

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 Hardpan (Creosotebush)

SITE NUMBER: 030XY140UT

MLRA: 030X

Original Site Description: Author: TS

Date: 02/02/1987

Revised Site Description: Author: TS

Date: 01/11/1994

Approved by: Title: State Range Cons.

Signed: Pat Shaver

Date: 07/25/1994

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: 10-40 inches

Surface Textures: Sandy to Fine Sandy Loam

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

Subsurface Textures:

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

Geologic Parent Materials:

Moisture Regime:

Temperature Regime:

Runoff: Slow

Permeability(min-max):

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: 641

Cave GR-SL, Low Rainfall, 7-30%

Hobog CBV-L, 1-40% Slopes

Bermesa FSL, 1-10% Slopes

Winkel GR-SL, 8-30% Slopes

Winkel GR-FSL, 1-8% Slopes

Isom CB-SL, 3-30% Slopes

Bermesa LFS, 1-10% Slopes

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 vegetative aspect in this site is creosotebush. The plant composition by air-dry weight is approximately 25 percent grasses, 10 percent forbs, and 65 percent shrubs. Joshua trees associated with this site are limited to the Utah hill area.

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
Big galleta	HIRI		15	45	5	15
Indian ricegrass	ACHY		6	24	2	8
Bush muhly	MUPO2		6	15	2	5
Fluffgrass	ERPU8		3	6	1	2
Sixweeks grama	BOBA2	1	6	15	2	5
Sixweeks fescue	VUOC	1	6	15	2	5
Desert needlegrass	ACSP12	1	6	15	2	5
Mediterranean grass	SCBA	1	6	15	2	5
Red brome	BRRU2	1	6	15	2	5
Other perennial grasses	PPGG	1	6	15	2	5
Other annual grasses	AAGG	1	6	15	2	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Globemallow	SPHAE		3	9	1	3
Desert marigold	BAMU	1	6	15	2	5
Four-o-clock	MIMU	1	6	15	2	5
Eriogonum	ERIOG	1	6	15	2	5
Wire lettuce	STEPH	1	6	15	2	5
Skeleton locoweed	ASTRA	1	6	15	2	5
Skeletonweed	LYGOD	1	6	15	2	5
Desert trumpet	ERIN4	1	6	15	2	5
Other perennial forbs	PPFF	1	6	15	2	5
Other annual forbs	AAFF	1	6	15	2	5

Shrubs/Vines, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
White bursage	FRDU		60	90	20	30
Creosotebush	LADI2		45	75	15	25
Nevada jointfir	EPNE		6	15	2	5
Ratany	KRPAG		6	15	2	5
Gray krameria	KRAMA		6	15	2	5
Winterfat	KRLA2		6	9	2	3
Paperflower	PSCO2	1	15	30	5	10
Anderson wolfberry	LYAN	1	15	30	5	10
Pricklypear	OPUNT	1	15	30	5	10
Brittlebush	ENFR	1	15	30	5	10
Fremont dalea	DAFR	1	15	30	5	10
Turpentinebush	THMO	1	15	30	5	10
Cholla	OPUNT	1	15	30	5	10
Desert rabbitbrush	CHPAI2	1	15	30	5	10
Blackbrush	CORA	1	15	30	5	10
Threadleaf snakeweed	GUMI	1	15	30	5	10
Other shrubs	SSSS	1	15	30	5	10

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Joshua tree	YUBR		0	9	0	3

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	400	500
Average Year	250	300
Unfavorable Year	100	200

4. Ground Cover and Structure

a. Vegetative

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Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	5	1	1
Forbs (perennial)			
Shrubs	10	1.5	1
Trees	1	10	
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

This section will be added as information is available.

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												
Name												
ID Number												
Description												

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

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

Fair winter forage for cattle, good winter climate, forage production is low.

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 cover for a few species of wildlife.

b. List of Potential Species Present

Wildlife that use this site include quail, desert tortoise, and the Mohave green rattlesnake.

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 section will be added as information is available.

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: Washington
 Latitude: Longitude:

Modal Soil: Winkel GR-FSL, 1-8% Slopes

Type Location: Utah Hills, Township 42S, Range 9W, SLBM

General Legal Description:

Field Office Site Location

Cedar City

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	6				
Permanent Transect Location					

Other References