

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 Shallow Gravelly Ridge (Black sagebrush)

SITE NUMBER: 025XY415UT

MLRA: 025

Original Site Description: Author: GBB

Date: 01/15/1985

Revised Site Description: Author: GBB

Date: 02/08/1994

Approved by: Title: State Range Cons.

Signed: Pat Shaver

Date: 04/25/1994

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: 40-60 inches

Surface Textures:

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

Subsurface Textures: 12-20% Clay, >40% Calcium Carbonates; Course

Subsurface Fragments(<=3" % vol, >3" % vol): 60-80%

Geologic Parent Materials: Colluvium from Limestone

Moisture Regime:

Temperature Regime:

Runoff: Rapid

Permeability(min-max): Moderately Rapid

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): 3-4

Major Soils Associated With This Site:

Soil Survey Area: 601

Ridgecrest Family

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

1. Potential Plant Community Description and Ecological Factors

The general view of this site is black sagebrush and grass. The composition by air-dry weight is approximately 45 percent perennial grasses, 15 percent forbs, and 40 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
Thurber needlegrass	ACTH7		100	125	20	25
Bluebunch wheatgrass	PSSP6		50	75	10	15
Indian wheatgrass	ACHY		15	25	3	5
Nevada bluegrass	PONE3	1	5	15	1	3
Bottlebrush squirreltail	ELEL5	1	5	15	1	3
Needleandthread	HECO26	1	5	15	1	3
Other perennial grasses	PPGG	1	15	25	3	5
Other annual grasses	AAGG	1	15	25	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Arrowleaf balsamroot	BASA3		15	25	3	5
Longleaf hawksbeard	CRAC2		15	25	3	5
Cushion wild buckwheat	EROV	2	5	15	1	3
Carpet phlox	PHHO	2	5	15	1	3
Pacific aster	ASCH2	2	5	15	1	3
Stemless mock goldenweed	STACA	2	5	15	1	3
Other perennial forbs	PPFF	2	15	25	3	5
Other annual forbs	AAFF	2	15	25	3	5

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		125	150	25	30
Mountain low rabbitbrush	CHVI4	3	15	25	3	5
Spiny hopsage	GRSP	3	15	25	3	5
Winterfat	KRLA2	3	15	25	3	5
Bitterbrush	PUTR2	3	15	25	3	5
Other shrubs	SSSS	3	50	75	10	15

Trees, %

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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	700	800
Average Year	400	500
Unfavorable Year	200	300

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)	10	1	5
Shrubs	30	2	15
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As this site deteriorates due to grazing pressure Thurber needlegrass, bluebunch wheatgrass, and Indian ricegrass decrease while black sagebrush, low rabbitbrush, and bluegrass increase. When the potential natural plant community is burned, Thurber needlegrass, longleaf hawksbeard, and bitterbrush decrease while low rabbitbrush, balsamroot, and milkvetch increase. Cheatgrass, halogeton, 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

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	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	5	20	50	5	10	5	5	0	0
Name	PNC											
ID Number	UT4151											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

025XY412UT
 Mountain Gravelly Loam (Mountain big sagebrush)

10. 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 provides food and cover for wildlife.

b. List of Potential Species Present

Wildlife using this site include blacktail jackrabbit, coyote, sage grouse, mule deer, and elk.

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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

Hunting and Hiking

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: Box Elder
 Longitude:

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Modal soil: Ridgecrest Family – loamy-skeletal, carbonatic, frigid Calcic Hapoxerolls

Type Location: 2500 ft N 3800 ft W of SW corner of Section 8, Township 12N, Range 18W
Four miles North of Etna Reservoir

General Legal Description:

Field Office Site Location

Logan

Box Elder County

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