

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 Shallow Loam (Oak)

SITE NUMBER: 047AY448UT

MLRA: E47

Original Site Description: Author: DLT TW

Date: 12/16/1992

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: 10-20

Surface Textures: Cobbly or Stony Loams

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

Subsurface Textures:

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

Geologic Parent Materials: Sandstone and Quartz-Diorite

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max):

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): 1.5 to 3.0

Major Soils Associated With This Site:

Soil Survey Area: 622

Brad CBV-LS, 15-65%

Van Wagoner CB-SL, 40-70%

Lithic Haplox. ST-L, 40-80%

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 view of this site is Gambel oak. The composition by air-dry weight is approximately 40 percent perennial grasses, 10 percent forbs, and 50 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
Bluebunch wheatgrass	PSSP6		60	120	5	10
Nevada bluegrass	PONE		60	120	5	10
Slender wheatgrass	ELTR7		60	120	5	10
Geyer sedge	CAGE2		36	60	3	5
Mountain brome	BRCA5	1	12	24	1	2
Letterman needlegrass	ACLE9	1	12	24	1	2
Bottlebrush squirreltail	ELEL5	1	12	24	1	2
Sandberg bluegrass	POSE	1	12	24	1	2
Other perennial grasses	PPGG	1	36	60	3	5
Other annual grasses	AAGG	1	36	60	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Spurred lupine	LUCAC3	2	12	24	1	2
Arrowleaf balsamroot	BASA3	2	12	24	1	2
Longleaf phlox	PHLO2	2	12	24	1	2
Western mountain aster	ASOC	2	12	24	1	2
Coast goldenrod	SOSP	2	12	24	1	2
Silverleaf milkvetch	ASAR4	2	12	24	1	2
Common stickseed	HAPA	2	12	24	1	2
Thickleaf peavine	LALA3	2	12	24	1	2
Other perennial forbs	PPFF	2	60	120	5	10
Other annual forbs	AAFF	2	60	120	5	10

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			Low	High	Low	High
Gambel oak	QUGA		300	360	25	30
Mountain big sagebrush	ARTRV		120	180	10	15
Mountain snowberry	SYOR2	3	12	60	1	5
Saskatoon serviceberry	AMAL2	3	12	60	1	5
Stickyleaf low rabbitbrush	CHVIV4	3	12	60	1	5
Shortstem wild buckwheat	ERBR5	3	12	60	1	5
Bitterbrush	PUTR2	3	12	60	1	5
Central pricklypear	OPPO	3	12	60	1	5
Broom snakeweed	GUSA2	3	12	60	1	5
Other shrubs	SSSS	3	120	180	10	15

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	1200	1300
Average Year	1100	1200
Unfavorable Year	900	1000

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	25	2	10
Forbs (perennial)	10	1	5
Shrubs	40	8	15
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	

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Bare Ground	
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5. Ecological Dynamics of the Site

Species that are not a part of the climax that are most likely to invade the site under excessive grazing use are cheatgrass, annual forbs, curlcup gumweed, houndstongue, flannel mullein, tarweed, rubber rabbitbrush and snakeweed. Gambel oak will increase and may become almost a pure stand under excessive grazing use or repeated range fires.

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	UT4481											
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	UT4482											
Description	needlegrass, bluebunch and oak											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047AY432UT
 Mountain Loam (Oak)

047AY430UT
 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

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This site provides a fairly good balance of nutritious forage. Sheep, cattle, and horses do well grazing during the spring, summer, and fall seasons.

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

Wildlife potential is fair to poor for openland, good to fair for woodland, very poor for wetland and good to fair for rangelands.

b. List of Potential Species Present

It is good habitat for chukers, quail, mule deer, elk, songbirds, squirrels, snowshoe hare, cottontails, bobcat, and coyotes. It is fair habitat for cougars, bear, golden eagle, hawks and small mammals.

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 potential for aesthetics and natural beauty. It has a large number of forbs and shrubs which have flowers in bloom from early spring throughout the summer and late into the fall. It has shrubs which offer screening for camping and picnicking. Hunting is good for upland game birds, snowshoe hare, elk and mule deer. Fishing is opportune on streams through and adjacent to this site. This site has values for snowmobiling and skiing during a fairly

4. Wood Products

Fence posts and stays can be harvested from the Gambel oak. This species also supplies fireplace wood, campfire wood, and materials for knick-knacks and novelties.

5. Other Uses

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E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

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

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: sandy-skeletal, mixed, frigid Lithic Haploxerolls

Type Location: SE ¼; NW ¼; SE ¼, Section 4, Township 4 S, Range 6 E.

General Legal Description:

Field Office Site Location

Logan
 Murray
 Provo
 Price
 Richfield

Data Collected and References

Sampling Source	Number of Records	Range Similarity Index			
		> 76%	51-75%	26-50%	0-25%
NRCS - ECS - 417	2				
UTAH - RANGE - 2	4				
Permanent Transect Location					

Other References