

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 Silt Flat (Winterfat)

SITE NUMBER: 028AY140UT

MLRA: 028A

Original Site Description: Author: DJS

Date: 09/01/1987

Revised Site Description: Author: DJS

Date: 06/17/1993

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: Silt Loam

Surface Fragments(<=3" % cover, >3" % cover): None

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol): None

Geologic Parent Materials: Silty Lacustrine Deposits & Alluvium from Limestone & Volcanic Materials

Moisture Regime:

Temperature Regime:

Runoff: Slow to Very Slow

Permeability(min-max): Moderate to Moderately 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): 3-9

Major Soils Associated With This Site:

Soil Survey Area: Box Elder, W

Smaug

Penoyer SiL

Curdli L, SiL

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

1. Potential Plant Community Description and Ecological Factors

The dominant aspect of the plant community is winterfat. The composition by air-dry weight is approximately 10 percent perennial grasses, 5 percent forbs, and 85 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		25	50	5	10
Bottlebrush squirreltail	ELEL5	1	5	15	1	3
Sandberg bluegrass	POSE	1	5	15	1	3
Galleta	HIJA	1	5	15	1	3
Western wheatgrass	PASM	1	5	15	1	3
Other perennial grasses	PPGG	1	15	25	3	5
Other annual grasses	AAGG	1	15	25	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Scarlet globemallow	SPCO	2	5	15	1	3
Utah milkvetch	ASUT	2	5	15	1	3
Showy daisy townsendia	TOFL2	2	5	15	1	3
Other perennial forbs	PPFF	2	15	25	3	5
Other annual forbs	AAFF	2	15	25	3	5

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Winterfat	KRLA2		300	350	60	70
Shadscale	ATCO		25	50	5	10
Bud sagebrush	ARSP5		15	25	3	5
Low rabbitbrush	CHVI8	3	5	15	1	3
Broom snakeweed	GUSA2	3	5	15	1	3
Shortspine horsebrush	TESP2	3	5	15	1	3
Other shrubs	SSSS	3	15	25	3	5

Trees, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol			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	650	700
Average Year	450	500
Unfavorable Year	200	250

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	5	2	2
Forbs (perennial)	2	1	1
Shrubs	50	2	20
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, Indian ricegrass, winterfat, and squirreltail decrease while rabbitbrush, snakeweed, and annuals increase.

When the potential natural plant community is burned, winterfat and Indian ricegrass, decrease while rabbitbrush and annuals increase.

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)

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6. Plant Growth Curves

	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	UT1401											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

028AY124UT
 Desert Loam (Shadscale)

028AY119UT
 Desert Flat (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 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 limited cover for wildlife.

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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 uses 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:
 Latitude: Longitude:

Modal Soils: Smaug – coarse-loamy, mixed (calcareous), mesic Typic Torriorthents

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Type Location: 400 ft S & 2000 ft W of NE Corner of Section 23, Township 10N, Range 12W

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	2				
UTAH - RANGE - 2	6				
Permanent Transect Location					

Other References