

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: High Mountain Loam (Oak)

SITE NUMBER: 047AY516UT

MLRA: E47

Original Site Description: Author: DLT

Date: 12/06/1992

Revised Site Description: Author:

Date:

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

Date:

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:

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

Geologic Parent Materials: Sandstone, Shale, Limestone, Quartzite and Various Igneous Rocks

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max): Slow-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): 17-28

Major Soils Associated With This Site:

Soil Survey Area: 613

Hourglass L, 15-35%

Buel GR-L, 6-60%

Clayburn L and CB-L, 3-40%

Yeljack L, 6-30%

Yeljack L, 6-25%

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

Site Type: Rangeland
 Ecological Site Name: High Mountain Loam (Mountain big sagebrush)
 Site Number: 047AY516UT

1. Potential Plant Community Description and Ecological Factors

The vegetation composition by dry-weight is approximately 65 percent perennial grasses, 15 percent forbs, and 20 percent shrubs with a large total number of forbs species.

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
Slender wheatgrass	ELTR7		625	750	25	30
Mountain brome	BRCA5		250	375	10	15
Columbia needlegrass	ACNE9		250	375	10	15
Sheep fescue	FEOV		250	375	10	15
Letterman needlegrass	ACLE9	1	25	50	1	2
Bulbous oniongrass	MEBU	1	25	50	1	2
Blue wildrye	ELGL	1	25	50	1	2
Geyer sedge	CAGE2	1	25	50	1	2
King fescue	LEKI2	1	25	50	1	2
Nodding brome	BRAN	1	25	50	1	2
Basin wildrye	LECI4	1	25	50	1	2
Nodding bluegrass	PORE	1	25	50	1	2
Other perennial grasses	PPGG	1	125	250	5	10
Other annual grasses	AAGG	1	125	250	5	10

Forbs, %

Site Type: Rangeland

Ecological Site Name: High Mountain Loam (Mountain big sagebrush)

Site Number: 047AY516UT

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Sticky purple cranesbill	GEV12	2	25	50	1	2
Thickleaf peavine	LALA3	2	25	50	1	2
Butterweed	SESE2	2	25	50	1	2
Prairie bluebells	MELAL2	2	25	50	1	2
Silverleaf milkvetch	ASAR4	2	25	50	1	2
Western mountain aster	ASOC	2	25	50	1	2
Mountain deathcamas	ZIEL2	2	25	50	1	2
Shortstem wild buckwheat	EREB5	2	25	50	1	2
Eaton fleabane	EREA	2	25	50	1	2
Nettleleaf giant hyssop	AGUR	2	25	50	1	2
Wyoming Indian paintbrush	CALI4	2	25	50	1	2
Towering Jacobs ladder	POFO	2	25	50	1	2
Rocky mountain dwarfsunflower	HEUN	2	25	50	1	2
Mountain desert parsley	LOMAT	2	25	50	1	2
Twolobe larkspur	DENU2	2	25	50	1	2
Parry clover	TRPA5	2	25	50	1	2
Low beardtongue	PENST	2	25	50	1	2
Fall sneezeweed	HEAU	2	25	50	1	2
White stoneseed	LIRU4	2	25	50	1	2
Longleaf hawksbeard	CRAC2	2	25	50	1	2
Sweetanice	OSOC	2	25	50	1	2
Common yarrow	ACMI2	2	25	50	1	2
Louisiana wormwood	ARLU	2	25	50	1	2
Common stickseed	HAPA	2	25	50	1	2
Fendler meadowrue	THFE	2	25	50	1	2
Duncecap larkspur	DEOC	2	25	50	1	2
Western coneflower	RUOC2	2	25	50	1	2
Other perennial forbs	PPFF	2	500	750	20	30
Other annual forbs	AAFF	2	500	750	20	30

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Mountain big sagebrush	ARTRV		125	250	5	10
Mountain snowberry	SYOR2	3	25	50	1	2
Stickyleaf low rabbitbrush	CHVIV4	3	25	50	1	2
Bitterbrush	PUTR2	3	25	50	1	2
Blue elder	SACE3	3	25	50	1	2
Creeping Oregon grape	MARE11	3	25	50	1	2
Whitestem gooseberry	RIIN2	3	25	50	1	2
Chokecherry	PRVI	3	25	50	1	2
Other shrubs	SSSS	3	125	250	5	10

Trees, %

Site Type: Rangeland
 Ecological Site Name: High Mountain Loam (Mountain big sagebrush)
 Site Number: 047AY516UT

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	2900	3000
Average Year	2400	2500
Unfavorable Year	1600	1700

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	40	2	30
Forbs (perennial)	15	1	20
Shrubs	10	4	10
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

Plant species not a part of the climax plant community that are most likely to invade the site if plant cover deteriorates are annual grasses and annual forbs. When retrogression occurs, shrubs greatly increase primarily sagebrush species.

Plant Communities & Transitional Pathways

(Show a steady state diagram with influences to move from one steady state to another)

6. Plant Growth Curves

Site Type: Rangeland
 Ecological Site Name: High Mountain Loam (Mountain big sagebrush)
 Site Number: 047AY516UT

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0		20	35	30	10	5	0	0	0
Name	PNC											
ID Number	UT5161											
Description	Excellent Condition											

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	0	10	40	45	5	0	0	0	0
Name	Good Condition											
ID Number	UT5162											
Description	needlegrass, bluegrass, and sagebrush											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047AY610UT
 Subalpine Gravelly Loam (Subalpine fir)

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 Has high value for summer season use of cattle, sheep and horses. It provides an abundance of green forage when sites at lower elevations have matured and are drying out. It is normally located in areas with sufficient livestock water.

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

Site Type: Rangeland
 Ecological Site Name: High Mountain Loam (Mountain big sagebrush)
 Site Number: 047AY516UT

The potential is poor for openland habitat, good for woodland habitat, very poor for wetland habitat and good for rangeland habitat.

b. List of Potential Species Present

It is good all around habitat for sage grouse, blue grouse, sharptail grouse, ruffed grouse, mule deer, elk, moose, squirrels, snowshoe hare, song birds, wild turkey, ground squirrels, coyotes, crows, snakes, badgers, bobcats, cougars, golden eagles, bald eagles and bear.

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 good values for aesthetics and natural beauty. It has a large number of forbs and shrubs that have flowers in bloom throughout the summer and into the fall. It has a combination of grasses, forbs, small shrubs, and large shrubs that offer good possibilities for screening and value as camping and picnicking areas. Hunting for upland game birds, snowshoe hare, elk, and mule deer is good to excellent on this site. Fishing is opportune on streams, lakes and reservoirs through and adjacent to this site. Winter sports opportunities are exceptionally good.

4. Wood Products

No values exist for lumber. Production of wood products is low but some values exist for firewood for campfires.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Site Type: Rangeland

Ecological Site Name: High Mountain Loam (Mountain big sagebrush)

Site Number: 047AY516UT

Modal Soil: Hourglass L, 15-35% — fine-loamy, mixed Argic Cryoborolls

Type Location: NW ¼, NW ¼, SW ¼; Section 29, Township 3N, Range 11E

General Legal Description:

Field Office Site Location

Logan

Murray

Provo

Price

Richfield

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					
Permanent Transect Location					

Other References