

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 Loam (Shrub)

SITE NUMBER: 047AY434UT

MLRA: E47

Original Site Description: Author: DLT TW

Date: 12/17/1992

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: 60 inches

Surface Textures: Stone and Cobble May Occur as a Surface Mantle

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

Subsurface Textures: Medium to Fine with Gravel and Cobble

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

Geologic Parent Materials:

Moisture Regime:

Temperature Regime:

Runoff: Little Under Proper Management

Permeability(min-max): Slow to Moderate

Drainage Class(min-max): Well-Drained

Water Erosion Hazard: None to Slight

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): 10-14

Major Soils Associated With This Site:

Soil Survey Area: 613

Henefer L, 15-45%

Picayune Family GR-L, 40-60%

Barfuss SiL, 10-50%

Despain GR-L, 20-70%

Laplatta SiC-L, 10-50%

Hades SiL, 3-6%

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

1. Potential Plant Community Description and Ecological Factors

The dominant aspect of this site is one of mountain shrubs. The composition is made up of approximately 45 percent perennial grasses, 10 percent forbs, and 45 percent shrubs by air-dry weight.

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
Bluebunch wheatgrass	PSSP6		400	500	20	25
Slender wheatgrass	ELTR7		100	200	5	10
Nevada bluegrass	PONE3		60	100	3	5
Letterman needlegrass	ACLE9	1	20	80	1	4
Columbia needlegrass	ACNE9	1	20	80	1	4
Geyer sedge	CAGE2	1	20	80	1	4
Nodding brome	BRAN	1	20	80	1	4
Western wheatgrass	PASM	1	20	80	1	4
Prairie junegrass	KOMA	1	20	80	1	4
Great basin wildrye	LECI4	1	20	80	1	4
Bottlebrush squirreltail	ELEL5	1	20	80	1	4
Mountain brome	BRCA5	1	20	80	1	4
Sandberg bluegrass	POSE	1	20	80	1	4
Muttongrass	POFE	1	20	80	1	4
Bulbous oniongrass	MEBU	1	20	80	1	4
Other perennial grasses	PPGG	1	100	200	5	10
Other annual grasses	AAGG	1	100	200	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Sticky purple cranesbill	GEVI2	2	20	60	1	3
Thickleaf peavine	LALA3	2	20	60	1	3
Fendler meadowrue	THFE	2	20	60	1	3
Arrowleaf balsamroot	BASA3	2	20	60	1	3
Longleaf hawksbeard	CRAC2	2	20	60	1	3
Showy false goldeneye	HEMU3	2	20	60	1	3
Shortstem wild buckwheat	ERBR5	2	20	60	1	3
Nettleleaf giant hyssop	AGUR	2	20	60	1	3
Low beardtongue	PEHU	2	20	60	1	3
Eaton fleabane	EREA	2	20	60	1	3
Other perennial forbs	PPFF	2	200	300	10	15
Other annual forbs	AAFF	2	200	300	10	15

Shrubs/Vines, %

Site Type: Rangeland
 Ecological Site Name: Mountain Loam (Shrub)
 Site Number: 047AY434UT

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Mountain big sagebrush	ARTRV		200	300	10	15
Mountain snowberry	SYOR2		100	200	5	10
Saskatoon serviceberry	AMAL2		100	200	5	10
Bitterbrush	PUTR2		100	200	5	10
Birchleaf mountain mahogany	CEMO2	3	20	40	1	2
Chokecherry	PRVI	3	20	40	1	2
Creeping Oregon grape	MARE11	3	20	40	1	2
Low rabbitbrush	CHVI8	3	20	40	1	2
Other shrubs	SSSS	3	60	100	3	5

Trees, %

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	2600	2500
Average Year	2100	2000
Unfavorable Year	1600	1500

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	35	2	16
Forbs (perennial)	10	1	2
Shrubs	25	3	2
Trees			
Cryptogams			

b. Other

Site Type: Rangeland
 Ecological Site Name: Mountain Loam (Shrub)
 Site Number: 047AY434UT

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As range condition deteriorates due to overgrazing, slender wheatgrass and bluebunch wheatgrass decrease while mountain big sagebrush increases. Burning the vegetation causes mountain big sagebrush to decrease in density and grass, rabbitbrush, snowberry and serviceberry to increase. Plant species not a part of the climax plant community that are most likely to invade the site if plant cover deteriorates are: cheatgrass, annual forbs, milkweed, stickseed, tarweed, and snakeweed.

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	0	0	0	5	20	50	5	10	5	5	0	0
Name	PNC											
ID Number	UT4341											
Description	Excellent Condition											

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	0	30	50	0	10	10	0	0	0
Name	Good Condition											
ID Number	UT4342											
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

047AY430UT
 Mountain Loam (Mountain big sagebrush)

047AY461UT
 Mountain Stony Loam (Mountain big sagebrush)

047AY508UT
 High Mountain Loam (Aspen)

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 supports a good volume and a wide variety of species of grasses, forbs and shrubs. It provides nutritious forage for sheep, cattle, horses and goats. It can be grazed in 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

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

b. List of Potential Species Present

It is good habitat for chukars, quail, elk, songbirds, squirrels, snowshoe hare, bobcat and coyote. This site is an excellent forage producer for deer and elk. It is fair habitat for cougars, golden eagles, bear and small mammals.

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 which have flowers in bloom from early spring throughout the summer and into the fall. It has a combination of grasses, forbs, small shrubs and large shrubs which offer some possibilities for screening and value as camping and

Site Type: Rangeland

Ecological Site Name: Mountain Loam (Shrub)

Site Number: 047AY434UT

picnicking areas. Hunting for upland game birds, snowshoe hare, elk and mule deer is good to excellent on this site. Fishing is opportune in streams through and adjacent to this site. This site has values for snowmobiling during a fairly long period of the winter season.

4. Wood Products

No values exist for lumber. Some values exist for fuel for campfires.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

Both the American peregrine falcon and the prairie falcon may occasionally seek their prey on this site.

F. MODAL LOCATION AND DOCUMENTATION

State: Utah

County:

Latitude:

Longitude:

Modal Soil: Henefer L, 15-45% — fine, montmorillonitic, frigid Pachic Argixerolls

Site Type: Rangeland
 Ecological Site Name: Mountain Loam (Shrub)
 Site Number: 047AY434UT

Type Location: SW ¼, NE ¼, NE ¼; Section 8, Township 9N, Range 1E.

General Legal Description:

Field Office Site Location

Logan
 Murray
 Provo
 Price
 Richfield

Data Collected and References

Sampling Source	Number of Records	Range Similarity Index			
		> 76%	51-75%	26-50%	0-25%
NRCS - ECS - 417	2				
UTAH - RANGE - 2					
Permanent Transect Location					

Other References