

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 Clay (Slender wheatgrass)

SITE NUMBER: 047AY454UT

MLRA: E47

Original Site Description: Author: DLT, DJS

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: Extremely Stony Silty Clay Loam or Gravelly Clay Loam

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

Subsurface Textures:

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

Geologic Parent Materials: Quartzite and Sandstone

Moisture Regime:

Temperature Regime:

Runoff: Medium

Permeability(min-max): Moderately Slow

Drainage Class(min-max): Well Drained

Water Erosion Hazard: Moderate

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): 5-6

Major Soils Associated With This Site:

Soil Survey Area: 603

Yeates Hollow ST-SiCL, 3-30%

Hillbner GR-CL, 3-10%

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 general aspect of this site is grasses and low shrubs. The potential natural plant community is composed of about 70 percent perennial grasses, 20 percent forbs, and 10 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
Slender wheatgrass	ELTR7		630	735	30	35
Bluebunch wheatgrass	PSSP6		210	315	10	15
Great basin wildrye	LECI4		105	210	5	10
Nevada bluegrass	PONE3		63	105	3	5
Columbia needlegrass	ACNE9	1	21	63	1	3
Bottlebrush squirreltail	ELEL4	1	21	63	1	3
Letterman needlegrass	ACLE9	1	21	63	1	3
Bulbous oniongrass	MEBU	1	21	63	1	3
Sandberg bluegrass	POSE	1	21	63	1	3
Prairie junegrass	KOMA	1	21	63	1	3
Geyer sedge	CAGE2	1	21	63	1	3
Sheep fescue	FEOV	1	21	63	1	3
Mountain brome	BRCA5	1	21	63	1	3
Other perennial grasses	PPGG	1	105	210	5	10
Other annual grasses	AAGG	1	105	210	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Northern mulesears	WYAM		105	210	5	10
Common yarrow	ACMI2		63	105	3	5
Western mountain aster	ASOC	2	21	63	1	3
Spurred lupine	LUCAC3	2	21	63	1	3
Silverleaf milkvetch	ASAR4	2	21	63	1	3
Wyoming Indian paintbrush	CALI4	2	21	63	1	3
Butterweed	SESE2	2	21	63	1	3
Thickleaf peavine	LALA3	2	21	63	1	3
Sticky purple cranesbill	GEVI2	2	21	63	1	3
Other perennial forbs	PPFF	2	105	210	5	10
Other annual forbs	AAFF	2	105	210	5	10

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of
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Site Type: Rangeland

Ecological Site Name: Mountain Stony Clay (Slender wheatgrass)

Site Number: 047AY454UT

	Symbol				Total Composition	
			Low	High	Low	High
Bitterbrush	PUTR2		63	105	3	5
Mountain big sagebrush	ARTRV		63	105	3	5
Low sagebrush	ARAR8	3	21	21	1	1
Mountain snowberry	SYOR2	3	21	21	1	1
Stickyleaf rabbitbrush	CHVIV4	3	21	21	1	1
Slender wild buckwheat	ERMI4	3	21	21	1	1
Other shrubs	SSSS	3	63	105	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	2500	2400
Average Year	2200	2100
Unfavorable Year	1800	1700

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	50	2	15
Forbs (perennial)	5	1	5
Shrubs	10	3	10
Trees			
Cryptogams			

b. Other

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Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

Species not a part of the climax that are most likely to invade the site if range condition decline are cheatgrass, annual forbs, curlycup gumweed, ragweed and tarweed. Mulesears will increase to the extent of appearing almost as a pure stand in the extreme stages of range depletion.

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	UT4541											
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	UT4542											
Description	needlegrass, bluegrass, bitterbrush											

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)

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 provides good grazing during summer and fall for cattle, sheep, and horses.

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 valuable for wildlife habitat in providing food.

b. List of Potential Species Present

Wildlife using this site include mule deer, elk, coyote, rabbit, and ground squirrel.

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 fair to good aesthetic appeal and natural beauty. It has a limited number of species of forbs and shrubs, but some of them are in bloom from spring to fall. This site has poor value for camping and picnicking. Hunting is fair to good for snowshoe rabbits, deer and elk. Fishing opportunities are fair to good on streams within and adjacent to this site. Snowmobiling and skiing has good potential.

4. Wood Products

None

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 Site Number: 047AY454UT

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

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

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Yeates Hollow ST-SiCL, 3-30% — clayey-skeletal, montmorillonitic, frigid Typic Argixerolls

Type Location: See the soil typical survey publication.

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	6				
UTAH - RANGE - 2					
Permanent Transect Location					

Other References