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 Clay Loam (Alkali sagebrush)
SITE NUMBER: 047AY301UT
MLRA: E47
Original Site Description: Author: DLT TW Date: 01/07/1992
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: 60 inches
Surface Textures: Dark Reddish-Brown Loam
Surface Fragments(<=3" % cover, >3" % cover):
Subsurface Textures: Reddish-Brown Clay Loam
Subsurface Fragments(<=3" % vol, >3" % vol):
Geologic Parent Materials:
Moisture Regime:
Temperature Regime:
Runoff: Very Rapid
Permeability(min-max): Moderately Slow
Drainage Class(min-max): Well Drained
Water Erosion Hazard: Severe
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): 6-8

Major Soils Associated With This Site:

Soil Survey Area: 613
Econ L, 25-50% Nebeker C-L, 0-6%

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

2. PHYSIOGRAPHIC FEATURES

Landform and Position: South, West, and East-Facing Mountainsides
Aspect: All

	Minimum	Maximum
Slope:	0	50
Elevation:	4900	7200

Flooding:
- Frequency:
- Duration:

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

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 14-16
Mean Annual Air Temperature: 42-47
Mean Annual Soil Temperature: 44-49
Frost Free Period (days): 60-90
Freeze Free Period (days): 0-0

Temperature and Moisture Distribution:

Temp	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	37	42	41	58	68	78	86	83	75	63	48	38
Mean												
Low	16	20	25	32	39	47	55	53	44	34	24	18

ppt	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High												
Mean	1.30	1.20	1.40	1.60	1.30	0.80	0.60	0.80	0.90	1.10	1.10	1.20
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 general view of this site is alkali sagebrush. The composition by air-dry weight is 50 percent perennial grasses, 5 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
Western wheatgrass	PASM		142.5	190	15	20
Bluebunch wheatgrass	PSSP6		95	142.5	10	15
Bottlebrush squirreltail	ELEL5		47.5	95	5	10
Nevada bluegrass	PONE3	1	28.5	47.5	3	5
Indian ricegrass	ACHY	1	28.5	47.5	3	5
Needleandthread	HECO26	1	28.5	47.5	3	5
Other perennial grasses	PPGG	1	95	142.5	10	15
Other annual grasses	AAGG	1	95	142.5	10	15

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Tolmie owlclover	ORTO	2	9.5	19	1	2
Shortstem wild buckwheat	ERBR5	2	9.5	19	1	2
Low beardtongue	PEHU	2	9.5	19	1	2
Longleaf phlox	PHLO2	2	9.5	19	1	2
Western mountain aster	ASOC	2	9.5	19	1	2
Wyoming Indian paintbrush	CALI4	2	9.5	19	1	2
Other perennial forbs	PPFF	2	47.5	95	5	10
Other annual forbs	AAFF	2	47.5	95	5	10

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Alkali sagebrush	ARARL		332.5	380	35	40
Stickyleaf low rabbitbrush	CHVIV4	3	9.5	28.5	1	3
Spineless horsebrush	TECA2	3	9.5	28.5	1	3
Winterfat	KRLA2	3	9.5	28.5	1	3
Bitterbrush	PUTR2	3	9.5	28.5	1	3
Other shrubs	SSSS	3	47.5	95	5	10

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	1100	1200
Average Year	850	950
Unfavorable Year	650	750

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	25	2	10
Forbs (perennial)	5	1	5
Shrubs	35	3	20
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As this site deteriorates due to misuse the vegetation becomes almost a pure stand of alkali sagebrush, low rabbitbrush and annuals.

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	UT3011											
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	UT3012											
Description	bluegrass, and alkali sagebrush											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047AY308UT
Upland Loam (Basin big sagebrush)

047AY336UT
Upland Stony Loam (Pinyon-Juniper)

047AY320UT
Upland Shallow Loam (Wyoming big sagebrush)

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 well-balanced nutritious forage for livestock 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

The potential is very poor for openland habitat, fair for woodland habitat, very poor for wetland habitat, and fair for rangeland habitat.

b. List of Potential Species Present

This site is fair for wildlife. Species that find feed and cover for at least part of the year are deer, elk, antelope, coyote, cougar, wildcat, quail, mourning dove, owls, hawks, rabbits, songbirds, and small mammals.

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 fair values for aesthetics and natural beauty. Hunting is fair for deer, antelope, upland game, and rabbits.

4. Wood Products

None, except for some firewood for campfires.

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 Clay Loam (Alkali sagebrush)
Site Number: 047AY301UT

Modal Soil: Econ L, 25-50% – fine-silty, mixed, frigid Calcixerollic Xerochrepts

Type Location: SW ¼; SW ¼; NW ¼; Section 3, Township 4N, Range 7E

General Legal Description:

Field Office Site Location

Logan
Murray
Provo
Price
Richfield

Data Collected and References

Sampling Source	Number of Records	Range Similarity Index			
		> 76%	51-75%	26-50%	0-25%
NRCS - ECS - 417	2				
UTAH - RANGE - 2					
Permanent Transect Location					

Other References