

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 Stony Clay (Slender wheatgrass)

SITE NUMBER: 047AY528UT

MLRA: 047A

Original Site Description: Author: DLT, TW

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: 20-60 inches

Surface Textures: Thick Clay Loam

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

Subsurface Textures: Clay

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

Geologic Parent Materials: Limestone and Shale

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max): Slow

Drainage Class(min-max): Moderately 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:

Available Water Capacity (inches):

Major Soils Associated With This Site:

Soil Survey Area: 609

Herd CB-CL, 3-25%

Yence STV-L, 3-15%

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

2. PHYSIOGRAPHIC FEATURES

Site Type: Rangeland

Ecological Site Name: High Mountain Stony Clay (Slender wheatgrass)

Site Number: 047AY528UT

1. Potential Plant Community Description and Ecological Factors

The vegetation of this site is dominantly grass with approximately 60 percent by air-dry weight. Approximately 20 percent of the total yield is forbs and 20 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		337.5	405	25	30
Mountain brome	BRCA5		67.5	135	5	10
Great basin wildrye	LECI4		40.5	67.5	3	5
Sheep fescue	FEOV		40.5	67.5	3	5
Muttongrass	POFE		40.5	27	3	2
Columbia needlegrass	ACNE9	1	13.5	27	1	2
Geyer sedge	CAGE2	1	13.5	27	1	2
Letterman needlegrass	ACLE9	1	13.5	27	1	2
Nodding brome	BRAN	1	13.5	27	1	2
Bulbous oniongrass	MEBU	1	13.5	27	1	2
Spike trisetum	TRSP2	1	13.5	27	1	2
Other perennial grasses	PPGG	1	67.5	135	5	10
Other annual grasses	AAGG	1	67.5	135	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Cutleaf balsamroot	BAMA4		67.5	135	5	10
Northern mulesears	WYAM		40.5	67.5	3	5
Western mountain aster	ASCO	2	13.5	40.5	1	3
Spurred lupine	LUCAC3	2	13.5	40.5	1	3
American bistort	POBI6	2	13.5	40.5	1	3
Eaton fleabane	EREA	2	13.5	40.5	1	3
Yellow avalanche lily	ERGR9	2	13.5	40.5	1	3
Meadow thistle	CISC2	2	13.5	40.5	1	3
Sticky purple cranesbill	GEVI2	2	13.5	40.5	1	3
Lambstongue groundsel	SEIN2	2	13.5	40.5	1	3
Longleaf phlox	PHLO2	2	13.5	40.5	1	3
Twolobe larkspur	DENU2	2	13.5	40.5	1	3
Fendler sandwort	ARFE3	2	13.5	40.5	1	3
Common yarrow	ACMI2	2	13.5	40.5	1	3
Showy cinquefoil	POGR9	2	13.5	40.5	1	3
Other perennial forbs	PPFF	2	67.5	135	5	10
Other annual forbs	AAFF	2	67.5	135	5	10

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of
-------------	-----------------	-------	-----------------	----------------

Site Type: Rangeland

Ecological Site Name: High Mountain Stony Clay (Slender wheatgrass)

Site Number: 047AY528UT

	Symbol				Total Composition	
			Low	High	Low	High
Mountain snowberry	SYOR2		67.5	135	5	10
Bitterbrush	PUTR2	3	13.5	40.5	1	3
Mountain big sagebrush	ARTRV	3	13.5	40.5	1	3
Saskatoon serviceberry	AMAL2	3	13.5	40.5	1	3
Silver sagebrush	ARCA13	3	13.5	40.5	1	3
Stickyleaf low rabbitbrush	CHVIV4	3	13.5	40.5	1	3
Other shrubs	SSSS	3	67.5	135	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	1700	1800
Average Year	1250	1350
Unfavorable Year	800	900

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	10
Forbs (perennial)	10	1	5
Shrubs	20	4	10
Trees			
Cryptogams			

b. Other

Litter	
--------	--

Site Type: Rangeland

Ecological Site Name: High Mountain Stony Clay (Slender wheatgrass)

Site Number: 047AY528UT

Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As this site deteriorates due to grazing pressure the potential grasses decrease and mulesears and big sagebrush increase. With fire as the factor the big sagebrush will decrease and mulesears will increase. Mulesears may become a solid stand.

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	UT4021											
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 No. 1											
ID Number	UT4022											
Description	Bluegrass, needlegrass, big sagebrush											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047AY504UT

High Mountain Clay (Slender wheatgrass)

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

Site Type: Rangeland

Ecological Site Name: High Mountain Stony Clay (Slender wheatgrass)

Site Number: 047AY528UT

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 adapted for summer and fall use for horses, cattle, and sheep. It has plants which remain green until frost, so it maintains 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

This site is poor for openland habitat, good for woodland habitat, very poor for wetland and good for rangeland.

b. List of Potential Species Present

This site supports elk, mule deer, snowshoe rabbits, small rodents, songbirds, cougars, bear, golden eagles, bald eagles, 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 snowmobiling and skiing. Primitive type camping and picnicking are possible.

4. Wood Products

None

5. Other Uses

Site Type: Rangeland
 Ecological Site Name: High Mountain Stony Clay (Slender wheatgrass)
 Site Number: 047AY528UT

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Herd CB-CL, 3-25% — fine, montmorillonitic Mollic cryboralfs

Type Location: NW ¼; NE ¼; NE ¼; Section 25, Township 6N, 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					
Permanent Transect Location					

Other References