

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

This draft ecological site description is approved for field use and testing for a one year period beginning MM, YYYY.
Additional information and comments on this site should be sent to the Utah State Range Management Specialist.

STATE: Utah

SITE TYPE: Rangeland

ECOLOGICAL SITE NAME: Desert Alkali Clay Loam (Alkali sacaton)

SITE NUMBER: 028AY106UT

MLRA: 028A

Original Site Description: Author: DJS

Date: 07/01/1987

Revised Site Description: Author: DJS

Date: 05/13/1993

Approved by: Title: State Range Cons. Signed: Pat Shaver

Date: 08/30/1993

Ecological Site Definition - A distinctive kind of land, with specific physical characteristics, which differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation, and in its response to management.

A. PHYSICAL CHARACTERISTICS

(description narrative of this particular site)

1. SOILS

Depth: 60 inches

Surface Textures: Fine Sandy Loam or Sandy Loam

Surface Fragments(<=3" % cover, >3" % cover):

Subsurface Textures: Silty Clay Loam & Clay Loam, Stratified with Thin Layers of Sand to Sandy Loam

Subsurface Fragments(<=3" % vol, >3" % vol):

Geologic Parent Materials: Mixed Lake Sediments & Alluvium from Mixed Materials

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max): Very Slow-Slow

Drainage Class(min-max):

Water Erosion Hazard:

Wind Erosion Hazard:

Electrical Conductivity (EC in mmhos/cm):

Sodium Adsorption Ration (SAR):

Soil Reaction (1:1 water):

Soil Reaction (0.1 M CaCl₂):

pH Range:

Available Water Capacity (inches):

Major Soils Associated With This Site:

Soil Survey Area: 617

Yuba FSL

Muff LFS

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

2. PHYSIOGRAPHIC FEATURES

Site Type: Rangeland

Ecological Site Name: Desert Alkali Clay Loam (Alkali sacaton)

Site Number: 028AY106UT

1. Potential Plant Community Description and Ecological Factors

The dominant aspect of the plant community is alkali sacaton. The composition by air dry weight is approximately 80 percent perennial grasses, 1 percent forbs, and 19 percent shrubs.

2. Plant Community Composition by Weight and Percentage

Grasses and Grasslike, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Alkali sacaton	SPAI		180	225	40	50
Galleta	HIJA		90	135	20	30
Indian ricegrass	ACHY		22.5	45	5	10
Bottlebrush squirreltail	ELEL5	1	0	4.5	0	1
Sand dropseed	SPCR	1	0	4.5	0	1
Coastal saltgrass	DISP	1	0	4.5	0	1
Other perennial grasses	PPGG	1	4.5	13.5	1	3
Other annual grasses	AAGG	1	4.5	13.5	1	3

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Scarlet globemallow	SPCO	2	0	4.5	0	3
Slender seepweed	SUOC	2	0	4.5	0	3
Other perennial forbs	PPFF	2	4.5	13.5	1	3
Other annual forbs	AAFF	2	4.5	13.5	1	3

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Shadscale	ATCO		45	67.5	10	15
Bud sagebrush	ATSP5		13.5	22.5	3	5
Greasewood	SAVE4	3	0	4.5	0	1
Winterfat	KRLA	3	0	4.5	0	1
Narrowleaf low rabbitbrush	CHVIS5	3	0	4.5	0	1
Greenmolly	KOAM	3	0	4.5	0	1
Other shrubs	SSSS	3	4.5	13.5	1	3

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
-------------	-----------------	-------	-----------------	--	----------------------------------	--

Site Type: Rangeland
 Ecological Site Name: Desert Alkali Clay Loam (Alkali sacaton)
 Site Number: 028AY106UT

			Low	High	Low	High

3. Plant Community Annual Production

At the highest potential similarity index, this site will produce approximately the following amount of air-dry herbage, expressed as pounds/acre:

	Low	High
Favorable Year	500	600
Average Year	350	450
Unfavorable Year	250	350

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range	Percent Basal Area Cover
Grasses & Grass-like (perennial)	40	2	15
Forbs (perennial)	1	1	1
Shrubs	10	1.5	5
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, alkali sacaton, galleta, and Indian ricegrass decrease while greasewood, low rabbitbrush, and shadscale increases.

When the potential natural plant community is burned, alkali sacaton and Indian ricegrass decrease while low rabbitbrush and greasewood increases.

Annual forbs and annual grasses are most likely to invade this site.

Plant Communities & Transitional Pathways

(Show a steady state diagram with influences to move from one steady state to another)

6. Plant Growth Curves

Site Type: Rangeland
 Ecological Site Name: Desert Alkali Clay Loam (Alkali sacaton)
 Site Number: 028AY106UT

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	5	25	50	10	0	0	5	5	0	0
Name	PNC											
ID Number	UT1061											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

(Give related range sites in MLRA's above and below)

8. Associated Sites Within MLRA

028AY110UT
 Desert Alkali Sand (Fourwing saltbush)

028AY124UT
 Desert Loam (Shadscale)

028AY126UT
 Desert Clay Loam (Shadscale)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

a. Site Factors Influencing Management

This site is suited for sheep and cattle grazing during fall, winter, and spring.

b. Guide to Forage Quality(Plant preference by season)

Species	Oct-Nov	Dec-Feb	Mar-May	Jun-Sep

VG = Very Good G = Good F = Fair P = Poor

2. Wildlife

a. Site Factors Influencing Management

This site provides food and cover for a few species of wildlife.

Site Type: Rangeland

Ecological Site Name: Desert Alkali Clay Loam (Alkali sacaton)

Site Number: 028AY106UT

b. List of Potential Species Present

Wildlife using this site include rabbit, coyote, fox, and pronghorn antelope.

This is a short list of the more common species found. Many other species are present as well and migratory birds are present at times.

c. Guide to Forage Preference of Managed Wildlife Species

Wildlife Species →				
Plant Species ↓	Use	Season	Use	Season

Use - A = preferred or desirable

B = some use, but less important

C = little use or used occasionally

Season - F = Fall (Oct-Nov)

W = Winter (Dec-Feb)

Sp. = Spring (Mar-May)

Su. = Summer (Jun-Sep)

3. Recreational Uses

Resources that have special aesthetic and landscape value are wildflowers. Some recreation of this site are hiking and hunting.

4. Wood Products

None

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah

County: Juab County

Latitude:

Longitude:

Modal soil: Yuba FSL – fine, mixed (calcareous), mesic Typic Torriorthents

Site Type: Rangeland

Ecological Site Name: Desert Alkali Clay Loam (Alkali sacaton)

Site Number: 028AY106UT

Type location: West of Little Sahara sand dunes Juab County, SW ¼ SE ¼ of Section 22

General Legal Description:

Field Office Site Location

Logan

Provo

Cedar City

Murray

Richfield

Data Collected and References

Sampling Source	Number of Records	Range Similarity Index			
		> 76%	51-75%	26-50%	0-25%
NRCS - ECS - 417					
UTAH - RANGE - 2	3				
Permanent Transect Location					

Other References