

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
Field Office

SALT MEADOW, 5-8" p.z.  
RANGE SITE DESCRIPTION

Major Land Resource Unit D-37A  
Site No.: 037AY026NM

Date: AUG 24 1999  
Approved By: R. B. Carmichael

A. PHYSICAL CHARACTERISTICS

1. Physiographic Features

This site occurs on high flood plains of the San Juan River. Flooding rarely occurs; but a high water table does benefit the site. Depth to seasonal high water table is 2 to 5 feet. It occurs on all exposures. Slopes range from 0 to 1 percent. Elevations range from 4,600 to 5,000 feet.

2. Soils

a. The soils are very deep, moderately well to somewhat poorly drained. They are formed in alluvium derived from sandstone and shale. Surface textures include fine sandy loam, loam, and silty clay loam. The subsoil has textures of loam, fine sandy loam, silt loam, sand, fine sand, loamy fine sand, very fine sandy loam, clay loam, silty clay loam, and silty clay. Permeability is moderate to slow. Available water capacity is low to high. Runoff is slow to very slow and the hazard of water erosion is none to slight. The hazard of soil blowing is severe. The soils are slightly to strongly saline (EC 4-16+); none to moderately sodic (SAR 0-30); and moderately alkaline (pH 7.9-8.4).

b. Major soils associated with this site are:

Soil Taxonomic Unit

Shiprock SSA:

- 153 - Green River - Green River, saline complex
- 157 - Werlog, saline - Werlog complex
- 163 - Werlog silty clay 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 mid and short grasses, scattered shrubs and a relatively small percentage of forbs. There is a mixture of cool and warm season plants.
- b. Plant species most likely to invade or increase on this site when it deteriorates are annual mustard, fireweed, Russian thistle, cheatgrass, black greasewood, threadleaf rubber rabbitbrush and saltcedar.
- 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 (60-80%)</u>	<u>Percent</u>
inland saltgrass (DIST)	30-40
alkali sacaton (SPAI)	5-10
saltsedge (CASA6)	1-5
alkali bluegrass (POJU)	0-5
western wheatgrass (AGSM)	0-5
alkali cordgrass (SPGR)	1-10
foxtail barley (HOJU)	1-5
other perennial grasses (PPGG)	0-5

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

<u>Shrubs and Trees (5-15%)</u>	<u>Percent</u>
fourwing saltbush (ATCA2)	1-5
black greasewood (SAVE2)	1-3
New Mexico olive (FONE)	1-3
iodinebush (ALOC2)	0-2
Torrey seepweed (SUTO)	0-2
threadleaf rubber rabbitbrush (CHNAC)	1-3
Fremont cottonwood (POFR2)	0-1
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>1800 lbs.</u>
normal year	<u>1300 lbs.</u>
unfavorable year	<u>800 lbs.</u>

B. MAJOR USES

1. Livestock

a. Site factors influencing management

This site is suitable for yearlong grazing by all classes of livestock. Planned grazing systems adapt well to use on this site. This site may be hazardous on areas where flooding rarely occurs.

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	1-3	.33-1.0
Good	51- 75	2-4	.25-.05
Fair	26- 50	3-5	.20-.33
Poor	0- 25	4-8	.12-.25

2. Wildlife

a. Site factors influencing wildlife.

This wetland site attracts maximum numbers of species of upland and wetland wildlife. Competition with livestock can be high year round.

b. Guide to site plant use by wildlife species.

<u>Plant Species</u>	<u>Selected Wildlife Species</u>		
	Mule Deer	Mourning Dove	Cottontail Rabbit
alkali sacaton	F-Foliage		
salt sedge			X
western wheatgrass	G-Foliage		
perennial forbs	G-Foliage	G-Seed	G-Foliage
fourwing saltbush	F-Foliage		X-Foliage
New Mexico olive		X-Seed	
Fremont cottonwood	F-Foliage	G-Nesting	

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

3. Recreation and Natural Beauty

a. Land Form -

High flood plains of the San Juan River.

b. Landscape Quality -

The grass-meadow look is aesthetically appealing.

c. Climate -

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

d. Activities -

Wildlife observations and hunting are activities on this site.

4. Other Uses -

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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 - Shiprock - about 1 mile SE of junction of U.S. Highways 64 and 66 in Shiprock, NM - Sec. 31, T30N, R17W - Navajo Res., NM.

2. Field office site location -

E. FIELD OFFICES

Shiprock, NM; Aztec, NM.