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: Semidesert Shallow Loam (Black sagebrush)
SITE NUMBER: 047BY236UT
MLRA: 047B
Original Site Description: Author: Date:
Revised Site Description: Author: TS Date: 04/15/1992
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: 10-20 inches
Surface Textures: Gravelly or Cobbly Loams or Sandy Loams
Surface Fragments(<=3" % cover, >3" % cover):
Subsurface Textures: Gravelly to Very Gravelly Clay Loams to Sandy Loams
Subsurface Fragments(<=3" % vol, >3" % vol):
Geologic Parent Materials: Residuum and Colluvium from Mixed Sedimentary and Igneous Rocks
Moisture Regime:
Temperature Regime:
Runoff:
Permeability(min-max): Moderate
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 $CaCl_2$):
pH Range:
Available Water Capacity (inches): 2

Major Soils Associated With This Site:

Soil Survey Area: 636
Venture CBL Redcreek GRSL

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

2. PHYSIOGRAPHIC FEATURES

Landform and Position: Ridges and Fan Terraces
Aspect: All

	Minimum	Maximum
Slope:	5	20
Elevation:	5000	6800

Flooding:
- Frequency:
- Duration:

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

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 9-14
Mean Annual Air Temperature: 40-45
Mean Annual Soil Temperature: 42-47
Frost Free Period (days): 0-0
Freeze Free Period (days): 70-100

Temperature and Moisture Distribution:

Temp	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	39	43	49	60	69	77	84	81	75	65	51	41
Mean	23	27	34	42	50	57	64	63	55	45	34	25
Low	6	12	19	24	31	38	45	44	35	26	16	9

ppt	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	1.27	1.03	1.90	1.20	1.44	0.87	1.85	1.40	1.88	1.20	1.17	0.95
Mean	0.64	0.60	0.83	0.64	0.68	0.49	1.52	1.54	1.00	0.86	0.60	0.59
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

This site is characterized by black sagebrush. The aspect if definitely one of a shrubland, with a variety of shrubs and half shrubs. The herbaceous plant community is dominated by Indian ricegrass and blue grama. Forbs make up an important but minor component of this site. Forb production will vary greatly from year to year depending on precipitation.

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		60	90	10	15
Blue grama	BOGR2		60	90	10	15
Needleandthread	HECO26		30	60	5	10
Bottlebrush squirreltail	ELEL5	1	6	30	1	5
Prairie junegrass	KOMA	1	6	30	1	5
Nevada bluegrass	PONE3	1	6	30	1	5
Other perennial grasses	PPGG	1	6	30	1	5
Other annual grasses	AAGG	1	6	30	1	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Redroot wild buckwheat	ERRA3	2	6	30	1	5
James catseye	CRCI3	2	6	30	1	5
Carpet phlox	PHHO	2	6	30	1	5
Freckled milkvetch	ASLE8	2	6	30	1	5
Gooseberryleaf globemallow	SPGR2	2	6	18	1	3
Pacific aster	ASCH2	3	6	24	1	4
Grassy rockgoldenrod	PEPU7	3	6	24	1	4
Dusty beardtongue	PECO5	3	6	24	1	4
Other perennial forbs	PPFF	3	6	24	1	4
Other annual forbs	AAFF	3	6	24	1	4

Shrubs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		150	210	25	35
Low rabbitbrush	CHVI8		18	30	3	5
Winterfat	KLRA2	4	6	30	1	5
Fourwing saltbush	ATCA2	4	6	30	1	5
Shadscale	ATCO	4	6	30	1	5
Mormontea	EPVI	4	6	30	1	5
Wyoming big sagebrush	ARTRW8	4	6	30	1	5
Other shrubs	SSSS	4	6	30	1	5

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	750	850
Average Year	400	600
Unfavorable Year	300	400

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	30	2	15
Forbs (perennial)	5	1	2
Shrubs	20	3	10
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates, Indian ricegrass and blue grama decrease while black sagebrush and Wyoming big sagebrush increase. When the potential natural plant community is burned, black sagebrush and Wyoming big sagebrush decrease while herbaceous vegetation increases. Pinyon and juniper are the plants 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	5	10	20	25	20	10	5	5	0	0
Name	PNC											
ID Number	UT2361											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047BY210UT
Semidesert Gravelly Loam (Black sagebrush)

047BY221UT
Semidesert Loam (Black sagebrush)

047BY326UT
Upland Shallow Loam (Pinyon-Utah juniper)

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 spring/fall 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

Good feed, No cover

b. List of Potential Species Present

Mule deer and antelope

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

Fair aesthetic appearance and beauty.

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: Ventura CBL, CRY, 2-25% — loamy-skeletal, mixed, shallow Aridic Argiborolls

Type Location: NE ¼; Section 34, 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