

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: Desert Sand (Fourwing saltbush)

SITE NUMBER: 034XY112UT

MLRA: 034

Original Site Description: Author: JLB GWL

Date: 05/14/1981

Revised Site Description: Author: JLB GWL

Date: 12/02/1993

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: 40-60 inches

Surface Textures:

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

Subsurface Textures:

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

Geologic Parent Materials: Eolian Sand From Sandstone

Moisture Regime:

Temperature Regime: Mesic

Runoff: Very Slow to Slow

Permeability(min-max): Moderately Rapid to Rapid

Drainage Class(min-max): Excessively Drained

Water Erosion Hazard:

Wind Erosion Hazard: 4 Tons/Acre Loss

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): 3-5

Major Soils Associated With This Site:

Soil Survey Area 047

Arches S 2-6%

Naha S 1-4%

Sheppard LFS 2-10%

Crustown S 2-8% 4-12%

Tipperary LS HMMCKY 2-4%

Aneth Family 2-10%

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

1. Potential Plant Community Description and Ecological Factors

The dominant aspect of the plant community is Indian ricegrass and fourwing saltbush. The composition by air-dry weight is approximately 65 percent perennial grasses, 10 percent forbs and 25 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
Indian ricegrass	ACHY		125	150	25	30
Galleta	HIJA		25	50	5	10
Sand dropseed	SPCR		25	50	5	10
Needleandthread	HECO26		25	50	5	10
Purple threeawn	ARPU9	1	5	15	1	3
Blue grama	BOGR2	1	5	15	1	3
Sandhill muhly	MUPU2	1	5	15	1	3
Spike dropseed	SPCO4	1	5	15	1	3
Other perennial grasses	PPGG	1	5	25	1	5
Other annual grasses	AAGG	1	5	25	1	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Scarlet globemallow	SPCO		10	25	2	5
Pacific aster	ASCH2	2	0	5	0	1
Yellow milkvetch	ASFL	2	0	5	0	1
Plateau yellow catseye	CRFL5	2	0	5	0	1
Low lupine	LUPU	2	0	5	0	1
Pale evening primrose	OEPA	2	0	5	0	1
Woolly plantain	PLPA2	2	0	5	0	1
Hearts delight	ABFR2	2	0	5	0	1
Annual ragweed	AMAR2	2	0	5	0	1
Texas croton	CRTE4	2	0	5	0	1
Shaggy fleabane	ERPU2	2	0	5	0	1
Common sunflower	HEAN3	2	0	5	0	1
Mountain pepperweed	LEMO2	2	0	5	0	1
Largeflower skeletonweed	LYGR	2	0	5	0	1
Rush skeletonweed	LYJU	2	0	5	0	1
Whitestem stickleaf	MEAL6	2	0	5	0	1
Other perennial forbs	PPFF	2	25	50	5	10
Other annual forbs	AAFF	2	25	50	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
Fourwing saltbush	ATCA2		50	75	10	15
Nevada jointfir	EPNE		15	25	3	5
Torrey jointfir	EPTO		15	25	3	5
Winterfat	KRLA2		15	25	3	5
Rubber rabbitbrush	CHNA2	3	5	15	1	3
Low rabbitbrush	CHVI8	3	5	15	1	3
Crispleaf wild buckwheat	ERCOA	3	5	15	1	3
Broom snakeweed	GUSA2	3	5	15	1	3
Central pricklypear	OPPO	3	5	15	1	3
Sand sagebrush	ARFI2	3	5	15	1	3
Shinnery oak	QUHA	3	5	15	1	3
Spiny hopsage	GRSP	3	5	15	1	3
Shortspine horsebrush	TESP2	3	5	15	1	3
Other shrubs	SSSS	3	15	25	3	5

Trees, %

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

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	450	500
Unfavorable Year	250	300

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range	Percent Basal Area Cover
Grasses & Grass-like (perennial)	40	2	15
Forbs (perennial)	5	1	2
Shrubs	15	4	5
Trees			
Cryptogams			

b. Other

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Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological conditions deteriorate due to overgrazing, fourwing saltbush and Indian ricegrass decrease while horsebrush, rubber rabbitbrush and galleta 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	25	65	5	0	0	0	0	0	0
Name	PNC											
ID Number	UT1121											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

034XY115UT
 Desert Sandy Loam (Indian ricegrass)

034XY012UT
 Sandy Bottom (Fourwing saltbush)

034XY003UT
 Alkali fan (Castlevally saltbush)

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 provides proper grazing for cattle and sheep during fall, winter, and spring.

b. Guide to Forage Quality(Plant preference by season)

Species	Oct-Nov	Dec-Feb	Mar-May	Jun-Sep

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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 kangaroo rat, mice, snake, jackrabbit, hawk, coyote, and bobcat.

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 and hunting.

4. Wood Products

None

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

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 2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Tipperary LFS Hummocky 1-8% — mixed, mesic Typic Torripsamments

Type Location: SW ¼, NW ¼, NE ¼; Section 11, Township 9S, Range 22E 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