

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
Field Office

SANDY TERRACE (SODIC), 5-8" p.z.
RANGE SITE DESCRIPTION

Major Land Resource Unit: D-37A
Site No.: 037AY034NM

Date: AUG 24 1993
Approved By: R. L. Cairns

A. PHYSICAL CHARACTERISTICS

1. Physiographic Features

This site occurs on low stream terraces on valley floors. It does not benefit from run-in moisture from adjacent areas, nor does it suffer from excessive loss from runoff. It occurs on all exposures. Slopes range from 0 to 3 percent. Elevations range from 4,700 to 6,000 feet.

2. Soils

a. The soils are very deep and well drained. They are formed in alluvium derived from sandstone and shale. Surface textures include loamy fine sand. The subsoil has textures of loamy fine sand, loamy very fine sand, clay loam, fine sandy loam and silty clay loam. Permeability is moderately slow. Available water capacity is high. Runoff is slow and the hazard of water erosion is slight. The hazard of soil blowing is severe. The soils are slightly sodic (SAR 5-13); slightly saline (EC 4-8); and moderately to strongly alkaline (pH 7.9-9.0).

b. Major soils associated with this site are:

Soil Taxonomic Unit

Shiprock SSA:

165 - Jeddito-Escavada Assoc. (Jeddito part).

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 grasses, shrubs and a low percentage of forbs. 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 black greasewood, Torrey seepweed, annual grama, Russian thistle and other annual forbs. Continuous livestock grazing during the winter and spring periods will decrease the cool season grasses, which are replaced by lower forage value species.
- 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 (65-75%)</u>	<u>Percent</u>
alkali sacaton (SPAI)	25-30
Indian ricegrass (ORHY)	15-20
galleta (HIJA)	5-10
sand dropseed (SPCR)	0-3
bottlebrush squirreltail (SIHY)	0-5
other perennial grasses (PPGG)	0-2

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

<u>Shrubs and Trees (15-20%)</u>	<u>Percent</u>
mound saltbush (ATOB)	10-15
fourwing saltbush (ATCA2)	0-1
shadscale (ATCO)	0-1
black greasewood (SAVE4)	1-5
other shrubs (SSSS)	0-2

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>650</u> lbs.
normal year	<u>550</u> lbs.
unfavorable year	<u>450</u> lbs.

B. MAJOR USES

1. Livestock

a. Site factors influencing management

This site is suitable for grazing by all classes of livestock most seasons of the year. Planned grazing systems can be readily adapted to this site. Soils in this site have a high wind erosion hazard and with site deterioration erosion occurs on overgrazed areas, roads, livestock trails and concentration areas.

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	4-5	.20-.25
Good	51- 75	5-6	.16-.20
Fair	26- 50	8-11	.09-.12
Poor	0- 25	15-22	.04-.06

2. Wildlife

a. Site factors influencing wildlife.

Wintering area for mule deer. Competition with livestock during fall and winter.

b. Guide to site plant use by wildlife species.

Plant Species	Selected Wildlife Species			
	Cottontail Rabbit	Ord's Kangaroo Rat	Pronghorn	Mourning Dove
alkali sacaton	X	G-Seed		
Indian ricegrass	X	G-Seed	G-Foliage	G-Seed
galleta			F-Foliage	
bottlebrush squirreltail			F-Foliage	
perennial forbs	G-Foliage	G-Seed	G-Foliage	G-Seed
mound saltbush	F-Foliage			
fourwing saltbush	G-Foliage	G-Seed	G-Foliage/Seed	
black greasewood			P-Foliage	

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

3. Recreation and Natural Beauty

a. Land Form --

This site is on low stream terraces on valley floors.

b. Landscape Quality -

The general appearance of this site in excellent or good condition is grassland interspersed with shrubs. When in poorer conditions, black greasewood often dominates making an interesting contrast to surrounding sites.

c. Climate -

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

d. Activities -

Hunting, horseback riding and wildlife observations are occasional recreational activities on this site.

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 - Little Water Quad - 1 mile N. of Little Water, NM - SW4 Sec. 32, T26N, R17W - Navajo Res., NM.

2. Field office site location -

E. FIELD OFFICES

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