

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 Loam (Canyon Maple)

SITE NUMBER: 047AY418UT

MLRA: E47

Original Site Description: Author: DLT GBB

Date: 01/02/1992

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:

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

Subsurface Textures: Medium to Fine, May Contain Gravel and Cobble

Subsurface Fragments(<=3" % vol, >3" % vol): <35%

Geologic Parent Materials: Sandstone, Shale, Limestone, Quartzite, and
Igneous Rocks

Moisture Regime:

Temperature Regime:

Runoff: Little

Permeability(min-max): Moderate to Slow

Drainage Class(min-max): Well Drained

Water Erosion Hazard: Slight to None

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): 10-14

Major Soils Associated With This Site:

Soil Survey Area: 609

Bertag SiL, 10-50%

Smarts L, 40-60%

Elzinga SiL, 30-60%

Smarts Si & GR-Sil, 10-70%

Henefer L, 6-60%

Clegg SiL, 20-30%

Manghan SiL, 30-60%

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

2. PHYSIOGRAPHIC FEATURES

Landform and Position: Gently Sloping to Very Steep Mountain Slopes and Hilly Plateaus

Aspect: SW

	<u>Minimum</u>	<u>Maximum</u>
Slope:	15	70
Elevation:	5100	9000
Flooding:		
Frequency:		
Duration:		
Ponding:		
Depth (inches):		
Frequency:		
Duration:		
Water Table Depth:		

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 18-22

Mean Annual Air Temperature: 37-45

Mean Annual Soil Temperature: 39-47

Frost Free Period (days): 60-110

Freeze Free Period (days): 0-0

Temperature and Moisture Distribution:

Temp	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	34	39	46	56	67	77	86	84	75	63	46	37
Mean												
Low	10	14	20	28	36	42	49	47	39	30	17	13

ppt	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High												
Mean	2.71	2.35	2.22	1.80	1.68	1.27	0.79	1.04	1.11	1.69	1.70	1.87
Low												

Climate Stations: St. ID.:

Location:

Period:

From: To:

(Includes factors such as storm intensity, precipitation dependability, origin and pattern of storms, driest and wettest months, orographic effects, etc.)

Influencing Water Features (if any):

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Wetland Description(Cowardin System) System Subsystem Class

Stream Types(Rosgen System) System

C. PLANT COMMUNITY CHARACTERISTICS

1. Potential Plant Community Description and Ecological Factors

The dominant aspect of the plant community is bigtooth maple. The composition is approximately 30 percent perennial grasses, 20 percent forbs, 40 percent shrubs and 10 percent trees by average annual 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
Bluebunch wheatgrass	PSSP6		90	180	5	10
Great basin wildrye	LECI4		90	180	5	10
Muttongrass	POFE		54	90	3	5
Mountain brome	BRCA5		18	90	1	5
Slender wheatgrass	ELTR7	1	18	54	1	3
Columbia needlegrass	ACNE9	1	18	54	1	3
Geyer sedge	CAGE2	1	18	54	1	3
Western wheatgrass	PASM	1	18	54	1	3
Kentucky bluegrass	POPR	1	18	54	1	3
Bulbous oniongrass	MEBU	1	18	54	1	3
Nevada bluegrass	PONE3	1	18	54	1	3
Sandberg bluegrass	POSE	1	18	54	1	3
Other perennial grasses	PPGG	1	90	180	5	10
Other annual grasses	AAGG	1	90	180	5	10

Forbs, %

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Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Common yarrow	ACMI2	2	18	54	1	3
Arrowleaf balsamroot	BASA3	2	18	54	1	3
Western mountain aster	ASOC	2	18	54	1	3
Sticky purple cranesbill	GEVI2	2	18	54	1	3
Lesser rushy milkvetch	ASCO12	2	18	54	1	3
Louisiana wormwood	ARLU	2	18	54	1	3
Northern mulesears	WYAM	2	18	54	1	3
Shortstem wild buckwheat	ERBR5	2	18	54	1	3
Stinging nettle	URDI	2	18	54	1	3
Western coneflower	RUOC2	2	18	54	1	3
Spurred lupine	LUCAC3	2	18	54	1	3
Nettleleaf giant hyssop	AGUR	2	18	54	1	3
Houndstongue	CYOF	2	18	54	1	3
Common motherwort	LECA2	2	18	54	1	3
Meadow goatsbeard	TRDU	2	18	54	1	3
Other perennial forbs	PPFF	2	90	180	5	10
Other annual forbs	AAFF	2	90	180	5	10

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Mountain big sagebrush	ARTRV		90	180	5	10
Bitterbrush	PUTR2		54	90	3	5
Chokecherry	PRVI		54	90	3	5
Mountain snowberry	SYOR2	4	18	54	1	3
Creeping Oregon grape	MARE11	4	18	54	1	3
Woods rose	ROWO	4	18	54	1	3
Stickyleaf low rabbitbrush	CHVIV4	4	18	54	1	3
Broom snakeweed	GUSA2	4	18	54	1	3
Birchleaf mountainmahogany	CEMO2	4	18	54	1	3
Other shrubs	SSSS	5	90	180	5	10

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Canyon maple	ACGR3		90	180	5	10
Rocky mountain juniper	JUSC2		0	90	0	5

3. Plant Community Annual Production

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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	2100	2000
Average Year	1900	1800
Unfavorable Year	1700	1600

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	10
Forbs (perennial)	5	1	5
Shrubs	15	3	10
Trees	25	8	10
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

Plant species not a part of the climax plant community that are most likely to invade the site if plant cover deteriorates are: cheatgrass, annual forbs, dandelion, houndstongue, Utah juniper, rubber rabbitbrush, and snakeweed.

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	20	50	5	10	5	5	0	0
Name	PNC											
ID Number	UT4181											
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 No. 1											
ID Number	UT4182											
Description	Needlegrass, Bluegrass and Snowberry											

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)

047AY406UT

Mountain Gravelly 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 has a fair amount of grass, a small amount of forbs, and an exceptionally high amount of shrubs. There is a large variety of species. This site is especially valuable to sheep but can also be used by cattle and horses. This combination of plants provides a balanced nutrition for grazing animals. It should be grazed in spring, 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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It is poor for openland habitat, good for woodland habitat, very poor for wetland habitat and good for rangeland habitat.

b. List of Potential Species Present

It provides good to fair habitat for chukars, quail, forest grouse, mule deer, elk, squirrels, snowshoe hares, songbirds, and coyotes, especially in those areas where oak brush is interspersed with grassy openings. It is fair to poor habitat for bobcats, cougars, golden eagles, and bear.

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 good values 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 into the fall. It has a combination of grasses, forbs, small shrubs and large shrubs which offer some possibilities for screening and value as camping and picnicking areas. Hunting for elk and mule deer is good to excellent on this site. Fishing is opportune on streams through and adjacent to this site. This site has some value for snowmobiling through a fairly long period of the winter season.

4. Wood Products

No values exist for lumber. Some values exist for fuel for campfires and fireplace wood from Bigtooth maple. This species also provides fence posts and fence stays.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

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

F. MODAL LOCATION AND DOCUMENTATION

State: Utah
 Latitude:

County:
 Longitude:

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Modal Soil: Bertag Silt Loam, 10-50% – fine, montmorillonitic, frigid, pachic Ultic Argixerolls

Type Location: NE ¼; NW ¼; NE1/4; Section 26. Township 6N, Range 1E

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					
UTAH - RANGE - 2	19				
Permanent Transect Location					

Other References