

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
Field Office

SANDY LOAM UPLAND (Sodic),  
5-8" p.z.  
RANGE SITE DESCRIPTION

Major Land Resource Unit: D-37A  
Site No.: 037AY033NM

Date: AUG 24 1993

Approved By: R.S. Carmichael

A. PHYSICAL CHARACTERISTICS

1. Physiographic Features

This site occurs on eolian-mantled fan terraces. It benefits from run-in moisture from adjacent areas following high intensity short duration summer thunderstorms. Slopes range from 1 to 3 percent. Elevations range from 5,400 to 5,700 feet.

2. Soils

a. The soils are very deep and well drained. They are formed in eolian and alluvium derived from sandstone and shale. Surface textures include loamy sand. The subsoil has textures of fine sandy loam, clay loam, sandy clay loam, and loamy sand. Permeability is moderately slow. Available water capacity is high to very high. Runoff is slow and the hazard of water erosion is moderate. The hazard of soil blowing is severe. They are moderately sodic (SAR 13-30); moderately saline (EC 8-16); mildly to strongly alkaline (pH 7.4-9.0).

b. Major soils associated with this site are:

Soil Taxonomic Unit

Shiprock SSA:

140 - Benally loamy sand, overblown.

Additional information may be found in Section II of the Field Office Technical Guide.

3. Climatic Features

- a. Mean annual precipitation varies from 5 to 8 inches. About 60 percent of this moisture comes as rain during the months of April through October. May and June are the driest months. Most of the moisture from November through March comes as snow. Winds of high velocity during late winter and early spring are common.
- b. Mean temperatures for the hottest month, July, are about 83° F. The coldest month is January, when the mean temperature is about 27° F. Extreme temperatures of 104° F. for a high and -17° F. for a low have been recorded. Frost free period ranges from 140 to 160 days.
- c. The cool-season plants start growth in March and end with plant maturity and seed dissemination about mid-June. During June, July, August and September, the warm-season plants make optimum growth taking advantage of the warm temperature and moisture from tropical air out of the Gulf of Mexico. About 40 percent of the total precipitation is received during these summer months. The other 60 percent received during the fall-winter-spring months influence cool-season plants.

4. Native (potential or climax) Vegetation

- a. This range site has a plant community made up primarily of mid and short grasses and some shrubs. Forbs are in a small percentage. In the original plant community there is a mixture of both cool and warm season grasses.
- b. Plant species most likely to invade or increase on this site when it deteriorates are annual barley, Russian thistle and other annual forbs. Continuous livestock grazing use during the winter and spring periods will decrease the cool season grasses, which are replaced by lower forage value grasses and shrubs.
- c. The following is a list of plants that are found in the potential plant community. Range condition of areas within this site is determined by comparing the present plant community with that of this potential plant community. Count as potential no more than the maximum percent shown on the guide for any species. Four condition classes are used to express this degree of comparison of the present plant community to that of the potential:

Excellent	76-100
Good	51-75
Fair	26-50
Poor	0-25

Relative percentage of total plant community by weight:

<u>Grasses and Grasslike (80-90%)</u>	<u>Percent</u>
alkali sacaton (SPAI)	50-60
galleta (HIJA)	10-15
bottlebrush squirreltail (SIHY)	0-10
Indian ricegrass (ORHY)	1-10
sand dropseed (SPCR)	1-5
others perennial grasses (PPGG)	1-5

<u>Forbs (1-5%)</u>	<u>Percent</u>
perennial forbs (PPFF)	1-3
annual forbs (AAFF)	0-2

<u>Shrubs and Trees (5-10%)</u>	<u>Percent</u>
fourwing saltbush (ATCA2)	1-5
other shrubs (SSSS)	0-5

This list of plants and their relative proportions are based on near normal years. Fluctuations in species composition and relative production may change from year to year dependent upon abnormal precipitation or other climatic factors.

The potential (climax) plant community has been determined by study of range relict areas, or areas protected from excessive grazing. Trends in plant communities going from heavily grazed areas to lightly grazed areas, seasonal use pastures and historical accounts have also been used.

5. Total Annual Production

In excellent condition this site will produce approximately the following amounts of air dry herbage per acre in:

favorable year	<u>900</u> lbs.
normal year	<u>700</u> lbs.
unfavorable year	<u>500</u> lbs.

B. MAJOR USES

1. Livestock

a. Site factors influencing management

This site is suitable for yearlong grazing by all classes of livestock, and is easily traversed. Planned grazing systems adapt well to use on this site.

b. Guide to Initial Stocking Rate

The following stocking rates may be used as a guide to establish a safe starting stocking, but should be evaluated and livestock numbers adjusted based on actual use experience and climatic fluctuations.

<u>Condition Class</u>	<u>Percent Climax Vegetation</u>	<u>AC/AUM</u>	<u>AUM/AC</u>
Excellent	76-100	2-4	.25-.50
Good	51- 75	3-5	.20-.33
Fair	26- 50	5-8	.12-.20
Poor	0- 25	8-13	.07-.12

2. Wildlife

a. Site factors influencing wildlife.

This site is well used by wildlife that require digging and those which require open grassland.

b. Guide to site plant use by wildlife species.

Plant Species	Selected Wildlife Species			
	Cottontail Rabbit	Mule Deer	Pronghorn	Mourning Dove
alkali sacaton	X			
galleta		F-Foliage	F-Foliage	
bottlebrush squirreltail		F-Foliage	F-Foliage	
Indian ricegrass	X	G-Foliage	G-Foliage	G-Seed
perennial forbs	G-Foliage	G-Foliage	G-Foliage	G-Seed
fourwing saltbush	G-Foliage	F-Foliage	G-Foliage	

G = Good      F = Fair      P = Poor      X = Used, Extent Unknown

3. Recreation and Natural Beauty

a. Land Form -

This site occurs on eolian-mantled fan terraces.

b. Landscape Quality -

The fan terraces have a tremendous aesthetic appeal as grasslands.

c. Climate -

The winters are cold. Spring time is usually windy. The summers are mild with typical Southwest thunderstorms.

d. Activities -

Horseback riding, wildlife observation and hunting are the main activities for which the site is suited.

4. Other Uses -

C. THREATENED OR ENDANGERED PLANTS AND ANIMALS

1. Plants -

None known.

2. Animals -

None known.

D. LOCATION OF TYPICAL EXAMPLE OF THE SITE

1. State location - Sheep Springs - 0.5 miles NE of Sheep Springs, NM - Sec. 7, T22N, R17W - Navajo Res., NM.

2. Field office site location -

E. FIELD OFFICES

Shiprock, NM; Window Rock, AZ; Aztec, NM; Gallup, NM.