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: High Mountain Loam (Silver sagebrush)
SITE NUMBER: 047AY517UT
MLRA: 047A
Original Site Description: Author: Date: 12/28/1992
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: Loam
Surface Fragments(<=3" % cover, >3" % cover):
Subsurface Textures: Clay Loam
Subsurface Fragments(<=3" % vol, >3" % vol):
Geologic Parent Materials: Glacial Till from Shale, Quartzite, and Sandstone
Moisture Regime:
Temperature Regime:
Runoff: Medium
Permeability(min-max): 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 $CaCl_2$):
pH Range:
Available Water Capacity (inches): 9-11

Major Soils Associated With This Site:

Soil Survey Area: 613, 622
Sessions L Sessions CL-L

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

2. PHYSIOGRAPHIC FEATURES

Landform and Position: Glaciated Mountains, Glaciated Basins and Ground Moraines
Aspect: All

	Minimum	Maximum
Slope:	2	25
Elevation:	8000	9200

Flooding:
Frequency:
Duration:
Ponding:
Depth (inches):
Frequency:
Duration:
Water Table Depth:

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 25-35
Mean Annual Air Temperature: 36-42
Mean Annual Soil Temperature: 38-44
Frost Free Period (days): 30-60
Freeze Free Period (days): 0-0

Temperature and Moisture Distribution:

Temp	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High												
Mean	28	27	33	34	44	55	62	65	56	46	31	21
Low												

ppt	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High												
Mean	2.14	2.21	2.76	2.66	2.33	1.85	1.70	2.09	2.40	2.91	2.45	2.79
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):

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 general view of this site is silver sagebrush with a grass understory. The plant community is approximately 55 percent perennial grasses, 25 percent forbs and 20 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		400	500	20	25
Mountain brome	BRCA5		100	200	5	10
Nevada bluegrass	PONE		100	200	5	10
Sheep fescue	FEOV	1	20	100	1	5
Bulbous oniongrass	MEBU	1	20	100	1	5
Columbia needlegrass	ACNE9	1	20	100	1	5
Nodding bluegrass	PORE	1	20	100	1	5
Geyer sedge	CAGE2	1	20	100	1	5
Letterman needlegrass	ACLE9	1	20	100	1	5
Other perennial grasses	PPGG	1	20	100	1	5
Other annual grasses	AAGG	1	20	100	1	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition

			Low	High	Low	High
Sticky purple cranesbill	GEVI2		100	200	5	10
Thickleaf peavine	LALA3		60	100	3	5
Fall sneezeweed	HEAU	2	20	40	1	2
Woodland strawberry	FRVE	2	20	40	1	2
Fendler meadowrue	THFE	2	20	40	1	2
Tolmie owlclover	ORTO	2	20	40	1	2
Pale agoseris	AGGL	2	20	40	1	2
Western mountain aster	ASOC	2	20	40	1	2
Shortstem wild buckwheat	ERBR5	2	20	40	1	2
Wyoming Indian paintbrush	CALI4	2	20	40	1	2
Common yarrow	ACMI2	2	20	40	1	2
Low beardtongue	PEHU	2	20	40	1	2
Parry clover	TRPA5	2	20	40	1	2
Nettleleaf giant hyssop	AGUR	2	20	40	1	2
Longleaf hawksbeard	CRAC2	2	20	40	1	2
Duncecap larkspur	DEOC	2	20	40	1	2
Showy cinquefoil	POGR9	2	20	40	1	2
Lobeleaf groundsel	SEMU3	2	20	40	1	2
Darkthroat shootingstar	DOPU	2	20	40	1	2
American purple vetch	VIAM	2	20	40	1	2
Twolobe larkspur	DENU2	2	20	40	1	2
Eaton fleabane	EREA	2	20	40	1	2
Other perennial forbs	PPFF	2	20	40	1	2
Other annual forbs	AAFF	2	20	40	1	2

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Silver sagebrush	ARCA13		300	500	15	25
Mountain snowberry	SYOR2		100	200	5	10
Stickyleaf low rabbitbrush	CHVIV4	3	20	40	1	2
Blue elder	SACE3	3	20	40	1	2
Creeping Oregon grape	MARE11	3	20	40	1	2
Other shrubs	SSSS	3	60	100	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	2100	2200
Average Year	1900	2000
Unfavorable Year	1600	1700

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	40	3	15
Forbs (perennial)	15	2	5
Shrubs	20	4	10
Trees			
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 this site if plant cover deteriorates are annual grasses, annual forbs, dandelion, mullein, tarweed, houndstongue, 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
Percent Growth	0	0	0	0	20	35	30	10	5	0	0	0

Name	PNC
ID Number	UT5171
Description	Excellent Condition

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	0	10	40	45	5	0	0	0	0

Name	Good Condition No. 1
ID Number	UT5172
Description	needlegrass, bluegrass and silver sagebrush

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047AY504UT
High Mountain Clay (Slender wheatgrass)

047AY508UT
High Mountain Loam (Aspen)

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 moderately high values for summer use by cattle, sheep and horses. It provides green forage when vegetation of sites at lower elevations is dry and mature. Sufficient livestock water is usually close by.

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

The potential 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 is good habitat for summer use by elk, mule deer, and moose, and good all around habitat for bear, coyote, cougar, bobcat, snowshoe hare, songbirds, blue grouse, squirrels, golden eagle, bald eagle, and hawks.

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

The potential natural plant community has high values for aesthetics and natural beauty. Wild flowers bloom from early summer through fall. Hunting is fair and fishing is opportune on streams, lakes, and reservoirs through and adjacent to this site.

4. Wood Products

None

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

No species of plants or animals are considered to be threatened or endangered.

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
Latitude: Longitude:

Modal Soil: Sessions L, CL, 5-25% — fine, montmorillonitic Argic Cryoborolls

Site Type: Rangeland
Ecological Site Name: High Mountain Loam (Silver sagebrush)
Site Number: 047AY517UT
Type Location: NW ¼; SW ¼; NW ¼; Section 2, Township 2N, Range 9E

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	7				
UTAH - RANGE - 2					
Permanent Transect Location					

Other References