

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: Upland Stony Loam (Mountain big sagebrush)

SITE NUMBER: 047BY336UT

MLRA: 047B

Original Site Description: Author: TS

Date:

Revised Site Description: Author:

Date: 06/09/1993

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: Very Cobbly Loam

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

Subsurface Textures: Very Gravelly Clay Loam, Very Gravelly Clay to Very Cobbly Loamy Sand

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

Geologic Parent Materials: Residuum and Alluvium from Basic and Intermediate Rock

Moisture Regime:

Temperature Regime:

Runoff: Medium

Permeability(min-max): Slow to Moderately 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 CaCl₂):

pH Range:

Available Water Capacity (inches): 3

Major Soils Associated With This Site:

Soil Survey Area: 636

Harol CBVL 15-40%

Dalcan CBVL, Dry, 4-25%

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

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2. PHYSIOGRAPHIC FEATURES

Landform and Position: Mountainsides and Dissected Alluvial Fans

Aspect: N/S

	<u>Minimum</u>	<u>Maximum</u>
Slope:	2	40
Elevation:	7200	8500
Flooding:		
Frequency:		
Duration:		
Ponding:		
Depth (inches):		
Frequency:		
Duration:		
Water Table Depth:		

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 14-18

Mean Annual Air Temperature: 36-44

Mean Annual Soil Temperature: 38-46

Frost Free Period (days): 0-0

Freeze Free Period (days): 50-75

Temperature and Moisture Distribution:

Temp	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	36	39	43	52	63	74	80	77	71	60	45	37
Mean	20	24	29	37	46	55	62	60	53	43	30	22
Low	5	9	14	22	30	36	44	43	35	26	15	7

ppt	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	1.76	4.08	2.85	2.63	2.08	4.17	2.32	4.43	5.30	4.47	2.03	2.90
Mean	0.74	0.75	0.90	0.69	0.76	0.71	1.10	1.75	1.28	1.09	0.75	1.14
Low	0.09	0.00	0.04	0.03	0.00	0.00	0.06	0.10	0.00	0.00	0.03	0.00

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 grass and big sagebrush. 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
Indian ricegrass	ACHY		50	100	5	10
Blue grama	BOGR2		50	100	5	10
Nevada bluegrass	PONE3		50	100	5	10
Needleandthread	HECO26		30	50	3	5
Bluebunch wheatgrass	PSSP6		30	50	3	5
Bottlebrush squirreltail	ELEL5	1	10	20	1	2
Sandberg bluegrass	POSE	1	10	20	1	2
Other perennial grasses	PPGG	1	30	50	3	5
Other annual grasses	AAGG	1	30	50	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Spreading fleabane	ERDI4	2	10	40	1	4
Grassy rockgoldenrod	PEPU7	2	10	40	1	4
Longleaf phlox	PHLO2	2	10	40	1	4
Silky lupine	LUSE4	3	0	10	0	1
Dusty beardtongue	PECO5	3	0	10	0	1
Hollyleaf clover	TRGY	3	0	10	0	1
Freckled milkvetch	ASLE8	3	0	10	0	1
Other perennial forbs	PPFF	3	10	30	1	3
Other annual forbs	AAFF	3	10	30	1	3

Shrubs, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Mountain big sagebrush	ARTRV		250	350	25	35
Bitterbrush	PUTR2		50	100	5	10
Low rabbitbrush	CHVI8		50	100	5	10
Black sagebrush	ARNO4	4	10	30	1	3
Broom snakeweed	GUSA2	4	10	30	1	3
Mountain snowberry	SYOR2	4	10	30	1	3
Utah serviceberry	AMUT	4	10	30	1	3
Rubber rabbitbrush	ERNA10	4	10	30	1	3
Other shrubs	SSSS	4	50	100	5	10

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	1100	1300
Average Year	900	1000
Unfavorable Year	500	700

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	20	2	10
Forbs (perennial)	5	1	2
Shrubs	30	4	15
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

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As the ecological condition deteriorates, the herbaceous plant community will decrease and mountain big sagebrush will completely dominate the site. When the potential natural plant community is burned mountain big sagebrush decreases and grasses will increase. Cheatgrass and mustards will 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	20	20	25	15	0	0	0
Name	PNC											
ID Number	UT3361											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047BY333UT

Upland Stony Loam (Pinyon-Utah juniper)

047BY309UT

Upland Loam (Black sagebrush)

047BY322UT

Upland Shallow 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

Good summer grazing for cattle and sheep.

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

None

b. List of Potential Species Present

Antelope and mule deer habitat

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 fair aesthetic and beauty.

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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 Soil: Harol Very Cobbly Loam 15-40% — loamy-skeletal, mixed Typic Argiborolls

Type Location: SW ¼ Section 28, Township 31S, Range 5W

General Legal Description:

Field Office Site Location

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					
UTAH - RANGE - 2					
Permanent Transect Location					

Other References