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 Shallow Clay (Pinyon-Utah juniper)
SITE NUMBER: 047BY312UT
MLRA: 047B
Original Site Description: Author: Date: 05/01/1991
Revised Site Description: Author: Date: 12/30/1991
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:
Surface Fragments(<=3" % cover, >3" % cover):
Subsurface Textures:
Subsurface Fragments(<=3" % vol, >3" % vol):
Geologic Parent Materials: Residuum and Colluvium from Shale
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
Ruko CL
Wiggler SH-L

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

2. PHYSIOGRAPHIC FEATURES

Landform and Position: Mountainsides
Aspect: All

	Minimum	Maximum
Slope:	5	40
Elevation:	6500	8000

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: 0-0
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	2.32	4.43	5.30	4.47	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 general view of this site is pinyon and juniper. The composition by air-dry weight is approximately 30 percent perennial grasses, 10 percent forbs, 50 percent shrubs and 20 percent trees.

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		40	60	10	15
Bottlebrush squirreltail	ELEL5		20	40	5	10
Western wheatgrass	PASM		12	20	3	5
Blue grama	BOGR2	1	0	12	0	3
Bluebunch wheatgrass	PSSP6	1	0	12	0	3
Salina wildrye	LESAS	1	0	12	0	3
Prairie junegrass	KOMA	1	0	12	0	3
Other perennial grasses	PPGG	1	12	20	3	5
Other annual grasses	AAGG	1	12	20	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
King's bird's beak	COKI		4	16	1	4
Grassy rockgoldenrod	PEPU2		4	16	1	4
Slender wild buckwheat	ERMI4	2	0	4	0	1
Pacific aster	ASCG2	2	0	4	0	1
James catseye	CRCI3	2	0	4	0	1
Santa Fe bladderpod	LEIN3	2	0	4	0	1
Other perennial forbs	PPFF	2	4	12	1	3
Other annual forbs	AAFF	2	4	12	1	3

Shrubs, %

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

			Low	High	Low	High
Black sagebrush	ARNO4		40	80	10	20
Bitterbrush	PUTR2		40	80	10	20
Roundleaf buffaloberry	SHRO		20	40	5	10
Birchleaf mountainmahogany	CEMO2		20	40	5	10
Mexican cliffrose	PUME	3	0	12	0	3
Broom snakeweed	GUSA2	3	0	12	0	3
Wyoming big sagebrush	ARTRW8	3	0	12	0	3
Bigelow sagebrush	ARBI3	3	0	12	0	3
Mormontea	EPVI	3	0	12	0	3
Utah serviceberry	AMUT	3	0	12	0	3
Low rabbitbrush	CHVI8	3	0	12	0	3
Other shrubs	SSSS	3	12	20	3	5

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Pinyon	PIED		48	60	12	15
Utah juniper	JUOS		12	20	3	5
Rocky Mountain juniper	JUSC2		0	0	0	0

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	550	650
Average Year	300	400
Unfavorable Year	100	200

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	10
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 and bottlebrush squirreltail decrease while pinyon and Utah juniper increase. When the potential natural plant community is burned, pinyon, Utah juniper, and Rocky Mountain juniper decrease while Indian ricegrass and bottlebrush squirreltail 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	0	5	15	20	20	25	15	0	0	0
Name	PNC											
ID Number	UT3121											
Description	Excellent Condition											

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

8. Associated Sites Within MLRA

047BY333UT
Upland Stony Loam (Pinyon-Utah juniper)

047BY309UT
Upland 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

Fair – poor summer grazing for livestock.

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 – fair forage.

b. List of Potential Species Present

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

This site has only fair aesthetic appearances.

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: Ruko CL

Type Location: NW Section 11, Township 39S, Range 4W

General Legal Description:

Field Office Site Location
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