

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 Bench (Bud sagebrush)

SITE NUMBER: 028AY104UT

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: Gravelly, Sandy Loam

Surface Fragments(<=3" % cover, >3" % cover): 60%

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol): 35-70%

Geologic Parent Materials: Alluvium, Colluvium, and Lacustrine Materials from Mixed Sedimentary

Moisture Regime:

Temperature Regime:

Runoff: Slow

Permeability(min-max): Moderate to Moderately Rapid

Drainage Class(min-max): Somewhat 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): 2-5

Major Soils Associated With This Site:

Soil Survey Area: 601

Cliffdown, Alkali GRV-SL

Muff Family

Swasey CBV-SL, Si

Dera Family, Sodid

Mazuma FSL

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 bud sagebrush and shadscale. The composition by air dry weight is approximately 30 percent perennial grasses, 10 percent forbs, and 60 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
Galleta	HIJA		37.5	50	15	20
Bottlebrush squirreltail	ELEL5		7.5	12.5	3	5
Indian ricegrass	ACHY		7.5	12.5	3	5
Alkali sacaton	SPAI	1	2.5	7.5	1	3
King eyelash grass	BLKI	1	2.5	7.5	1	3
Sand dropseed	SPCR	1	2.5	7.5	1	3
Sandberg bluegrass	POSE	1	2.5	7.5	1	3
Other perennial grasses	PPGG	1	12.5	25	5	10
Other annual grasses	AAGG	1	12.5	25	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Scarlet globemallow	SPCO		7.5	12.5	3	5
Holboell rockcress	ARHO2	2	2.5	7.5	1	3
Shaggy fleabane	ERPU2	2	2.5	7.5	1	3
Pacific aster	ASCH2	2	2.5	7.5	1	3
Western tansymustard	DEPI	2	2.5	7.5	1	3
Whitestem stickleaf	MEAL6	2	2.5	7.5	1	3
Other perennial forbs	PPFF	2	12.5	25	5	10
Other annual forbs	AAFF	2	12.5	25	5	10

Shrubs/Vines, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Bud sagebrush	ARSP5		100	112.5	40	45
Shadscale	ATCO		12.5	25	5	10
Greenmolly	KOAM		7.5	7.5	3	3
Nevada jointfir	EPNE		7.5	7.5	3	3
Shortspine horsebrush	TESP2	3	2.5	7.5	1	3
Winterfat	KRLA2	3	2.5	7.5	1	3
Spiny hopsage	GRSP	3	2.5	7.5	1	3
Broom snakeweed	GUSA2	3	2.5	7.5	1	3
Other shrubs	SSSS	3	7.5	12.5	3	5

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	250	250
Average Year	150	250
Unfavorable Year	50	150

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	15	1	5
Forbs (perennial)	5	1	3
Shrubs	30	1	15
Trees			
Cryptogams			

b. Other

Litter	
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Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

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

When the potential natural plant community is burned, Indian ricegrass and galleta decrease while low rabbitbrush, horsebrush, and cheatgrass 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)

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	UT1041											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

028AY138UT
 Desert Shallow Loam (Shadscale)

028AY230UT
 Semidesert Shallow Hardpan (10-14 PPT)

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 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 very limited cover for wildlife.

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

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1. Plants

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah

County:

Latitude:

Longitude:

Modal soil: Cliffdown, Alkali GRV-SL – loamy-skeletal, mixed (calcareous), mesic Typic Torriorthent

Type Location:

Box Elder West Soil Survey – Terrace Mountain

Pigeon Mountain

Lyon Mountain

Warm Springs Soil Survey Pit - No. 6-4

Pit No. 23-1 Location Ferguson Desert

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	80				
UTAH - RANGE - 2	7				
Permanent Transect Location					

Other References