

Standards of Public Land Health Evaluation of 65079 S AND S Allotment [06/04/2008]

The Roswell Field Office conducted rangeland health assessments (RHA) at 1 study site within allotment #65079, S AND S. This assessment evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of this study site. Existing monitoring data was 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 |
| 65079-WEST-D162 (*) | X | * | | X | | | N/A | | |

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on S and S, allotment #65079. Ten of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with ecological site descriptions and quantitative information gathered from previous data collected on 1 trend plot location 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 located off the Caprock Ridge and Maljamar Highway just adjacent to the Caprock Oil Field in southeast Chaves county. A major gas pipeline traverses this area. Currently this allotment is permitted for 33 animal units (AU's) at 94 % public land use fir 372 animal unit months (AUM's), and is classified in the "M" or maintain category. Ecological site is Deep Sand CP-2 on 0-5% slopes with elevation ranging from 3,500 ft (1,060 m) to 4,200 ft (1,272 m). Soil is (FaA) - Faskin fine sand, deep, well drained on high terraces.

Most indicators assessed rated Moderate and higher indicating some erosion processes taking place. Past and present oil and gas activity with producing wells have taken over this landscape. Pads, ROW's and roads are scattered throughout this allotment. An on-going reclamation project has been undertaken to remove production facilities and identify the appropriate party for reclamation responsibility. Just a few indicators fell well within normal range of variability. At present there are no livestock as the grazing allottee has elected not to stock this ranch yet.

Evaluation of the integrity of biotic community considered several indicators as attribute indices for the area of interest. Biotic indicators are interrelated with several other indicators, including soil/site stability, hydrologic function, and vegetation. Several indicators are singularly biotic and

address the vegetative aspect of the ecological site description, such as functional/structural groups and plant mortality & decadence.

In addition to the standard worksheet biotic factors, four specific wildlife indicators and descriptors are included in this evaluation. A unique assemblage of terrestrial species and avifauna can be expected to use the Mescalero Sands ecosystem. Of significance are the lesser prairie chicken (*Tympanuchus pallidicinctus*) and sand dune lizard (*Sceloporus arenicola*) known only to occur within this ecosystem. The vegetation community of interest is the shinnery oak-tall grass type only found in this portion of the Field Office area.

Key habitat components include sand bluestem (*Andropogon hallii*), shinnery oak (*Quercus havardii*), sand dune lizard habitat features (dune blowouts), and lesser prairie chicken habitat features (booming grounds & nesting areas). The amount, condition and juxtaposition of these habitat features are used as habitat indicators for this assessment.

Key attributes for indicators related to LPC habitat are functional/structural groups, annual production, and invasive plants. Key attribute/indicators related to SDL habitat are bare ground, wind-scoured blowouts, deposition areas and annual production. Sand dune lizards are generally associated with blowouts that are un-stabilized, i.e., microhabitats affected by the physical attributes of dunes and vegetation.

Other important wildlife species and their habitats, such as desert mule deer, pronghorn, a variety of game and non-game species, are considered in the assessment but not the focus of the evaluation. The assessment begins by determining if the site is within "Core Areas" for lesser prairie chicken, or contains potential/occupied habitat for the sand dune lizard. It has been determined this allotment is not within "Core Areas" for either special status species, although neighboring ranches are occupied by these species

It is the professional opinion of the Assessment Team, public land within S and S, allotment #65079 meets the Upland and Biotic standards. There are no Riparian issues present therefore this standard was not addressed. See site notes and recommendations for any additional information regarding this ecological site.

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: Recommend a rest/rotation grazing system. The current watering points are adequate for livestock distribution although at the time of evaluation there is no livestock.

Herbicidal treatment of mesquite by aerial application of Reclaim/Remedy is highly recommended from fenceline to fenceline. This control is highly suitable and should take place in June of years 2009 or 2010. A Cooperative Agreement between the BLM and the livestock operator would initiate this process. This agreement would stipulate that a two growing season deferment post-treatment be included, and allow for perennial grass and other desirable plant species to propagate and establish.

Monitoring and compliance should continue for this allotment. A major oil and gas clean-up is underway here. Periodic evaluations should be conducted and allotment inspections performed here.

Time should be allotted and all improvements, fencelines and other range projects need to be gps'd and plotted into our system. Recommend a possible pasture division fence to create at least two large pastures in which livestock could be rotated in and out of for either brush treatments or rest rotation.

RFOs Upland and Biotic Standard Assessment Summary Worksheet

SITE 65079-WEST-D162

| | | | |
|--------------------------------------|---|--|------------|
| Legal Land Desc | NENE 17 0140S 0310E Meridian 23 | Acreage | 2461 |
| Ecosite | 070BY063NM DEEP SAND CP-2 | Photo Taken | Y |
| Watershed | 13060007090 SHINNERY SANDS | | |
| Observers | NAVARRO/POST | Observation Date | 09/22/2008 |
| County Soil Survey | NM666 CHAVES SOUTH | Soil Var/Taxad | |
| Soil Map Unit | Fa | Soil Taxon Name | FASKIN |
| Texture Class | NM666 LFS | Soil Phase | FASKIN |
| Texture Modifier | NM666 FINE SAND | | |
| Observed Avg Annual Precipitation | | Observed Avg Growing Season Precipitation | |
| NOAA Annual Precipitation | 7.52 | NOAA Growing Season Precipitation | 6.45 |
| NOAA Avg Annual Precipitation | 7.73 | NOAA Avg Growing Season Precipitation | 6.88 |
| Disturbances and Animal Use: | No livestock at the moment, but oil and gas activity is high. | | |

Part 2. Attributes and Indicators

| Attribute | Indicators | Departure from Ecological Site 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: | 40-50% is the current estimate | | | | | |

| | | | | | | |
|-----------|---|--|---|---|---|---|
| S H | Gullies | | | | X | |
| Comments: | associated with access roads traversing arroyos | | | | | |
| 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: | 5009 lbs/ac or kg/ha is the current estimate | | | | | |
| B | Invasive Plants | | X | | | |
| Comments: | Invasive plant sps. is Mesquite. This sps. is common throughout the entire allotment. Treatment is recommended. | | | | | |
| B | Reproductive Capability of Perennial Plants | | | X | | |
| Comments: | there are some limitations | | | | | |
| S | Physical/Chemical/Biological Crusts | | | | X | |
| Comments: | | | | | | |
| B | Wildlife Habitat | | | | X | |
| Comments: | 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 | 1 | 8 | 1 |
| H | Hydrologic | 0 | 0 | 2 | 8 | 1 |
| B | Biotic | 0 | 1 | 3 | 6 | 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 | 1 | 9 |
| Hydrologic | | 0 | 2 | 9 |
| Biotic | | 1 | 3 | 9 |

Site Notes: Bareground-40 to 50 % (ESD-35 %) The bare ground is slightly higher due to mesquite invasion. Spraying for mesquite control is highly recommended. A seed bank is more than adequate to fill in the infested areas, with adequate rainfall this site would be 30 to 35 % bare ground in one year.

The annual production is slightly less than the ESD due to mesquite invasion. There is no grazing at this time due to oil and gas cleanup activities. Plans are to graze next year with a rest rotation grazing system. The entire allotment needs treated for mesquite control. In combination with no grazing at this time and adequate rainfall the production would probably be higher than

the ESD.

Potential for this site and allotment is high if left to rest. Shinnery oak and mesquite both co-habitate this allotment.

Determination of Public Land (Rangeland) Health for 65079 S AND S

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 these assessments, it is my determination that public land within S and S, allotment #65079, 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/ HOWARD PARMAN
Assistant Field Manager

11/03/2008
Date