

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 (Wyoming big sagebrush)

SITE NUMBER: 034XY334UT

MLRA: 034

Original Site Description: Author: JLB GWL

Date: 05/18/1981

Revised Site Description: Author: JLB GWL

Date: 01/12/1994

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

Date: 06/25/1994

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:

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

Subsurface Textures: Loamy-skeletal

Subsurface Fragments(<=3" % vol, >3" % vol): >50%

Geologic Parent Materials: Alluvium and Colluvium from Sedimentary and Metamorphic

Moisture Regime:

Temperature Regime: Frigid

Runoff:

Permeability(min-max):

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):

Major Soils Associated With This Site:

Soil Survey Area: 047

Lanver L Moist 2-4%

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

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2. PHYSIOGRAPHIC FEATURES

Landform and Position: Pediment Back Slopes and Toeslopes

Aspect: N/SW

	<u>Minimum</u>	<u>Maximum</u>
Slope:	15	60
Elevation:	5900	7600
Flooding:		
Frequency:		
Duration:		
Ponding:		
Depth (inches):		
Frequency:		
Duration:		
Water Table Depth:		

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 12-16

Mean Annual Air Temperature: 0-47

Mean Annual Soil Temperature: 47-50

Frost Free Period (days): 0-0

Freeze Free Period (days): 110-125

Temperature and Moisture Distribution:

Temp	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	30	36	48	60	67	78	83	83	72	60	44	32
Mean	17	24	36	46	53	63	69	68	58	48	33	2
Low	4	12	24	33	39	48	54	53	45	35	22	9

ppt	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High												
Mean	0.47	0.89	1.36	1.10	1.29	1.32	1.28	0.93	1.90	1.12	1.16	0.72
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 dominant aspect of the plant community is Wyoming big sagebrush and bitterbrush. The composition by air-dry weight is approximately 45 percent perennial grasses, 10 percent forbs and 45 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
Needleandthread	HECO26		120	180	10	15
Indian ricegrass	ACHY		60	120	5	10
Muttongrass	POFE		12	60	1	5
Bluebunch wheatgrass	PSSP6		12	60	1	5
Western wheatgrass	PASM		12	60	1	5
Salina wildrye	LESAS		12	60	1	5
Blue grama	BOGR2	1	12	24	1	2
Bottlebrush squirreltail	ELEL5	1	12	24	1	2
Geyer sedge	CAGE2	1	12	24	1	2
Prairie junegrass	KOMA	1	12	24	1	2
Other perennial grasses	PPGG	1	12	60	1	5
Other annual grasses	AAGG	1	12	60	1	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Gumweed tansyaster	MAGR2		12	60	1	5
Woolly milkvetch	ASMO7	2	12	24	1	2
Scarlet globemallow	SPCO	2	12	24	1	2
Stemless mock goldenweed	STACA	2	12	24	1	2
Thickleaf beardtongue	PEPA6	2	12	24	1	2
Other perennial forbs	PPFF	2	12	60	1	5
Other annual forbs	AAFF	2	12	60	1	5

Shrubs/Vines, %

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Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Wyoming big sagebrush	ARTRW		180	240	15	20
Bitterbrush	PUTR2		120	180	10	15
Birchleaf mountainmahogany	CEMO2		36	60	3	5
Low rabbitbrush	CHVI8	3	12	48	1	4
Mormontea	EPVI	3	12	48	1	4
Creeping Oregon grape	MARE11	3	12	48	1	4
Central pricklypear	OPPO	3	12	48	1	4
Grassy rockgoldenrod	PEPU7	3	12	48	1	4
Saskatoon serviceberry	AMAL2	3	12	48	1	4
Slender wild buckwheat	ERMI4	3	12	48	1	4
Broom snakeweed	GUSA2	3	12	48	1	4
Mountain snowberry	SYOR2	3	12	48	1	4
Winterfat	KRLA2	3	12	48	1	4
Longflower rabbitbrush	CHDE2	3	12	48	1	4
Other shrubs	SSSS	3	120	180	10	15

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	1300	1400
Average Year	1100	1200
Unfavorable Year	800	900

4. Ground Cover and Structure

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a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	30	3	15
Forbs (perennial)	5	1	2
Shrubs	30	3	15
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, perennial grasses and bitterbrush decrease while big sagebrush increase. Bitterbrush will increase when this site is sprayed with 2, 4-D. When the potential natural plant community is burned big sagebrush will decrease while grasses and bitterbrush increase. Utah juniper and cheatgrass are most likely to 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	10	30	45	5	5	5	0	0	0
Name	PNC											
ID Number	UT3341											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

034XY306UT

Upland Loam (Basin big sagebrush)

034XY320UT

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 during 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

This site produces food and cover for wildlife.

b. List of Potential Species Present

Wildlife using this site include jackrabbit, coyote, mule deer, and elk.

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 low recreational potential and often has scenic vistas.

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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: Lanver L Moist 2-4% — loamy-skeletal, mixed, mesic Ustollic Calciorthids

Type Location: SW $\frac{1}{4}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$; Section 11, Township 14S, Range 20E SLBM

General Legal Description:

Field Office Site Location

Roosevelt

Price

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