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 Clay (Pinyon-Utah juniper)
SITE NUMBER: 047BY303UT
MLRA: 047B
Original Site Description: Author: Date:
Revised Site Description: Author: TS 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: 40-60 inches
Surface Textures:
Surface Fragments(<=3" % cover, >3" % cover):
Subsurface Textures: Silty Clays to Clay Loam
Subsurface Fragments(<=3" % vol, >3" % vol):
Geologic Parent Materials: Colluvium from Sedimentary Materials
Moisture Regime:
Temperature Regime:
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 $CaCl_2$):
pH Range:
Available Water Capacity (inches):

Major Soils Associated With This Site:

Soil Survey Area: 636
Dimyaw Family GRL 4-25% Eroded
Dimyaw GR-L

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

2. PHYSIOGRAPHIC FEATURES

Landform and Position: Benches and Mountainsides
Aspect: All

	Minimum	Maximum
Slope:	5	20
Elevation:	6800	8500

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

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 14-16
Mean Annual Air Temperature: 40-44
Mean Annual Soil Temperature: 42-46
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	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	2.23	4.43	5.30	5.30	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 aspect of this site is dominated by juniper and pinyon trees and black sagebrush. Other dominant shrubs include mountain big sagebrush. The herbaceous community is dominated by Indian ricegrass with blue grama evident. Forbs make up a minor part of the plant community.

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		65	97.5	10	15
Blue grama	BOGR2		32.5	65	5	10
Needleandthread	HECO26		19.5	32.5	3	5
Western wheatgrass	PASM		19.5	32.5	3	5
Bottlebrush squirreltail	ELEL5		13	19.5	2	3
Other perennial grasses	PPGG	1	6.5	32.5	1	5
Other annual grasses	AAGG	1	6.5	32.5	1	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Silky lupine	LUSE4		6.5	19.5	1	3
Gooseberry globemallow	SPGR2		6.5	19.5	1	3
Freckled milkvetch	ASLE8		6.5	19.5	1	3
Nodding wild buckwheat	ERCE2		6.5	19.5	1	3
Lobeleaf groundsel	SEMU3		6.5	19.5	1	3
Other perennial forbs	PPFF	2	6.5	32.5	1	5
Other annual forbs	AAFF	2	6.5	32.5	1	5

Shrubs, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition

			Low	High	Low	High
Black sagebrush	ARNO4		130	195	20	30
Mountain big sagebrush	ARTRV		65	97.5	10	15
Rubber rabbitbrush	ERNA10		26	65	4	10
Bitterbrush	PUTR2		26	65	4	10
Low rabbitbrush	CHVI8		19.5	32.5	3	5
Mountain snowberry	SYOR2	3	6.5	19.5	1	3
Grassy rockgoldenrod	PEPU7	3	6.5	19.5	1	3
Birchleaf mountainmahogany	CEMO2	3	6.5	19.5	1	3
Other shrubs	SSSS	3	19.5	32.5	3	5

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Utah juniper	JUOS	4	32.5	65	5	10
Pinyon pine	PIED	4	32.5	65	5	10
Rocky mountain juniper	JUSC2	4	32.5	65	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	750	850
Average Year	550	650
Unfavorable Year	400	500

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	15
Forbs (perennial)	5	1	2
Shrubs	20	3	10
Trees	30	12	15
Cryptogams			

b. Other

Litter	
Coarse Fragments	

Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, Indian ricegrass blue grama decrease while black sagebrush, low rabbitbrush and rubber rabbitbrush increase. When the potential natural plant community is burned, black sagebrush decreases while Indian ricegrass and blue grama increase.

Cheatgrass and mustards 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	5	15	20	20	25	15	0	0	0
Name	PNC											
ID Number	UT3031											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries
(Give related range sites in MLRA's above and below)

8. Associated Sites Within MLRA

047BY309UT
Upland Loam (Black sagebrush)

047BY312UT
Upland Shallow Clay (Pinyon-Utah juniper)

047BY326UT
Upland Shallow Loam (Pinyon-Utah juniper)

047BY302UT
Upland Clay (Low 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

Fair 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

Tree cover and browse availability.

b. List of Potential Species Present

Mule deer, elk, 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

This site has fair aesthetic appearance and beauty.

4. Wood Products

This site produces wood products suitable for fence post and fuel wood.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
Latitude: Longitude:

Modal Soil: Dimyaw Family GRL 4-25% Eroded — fine, montmorillonitic (calcareous), frigid Typic Ustorthent

Type Location: SW ¼; Section 30, Township 32S, Range 4W

General Legal Description:

Field Office Site Location
Cedar City
Richfield

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