

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 Gravelly Loam (Utah juniper-Pinyon)

SITE NUMBER: 035XY206UT

MLRA: 035

Original Site Description: Author: GSC

Date: 04/15/1984

Revised Site Description: Author: GSC

Date: 09/23/1993

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

Date: 05/27/1994

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: >60 inches

Surface Textures:

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

Subsurface Textures: Very Fine Sandy Loam

Subsurface Fragments(<=3" % vol, >3" % vol): 35-65%

Geologic Parent Materials: Mixed Alluvium and Colluvium from Sandstone Shale and Conglomerates

Moisture Regime:

Temperature Regime: Mesic

Runoff:

Permeability(min-max): 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 CaCl₂):

pH Range:

Available Water Capacity (inches):

Major Soils Associated With This Site:

Soil Survey Area: 633

Strych, Dry CBV-FSL

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

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2. PHYSIOGRAPHIC FEATURES

Landform and Position: Foothills, Old Outwash Fans and Alluvial Fans

Aspect: N/S

	<u>Minimum</u>	<u>Maximum</u>
Slope:	8	15
Elevation:	4500	6500
Flooding:		
Frequency:		
Duration:		
Ponding:		
Depth (inches):		
Frequency:		
Duration:		
Water Table Depth:		

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 10-12

Mean Annual Air Temperature: 49-51

Mean Annual Soil Temperature: 51-53

Frost Free Period (days): 0-0

Freeze Free Period (days): 120-140

Temperature and Moisture Distribution:

Temp	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	36	42	50	60	69	81	86	84	75	62	48	38
Mean	28	33	40	49	58	68	73	72	64	52	39	30
Low	18	24	31	38	46	56	61	60	53	41	30	21

ppt	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High												
Mean	0.56	0.39	0.95	0.67	0.61	0.58	1.50	1.17	1.10	1.21	0.91	0.50
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 Utah juniper and pinyon pine. The composition by air-dry weight is approximately 40 percent perennial grasses, 15 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
Galleta	HIJA		55	82.5	10	15
Indian ricegrass	ACHY		55	82.5	10	15
Blue grama	BOGR2		27.5	55	5	10
Needleandthread	HECO26		27.5	55	5	10
Purple threeawn	ARPU9	1	0	5.5	0	1
Sandhill muhly	MUPU2	1	0	5.5	0	1
Bottlebrush squirreltail	ELEL5	1	0	5.5	0	1
Sand dropseed	SPCR	1	0	5.5	0	1
Desert needlegrass	STSP3	1	0	5.5	0	1
Other perennial grasses	PPGG	1	5.5	27.5	1	5
Other annual grasses	AAGG	1	5.5	27.5	1	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Gooseberryleaf globemallow	SPGR2		11	27.5	2	5
Grassy rockgoldenrod	PEPU7		11	27.5	2	5
Pacific aster	ASCH2	2	5.5	11	1	2
Indian pipeweed	ERIN4	2	5.5	11	1	2
Tufted evening primrose	OECE2	2	5.5	11	1	2
Crispleaf wild buckwheat	ERCOA	2	5.5	11	1	2
Reddome blanketflower	GAPI	2	5.5	11	1	2
Tumble mustard	SIAL2	2	5.5	11	1	2
Woolly milkvetch	ASMO7	2	5.5	11	1	2
Lobeleaf groundsel	SEMU7	2	5.5	11	1	2
Utah desert parsley	LOPA	2	5.5	11	1	2
Utah firecracker	PEUT	2	5.5	11	1	2
Plateau yellow catseye	CRFL5	2	5.5	11	1	2
Woolly plantain	PLPA2	2	5.5	11	1	2
Carpet phlox	PHHO	2	5.5	11	1	2
Other perennial forbs	PPFF	2	27.5	55	5	10
Other annual forbs	AAFF	2	27.5	55	5	10

Shrubs/Vines, %

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Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Blackbrush	CORA		55	82.5	10	15
Fourwing saltbush	ATCA2		27.5	55	5	10
Torrey jointfir	EPTO		27.5	55	5	10
Broom snakeweed	GUSA2	3	5.5	16.5	1	3
Central pricklypear	OPPO	3	5.5	16.5	1	3
Bud sagebrush	ARSP5	3	5.5	16.5	1	3
Rubber rabbitbrush	CHNA2	3	5.5	16.5	1	3
Shadscale	ATCO	3	5.5	16.5	1	3
Spiny hopsage	GRSP	3	5.5	16.5	1	3
Winterfat	KRLA2	3	5.5	16.5	1	3
Other shrubs	SSSS	3	27.5	55	5	10

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Utah juniper	JUOS		66	82.5	12	15
Pinyon pine	PIED		16.5	27.5	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	750	800
Average Year	500	550
Unfavorable Year	350	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	2	5
Shrubs	30	2	15
Trees	15	8	10
Cryptogams			

b. Other

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Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, Indian ricegrass, needleandthread, winterfat decrease while pinyon pine, Utah juniper, big sagebrush, threeawn, and pricklypear increase. When the potential plant community is burned, pinyon pine and Utah juniper decrease. Russian thistle and cheatgrass are most likely to invade.

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	15	45	35	0	0	0	0	0	0
Name	PNC											
ID Number	UT2061											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

035XY236UT
 Semidesert Shallow Sandy Loam (Utah juniper-Pinyon)

035XY209UT
 Semidesert Loam (Wyoming big sagebrush)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

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1. Livestock

a. Site Factors Influencing Management

This site provides proper grazing for cattle and sheep in the fall, winter, and spring.

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 coyote, bobcat, jackrabbit, woodrat, snake, hawk, pinyon jay, and 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

Recreation values are hiking, camping, and hunting.

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4. Wood Products

The site index of the juniper and pinyon is 35. Production of firewood is approximately four cords per acre.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County: Grand
 Latitude: Longitude:

Modal Soil: Strych, Dry, CBV FSL — loamy-skeletal, mixed, mesic Ustollic Calciorthids

Type Location: 500 ft. South and 2,500 ft. West of NE Corner, Section 11, Township 20S, Range 21E, 2 miles NE of Mouth of Nesh Wash Canyon in Book Cliffs

General Legal Description:

Field Office Site Location

Price
 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