

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
Field Office

SILTY FAN, 5-8" p.z.
RANGE SITE DESCRIPTION

Major Land Resource Unit: D-37A
Site No.: 037A4036NM

Date: AUG 24 1993
Approved By: *R.S. Cainichal*

A. PHYSICAL CHARACTERISTICS

1. Physiographic Features

This site occurs on alluvial fans and braided upland flood plains of undulating plateaus. It may receive some additional moisture from run-in of adjacent areas, but most is lost to runoff balancing out a positive effect. It occurs on all exposures. Slopes range from 1 to 3 percent. Elevations range from 4,900 to 6,000 feet.

2. Soils

a. The soils are deep and well drained. They are formed in alluvium derived from siltstone. Surface textures include very fine sandy loam. The subsoil has textures of very fine sandy loam and loam. Permeability is moderate. Available water capacity is high. Runoff is medium and the hazard of water erosion is moderate. The hazard of soil blowing is severe. The soils are mildly to moderately alkaline (pH 7.4-8.4). They are slightly saline (EC 4-8) and slightly sodic (SAR 5 to 13).

b. Major soils associated with this site are:

Soil Taxonomic Unit

Shiprock SSA:

330 - Ravola very fine sandy loam.

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 with some shrubs and 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 annual wheatgrass, annual barley, Russian thistle, cheatgrass, globemallow and other annual weeds. Continuous livestock grazing during the winter and spring periods will decrease the cool season grasses, which are replaced by lower forage value grasses and forbs.
- 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 (60-70%)</u>	<u>Percent</u>
alkali sacaton (SPAI)	25-30
Indian ricegrass (ORHY)	5-10
galleta (HIJA)	15-20
sand dropseed (SPCR)	0-3
bottlebrush squirreltail (SIHY)	5-10
other perennial grasses (PPGG)	0-3

<u>Forbs (5-10%)</u>	<u>Percent</u>
globemallow (SPHAL)	1-3
yellow beeplant (CLLU2)	0-1
pepperweed (LEPID)	0-1
perennial forbs (PPFF)	1-4
annual forbs (AAFF)	0-1

<u>Shrubs and Trees (10-25%)</u>	<u>Percent</u>
sickle saltbush (ATFA)	5-10
mound saltbush (ATOB)	5-10
shadscale (ATCO)	0-3
fourwing saltbush (ATCA2)	0-1
winterfat (EULA5)	0-3
Castle Valley clover (ATCU)	0-3
other shrubs (SSSS)	0-3

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>600 lbs.</u>
normal year	<u>500 lbs.</u>
unfavorable year	<u>400 lbs.</u>

B. MAJOR USES

1. Livestock

a. Site factors influencing management

This site is suited for yearlong grazing by all classes of livestock and is easily traversed. It will respond quickly to a planned grazing system. This site is susceptible to erosion, particularly overgrazed areas, old roads and concentration areas. The site may be somewhat inaccessible to livestock during the occasional brief periods following the summer thunderstorms.

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	4-6	.14-.16
Good	51- 75	5-7	.12-.14
Fair	26- 50	8-10	.09-.10
Poor	0- 25	11-17	.05-.05

2. Wildlife

a. Site factors influencing wildlife.

Wintering area for big game species.

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		G-Seed	F-Foliage	
globemallow	G-Foliage	G-Seed	G-Foliage	G-Seed
perennial forbs	G-Foliage	G-Seed	G-Foliage	G-Seed
mound saltbush	F-Foliage			
shadscale			G-Foliage	
winterfat			G-Foliage	

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

3. Recreation and Natural Beauty

a. Land Form -

Alluvial fans and braided upland flood plains of undulating plateaus.

b. Landscape Quality -

The grassy flood plains give an interesting scene from the adjacent sites and is aesthetically pleasing.

c. Climate -

Winters are cold. Springtime is usually windy. The summers are mild with typical Southwest thunderstorms that may cause brief periods of flooding.

d. Activities -

Hunting, horseback riding, and wildlife observations are occasional recreation activities.

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 - Yellow Hill Quad - about 13 miles SW of Shiprock, NM
- Sec. 6, T27N, R18W - Navajo Res., NM.

2. Field office site location -

E. FIELD OFFICES

Shiprock, NM; Aztec, NM.