

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 (Browse)

SITE NUMBER: 048AY451UT

MLRA: 048A

Original Site Description: Author: GWL, LR

Date: 05/15/1981

Revised Site Description: Author:

Date: 01/24/1994

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:

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

Subsurface Textures:

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

Geologic Parent Materials: Colluvium and Residuum from Mixed Sedimentary

Moisture Regime:

Temperature Regime:

Runoff: Moderate to Rapid

Permeability(min-max): Moderate to Moderately Slow

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): 4-10

Major Soils Associated With This Site:

Soil Survey Area: 047

Tosca GR-SL, 25-40%

Bookcliff L, 3-15%

Seeprid L, 4-25%

Datino (variant)-L 15-40%

Beje Carbon SS

Guben STX-L, 30-50%

Rabbitex L, 25-50%

Perma Family STV-SL, 15-40%

Rottulee Family, 3-30%

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

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1. Potential Plant Community Description and Ecological Factors

The dominant aspect of this site is Utah serviceberry, and birchleaf mountainmahogany. The potential plant community by air-dry weight is composed of approximately 20 percent perennial grasses, 10 percent forbs, and 70 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
Salina wildrye	LESAS		39	65	3	5
Muttongrass	POFE		39	65	3	5
Western wheatgrass	PASM		39	65	3	5
Needleandthread	HECO26		39	65	3	5
Slender wheatgrass	ELTR7	1	13	26	1	2
Ross sedge	CARO5	1	13	26	1	2
Letterman needlegrass	ACLE9	1	13	26	1	2
Mountain brome	BRCA5	1	13	26	1	2
Indian ricegrass	ACHY	1	13	26	1	2
Bluebunch wheatgrass	PSSP6	1	13	26	1	2
Prairie junegrass	KOMA	1	13	26	1	2
Bottlebrush squirreltail	ELEL5	1	13	26	1	2
Sandberg bluegrass	POSE	1	13	26	1	2
Blue grama	BOGR2	1	13	26	1	2
Other perennial grasses	PPGG	1	39	65	3	5
Other annual grasses	AAGG	1	39	65	3	5

Forbs, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Bastard toadflax	COUM	2	13	39	1	3
Small leaf pussytoes	ANMI3	2	13	39	1	3
Blue flax	LIPI2	2	13	39	1	3
Arrowleaf balsamroot	BASA3	2	13	39	1	3
Thickleaf peavine	LALA3	2	13	39	1	3
Longleaf phlox	PHLO2	2	13	39	1	3
Hoary tansyaster	MACA2	2	13	39	1	3
Scarlet globemallow	SPCO	2	13	39	1	3
Rocky mountain beardtongue	PEST2	2	13	39	1	3
Shaggy fleabane	ERPU2	2	13	39	1	3
Spurred lupine	LUCAC3	2	13	39	1	3
Lobeleaf groundsel	SEMU3	2	13	39	1	3
Parry goldenrod	SOPA4	2	13	39	1	3
Looseflower milkvetch	ASTE5	2	13	39	1	3
Tufted evening primrose	OECE2	2	13	39	1	3
Common yarrow	ACMI2	2	13	39	1	3
Wyoming Indian paintbrush	CALI4	2	13	39	1	3
Trumpet stoneseed	LIIN2	2	13	39	1	3
Towlobe larkspur	DENU2	2	13	39	1	3
Sulphurflower wild buckwheat	ERUM	2	13	39	1	3
Other perennial forbs	PPFF	2	39	195	3	15
Other annual forbs	AAFF	2	39	195	3	15

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Utah serviceberry	AMUT		195	260	15	20
Birchleaf mountainmahogany	CEMO2		195	260	15	20
Mountain big sagebrush	ARTRV		65	130	5	10
Mountain snowberry	SYOR2		65	130	5	10
Bitterbrush	PUTR2		65	130	5	10
Gambel oak	QUGA	3	13	39	1	3
Low rabbitbrush	CHVI8	3	13	39	1	3
Squaw apple	PERA4	3	13	39	1	3
Creeping Oregon grape	MARE11	3	13	39	1	3
Central pricklypear	OPPO	3	13	39	1	3
Other shrubs	SSSS	3	39	65	3	5

Trees, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol			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	1500	1600
Average Year	1200	1300
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)	15	2	5
Forbs (perennial)	5	1	2
Shrubs	50	5	30
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As this site deteriorates due to grazing pressure, perennial grasses, and palatable shrubs may decrease while less palatable shrubs and forbs may increase. This ecosystem appears to be a fire dependent community. In the absence of fire it may (at least in higher elevations) progress to a climatic climax of Douglas fir. Further study may in fact, show that this is a fire disclimax of mountain stony loam (Douglas fir).

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
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Percent Growth	0	0	0	5	15	40	30	5	5	0	0	0
Name	PNC											
ID Number	UT4511											
Description	Excellent Condition											

	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	Good Condition No. 1											
ID Number	UT4512											
Description	Needlegrass, bluegrass, shrubs											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

048AY452UT
 Mountain Stony Loam (Douglas fir)

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 proper grazing for cattle and sheep during 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

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This site provides food and cover for many species of wildlife.

b. List of Potential Species Present

Wildlife species using this site include sage grouse, rabbit, coyote, 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 offers color and aesthetic appeal during the growing season. Recreation values include hiking and hunting.

4. Wood Products

None, except for wood for campfires.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Tosca GR-SL, 25-40% — loamy-skeletal, mixed Typic Calciborolls

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Type Location: NE ¼; SW ¼; NE ¼; Section 16, Township 15S, Range 25E

General Legal Description:

Field Office Site Location

Roosevelt
 Price

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	30				
Permanent Transect Location					

Other References