

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 Loamy Bottom (Great basin wildrye)

SITE NUMBER: 048AY410UT

MLRA: 048A

Original Site Description: Author: GWL LR

Date: 05/25/1981

Revised Site Description: Author: GWL LR

Date: 01/18/1994

Approved by: Title: State Range Cons. Signed: Pat Shaver

Date: 05/27/1994

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: Loamy to Gravelly Loam

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

Subsurface Textures:

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

Geologic Parent Materials: Alluvium from Shale

Moisture Regime:

Temperature Regime:

Runoff: Medium to Slow

Permeability(min-max): Slow to Moderate

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):

Major Soils Associated With This Site:

Soil Survey Area: 616

Sowcan SL 3-15%

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

1. Potential Plant Community Description and Ecological Factors

The general view of this site is basin wildrye and basin big sagebrush. The potential natural plant community is composed of approximately 65 percent perennial grasses, 10 percent forbs and 25 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
Basin wildrye	LECI4		400	500	20	25
Muttongrass	POFE		100	200	5	10
Needleandthread	HECO26		100	200	5	10
Mountain brome	BRCA5		100	200	5	10
Salina wildrye	LESA5		100	200	5	10
Western wheatgrass	PASM	1	60	100	3	5
Bottlebrush squirreltail	ELEL5	1	60	100	3	5
Columbia needlegrass	ACNE9	1	60	100	3	5
Ross sedge	CARO5	1	60	100	3	5
Indian ricegrass	ACHY	1	60	100	3	5
Letterman needlegrass	ACLE9	1	60	100	3	5
Slender wheatgrass	ELTR7	1	60	100	3	5
Other perennial grasses	PPGG	1	100	200	5	10
Other annual grasses	AAGG	1	100	200	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Spurred lupine	LUCAC3	2	20	40	1	2
Scarlet globemallow	SPCO	2	20	40	1	2
Common yarrow	ACMI2	2	20	40	1	2
Lobeleaf groundsel	SEMU3	2	20	40	1	2
Sticky purple cranesbill	GEVI2	2	20	40	1	2
Louisiana wormwood	ARLU	2	20	40	1	2
Wyoming Indian paintbrush	CALI4	2	20	40	1	2
American purple vetch	VIAM	2	20	40	1	2
Showy cinquefoil	POGR9	2	20	40	1	2
Woodland strawberry	FRVE	2	20	40	1	2
Common dandelion	TAOF	2	20	40	1	2
Other perennial forbs	PPFF	2	100	200	5	10
Other annual forbs	AAFF	2	100	200	5	10

Shrubs/Vines, %

Site Type: Rangeland

Ecological Site Name: Mountain Loamy Bottom (Great basin wildrye)

Site Number: 048AY410UT

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Basin big sagebrush	ARTRT		200	300	10	15
Mountain snowberry	SYOR2		60	100	3	5
Rubber rabbitbrush	ERNA10	3	20	60	1	3
Low rabbitbrush	CHVI8	3	20	60	1	3
Utah serviceberry	AMUT	3	20	60	1	3
Sulphurflower wild buckwheat	ERUM	3	20	60	1	3
Central pricklypear	OPPO	3	20	60	1	3
Fringed sagebrush	ARFR4	3	20	60	1	3
Blue elder	SACE3	3	20	60	1	3
Other shrubs	SSSS	3	100	200	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	2900	3000
Average Year	1900	2000
Unfavorable Year	1400	1500

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	50	5	20
Forbs (perennial)	5	1	2
Shrubs	20	5	10
Trees			
Cryptogams			

b. Other

Site Type: Rangeland

Ecological Site Name: Mountain Loamy Bottom (Great basin wildrye)

Site Number: 048AY410UT

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, perennial bunch grasses decrease while big sagebrush, rabbitbrush, and western wheatgrass increase.

When the potential natural plant community is burned, big sagebrush will decrease while rabbitbrush, basin wildrye and other perennial grasses will increase.

Thistles and other weedy species are most likely to invade this site.

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	15	40	30	5	5	0	0	0
Name	PNC											
ID Number	UT4101											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

048AY409UT

Mountain Loam (Salina wildrye)

048AY448UT

Mountain Stony Loam (Mountain big sagebrush)

048AY006UT

Semiwet Fresh Streambank Water Birch

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

a. Site Factors Influencing Management

Basin wildrye is a moderately palatable, long-lived grass (Welsh et al: A Utah Flora pg. 723).

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 provides food and cover for Several species of wildlife.

b. List of Potential Species Present

Wildlife using this site include sage grouse, coyote, rabbit, mule deer and elk.

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 aesthetic appeal because of increased production due to more moisture that adjacent land. Recreation values include hiking and hunting.

Site Type: Rangeland
 Ecological Site Name: Mountain Loamy Bottom (Great basin wildrye)
 Site Number: 048AY410UT

4. Wood Products

None

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

- 1. Plants
- 2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soils: Sowcan SL 3-5% — coarse-loamy, mixed Cumulic Haploborolls

Type Location: SW ¼; NW ¼; NW ¼; Section 22, Township 15S, Range 24E

General Legal Description:

Field Office Site Location

Price
 Roosevelt

Legal Description:

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					
BLM FORM	10				
Permanent Transect Location					

Other References