

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 Loam (Shadscale)

SITE NUMBER: 034XY121UT

MLRA: 034

Original Site Description: Author: JLB GWL

Date: 05/15/1981

Revised Site Description: Author: JLB GWL

Date: 12/13/1993

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

Date: 06/25/1994

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: 4-20 inches

Surface Textures:

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

Subsurface Textures: Clay Loams and Shaley Loams

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

Geologic Parent Materials: Residuum and Alluvium from Shale, Siltstone, and Sandstone

Moisture Regime:

Temperature Regime: Mesic

Runoff: Rapid

Permeability(min-max): Moderately Slow to Moderate

Drainage Class(min-max): Well Drained

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):

Major Soils Associated With This Site:

Soil Survey Area: 047

Walknolls CNX-L 25-50%, 4-25%

Greybull CL 4-20%, 20-50% Eroded

Montwel CBV-CL 15-50%, Eroded

Shalet L 3-10%

Casmos CNV-L 4-25% Eroded

Greybull CBV-SL 20-50% Eroded

Montwel L 4-25%

Mack SiL Overwash 2-6%

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

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1. Potential Plant Community Description and Ecological Factors

The dominant aspect of the plant community is shadscale and galleta. 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		45	60	15	20
Indian ricegrass	ACHY		15	30	5	10
Sand dropseed	SPCR		9	15	3	5
Bottlebrush squirreltail	ELEL5	1	3	9	1	3
Eightflower sixweeks grass	VUOC	1	3	9	1	3
Bluebunch wheatgrass	PSSP6	1	3	9	1	3
Salina wildrye	LESAS	1	3	9	1	3
Nevada bluegrass	PONE3	1	3	9	1	3
Needleandthread	HECO26	1	3	9	1	3
Other perennial grasses	PPGG	1	3	15	1	5
Other annual grasses	AAGG	1	3	15	1	5

Forbs, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Scarlet globemallow	SPCO		3	15	1	5
Desert sand verbena	ABVI	2	3	6	1	2
Woolly milkvetch	ASMO7	2	3	6	1	2
Sego lily	CANU3	2	3	6	1	2
Pacific aster	ASCH2	2	3	6	1	2
Annual ragweed	AMAR2	2	3	6	1	2
Indian pipeweed	ERIN4	2	3	6	1	2
Woolly plantain	PLPA2	2	3	6	1	2
Northwestern Indian paintbrush	CAAN7	2	3	6	1	2
Shaggy fleabane	ERPU2	2	3	6	1	2
Pale evening primrose	OEPA	2	3	6	1	2
Slender gilia	GILE3	2	3	6	1	2
Cushion wild buckwheat	EROV	2	3	6	1	2
Narrowleaf goosefoot	CHLE4	2	3	6	1	2
Ballhead skyrocket	IPCOC3	2	3	6	1	2
Plateau yellow catseye	CRFL5	2	3	6	1	2
Badland mulesears	WYSC	2	3	6	1	2
Prairie pepperweed	LEDE	2	3	6	1	2
Notchleaf scorpionweed	PHCRC	2	3	6	1	2
Other perennial forbs	PFFF	2	3	15	1	5
Other annual forbs	AAFF	2	3	15	1	5

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Shadscale	ATCO		75	105	25	35
Bud sagebrush	ARSP5		15	30	5	10
Torrey jointfir	EPTO		6	15	2	5
Castlevalley saltbush	ATCU		6	15	2	5
Shortspine horsebrush	TESP2	3	3	15	1	5
Winterfat	KRLA2	3	3	9	1	3
Low rabbitbrush	CHVI8	3	3	6	1	2
Slender wild buckwheat	ERMI4	3	3	6	1	2
Central pricklypear	OPPO	3	3	6	1	2
Broom snakeweed	GUSA2	3	3	6	1	2
Greenmolly	KOAM	3	3	6	1	2
Black sagebrush	ARNO4	3	3	6	1	2
Bigelow sagebrush	ARBI3	3	3	6	1	2
Nevada jointfir	EPNE	3	3	6	1	2
Littleleaf brickellbrush	BRMI	3	3	6	1	2
Spiny greasbrush	GLSPM	3	3	6	1	2
Other shrubs	SSSS	3	3	15	1	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	450	500
Average Year	250	300
Unfavorable Year	150	200

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	20	2	10
Forbs (perennial)	5	1	2
Shrubs	40	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 and bud sagebrush decrease while broom snakeweed and galleta increase. Fire is not an important factor in this ecosystem. Cheatgrass 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	0	0	5	25	65	5	0	0	0	0	0	0

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Growth											
Name	PNC										
ID Number	UT1211										
Description	Excellent Condition										

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

034XY118UT
 Desert Shallow Loam (Black sagebrush)

034XY106UT
 Desert Loam (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 provides proper grazing for sheep and cattle 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.

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b. List of Potential Species Present

Wildlife using this site include lizard, mice, kangaroo rat, snake, jackrabbit, coyote, and hawk.

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 aesthetic appeal due to the desert panorama and has limited recreation potential.

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 Soil: Walknolls CNX-L 25-50%, 4-25% Severely Eroded — loamy-skeletal, mixed, calcareous, mesic Lithic Torriorthents

Type Location: NW ¼, SW ¼, SW ¼; Section 18, Township 11S, Range 19E SLBM

General Legal Description:

Field Office Site Location

Roosevelt

Price

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