UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ECOLOGICAL SITE DESCRIPTION

ECOLOGICAL SITE CHARACTERISTICS

Site Type: Rangeland

Site ID: R036XA009NM

Site Name: Salt Meadow

Precipitation or Climate Zone: 9 to 14 inches

Phase:

PHYSIOGRAPHIC FEATURES

Narrative:

This site is on nearly level to gently sloping floodplains. It commonly forms a narrow band adjacent to a flowing or intermittent stream. Generally slopes are less than 3 percent. Elevations range from 6,400 to 7,200 feet above sea level. This site is dependent on sub-irrigation and overflow for its moist condition.

Land Form:

1. Flood plain
2.
3.

Aspect:

1. N/A
2.
3.

	Minimum	Maximum
Elevation (feet)	6,400	7,200
Slope (percent)	<1	<5
Water Table Depth (inches)	36	>72

Flooding:	**Minimum**	**Maximum**
Frequency	Rare	Occasional
Duration	Brief	Brief

Ponding:	**Minimum**	**Maximum**
Depth (inches)	N/A	N/A
Frequency	N/A	N/A
Duration	N/A	N/A

Runoff Class:

Negligible to medium.

CLIMATIC FEATURES

Narrative:

Mean annual precipitation varies from 10 to 13 inches. Departures from the average of 3 inches or more are common. June is the driest month. July, August and September are the wettest months, and it is the period when flash floods are to be expected. The vegetation is dependent on sub-irrigation and overflow from the flash floods. In an extended drought period, the water table is affected and results in lowered production of the vegetation.

Temperature varies from a mean annual of 69 degrees F in July to 26 degrees F in January. The maximum is near 100 degrees F and the minimum is near 40 degrees F below zero. The average last killing frost in the fall is the middle of September. Temperatures are usually warm enough to sustain plant growth from April through September.

Wind velocities are relatively light most of the year, and occasionally winds will exceed 25 miles per hour. These stronger winds, which usually occur in the spring and summer, increase transpiration rates of plants and increase evaporation from these moist soils. Soil particles are often displaced from adjacent areas by these strong winds and may cause structural damage to young plants.

Climate data was obtained from the WCCR web site. Using 50% probabilities for freeze-free and frost-free seasons at 28.5 degrees F and 32.5 degrees F respectively.

	Minimum	**Maximum**
Frost-free period (days):	104	119
Freeze-free period (days):	134	145
Mean annual precipitation (inches):	9	14

Monthly moisture (inches) and temperature (^{0}F) distribution:

	Precip. Min.	Precip. Max.	Temp. Min.	Temp. Max.
January	.52	1.79	7.6	45.6
February	.43	1.56	10.7	50.4
March	.67	1.92	16.8	56.8
April	.52	1.26	22.7	66.0
May	.62	1.26	28.8	75.5
June	.49	1.21	35.1	85.8
July	1.54	3.41	42.1	88.9
August	1.86	3.72	41.8	85.8
September	1.08	1.86	34,6	78.8
October	1.01	1.86	25.3	68.8
November	.71	1.60	16.2	56.0
December	.56	1.49	9.3	47.0

Climate Stations:

				Period			
Station ID	292241	Location	Cuba, NM	From:	01/01/14	To:	12/31/01
Station ID	293422	Location	Gallup FAA AP, NM	From:	01/01/21	To:	12/31/01

INFLUENCING WATER FEATURES

Narrative:

This site is influenced by water from a wetland or stream.

Wetland description:

System	Subsystem	Class
N/A		

If Riverine Wetland System enter Rosgen Stream Type:

N/A

REPRESENTATIVE SOIL FEATURES

Narrative:

Salt, alkali and the water table are the main factors affecting plant growth. Some areas receive occasional flooding but are not inundated for long periods. Surface textures may be loam, sandy loam, clay loam and sandy clay loam. These soils are usually 60 or more inches deep. Sands and gravels may be encountered at 20 to 40 inches in depth; however, this is not a factor in native plant growth because of the water table. Some soils are loamy throughout the profile, others have a well-developed argillic horizon, and some are stratified.

Parent Material Kind: Marine deposits

Parent Material Origin: Gypsum

Surface Texture:

1. Loam
2. Sandy loam
3. Clay loam
4. Sandy clay loam
5. Silty clay

Surface Texture Modifier:

1. N/A
2.
3.

Subsurface Texture Group: Loamy
Surface Fragments <=3" (% Cover): N/A
Surface Fragments >3" (% Cover): N/A
Subsurface Fragments <=3" (%Volume): 15 to 35
Subsurface Fragments >=3" (%Volume): N/A

	Minimum	**Maximum**
Drainage Class:	Poorly	Well
Permeability Class:	Impermeable	Moderately slow
Depth (inches):	60	>72
Electrical Conductivity (mmhos/cm):	0.00	16.00
Sodium Absorption Ratio:	0.00	30.00
Soil Reaction (1:1 Water):	7.4	9.0
Soil Reaction (0.1M CaCl2):	N/A	N/A
Available Water Capacity (inches):	3	12
Calcium Carbonate Equivalent (percent):	N/A	N/A

PLANT COMMUNITIES

Ecological Dynamics of the Site:

Plant Communities and Transitional Pathways (diagram)

Plant Community Name: Historic Climax Plant Community

Plant Community Sequence Number: 1 **Narrative Label**: HCPC

Plant Community Narrative: Historic Climax Plant Community
This bottomland site is a grassland plant community characterized by inland saltgrass and alkali sacaton. Fourwing saltbush, the dominant shrub, makes up less than 5 percent of the vegetation. Forbs, such as seepweed and iodinebush, are present in small amounts. When the plant community deteriorates, inland saltgrass, seepweed, iodinebush, saltcedar and large interspaces of bare ground dominate it.

Canopy Cover:	
Trees	0
Shrubs and half shrubs	5 %
Ground Cover (Aveage Percent of Surface Area).	
Grasses & Forbs	40
Bare ground	25
Surface gravel	0
Surface cobble and stone	0
Litter (percent)	35
Litter (average depth in cm.)	4

Plant Community Annual Production (by plant type):

Annual Production (lbs/ac)

Plant Type	Low	RV	High
Grass/Grasslike	1,080	1,440	1,800
Forb	60	80	100
Tree/Shrub/Vine	60	80	100
Lichen			
Moss			
Microbiotic Crusts			
Total	1,200	1,600	2,000

Plant Community Composition and Group Annual Production: Plant species are grouped by annual production **not** by functional groups.

Plant Type - Grass/Grasslike

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
1	DISP	Inland Saltgrass (desert)	480 – 560	480 – 560
2	SPAI	Alkali Sacaton	240 – 320	240 – 320
3	CATTA5	Saltsedge	80 – 160	80 – 160
4	HOJU	Foxtail Barley	48 – 80	48 – 80
5	MURI	Mat Muhly	48 – 80	48 – 80
6	PASM	Western Wheatgrass	80 – 160	80 – 160
7	PUNU2	Nuttall Alkaligrass	80 – 160	80 – 160
8	SPCR	Alkali Cordgrass	240 – 320	240 – 340

Plant Type - Forb

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
9	ALOC2	Iodinebush	48 – 80	48 – 80
	SUSU	Seepweed		
	2FORBS	Other Forbs		

Plant Type – Tree/Shrub/Vine

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
10	ATCA2	Fourwing Saltbush	48 – 80	48 – 80
	LYPA	Pale Wolfberry		
	2SD	Other Shrubs		

Plant Type - Lichen

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production

Plant Type - Moss

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production

Plant Type - Microbiotic Crusts

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production

Plant Growth Curves

Growth Curve ID **0009NM**

Growth Curve Name: **HCPC**

Growth Curve Description: **Grassland with minor forb and shrub components.**

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0	0	3	5	10	10	25	30	12	5	0	0

ECOLOGICAL SITE INTERPRETATIONS

Animal Community:

Habitat for Wildlife:

This site provides habitats which support a resident animal community that is characterized by pronghorn antelope, coyote, striped skunk, black-tailed jackrabbit, Botta's pocket gopher, deer mouse, banner-tailed kangaroo rat, killdeer, house finch, western spadefoot toad, short-horned lizard and leopard frog.

When seasonal shallow ponds occur, these sites are utilized by breeding amphibians, waterfowl and blackbirds.

Hydrology Functions:

The runoff curve numbers are determined by field investigations using hydrologic cover conditions and hydrologic soil groups.

Hydrologic Interpretations	
Soil Series	Hydrologic Group
Catman	D
Catman Variant	D
Gojiya	D
Sparham	D
Sparham Wet	D
Warm Springs	C

Recreational Uses:

These sites have low potential for outdoor recreation.

In years of higher precipitation, the seasonal shallow ponds improve the opportunity for bird watching.

Wood Products:

This site has no significant potential for wood production.

Other Products:

Grazing:

This site is well suited for grazing use during all seasons of the year by both small and large animals; however, it is not suited for continuous yearlong grazing by domestic livestock if a balanced, healthy plant community is to be maintained. Periodic summer deferment is needed to maintain the productivity and lessen the probability of wind and water erosion.

Other Information:

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index	Ac/AUM
100 - 76	2.6 – 3.0
75 – 51	3.3 – 4.3
50 – 26	5.3 – 6.0
25 – 0	6.0+

Plant Part	Code	Species Preference	Code
Stems	**S**	**None Selected**	**NS**
Leaves	**L**	**Preferred**	**P**
Flowers	**F**	**Desirable**	**D**
Fruits/Seeds	**F/S**	**Undesirable**	**U**
Entire Plant	**EP**	**Not Consumed**	**NC**
Underground Parts	**UP**	**Emergency**	**E**
		Toxic	**T**

Plant Preference by Animal Kind:

Animal Kind: Livestock
Animal Type: Cattle

Common Name	Scientific Name	Plant Part	Forage Preferences											
			J	F	M	A	M	J	J	A	S	O	N	D
Alkali Sacaton	Sporobolus airoides	EP	D	D	D	D	D	P	P	P	U	U	U	D
Western Wheatgrass	Pascopyrum smithii	EP	D	D	P	P	P	D	D	D	D	D	D	D

Animal Kind: Livestock
Animal Type: Sheep

Common Name	Scientific Name	Plant Part	Forage Preferences											
			J	F	M	A	M	J	J	A	S	O	N	D
Alkali Sacaton	Sporobolus airoides	EP	U	U	U	U	U	D	D	D	U	U	U	U
Western Wheatgrass	Pascopyrum smithii	EP	U	U	D	D	D	D	D	D	D	D	D	U
Mat Muhly	Muhlenbergia richardsonis	EP	U	U	D	D	D	U	U	U	U	U	U	U
Fourwing Saltbush	Atriplex canescens	L/S	P	P	P	P	P	D	D	D	D	D	D	P

SUPPORTING INFORMATION

Associated sites:

Site Name	Site ID	Site Narrative

Similar sites:

Site Name	Site ID	Site Narrative

State Correlation:

This site has been correlated with the following sites:

Inventory Data References:

Data Source	# of Records	Sample Period	State	County

Type Locality:

State: **New Mexico**

County: **Rio Arriba, Sandoval, San Juan**

Latitude:

Longitude:

Township:

Range:

Section:

Is the type locality sensitive? **Yes** ☐ **No** ☐

General Legal Description:

Relationship to Other Established Classifications:

Other References:

Data collection for this site was done in conjunction with the progressive soil surveys within the New Mexico and Arizona Plateaus and Mesas 36 Major Land Resource Area of New Mexico. This site has been mapped and correlated with soils in the following soil surveys: McKinley & Sandoval

Characteristic Soils Are:	
Catman	Catman Variant
Gojiya	Sparham
Sparham, wet	Warm Springs
Other Soils included are:	

Site Description Approval:

Author	Date	Approval	Date
Don Sylvester		Don Sylvester	

Site Description Revision:

Author	Date	Approval	Date
Elizabeth Wright	08/12/02	George Chavez	09/11/02