

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 Clay (Low sagebrush)

SITE NUMBER: 025XY320UT

MLRA: 025

Original Site Description: Author: GBB

Date: 01/15/1985

Revised Site Description: Author: GBB

Date: 02/09/1994

Approved by: Title: State Range Cons. Signed: Pat Shaver

Date: 04/25/1994

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: 40-60 inches

Surface Textures:

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

Subsurface Textures:

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

Geologic Parent Materials: Alluvium & Colluvium from Mixed Sedimentary

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max): 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): 4-7

Major Soils Associated With This Site:

Soil Survey Area: 601

Acord CBV-L

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

2. PHYSIOGRAPHIC FEATURES

Site Type: Rangeland

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1. Potential Plant Community Description and Ecological Factors

The general view of this site is low sagebrush, Idaho fescue, and bluebunch wheatgrass. The composition by air-dry weight is approximately 50 percent perennial grasses, 20 percent forbs, and 30 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
Idaho fescue	FEID		140	175	20	25
Bluebunch wheatgrass	PSSP6		70	105	10	15
Nevada bluegrass	PONE3	1	21	35	3	5
Bottlebrush squirreltail	ELEL5	1	21	35	3	5
Great basin wildrye	LECI4	1	21	35	3	5
Thickspike wheatgrass	ELSC4	1	21	35	3	5
Geyer sedge	CAGE2	1	21	35	3	5
Thurber needlegrass	ACTH7	1	21	35	3	5
Other perennial grasses	PPGG	1	35	70	5	10
Other annual grasses	AAGG	1	35	70	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Arrowleaf balsamroot	BASA3	2	105	140	15	20
Longleaf phlox	PHLO2	2	105	140	15	20
Pacific aster	ASCH2	2	105	140	15	20
Spurred lupine	LUCAC3	2	105	140	15	20
Shortstem wild buckwheat	ERBR5	2	105	140	15	20
Stemless mock goldenweed	STACA	2	105	140	15	20
Torrey milkvetch	ASCA9	2	105	140	15	20
Cushion pussytoes	ANDI2	2	105	140	15	20
Shaggy fleabane	ERPU2	2	105	140	15	20
Sego lily	CANU3	2	105	140	15	20
Languid lady	MEOB	2	105	140	15	20
White stoneseed	LIRU4	2	105	140	15	20
Northern mulesears	WYAM	2	105	140	15	20
Other perennial forbs	PPFF	2	105	140	15	20
Other annual forbs	AAFF	2	105	140	15	20

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			Low	High	Low	High
Low sagebrush	ARAR8		105	140	15	20
Bitterbrush	PUTR2	3	21	35	3	5
Alkali sagebrush	ARLO	3	21	35	3	5
Low rabbitbrush	CHVI8	3	21	35	3	5
Rubber rabbitbrush	ERNA10	3	21	35	3	5
Slender wild buckwheat	ERMI4	3	21	35	3	5
Saskatoon serviceberry	AMAL2	3	21	35	3	5
Dwarf rabbitbrush	CHDE2	3	21	35	3	5
Other shrubs	SSSS	3	35	70	5	10

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	900	1000
Average Year	600	700
Unfavorable Year	300	400

4. Ground Cover and Structure

a. Vegetative

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

b. Other

Litter	
Coarse Fragments	

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Bare Ground	
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5. Ecological Dynamics of the Site

As this site deteriorates due to grazing pressure Idaho fescue and bluebunch wheatgrass decrease while dwarf rabbitbrush, low rabbitbrush, Sandberg bluegrass and mat-forming forbs increase. When the potential natural plant community is burned, Idaho fescue, bluebunch wheatgrass, and bitterbrush decrease while low rabbitbrush, arrowleaf balsamroot, and milkvetch increase.

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	5	15	40	20	10	5	5	0	0	0
Name	PNC											
ID Number	UT3201											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

025XY415UT
 Mountain Shallow Gravelly Ridge (Black 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 provides proper grazing for cattle and sheep during spring, summer, and fall.

b. Guide to Forage Quality(Plant preference by season)

Species	Oct-Nov	Dec-Feb	Mar-May	Jun-Sep

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VG = Very Good G = Good F = Fair P = Poor

2. Wildlife

a. Site Factors Influencing Management

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

b. List of Potential Species Present

Wildlife using this site include blacktail jackrabbit, coyote, sage grouse, and mule deer.

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

Hiking and Hunting

4. Wood Products

None

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County: Box Elder
 Latitude: Longitude:
 Section: Township: Range:

Modal Soil: Acord CB-L – clayey-skeletal, montmorillonitic, frigid Calcic Argixerolls

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Type Location: 700 ft NW of SE Corner Section 19, Township 13N, Range 17W

General Legal Description:

Field Office Site Location

Legal Description: 700 ft NW of SE Corner Section 19, Township 13N, Range 17 W
 3.5 miles SW of Cotton Thomas Basin, Box Elder County

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