

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 Shallow Clay (Shadscale)

SITE NUMBER: 035XY125UT

MLRA: 035

Original Site Description: Author: GSC

Date: 04/08/1983

Revised Site Description: Author: GSC

Date: 09/21/1993

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

Date: 05/27/1994

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: 10-20 inches

Surface Textures:

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

Subsurface Textures: Clay Loam and Light Clay

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

Geologic Parent Materials: Residuum and Alluvium from Shale

Moisture Regime:

Temperature Regime: Mesic

Runoff: Medium

Permeability(min-max):

Drainage Class(min-max): Well Drained

Water Erosion Hazard: Moderate

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: 638

Shalet CL

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

2. PHYSIOGRAPHIC FEATURES

Site Type: Rangeland

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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 40 percent perennial grasses, 10 percent forbs and 50 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		40	60	20	30
Bottlebrush squirreltail	ELEL5		6	10	3	5
Purple threeawn	ARPU9	1	2	6	1	3
Indian ricegrass	ACHY	1	2	6	1	3
Alkali sacaton	SPAI	1	2	6	1	3
Sand dropseed	SPCR	1	2	6	1	3
Mesa dropseed	SPFL2	1	2	6	1	3
Other perennial grasses	PPGG	1	10	20	5	10
Other annual grasses	AAGG	1	10	20	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Indian pipeweed	ERIN4		6	10	3	5
Woolly milkvetch	ASMO7	2	2	6	1	3
Plateau yellow catseye	CRFL5	2	2	6	1	3
Redroot wild buckwheat	ERRA3	2	2	6	1	3
Stemless fournerve daisy	TEACA2	2	2	6	1	3
Rusty lupine	LUPUP	2	2	6	1	3
Thorny wirelettuce	STSP6	2	2	6	1	3
Tufted evening primrose	OECE2	2	2	6	1	3
Woolly plantain	PLPA2	2	2	6	1	3
Whitestem globemallow	SPMU2	2	2	6	1	3
Badlands mulesears	WYSC	2	2	6	1	3
Other perennial forbs	PPFF	2	10	20	5	10
Other annual forbs	AAFF	2	10	20	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
Shadscale	ATCO		30	40	15	20
Torrey jointfir	EPTO		10	20	5	10
Castlevalley saltbush	ATCU		6	10	3	5
Bud sagebrush	ARSP5		6	10	3	5
Blackbrush	CORA	3	2	10	1	5
Low rabbitbrush	CHVI8	3	2	10	1	5
Nevada jointfir	EPNE	3	2	10	1	5
Broom snakeweed	GUSA2	3	2	10	1	5
Littleleaf horsebrush	TEGL	3	2	10	1	5
Bigelow sagebrush	ARBI3	3	2	10	1	5
Other shrubs	SSSS	3	20	30	10	15

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	300
Average Year	150	200
Unfavorable Year	50	100

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	25	1	10
Forbs (perennial)	5	1	2
Shrubs	30	2	20
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, perennial grasses, and mormontea decrease while Indian pipeweed, rusty lupine, broom snakeweed, and shadscale increase. Fire is not an important factor in this ecosystem. Russian thistle and other weeds 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	65	5	0	0	0	0	0	0
Name	PNC											
ID Number	UT1251											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

035XY122UT
 Desert Shallow Loam (Shadscale)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

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a. Site Factors Influencing Management

This site provides proper grazing for cattle and sheep 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 jackrabbit, coyote, bobcat, hawk, kangaroo rat, and snake.

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

Recreation values are hiking and hunting.

4. Wood Products

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None

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Shalet CL, Eroded — loamy, mixed (calc.), mesic shallow Typic Torriorthents

Type Location: West of Windgate Mesa in Head of Canyons of Blue Canyon in Central Part of Township 36S, Range 15E.

General Legal Description:

Field Office Site Location

Price
 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					
Permanent Transect Location					

Other References