

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 (Curlleaf mountainmahogany)

SITE NUMBER: 047CY461UT

MLRA: 047C

Original Site Description: Author: GWL, LLR

Date: 04/22/1992

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): 15-60%

Subsurface Textures: Loamy-skeletal

Subsurface Fragments(<=3" % vol, >3" % vol): >40%

Geologic Parent Materials: Colluvium and Residuum from Sedimentary and Metamorphic Materials

Moisture Regime: Ustic

Temperature Regime: Frigid

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): 0.04-0.10

Major Soils Associated With This Site:

Soil Survey Area: 047

Zillion Family BYX-L, 25-50%

Zillion Family BYX-L, 15-25%

Ironco BYV-L, 25-50%

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 dominant aspect of the plant community is curleaf mountainmahogany. The composition by air-dry weight is approximately 30 percent perennial grasses, 10 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		90	180	5	10
Muttongrass	POFE		54	90	3	5
Sandberg bluegrass	POSE		54	90	3	5
Bulbous oniongrass	MEBU		54	90	3	5
Slender wheatgrass	ELTR7	1	18	36	1	2
Geyer sedge	CAGE2	1	18	36	1	2
Columbia needlegrass	ACNE9	1	18	36	1	2
Letterman needlegrass	ACLE9	1	18	36	1	2
Indian ricegrass	ACHY	1	18	36	1	2
Great basin wildrye	LECI4	1	18	36	1	2
Prairie junegrass	KOMA	1	18	36	1	2
Needleandthread	HECO26	1	18	36	1	2
Littleseed ricegrass	PIMI7	1	18	36	1	2
Other perennial grasses	PPGG	1	54	90	3	5
Other annual grasses	AAGG	1	54	90	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			Low	High	Low	High
Arrowleaf balsamroot	BASA3	2	18	36	1	2
Rocky mountain dwarfsunflower	HEUN	2	18	36	1	2
Louisiana wormwood	ARLU	2	18	36	1	2
Chocolatetips	LODI	2	18	36	1	2
Common yarrow	ACMI2	2	18	36	1	2
White stoneseed	LIRU4	2	18	36	1	2
Small leaf pussytoes	ANMI3	2	18	36	1	2
Wyoming Indian paintbrush	CALI4	2	18	36	1	2
Sandcorn	ZIPA2	2	18	36	1	2
Pacific aster	ASCH2	2	18	36	1	2
Nelson larkspur	DENU2	2	18	36	1	2
Eaton fleabane	EREA	2	18	36	1	2
Scarlet skyrocket	IPAGA3	2	18	36	1	2
Spurred lupine	LUCAC3	2	18	36	1	2
Nodding onion	ALCE2	2	18	36	1	2
Baby goldenrod	SONA	2	18	36	1	2
Other perennial forbs	PPFF	2	90	180	5	10
Other annual forbs	AAFF	2	90	180	5	10

Shrubs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Curleaf mountainmahogany	CELE3		450	540	25	30
Mountain snowberry	SYOR2		90	180	5	10
Utah serviceberry	AMUT		90	180	5	10
Chokecherry	PRVI		54	90	3	5
Mountain big sagebrush	ARTRV		54	90	3	5
Creeping Oregon grape	MARE11	3	18	36	1	2
Mountain lover	PAMY	3	18	36	1	2
Mountain low rabbitbrush	CHVIL4	3	18	36	1	2
Birchleaf mountainmahogany	CEMO2	3	18	36	1	2
Tobaccobrush	CEVE	3	18	36	1	2
Martin buckbrush	CEMA2	3	18	36	1	2
Shortstem wild buckwheat	ERBR5	3	18	36	1	2
Littleleaf mock orange	PHMI4	3	18	36	1	2
Bush oceanspray	HODU	3	18	36	1	2
Other shrubs	SSSS	3	54	90	3	5

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:

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	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	10
Forbs (perennial)	5	1	5
Shrubs	60	10	20
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As this site deteriorates due to grazing pressure, When the potential natural plant community is burned, curleaf mountainmahogany and mountain big sagebrush decreases while tobaccobrush, chokecherry, sedge, and bluebunch wheatgrass 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 Growth	0	0	0	5	20	50	5	10	5	5	0	0
Name	PNC											
ID Number	UT4611											
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 No.1											

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ID Number	UT4612
Description	needlegrass, bluegrass, curlleaf mountainmahogany

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047CY512UT

High Mountain Stony Loam (Douglas fir)

047CY460UT

Mountain Stony Loam (Browse)

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 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 very poor for openland habitat, fair for woodland, very poor for wetland and fair for rangelands.

b. List of Potential Species Present

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

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

Plant Species ↓	Wildlife Species →	Use	Season	Use	Season
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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

Curleaf 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.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
Latitude: Longitude:

Modal Soil: Zillion Family BYX-L, 25-50%; 15-25% — loamy-skeletal, mixed Pachic Argiborolls

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Type Location: SW ¼, SW ¼, NE ¼, Section 20, Township 1S, Range 25E

General Legal Description:

Field Office Site Location

Roosevelt

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