

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 Clay (Slender wheatgrass)

SITE NUMBER: 047AY504UT

MLRA: E47

Original Site Description: Author:

Date: 12/05/1992

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: From Limestone and Shale Rocks

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max): Slow to Moderately Slow

Drainage Class(min-max): Well to Poorly 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: Neutral to Medium Acid

Available Water Capacity (inches): 16-30

Major Soils Associated With This Site:

Soil Survey Area: 609

Herd CB-L, 3-15%

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 vegetation of this site is dominantly grass which is approximately 20 percent of the total by air-dry weight. Approximately 20 percent of the total is forbs and 15 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
Slender wheatgrass	ELTR7		540	630	30	35
Mountain brome	BRCA5		90	180	5	10
Great basin wildrye	LECI4		90	180	5	10
Sheep fescue	FEOV	1	54	90	3	5
Muttongrass	POFE	1	54	90	3	5
Western wheatgrass	PASM	1	54	90	3	5
Blue wildrye	ELGL	1	54	90	3	5
Columbia needlegrass	ACNE9	1	54	90	3	5
Geyer sedge	CAGE2	1	54	90	3	5
Prairie junegrass	KOMA	1	54	90	3	5
Letterman needlegrass	ACLE9	1	54	90	3	5
Other perennial grasses	PPGG	1	180	270	10	15
Other annual grasses	AAGG	1	180	270	10	15

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Northern mulesears	WYAM		54	90	3	5
Spurred lupine	LUCAC3		54	90	3	5
Tobacco root	VAED	2	18	54	1	3
Sweetanice	OSOC	2	18	54	1	3
Western mountain aster	ASOC	2	18	54	1	3
Thickleaf peavine	LALA3	2	18	54	1	3
Common yarrow	ACMI2	2	18	54	1	3
Showy false goldeneye	HEMU3	2	18	54	1	3
Shortstem wild buckwheat	ERBR5	2	18	54	1	3
Silverleaf milkvetch	ASAR4	2	18	54	1	3
Sticky purple cranesbill	GEVI2	2	18	54	1	3
Mountain bluebells	MECI3	2	18	54	1	3
White stoneseed	LIRU4	2	18	54	1	3
Mountain desert parsley	LOGR	2	18	54	1	3
Fendler meadowrue	THFE	2	18	54	1	3
Mountain deathcamas	ZIEL2	2	18	54	1	3
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
Mountain snowberry	SYOR2		90	180	5	10
Low sagebrush	ARAR8		54	90	3	5
Bitterbrush	PUTR2	3	18	36	1	2
Silver sagebrush	ARCA13	3	18	36	1	2
Saskatoon serviceberry	AMAL2	3	18	36	1	2
Stickyleaf low rabbitbrush	CHVIV4	3	18	36	1	2
Slender wild buckwheat	ERMI4	3	18	36	1	2
Other shrubs	SSSS	3	54	90	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	2200	2300
Average Year	1700	1800
Unfavorable Year	1100	1200

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	15
Forbs (perennial)	10	1	5
Shrubs	5	4	5
Trees			
Cryptogams			

b. Other

Litter	
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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 this site upon deterioration are annual grasses and annual forbs. Plants such as sagebrush, mulesears, and snowberry may greatly increase and may become the dominant plants under excessive grazing.

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	0	20	35	30	10	5	0	0	0
Name	PNC											
ID Number	UT5041											
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	UT5042											
Description	needlegrass, bluegrass, snowberry											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047AY516UT
 High Mountain 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 is predominantly grasses but has enough forbs and shrubs to supply a fairly good balance of nutritious feed. It is well adapted for summer and fall use for horses, cattle and sheep. It has plants which remain green until frost, maintaining animal gains throughout the grazing period.

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, good for woodland habitat, very poor for wetland and good for rangelands.

b. List of Potential Species Present

This site supports elk, mule deer, snowshoe hares, small rodents, songbirds, cougars, bear, golden eagles, weasels, ferrets, and coyotes for at least part of each 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

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 excellent values for aesthetics and natural beauty. It is good for elk and deer hunting. It has high potential for skiing and snowmobiling. Primitive type camping and picnicking are possible.

4. Wood Products

None

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5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Herd CB-L, 3-15% — fine, montmorillonitic Mollic Cryoboralfs

Type Location: NW ¼, NE ¼; Section 31, Township 6N, Range 5E

General Legal Description:

Field Office Site Location

Logan
 Provo
 Murray
 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					
Permanent Transect Location					

Other References