

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 Loam (Wyoming big sagebrush)

SITE NUMBER: 025XY314UT

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: 20-40 inches

Surface Textures: Loams & Fine Sandy Loams

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

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol): < 15%

Geologic Parent Materials: Alluvium & Volcanic Ash from Tuffaceous

Sedimentary Material

Moisture Regime:

Temperature Regime:

Runoff: Medium

Permeability(min-max): Moderately Rapid

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): 2-4

Major Soils Associated With This Site:

Soil Survey Area: 601

Raftriver L

Cottonthomas FSL

Tomsherry FSL

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 Wyoming big sagebrush. The composition by air-dry weight is approximately 70 percent perennial grasses, 10 percent forbs, and 20 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		142.5	190	15	20
Thurber needlegrass	ACTH7		142.5	190	15	20
Nevada bluegrass	PONE3		47.5	95	5	10
Idaho fescue	FEID		47.5	95	5	10
Needleandthread	HECO26	1	28.5	47.5	3	5
Bottlebrush squirreltail	ELEL5	1	28.5	47.5	3	5
Indian ricegrass	ACHY	1	28.5	47.5	3	5
Prairie junegrass	KOMA	1	28.5	47.5	3	5
Thickspike wheatgrass	ELSC4	1	28.5	47.5	3	5
Other perennial grasses	PPGG	1	47.5	95	5	10
Other annual grasses	AAGG	1	47.5	95	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Carpet phlox	PHHO	2	95	142.5	10	15
Arrowleaf balsamroot	BASA3	2	95	142.5	10	15
Torrey milkvetch	ASCA9	2	95	142.5	10	15
Shortstem wild buckwheat	ERBR5	2	95	142.5	10	15
Shaggy fleabane	ERPU2	2	95	142.5	10	15
Cushion pussytoes	ANDI2	2	95	142.5	10	15
Lobeleaf groundsel	SEMU3	2	95	142.5	10	15
Utah buttercup	RAJO	2	95	142.5	10	15
Nevada onion	ALNE	2	95	142.5	10	15
Other perennial forbs	PPFF	2	95	142.5	10	15
Other annual forbs	AAFF	2	95	142.5	10	15

Shrubs/Vines, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Wyoming big sagebrush	ARTRW		95	142.5	10	15
Low rabbitbrush	CHVI8		28.5	47.5	3	5
Bitterbrush	PUTR2	3	9.5	28.5	1	3
Slender wild buckwheat	ERMI4	3	9.5	28.5	1	3
Other shrubs	SSSS	3	28.5	47.5	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	1100	1200
Average Year	850	950
Unfavorable Year	500	600

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range	Percent Basal Area Cover
Grasses & Grass-like (perennial)	50	2	20
Forbs (perennial)	10	1	5
Shrubs	15	3	10
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As this site deteriorates due to grazing pressure thickspike wheatgrass and Nevada bluegrass decrease while Wyoming big sagebrush and low rabbitbrush increase. When the potential natural plant community is burned big

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sagebrush, Idaho fescue, and wild buckwheat decreases while low rabbitbrush and thickspike wheatgrass increases.

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	UT3141											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

025XY322UT

Upland Juniper Savanna (Utah juniper)

025XY316UT

Upland Shallow Loam (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 in the 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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This site provides food and cover for many species of wildlife.

b. List of Potential Species Present

Wildlife that use 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
 Latitude:

County: Box Elder
 Longitude:

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Modal Soil: Riverraft L – course-loamy, mixed, frigid Haploxerollic Durorthids

Type Location: SE ¼ NW ¼ Section 24, Township 14N, Range 17W – Junction Valley

General Legal Description:

Field Office Site Location

Legal Description: SE ¼, NW ¼, Section 24, Township 14N, Range 17W

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	8				
Permanent Transect Location					

Other References