing; mesquite is scattered throughout; cholla is common throughout.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	physical/biological					
B	Wildlife Habitat				X	
Comments:	Excellent for 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	6	4
H	Hydrologic	0	0	0	8	3
B	Biotic	0	1	0	7	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		1	0	12

Site Notes: This site is characterized by sandy to shallow/sandy and loamy soil, which rests on top of a shallow sandstone savannah with very fragile and rocky outcrop influence. The grama grass component is well represented. Dropseed and threeawn are also observed.

This site was gps'd just inside an old lake bed which has been taken over by juniper and cholla. Dalea, dyssodia, sumac and sacahuista are also in abundance throughout this site and allotment as a whole.

Allotee proposes to install a water pipeline and two drinkers to get water into this pasture from a solar well from the west. Archaeological clearance was also performed along with compliance and overall allotment inspection.

# **Determination of Public Land (Rangeland) Health for 62073 ARSENIO SANCHEZ**

Based on my review of Assessment Team's recommendation and other relevant data and information, I have determined the site within #62073 Arsenio Sanchez meets the Standards of Rangeland Health.

/s/ BRAD PENDLEY  
Assistant Field Manager

11/20/2008  
Date