

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
Field Office

LOAMY BOTTOM (Subirrigated),
5-8" p.z.
RANGE SITE DESCRIPTION

Major Land Resource Unit: D-37A
Site No.: 037AY019NM

Date: AUG 24 1993

Approved By: *R.S. Carmichael*

A. PHYSICAL CHARACTERISTICS

1. Physiographic Features

This site occurs on low braided flood plains (intermittent channels) of the San Juan River. It receives additional moisture from frequent brief periods of flooding. Depth to seasonal water table is 24 to 42 inches that also benefits the site. 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 and somewhat poorly drained. They are formed in alluvium derived from sandstone, shale and quartzite. Surface textures include fine sandy loam. The subsoil has textures of loamy fine sand, fine sandy loam, silt loam and stratified very gravelly coarse sand and sand. Permeability is moderately slow. Available water capacity is low. Runoff is very slow and the hazard of water erosion is none. The hazard of soil blowing is severe. The soils are slightly saline (EC 4-8) and mildly to moderately alkaline (pH 7.4-8.4) and non sodic (SAR 0-5).

- b. Major soils associated with this site are:

Soil Taxonomic Unit

Shiprock SSA:

142 - Bebevar-Walrees complex (Walrees 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 shrubs and mid grasses. Some water tolerant grass-like species are present. The shrub species form dense groves.
- b. Plant species most likely to invade or increase on this site when it deteriorates are annual weeds, Russian olive, saltcedar, quackgrass and saltgrass.
- 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 (40-50%)</u> | <u>Percent</u> |
|---------------------------------------|----------------|
| inland saltgrass (DIST) | 15-20 |
| western wheatgrass (AGSM) | 10-15 |
| baltic rush (JUBA) | 1-5 |
| sedge (CAREX) | 1-5 |
| foxtail barley (HOJU) | 0-2 |
| redtop (AGAL3) | 0-3 |
| slender wheatgrass (AGTR) | 0-3 |
| common reed (PHCO15) | 0-2 |
| 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 (45-55%)</u> | <u>Percent</u> |
|---------------------------------------|----------------|
| coyote willow (SAEX) | 25-30 |
| Fremont cottonwood (POFR2) | 5-10 |
| threadleaf rubber rabbitbrush (CHNAC) | 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>2000</u> lbs. |
| normal year | <u>1500</u> lbs. |
| unfavorable year | <u>1000</u> lbs. |

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. When the intermittent channels are in flood stage, this site can be very hazardous to livestock. Overgrazed areas may have wind erosion occurring.

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 | 2.5-5 | .20-.40 |
| Fair | 26- 50 | 3.3-6.6 | .30-.15 |
| Poor | 0- 25 | 5-10 | .20-.10 |

2. Wildlife

a. Site factors influencing wildlife.

This wetland site attracts maximum numbers of species of upland wildlife. The adjacent river attracts wetland species which use this site for feeding, nesting and resting. 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 | Pronghorn | Mourning Dove |
| western wheatgrass | G-Foliage | G-Foliage | |
| baltic rush | G-Foliage | G-Foliage | |
| sedge | G-Foliage | G-Foliage | |
| slender wheatgrass | G-Foliage | G-Foliage | |
| common reed | X | X | |
| Fremont cottonwood | G-Foliage | G-Foliage | |

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

3. Recreation and Natural Beauty

a. Land Form -

Low braided flood plains (intermittent channels).

b. Landscape Quality -

The thick shrub-tree groves along the river are aesthetically pleasing.

c. Climate -

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

d. Activities -

Birdwatching, wildlife observations and hunting.

4. Other Uses -

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C. THREATENED OR ENDANGERED PLANTS AND ANIMALS

1. Plants -

None known.

2. Animals -

Possible nesting and hunting area for bald eagle and peregrine falcon.

D. LOCATION OF TYPICAL EXAMPLE OF THE SITE

1. State location - Shiprock Quad - 3 miles east of Shiprock, NM - north side of San Juan River - Sec 34, T30N, R17W - Navajo Res., NM.

2. Field office site location -

E. FIELD OFFICES

Shiprock, NM; Aztec, NM.