

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 Loam (Curleaf mountainmahogany)

SITE NUMBER: 047AY440UT

MLRA: E47

Original Site Description: Author: DLT TW

Date: 12/23/1992

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: 9-20 inches

Surface Textures:

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

Subsurface Textures: Very Cobbly to Gritty Medium or Moderately Fine

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

Geologic Parent Materials: Limestone

Moisture Regime:

Temperature Regime:

Runoff:

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): 1.5 to 2.5

Major Soils Associated With This Site:

Soil Survey Area: 609

Agassiz GR-L, 40-70%

Agassiz CBV-SiL, 6-70%

Agassiz STV-L 10-60%

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

2. PHYSIOGRAPHIC FEATURES

Site Type: Rangeland
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1. Potential Plant Community Description and Ecological Factors

The dominant aspect of the plant community is curl-leaf mountainmahogany. The composition by air-dry weight is approximately 35 percent perennial grasses, 5 percent forbs, and 60 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
Bluebunch wheatgrass	PSSP6	0	360	540	20	30
Muttongrass	POFE	0	54	90	3	5
Indian ricegrass	ACHY	1	18	54	1	3
Needleandthread	HECO26	1	18	54	1	3
Geyer sedge	CAGE2	1	18	54	1	3
King fescue	LEKI2	1	18	54	1	3
Nevada bluegrass	PONE3	1	18	54	1	3
Sheep fescue	FEOV	1	18	54	1	3
Great basin wildrye	LECI4	1	18	54	1	3
Western wheatgrass	PASM	1	18	54	1	3
Bottlebrush squirreltail	ELEL5	1	18	54	1	3
Other perennial grasses	PPGG	1	90	180	5	10
Other annual grasses	AAGG	1	90	180	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Arrowleaf balsamroot	BASA3	2	18	36	1	2
Longleaf hawksbeard	CRAC2	2	18	36	1	2
Carpet phlox	PHHO	2	18	36	1	2
Low beardtongue	PEHU	2	18	36	1	2
Eaton fleabane	EREA	2	18	36	1	2
Western mountain aster	ASOC	2	18	36	1	2
Small leaf pussytoes	ANMI3	2	18	36	1	2
Common yarrow	ACMI2	2	18	36	1	2
Stemless mock goldenrod	STACA	2	18	36	1	2
Other perennial forbs	PPFF	2	90	180	5	10
Other annual forbs	AAFF	2	90	180	5	10

Shrubs/Vines, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Curlleaf mountainmahogany	CELE3		630	810	35	45
Bitterbrush	PUTR2		54	90	3	5
Low sagebrush	ARAR8		18	90	1	5
Mountain big sagebrush	ARTRV	3	18	36	1	2
Black sagebrush	ARNO4	3	18	36	1	2
Creeping Oregon grape	MARE11	3	18	36	1	2
Slender wild buckwheat	ERMI4	3	18	36	1	2
Stickyleaf low rabbitbrush	CHVIV4	3	18	36	1	2
Mountain snowberry	SYOR2	3	18	36	1	2
Tabaccobrush	CEVE	3	18	36	1	2
Saskatoon serviceberry	AMAL2	3	18	36	1	2
Watson heathgoldenrod	ERWA8	3	18	36	1	2
Other shrubs	SSSS	3	90	180	5	10

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	2400	2500
Average Year	1700	1800
Unfavorable Year	1200	1300

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	20	2	5
Forbs (perennial)	5	1	5
Shrubs	40	9	25
Trees			
Cryptogams			

b. Other

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Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

Species that are not a part of the climax that are most likely to invade the site when climax plants are depleted are cheatgrass annual forbs, Utah juniper, pinyon pine and snakeweed. Normally as climax plant cover is over utilized or otherwise depleted curlleaf mountainmahogany may become almost a pure stand with an understory of annuals and such shrubs as low sagebrush, black sagebrush 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	UT4401											
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	UT4402											
Description	wheatgrass, bluegrass, sagebrush											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047AY406UT
 Mountain Gravelly Loam (Mountain big sagebrush)

047AY461UT
 Mountain Stony Loam (Mountain big sagebrush)

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 fair to good values and provides plants that are nutritious to sheep, cattle and horses during the 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 has very poor potential for openland habitat, fair for woodlands, very poor for wetland and fair for rangeland.

b. List of Potential Species Present

This site is very valuable for deer and elk winter range. A few species of small mammals and songbirds are found part of the season on this site.

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 appeals to some people with regard to aesthetics and natural beauty. It is not a good site for hunting due to the dense areas of mountainmahogany where deer and other game can find cover. It has good values for camping and picnicking from a vegetative standpoint.

4. Wood Products

Curlleaf mountainmahogany furnishes some fence posts and stays. Firewood for fireplaces and campfires can be harvested, but the wood is difficult to cut with an axe after it is dry. Knick-knacks and other novelties as lamp stands, etc. can be made from this wood.

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5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

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

F. MODAL LOCATION AND DOCUMENTATION

State: Utah

County:

Latitude:

Longitude:

Modal Soil: Agassiz GR-L, 40-70% — loamy-skeletal, mixed, frigid Lithic Haploxerolls

Type Location: NW ¼, SE ¼, SE ¼, Section 19, Township 10N, Range 3E

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					
UTAH - RANGE - 2	40				
Permanent Transect Location					

Other References