Determination of Public Land (Rangeland) Health for 65540 MALCOLM C HARRAL SEC 15

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 Malcolm C. Harral allotment #65540 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/ T. R. KREAGER	09/09/2004
Assistant Field Manager	Date

Standards of Public Land Health
Evaluation of 65540 MALCOLM C HARRAL SEC 15 Allotment
[03/13/2004]

The Roswell Field Office conducted rangeland health assessments at one study site withinthe Malcolm C Harral Sec 15 Allotment #65540. 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
65540-HW156-C065	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for the Malcolm c Harral Sec 15 allotment; 10 of these assessed soil/site stability, 11 assessed hydrologic functions and 13 assessed biotic integrity. These qualitative assessments along with quantitative information from two areas on the allotment were utilized to assess the rangeland health of the public land within the allotment. This allotment is a "C" category (custodial) due of the small amount of public land within the allotment.

The indicators rated in the majority of None to Slight to Slight to Moderate category, with the exception of bareground, annual production and invasive plants rating in the Moderate category. But none of these exhibit any real concern at the moment. Favorable precipitation events would further augment this site's potential. The low presence of grama grasses is evident however on this soil type tobosa and burrograss may dominate. However, the reproductive capability of the perennial plants to reproduce was not limited. There was a generous amount of physical crusting which may be holding the soil in place until favorable climatic conditions return. This site is a Loamy SD-3 and exhibits some prickly pear (Opuntia spp.) encroachment but not to the level of limiting this site's potential.

Hydrology - Pasture HW156 - The bare ground indicator rated as moderate. The amount of bareground has possibly increased due to recent dry conditions and also wind and water erosion processes. The litter amount rated in the moderate category. The decrease in litter amount suggests that the dry conditions have had a negative affect on the growing conditions which decreases the amount of litter that is produced. Additionally, the decrease in litter amount can have the effect of increasing the amount of bare soil. All

other indicators rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary pediment deposits outcrop in the area.

Wildlife - There is a 160 acre tract of public land within this grazing allotment. The highway and right-of-way fencing to the north effectively limit pronghorn antelope movement off of the allotment. Herds are still able to move between allotments south the highway. Litter, annual production and invasive plants rated Moderate. The primary biotic factor of concern is annual production which is closely tied to the droughty conditions over the past several years.

It is the professional opinion of the Assessment Team. that the public land within the Malcolm C Harral Sec 15 allotment meets the Upland and Biotic standards. There are no Riparian issues present, therefore this standard was not addressed.

Recommendations: Wildlife - Consider exchanging these lands to consolidate public lands along Commanche Draw, a significant riparian-wetland area.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65540-HW156-C065			
Legal Land Desc	NESE 34 0100S 0260E Meridian 23	Acreage	160
Ecosite	042CY007NM LOAMY SD-3	Photo Taken	Y
Watershed	13060007010 GOPHER		
Observers	SPAIN/NAVARRO	Observation Date	03/16/2004
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	HMA	Soil Taxon Name	HOLLOMEX
Texture Class	NM644 L	Soil Phase	HOLLOMEX-REEVES-MILNER
Texture Modifier	NM644 LOAM,DRY		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	7.94	NOAA Growing Season Precipitation	4.91
NOAA Avg Annual Precipitation	12.83	NOAA Avg Growing Season Precipitation	10.65
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:						
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:	Tobossa, burro-grass,mesquite,yucca. Gramma grasses are present but have been impacted by the drought					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount			X		

Comments:						
B	Annual Production			X		
Comments:						
B	Invasive Plants			X		
Comments:	Mesquite is common and Opuntia species are in scattered patches					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Primarily a physical crust					
B	Wildlife Habitat				X	
Comments:	A relatively flat grassland habitat on an isolated 160-acre parcel of public land bounded by State Trust lands. Highway 70 serves as the north boundary of this very small grazing allotment. Mesquite is scattered throughout the area of concern and Opuntia is increasing. Trend is somewhat downward based on these factors. A concern would be forb production.					
B	Wildlife Populations				X	
Comments:	Primary species of concern are pronghorn antelope and a variety of non-game terrestrial species. Herds are able move between allotments in this area. The highway is an effective barrier to movement. Local herd movement somewhat limited to habitat south the highway.					
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					
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	5	4
H	Hydrologic	0	0	2	6	3
B	Biotic	0	0	3	6	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	1	9
Hydrologic		0	2	9
Biotic		0	3	10

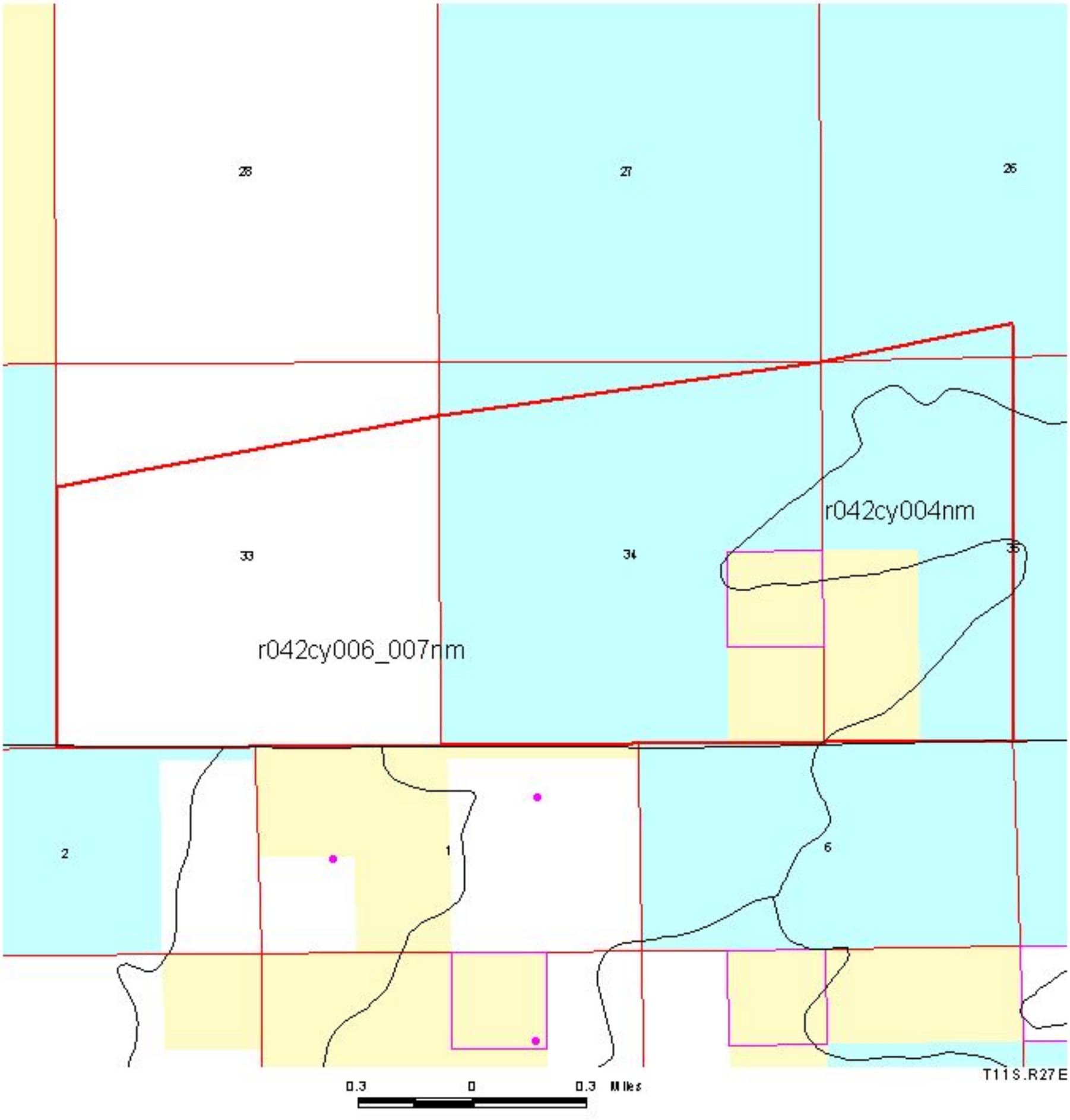
Site Notes: The gypsic soils of the HOLLOMEX-REEVES-MILNER association greatly influence the vegetative community found on this site. Tobossa, burrograss and gyp gramas are dominant. Gyp Upland ecological site inclusions are scattered inclusions within this area. These inclusions are on the more shallow to very shallow soils.

65540 – Site HW156

Rangeland Health Assessment
Ecological Sites

Allotment 65540

T10S.R26E



Public

Study Plots

State

Private

Study Locations

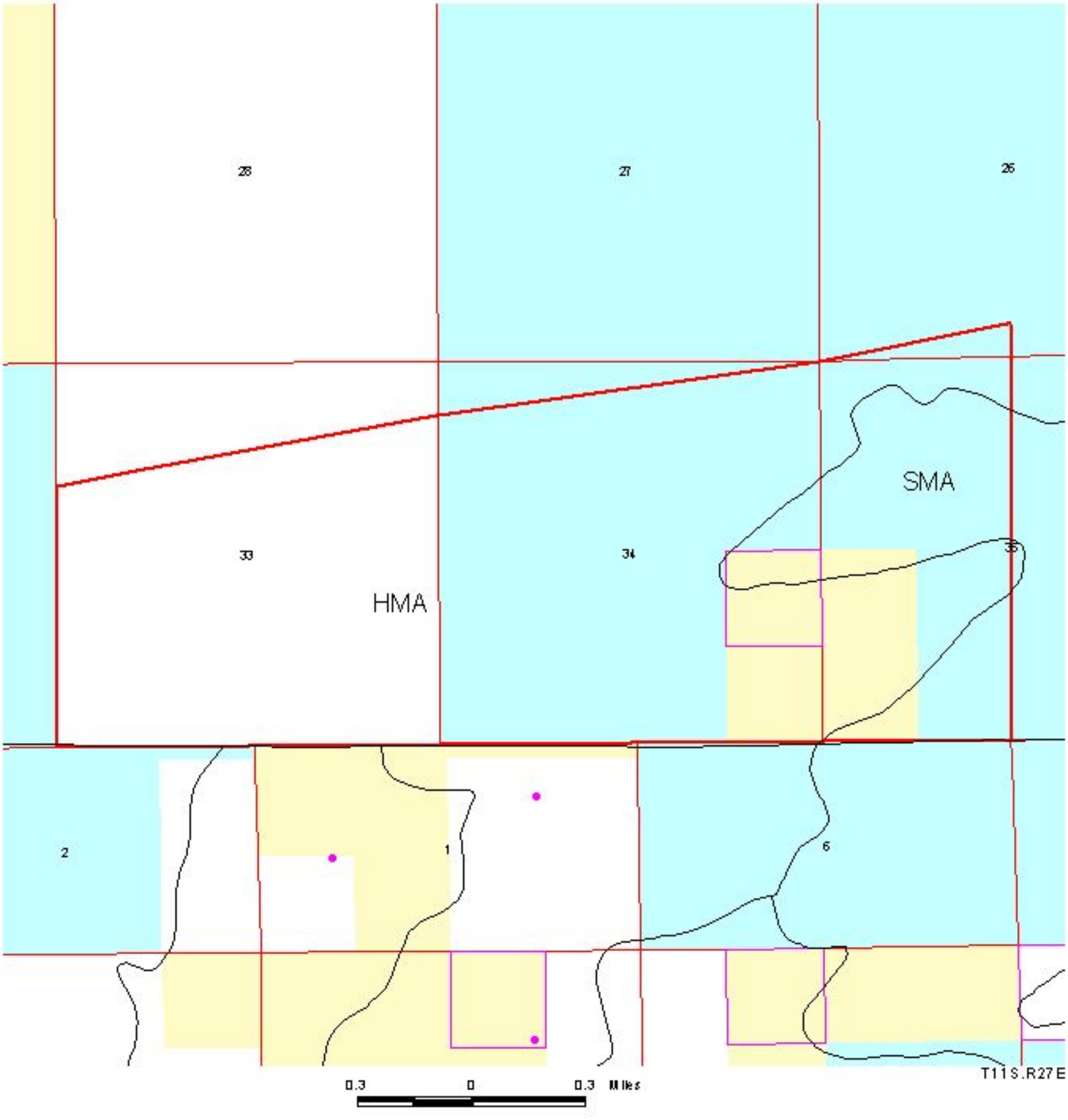
Ecological Site Boundary

Allotment Boundary

Produced by the Roswell Field Office
GIS Intern on July 9, 2003.

Rangeland Health Assessment
Soil Mapping Units

Allotment 65540



Produced by the Roswell Field Office
GIS Intern on July 9, 2003.