

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: Mountain Stony Loam (Mountain big sagebrush)

SITE NUMBER: 048AY448UT

MLRA: 048A

Original Site Description: Author: GWL DJS

Date: 05/15/1981

Revised Site Description: Author: GWL DJS

Date: 01/24/1994

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: >60 inches

Surface Textures:

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

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol): >50%

Geologic Parent Materials: Alluvium and Colluvium from Diorite and Other

Sedimentary Parent Materials

Moisture Regime:

Temperature Regime:

Runoff: Slow to Moderate

Permeability(min-max): Moderately Slow to Moderate

Drainage Class(min-max):

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): 5.0-6.5

Major Soils Associated With This Site:

Soil Survey Area: 047

Utso L, 4-25%

Sirref L, 4-8%

Sirref CBV-L, 20-30%

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

2. PHYSIOGRAPHIC FEATURES

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1. Potential Plant Community Description and Ecological Factors

The general view of this site is bitterbrush and mountain big sagebrush. The potential natural plant community by air-dry weight is composed of 45 percent perennial grasses, 10 percent forbs, and 45 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
Needleandthread	HECO26		140	210	10	15
Bluebunch wheatgrass	PSSP6		70	140	5	10
Muttongrass	POFE		70	140	5	10
Letterman needlegrass	ACLE9		42	70	3	5
Prairie junegrass	KOMA	1	14	42	1	3
Sheep fescue	FEOV	1	14	42	1	3
Bottlebrush squirreltail	ELEL5	1	14	42	1	3
Indian ricegrass	ACHY	1	14	42	1	3
Western wheatgrass	PASM	1	14	42	1	3
Geyer sedge	CAGE2	1	14	42	1	3
Salina wildrye	LESAS	1	14	42	1	3
Blue grama	BOGR2	1	14	42	1	3
Sandberg bluegrass	POSE	1	14	42	1	3
Other perennial grasses	PPGG	1	70	140	5	10
Other annual grasses	AAGG	1	70	140	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			Low	High	Low	High
Longleaf hawksbeard	CRAC2	2	14	42	1	3
American purple vetch	VIAM	2	14	42	1	3
Blue flax	LIPE2	2	14	42	1	3
Silky lupine	LUSE4	2	14	42	1	3
Pacific aster	ASCH2	2	14	42	1	3
Wyoming Indian paintbrush	CALI4	2	14	42	1	3
Looseflower milkvetch	ASTE5	2	14	42	1	3
Carpet phlox	PHHO	2	14	42	1	3
Eastwood sandwort	AREAE	2	14	42	1	3
Watson beardtongue	PEWA	2	14	42	1	3
Pale agoseris	AGGL	2	14	42	1	3
Lobeleaf groundsel	SEMU3	2	14	42	1	3
Scarlet globemallow	SPCO	2	14	42	1	3
Shaggy fleabane	ERPU2	2	14	42	1	3
Fringed sagebrush	ARFR4	2	14	42	1	3
Small leaf pussytoes	ANMI3	2	14	42	1	3
Scarlet skyrocket	IPAGA3	2	14	42	1	3
Hoary tansyaster	MACA2	2	14	42	1	3
Other perennial forbs	PPFF	2	140	210	10	15
Other annual forbs	AAFF	2	140	210	10	15

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Bitterbrush	PUTR2		210	280	15	20
Mountain big sagebrush	ARTRV		70	140	5	10
Utah serviceberry	AMUT		70	140	5	10
Birchleaf mountainmahogany	CEMO2	3	42	70	3	5
Mountain snowberry	SYOR2	3	42	70	3	5
Crispleaf wild buckwheat	ERCO14	3	42	70	3	5
Slender wild buckwheat	ERMI4	3	42	70	3	5
Mountain low rabbitbrush	CHVIL4	3	42	70	3	5
Longflower rabbitbrush	CHDE2	3	42	70	3	5
Central pricklypear	OPPO	3	42	70	3	5
Broom snakeweed	GUSA2	3	42	70	3	5
Other shrubs	SSSS	3	70	140	5	10

Trees, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			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	1600	1700
Average Year	1300	1400
Unfavorable Year	900	1000

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	30	2	10
Forbs (perennial)	5	1	2
Shrubs	40	4	15
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As this site deteriorates due to grazing pressure, bitterbrush, needleandthread, bluebunch wheatgrass, longleaf hawksbeard, and muttongrass decrease while big sagebrush, Letterman needlegrass, and western wheatgrass increase. Under fire, big sagebrush and sometimes bitterbrush will decrease, while western wheatgrass, lupine and rabbitbrush will increase.

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	0	5	15	40	30	5	5	0	0	0

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Growth												
Name	PNC											
ID Number	UT4481											
Description	Excellent Condition											

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	0	10	50	30	5	5	0	0	0
Name	Good Condition No. 1											
ID Number	UT4482											
Description	needlegrass, bluegrass, bitterbrush											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

048AY436UT
 Mountain Shallow Loam (Mountain big sagebrush)

048AY442UT
 Mountain Shallow Loam (Salina wildrye)

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 cattle and sheep during spring, summer, and fall.

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 produces food and cover for many species of wildlife.

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b. List of Potential Species Present

Wildlife species that use this site include sage grouse, rabbit, coyote, mule deer, and elk.

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 offers color and aesthetic appeal during the growing season. Recreation values include hiking and hunting.

4. Wood Products

None, except wood for campfires.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah

County:

Latitude:

Longitude:

Modal Soil: UTSO L, 4-25% — loamy-skeletal, mixed Pachic Haploborolls

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Type Location: NE ¼; NE ¼; Section 23, Township 26S, Range 25E.

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					
BLM FORM	10				
Permanent Transect Location					

Other References