

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 Flat (Shadscale)

SITE NUMBER: 028AY119UT

MLRA: 028A

Original Site Description: Author: DJS

Date: 07/01/1988

Revised Site Description: Author: DJS

Date: 05/17/1993

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: Lacustrine Sediments and Alluvium from Mixed

Moisture Regime:

Temperature Regime:

Runoff: Slow

Permeability(min-max): Moderately Slow to Slow

Drainage Class(min-max): Moderately Well to Well Drained

Water Erosion Hazard: Slight

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): 3-6

Major Soils Associated With This Site:

Soil Survey Area: 601

Skumpah SiL

Swinger

Uvda Family

Drum

Todler

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 shadscale. 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
Bottlebrush squirreltail	ELEL5		22.5	45	5	10
Indian ricegrass	ACHY		13.5	22.5	3	5
Galleta	HIJA	1	4.5	13.5	1	3
Sandberg bluegrass	POSE	1	4.5	13.5	1	3
Other perennial grasses	PPGG	1	13.5	22.5	3	5
Other annual grasses	AAGG	1	13.5	22.5	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Scarlet globemallow	SPCO		13.5	22.5	3	5
Shrubby seepweed	SUMO	2	4.5	13.5	1	3
Quill catseye	CRHU2	2	4.5	13.5	1	3
Clasping pepperweed	LEPE2	2	4.5	13.5	1	3
Other perennial forbs	PPFF	2	13.5	22.5	3	5
Other annual forbs	A AFF	2	13.5	22.5	3	5

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Shadscale	ATCO		225	270	50	60
Winterfat	KRLA		22.5	45	5	10
Bud sagebrush	ARSP5		22.5	45	5	10
Greenmolly	KOAM		13.5	22.5	3	5
Basin saltbrush	ATTR3	3	4.5	13.5	1	3
Shortspine horsebrush	TESP2	3	4.5	13.5	1	3
Nevada jointfir	EPNE	3	4.5	13.5	1	3
Low rabbitbrush	CHVI8	3	4.5	13.5	1	3
Greasewood	SAVE4	3	4.5	13.5	1	3
Other shrubs	SSSS	3	13.5	22.5	3	5

Trees, %

Site Type: Rangeland
 Ecological Site Name: Desert Flat (Shadscale)
 Site Number: 028AY119UT

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	550	650
Average Year	350	450
Unfavorable Year	250	350

4. Ground Cover and Structure

a. Vegetative

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

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, Indian ricegrass, squirreltail, bud sagebrush, and winterfat decrease while shadscale, annual forbs, and annual grasses increase.

When the potential natural plant community is burned, Indian ricegrass, squirreltail, and shadscale decrease while annual forbs and annual grasses increase.

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
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Site Type: Rangeland
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Percent Growth	0	0	5	25	50	10	0	0	5	5	0	0
Name	PNC											
ID Number	UT1191											
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)

028AY130UT
 Desert Salt Flat (Sickle saltbush)

028AY006UT
 Alkali Flat (Greasewood)

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 limited cover for wildlife.

b. List of Potential Species Present

Wildlife using this site include rabbit, coyote, fox, pronghorn antelope, and mule deer (seasonal).

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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
 Latitude:

County:
 Longitude:

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 Modal Soils: Skumpah SiL – fine-silty, mixed, mesic, Typic Natrargids

Type Location:

One mile north of Little Pigeon Mountain; NW ¼ SW ¼ Section 23, Township 7N, Range 17W.
 Map 76 A-7

Northeast of Kelton, Utah, NE ¼ NW1/4 Section 28, Township 13N, Range 11W

Twin M SCD-Wood and Eyre Ranch, Profile #119 SW corner, Section 16, Township 26S,
 Range 16W.

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	4				
UTAH - RANGE - 2	11				
Permanent Transect Location					

Other References