

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

STATE: Utah

SITE TYPE: Rangeland

ECOLOGICAL SITE NAME: Upland Stony Loam (Pinyon-Utah juniper)

SITE NUMBER: 047CY335UT

MLRA: 047C

Original Site Description: Author: GWL, LLR

Date: 03/11/1992

Revised Site Description: Author:

Date:

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): 20-75%

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol): >50%

Geologic Parent Materials: Residuum and Colluvium from Sandstone, Quartzite, and Conglomerate

Moisture Regime: Ustic

Temperature Regime: Frigid

Runoff: Rapid

Permeability(min-max): Moderately Slow

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): 4-7

Major Soils Associated With This Site:

Soil Survey Area: 047, 013

Dahlquist BYX-L, 25-50%

Sheecal CH-L, 25-40%

Tridell CBX-L, 25-50%

Dahlquist CBX-SL, 25-50%

Tridell CBX-L, 5-25%

Arid. Argiborolls CBX-SL, 3-8%

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

1. Potential Plant Community Description and Ecological Factors

The general view of this site is pinyon pine and Utah juniper. The composition of the potential natural plant community by air-dry weight is approximately 25 percent trees, 30 percent grasses, 5 percent forbs, and 30 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
Bluebunch wheatgrass	PSSP6		60	120	5	10
Indian ricegrass	ACHY		60	120	5	10
Needleandthread	HECO26		36	60	3	5
Prairie junegrass	KOMA	1	12	36	1	3
Geyer sedge	PONE3	1	12	36	1	3
Bottlebrush squirreltail	CAGE2	1	12	36	1	3
Sandberg bluegrass	ELEL5	1	12	36	1	3
Salina wildrye	POSE	1	12	36	1	3
Other perennial grasses	PPGG	1	36	60	3	5
Other annual grasses	AAGG	1	36	60	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Lesser rushy milkvetch	ASCO12	2	12	24	1	2
Sulphurflower wild buckwheat	ERUM	2	12	24	1	2
Western tansymustard	DEPI	2	12	24	1	2
Longleaf phlox	PHLO2	2	12	24	1	2
Grassy rockgoldenrod	PEPU7	2	12	24	1	2
Shaggy fleabane	ERPU2	2	12	24	1	2
Hoary tansyaster	MACA2	2	12	24	1	2
Other perennial forbs	PPFF	2	36	60	3	5
Other annual forbs	AAFF	2	36	60	3	5

Shrubs, %

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Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		120	180	10	15
Birchleaf mountainmahogany	CEMO2		36	60	3	5
Slender wild buckwheat	ERMI4	3	12	24	1	2
Bitterbrush	PUTR2	3	12	24	1	2
Mormon tea	EPVI	3	12	24	1	2
Spineless horsebrush	TESP2	3	12	24	1	2
Central pricklypear	OPPO	3	12	24	1	2
Mountain big sagebrush	ARTRV	3	12	24	1	2
Gambel oak	QUGA	3	12	24	1	2
Broom snakeweed	GUSA2	3	12	24	1	2
Mountain low rabbitbrush	CHVIL4	3	12	24	1	2
Other shrubs	SSSS	3	36	60	3	5

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Pinyon pine	PIED	4	240	300	20	25
Utah juniper	JOUS	4	240	300	20	25

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	1300	1400
Average Year	1100	1200
Unfavorable Year	900	1000

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	10	2	5
Forbs (perennial)	5	1	5
Shrubs	15	3	10
Trees	36	12	25
Cryptogams			

b. Other

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Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As this site deteriorates due to grazing pressure, perennial grasses decrease, while shrubs and pinyon-juniper increase. Fire will eliminate or reduce pinyon-juniper, while some perennial grasses and forbs 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	5	15	40	20	10	5	5	0	0	0
Name	PNC											
ID Number	UT3351											
Description	Excellent Condition											

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	10	40	35	5	5	5	0	0	0
Name	Good Condition No.1											
ID Number	UT3352											
Description	wheatgrass, needlegrass, shrub, pinyon-juniper											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047CY326UT
 Upland Shallow Loam (Pinyon-Utah juniper)

047CY310UT
 Upland Loam (Mountain 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 grazing for cattle and sheep during spring, summer, and fall.

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 many species of wildlife.

b. List of Potential Species Present

Wildlife species using this site include 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

The pinyon pine and Utah juniper are valuable for screening, camping, picnicking, and hiking.

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4. Wood Products

Site index for pinyon-juniper is 60.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Dahlquist BYX-L 25 to 50% Eroded; Family CBX-SL 25 to 50% — loamy-skeletal, mixed Borollic Haplargids

Type Location: SE ¼, NW ¼, NW ¼, Section 27, Township 1S, Range 25E

General Legal Description:

Field Office Site Location

Roosevelt

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