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 Loam (Pinyon-Utah Juniper)
SITE NUMBER: 034XY322UT
MLRA: 034
Original Site Description: Author: JLB GWL Date: 05/15/1981
Revised Site Description: Author: JLB GWL Date: 01/11/1994
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: 4-20 inches
Surface Textures:
Surface Fragments(<=3” % cover, >3” % cover):
Subsurface Textures:
Subsurface Fragments(<=3” % vol, >3” % vol):
Geologic Parent Materials: Residuum and Alluvium from Sandstone
Moisture Regime:
Temperature Regime:
Runoff: Moderate to Rapid
Permeability(min-max): Moderate to 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 $CaCl_2$):
pH Range:
Available Water Capacity (inches):

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Major Soils Associated With This Site:

Soil Survey Area: 047

Atchee CNV-SiL Moist 4-25%
Castner CN-L 1-8%, 8-50% Eroded
Travessilla FL-SL Moist 4-25%
Shalako STV FSL 3-30%
Travessilla SL 8-30%
Shalako VFSL 1-15%
Atchee CNV-SiL 25-50% Eroded
Jagon GRV-L 3-8%
Winona CN-L Moist 4-25%, 2-8%
Cabba Family L 20-40%
Podo GR-SL 1-8%

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

2. PHYSIOGRAPHIC FEATURES

Landform and Position: Benches, Cuestas, and Mountain Slopes
Aspect: N/SW

	Minimum	Maximum
Slope:	15	50
Elevation:	6400	8000

Flooding:
- Frequency:
- Duration:

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

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 12-16
Mean Annual Air Temperature: 42-47
Mean Annual Soil Temperature: 47-51
Frost Free Period (days): 0-0
Freeze Free Period (days): 90-110

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 pinyon and Utah juniper. The understory composition by air-dry weight is approximately 35 percent perennial grasses, 15 percent forbs and 50 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
Salina wildrye	LESAS		30	60	5	10
Bluebunch wheatgrass	PSSP6		30	60	5	10
Indian ricegrass	ACHY		30	60	5	10
Galleta	HIJA	1	6	12	1	2
Prairie junegrass	KOMA	1	6	12	1	2
Muttongrass	POFE	1	6	12	1	2
Bottlebrush squirreltail	ELEL5	1	6	12	1	2
Needleandthread	HECO26	1	6	12	1	2
Blue grama	BOGR2	1	6	12	1	2
Other perennial grasses	PPGG	1	30	60	5	10
Other annual grasses	AAGG	1	30	60	5	10

Forbs, %

Common Name	National	Group	Pounds per Acre	% by Weight of

	Symbol				Total Composition	
			Low	High	Low	High
Grassy rockgoldenrod	PEPU7		6	12	1	2
Longleaf phlox	PHLO2		6	12	1	2
Gumweed tansyaster	MAGR2		6	12	1	2
Juniper desert parsley	LOJU	2	0	6	0	1
Small leaf pussytoes	ANMI3	2	0	6	0	1
Hooker sandwort	ARHO4	2	0	6	0	1
Pacific aster	ASCH2	2	0	6	0	1
Tufted milkvetch	ASSP6	2	0	6	0	1
Holboell rockcress	ARHO2	2	0	6	0	1
Plateau yellow catseye	CRFL5	2	0	6	0	1
Nodding wild buckwheat	ERCE2	2	0	6	0	1
Cushion wild buckwheat	EROV	2	0	6	0	1
Sprawling skyrocket	IPPO2	2	0	6	0	1
Thrift mock goldenweed	STARA	2	0	6	0	1
Fineleaf woollywhite	HYFI	2	0	6	0	1
Western sticktight	LAOC3	2	0	6	0	1
Blue flax	LIPE2	2	0	6	0	1
Thickleaf beardtongue	PEPA6	2	0	6	0	1
Spurred lupine	LUCAC3	2	0	6	0	1
Hoary tansyaster	MACA2	2	0	6	0	1
Central pricklypear	OPPO	2	0	6	0	1
Heartleaf jewelflower	STCO6	2	0	6	0	1
Navajo tea	THSU	2	0	6	0	1
Other perennial forbs	PPFF	2	30	60	5	10
Other annual forbs	AAFF	2	30	60	5	10

Shrubs/Vines, %

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

			Low	High	Low	High
Birchleaf mountainmahogany	CEMO2		60	90	10	15
Mexican cliffrose	PUME		30	60	5	10
Black sagebrush	ARNO4		18	30	3	5
Utah serviceberry	AMUT		18	30	3	5
Wyoming big sagebrush	ARTRW	3	6	18	1	3
Bitterbrush	PUTR2	3	6	18	1	3
Curlleaf mountainmahogany	CELE3	3	6	18	1	3
Mountain snowberry	SYOR2	3	6	18	1	3
Longflower rabbitbrush	CHDE2	3	6	18	1	3
Low rabbitbrush	CHVI8	3	6	18	1	3
Torrey jointfir	EPTO	3	6	18	1	3
Mormontea	EPVI	3	6	18	1	3
Singleleaf ash	FRAN2	3	6	18	1	3
Crispleaf wild buckwheat	ERCO14	3	6	18	1	3
Broom snakeweed	GUSA2	3	6	18	1	3
Granite pricklygilia	LEPU	3	6	18	1	3
Central pricklypear	OPPO	3	6	18	1	3
Winterfat	KRLA2	3	6	18	1	3
Other shrubs	SSSS	3	60	90	10	15

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Pinyon pine	PIED		72	90	12	15
Utah juniper	JUOS		18	30	3	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	700	800
Average Year	500	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)	20	2	10
Forbs (perennial)	10	1	5
Shrubs	20	4	10
Trees	60	12	30
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, understory plants decrease while pinyon and Utah juniper increase. However, most of this site is not readily grazed by livestock because of steep slopes and rock outcrops.

When the potential plant community is burned pinyon and Utah juniper will temporarily decrease while perennial grasses and browse will increase. However, natural fire is only a minor factor in this ecosystem. Sparse understory and associated rock outcrops make burning difficult unless very hazardous conditions exist.

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	UT3221											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

034XY230UT
Semidesert Shallow Loam (Salina wildrye)

034XY338UT
Upland Very Steep Loam (Pinyon-Utah juniper)

034XY341UT
Upland Very Steep Shallow Loam (Birchleaf mountainmahogany)

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 is not readily grazed by livestock because of steep slopes and rock outcrops.

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 provides food and cover for wildlife.

b. List of Potential Species Present

Wildlife using this site include jackrabbit, woodrat, pinyon jay, 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 natural beauty values but very limited recreation opportunities.

4. Wood Products

There are approximately 8-10 cords of firewood per acre in the potential plant community when the average tree diameter is 5 inches at one foot. About 20 posts and 12 Christmas trees are produced per acre. The site index is 70. The average diameter at one foot height is 12 inches.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
Latitude: Longitude:

Site Type: Rangeland
Ecological Site Name: Upland Shallow Loam (Pinyon-Utah juniper)
Site Number: 034XY322UT
Modal Soil: Atchee CNV-SiL Moist 4-25%, 25-50% Eroded — loamy-skeletal, mixed (calc.), mesic Lithic Ustic Torriorthents

Type Location: SW ¼, NW ¼, SE ¼; Section 6, Township 14S, Range 23E 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