

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: Semidesert Sand (Fourwing saltbush)

SITE NUMBER: 028AY222UT

MLRA: 028A

Original Site Description: Author: DJS

Date: 01/01/1988

Revised Site Description: Author: DJS

Date: 07/06/1993

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:

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

Subsurface Textures: Fine Sand or Loamy Fine Sand

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

Geologic Parent Materials: Sandy Alluvium from Mixed Parent Materials

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max):

Drainage Class(min-max): Exclusively Drained

Water Erosion Hazard:

Wind Erosion Hazard: Major

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): 3-4

Major Soils Associated With This Site:

Soil Survey Area: 611

Goldrun LFS, 8 to 25%

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

2. PHYSIOGRAPHIC FEATURES

Site Type: Rangeland

Ecological Site Name: Semidesert Sand (Fourwing saltbush)

Site Number: 028AY222UT

1. Potential Plant Community Description and Ecological Factors

The dominant aspect of this plant community is fourwing saltbush and Indian ricegrass. The composition by air-dry weight is approximately 55 percent perennial grasses, 5 percent forbs, and 40 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
Indian ricegrass	ACHY		210	280	30	40
Needleandthread	HECO26		35	70	5	10
Galleta	HIJA		21	35	3	5
Bottlebrush squirreltail	ELEL5	1	7	21	1	3
Purple threeawn	ARPU9	1	7	21	1	3
Sand dropseed	SPCR	1	7	21	1	3
Sandhill muhly	MUPU2	1	7	21	1	3
Western wheatgrass	PASM	1	7	21	1	3
Alkali sacaton	SPAI	1	7	21	1	3
Sandberg bluegrass	POSE	1	7	21	1	3
Other perennial grasses	PPGG	1	35	70	5	10
Other annual grasses	AAGG	1	35	70	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Whitestem stickleaf	MEAL6	2	7	21	1	3
Clasping pepperweed	LEPE2	2	7	21	1	3
Money wild buckwheat	ERNU4	2	7	21	1	3
Western tansymustard	DEPI	2	7	21	1	3
Field sandbar	CELO3	2	7	21	1	3
Geyer milkvetch	ASGE	2	7	21	1	3
Other perennial forbs	PPFF	2	35	70	5	10
Other annual forbs	AAFF	2	35	70	5	10

Shrubs/Vines, %

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

Site Type: Rangeland
 Ecological Site Name: Semidesert Sand (Fourwing saltbush)
 Site Number: 028AY222UT

	Symbol				Total Composition	
			Low	High	Low	High
Fourwing saltbush	ATCA2		105	140	15	20
Basin big sagebrush	ARTRT		21	35	3	5
Rubber rabbitbrush	CHNA2		21	35	3	5
Slender wild buckwheat	ERMI4		21	35	3	5
Low rabbitbrush	CHVI8	3	7	21	1	3
Broom snakeweed	GUSA2	3	7	21	1	3
Bud sagebrush	ARSP5	3	7	21	1	3
Littleleaf horsebrush	TEGL	3	7	21	1	3
Shadscale	ATCO	3	7	21	1	3
Spiny hopsage	GRSP	3	7	21	1	3
Nevada jointfir	EPNE	3	7	21	1	3
Other shrubs	SSSS	3	35	70	5	10

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			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	1000	1100
Average Year	600	700
Unfavorable Year	150	250

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	30	2	15
Forbs (perennial)	5	1	5
Shrubs	30	4	15
Trees			
Cryptogams			

b. Other

Litter	
--------	--

Site Type: Rangeland
 Ecological Site Name: Semidesert Sand (Fourwing saltbush)
 Site Number: 028AY222UT

Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, fourwing saltbush, Mormon-tea, Indian ricegrass, and needleandthread decrease, while low rabbitbrush, rubber rabbitbrush, and big sagebrush increase.

Fire will reduce or eliminate fourwing saltbush, Mormon-tea, and big sagebrush while low rabbitbrush and rubber rabbitbrush increase.

Annual grasses and annual forbs 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

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	5	15	40	30	5	5	0	0	0	0
Name	UT2221											
ID Number	PNC											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

028AY221UT
 Semidesert Loam (Basin big sagebrush)

028AY226UT
 Semidesert Sandy Loam (Wyoming big sagebrush)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

Site Type: Rangeland

Ecological Site Name: Semidesert Sand (Fourwing saltbush)

Site Number: 028AY222UT

a. Site Factors Influencing Management

Approximately 90 to 95 percent of the plants furnish forage for livestock. Only a few species of plants occur, but they offer enough variety to provide balanced nutrition for cattle, sheep, and horses. The site is adapted to all seasons of use, but is best adapted for winter and spring use.

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

It is poor for openland habitat potential, poor for woodland habitat potential, very poor for wetland habitat potential, and poor for rangeland habitat potential.

b. List of Potential Species Present

Wildlife species found at least part of the year are pronghorn antelope, chukar, gambel's quail, sage grouse, cottontail, coyote, badger, songbirds, and small mammals.

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

This site has poor to fair aesthetic appeal and natural beauty. It has little recreational value. It has a few plants blooming mostly in the spring. It has slight value for hunting and very little value for camping and picnicking except a small amount of winter and early spring use.

4. Wood Products

None

5. Other Uses

Site Type: Rangeland
 Ecological Site Name: Semidesert Sand (Fourwing saltbush)
 Site Number: 028AY222UT

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County: Box Elder
 Latitude: Longitude:

Modal Soil: Goldrun LFS, 8-25% — mixed, mesic Xeric Torripsamments

Type Location: West Box Elder County Soil Survey, Utah

General Legal Description:

Field Office Site Location

Logan
 Murray
 Provo
 Richfield
 Cedar City

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	6				
Permanent Transect Location					

Other References