

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ECOLOGICAL SITE DESCRIPTION

ECOLOGICAL SITE CHARACTERISTICS

Site Type: Rangeland

Site ID: R042XA063NM

Site Name: Gyp Upland

Precipitation or Climate Zone: 8-10 inches

Phase: _____

PHYSIOGRAPHIC FEATURES

Narrative:

This site usually occurs on nearly level plains and mesa tops, but is also found on moderately sloping sides slopes. Exposures are variable. Slopes range from 1 to 15 percent, but average 6-7 percent. Elevations range from 4,400 to 6,000 feet above sea level.

Land Form:

1. Plain

2. Mesa

3. Hillside

Aspect:

1. Not significant.

- 2.

- 3.

Elevation (feet)	Minimum 4,400	Maximum 6,000
Slope (percent)	1	15
Water Table Depth (inches)	N/A	N/A
Flooding:	Minimum	Maximum
Frequency	N/A	N/A
Duration	N/A	N/A
Ponding:	Minimum	Maximum
Depth (inches)	N/A	N/A
Frequency	N/A	N/A
Duration	N/A	N/A

Runoff Class:

N/A

CLIMATIC FEATURES

Narrative:

This site has an arid climate with distinct seasonal temperature variations and large annual and diurnal temperature changes characteristic of a continental climate.

Precipitation averages 8 to 10 inches annually. Deviations of 4 inches or more from the average are quite common. Fifty percent of the moisture is received from July to November, which is the dominant growing season of native plants. Summer moisture is characterized by high intensity, short duration rainstorms. Winter precipitation averages less than one-half inch per month, usually in the form of rain. There are occasional snowstorms of short duration.

Temperatures vary from a mean monthly average of 77F in July to 34F in January, with the maximum being 104F and the minimum 10F below zero. The average last killing frost in the spring is April 15 and the average first killing frost in the fall is October 28. Frost-free season is an average of 185 days. Temperatures are conducive for native grass and forbs growth from March through November.

Spring winds of 15 to 40 miles per hour are common from February to June. These winds increase transpiration rates of native plants and rapidly dry the surface soil. Small soil particles are often displaced by the wind near the soil surface. This results in structural damage to native plants, especially young seedlings.

	Minimum	Maximum
Frost-free period (days):	<u>140</u>	<u>165</u>
Freeze-free period (days):	<u>190</u>	<u>213</u>
Mean annual precipitation (inches):	<u>8.00</u>	<u>10.0</u>

Monthly moisture (inches) and temperature (⁰F) distribution:

	Precip. Min.	Precip. Max.	Temp. Min.	Temp. Max.
January	0.31	0.44	34.1	36.2
February	0.31	0.46	39.3	42.0
March	0.25	0.54	46.3	48.8
April	0.33	0.52	53.3	56.5
May	0.34	0.50	62.5	64.5
June	0.46	0.70	70.6	74.3
July	1.18	2.35	75.3	78.5
August	1.64	2.47	73.0	75.9
September	1.00	1.56	66.5	68.6
October	0.89	1.25	55.5	57.4
November	0.36	0.54	43.7	45.4
December	0.44	0.57	35.1	37.2

Climate Stations:					
Station ID	NM0915	Location	Bernardo	From:	Period 1962 To 1990
	_____		_____		: _____
Station ID	NM0983	Location	Bingham	From:	Period 1961 To 1990
	_____		_____		: _____
Station ID	NM0234	Location	Albuquerque	From:	Period 1961 To 1990
	_____		_____		: _____
Station ID	NM5150	Location	Los Lunas	From:	Period 1961 To 1990
	_____		_____		: _____
					Period

INFLUENCING WATER FEATURES

Narrative:
 This site is not influenced by water from wetland or stream.

Wetland description:

System	Subsystem	Class
N/A		

If Riverine Wetland System enter Rosgen Stream Type:
 N/A

REPRESENTATIVE SOIL FEATURES

Narrative:

The soils are deep and well drained. Surface texture is generally a loam that is 3 to 10 inches thick over a gypsiferous material which is susceptible to root penetration. Permeability is moderate and water holding capacity is low to moderate. Runoff ranges from rapid to medium depending on vegetative cover and slope.

Parent Material Kind: Marine deposits

Parent Material Origin: Gypsum

Surface Texture:

1. Loam
2. Loamy fine sand, Silt
3. Very fine sandy loam, Loamy very fine sand

Surface Texture Modifier:

1. LFS
2. SIL
3. L, VFSL, LVFS

Subsurface Texture Group:

Surface Fragments $\leq 3''$ (% Cover): N/A

Surface Fragments $> 3''$ (% Cover): N/A

Subsurface Fragments $\leq 3''$ (%Volume): 2 to 26

Subsurface Fragments $\geq 3''$ (%Volume): N/A

	Minimum Well	Maximum Well
Drainage Class:	<u>Moderately Slow</u>	<u>Moderately Slow</u>
Permeability Class:	<u>0</u>	<u>60</u>
Depth (inches):	<u>0</u>	<u>16</u>
Electrical Conductivity (mmhos/cm):	<u>N/A</u>	<u>N/A</u>
Sodium Absorption Ratio:	<u>7.4</u>	<u>8.4</u>
Soil Reaction (1:1 Water):	<u>N/A</u>	<u>N/A</u>
Soil Reaction (0.1M CaCl ₂):	<u>0</u>	<u>4</u>
Available Water Capacity (inches):	<u>N/A</u>	<u>N/A</u>
Calcium Carbonate Equivalent (percent):		

PLANT COMMUNITIES

Ecological Dynamics of the Site:

Future Development

Plant Communities and Transitional Pathways (diagram)

Future Development

Plant Community Name: Historic Climax Plant Community

Plant Community Sequence Number: 1 Narrative Label: HCPC

Plant Community Narrative:

This is a mixed grassland-shrub site with occasional scrub one seed juniper trees scattered throughout the site. Forbs, such as Coldenica and Cryptantha species are an important part of the site.

Ground Cover (Average Percent of Surface Area).

Grasses & Forbs	16
Bare ground	62
Surface gravel	2
Surface cobble and stone	0
Litter (percent)	10
Litter (average depth in cm.)	1

Plant Community Annual Production (by plant type):

Plant Type	Annual Production (lbs/ac)		
	Low	RV	High
Grass/Grasslike	280	455	630
Forb	80	130	180
Tree/Shrub/Vine	40	65	90
Lichen			
Moss			
Microbiotic Crusts			
Totals	400	650	900

Plant Community Composition and Group Annual Production:

Plant Type - Grass/Grasslike

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
1	SPAI	Alkali sacaton	163-228	163-228
2	BOER4	Black grama	65-130	65-130
	MUPO2	Bush muhly		
3	BOBR	Gyp grama	33-65	33-65
	BOGR2	Blue grama		
4	PLGA	Galleta	33-65	33-65
5	SPNE	Gyp dropseed	20-46	20-46
	SPCR	Sand dropseed		
	SPCO4	Spike dropseed		
	2GRM	OTHER Grasses	20-46	20-46

Plant Type - Tree/Shrub/Vine

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
6	ATCA2	Fourwing saltbush	20-46	20-46
7	EPVI	Mormon tea	7-20	7-20
8	KRLA2	Winterfat	7-20	7-20
9	ARBI3	Bigelow sagebrush	7-20	7-20
	PAIN	Mariola		
10	YUCCA	Yucca spp.	7-33	7-33
	2SHRUB	Other Shrubs	7-33	7-33

Plant Type – Forb

11	TIHI	Hairy coldenia	33-65	33-65
	TICAC	Gray coldenia		
	MEPU3	Yellow mentzelia		
	ERIOG	Wild buckwheat		
	CRYPT	Cryptantha spp.		
	2FORB	OTHER Forbs	33-65	33-65

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

Other grasses that could appear on this site would include: Threawn spp., Needle and Thread, New Mexico feathergrass, Ring muhly, Mat Muhly, Sandhill muhly, Burrograss, Fluffgrass, Tridens spp.

Other woody plants include: Cliff fendlerbrush, Cacti spp., Rabbitbrush, Broom dalea, Sand sagebrush, Wolfberry.

Other forbs include: Threadleaf groundsel, Globemallow, Trailing four o'clock, Bladderpod, Prickleleaf dogweed.

Plant Growth Curves

Growth Curve ID NM-2321

Growth Curve Name: HCPC

Growth Curve Description: SD-1 Loamy HCPC Warm Season Plant Community

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

Growth Curve ID NM-2322

Growth Curve Name: HCPC

Growth Curve Description: SD-1 Loamy HCPC Cool Season Plant Community

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	5	20	15	5	5	5	5	10	15	15	

ECOLOGICAL SITE INTERPRETATIONS

Animal Community:

This ecological site provides habitats which support a resident animal community that is characterized by coyote, black tailed jackrabbit, desert cottontail, white tailed antelope squirrel, Botta's pocket gopher, banner-tailed kangaroo rat, southern plains woodrat, burrowing owl, scaled quail, meadowlark, brown towhee.

These sites may be utilized by wintering flocks of chipping, rufous-crowned, and black chinned sparrows.

Note: No animal community narrative exists within old range site decription.

Hydrology Functions:

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

Hydrologic Interpretations

Soil Series	Hydrologic Group

Recreational Uses:

This site has limited potential for recreational use.

Wood Products:

This site has no potential for wood products.

Other Products:

This site is well suited for year-long grazing use by cattle, sheep, horses, antelope, deer, and burros

Other Information:	
Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month	
Similarity Index	Ac/AUM
100 - 76	3.2 – 4.2
75 – 51	4.1 – 6.4
50 – 26	6.3 – 12.7
25 – 0	12.7 +

Plant Preference by Animal Kind:

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

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
Black Grama	<i>Bouteloua eriopoda</i>	EP	P	P	P	P	P	P	P	P	P	P	P	P
Bush Muhly	<i>Muhlenbergia porteri</i>	EP	P	P	P	P	P	P	P	P	P	P	P	P
NM Feathergrass	<i>Hesperostipa neomexicana</i>	EP	P	P	P	P	P	P	P	P	P	P	P	P
Fourwing saltbush	<i>Atriplex canescens</i>	EP	P	P	P	P	P	P	P	P	P	P	P	P
Winterfat	<i>Krascheninnikovia lanata</i>	EP	P	P	P	P	P	P	P	P	P	P	P	P
Blue grama	<i>Bouteloua gracilis</i>	EP	P	P	P	P	P	P	P	P	P	P	P	P
Gyp grama	<i>Bouteloua</i>	EP	D	D	D	D	D	D	D	D	D	D	D	D
Alkali sacaton	<i>Sporobolus airoides</i>	EP	D	D	D	D	D	D	D	D	D	D	D	D
Galleta	<i>Pleuraphis jamesii</i>	EP	D	D	D	D	D	D	D	D	D	D	D	D
Sand dropseed	<i>Sporobolus cryandrus</i>	EP	D	D	D	D	D	D	D	D	D	D	D	D
Spike Dropseed	<i>Sporobolus contractus</i>	EP	D	D	D	D	D	D	D	D	D	D	D	D
Threeawns	<i>Aristida</i> spp.	EP	D	D	D	D	D	D	D	D	D	D	D	D
Bigelow sagebrush	<i>Artemisia bigelovii</i>	EP	D	D	D	D	D	D	D	D	D	D	D	D
Gyp Dropseed	<i>Sporobolus nealleyi</i>	EP	U	U	U	U	U	U	U	U	U	U	U	U
Sandhill muhly	<i>Muhlenbergia pungens</i>	EP	U	U	U	U	U	U	U	U	U	U	U	U
Fluffgrass	<i>Dasyochloa pulchella</i>	EP	U	U	U	U	U	U	U	U	U	U	U	U
Mariola	<i>Parthenium incanum</i>	EP	U	U	U	U	U	U	U	U	U	U	U	U
Gray coldenia	<i>Tiquilia canescens</i>	EP	U	U	U	U	U	U	U	U	U	U	U	U

SUPPORTING INFORMATION

Associated sites:

Site Name	Site ID	Site Narrative

Similar sites:

Site Name	Site ID	Site Narrative

Inventory Data References (narrative):

Inventory Data References:

Data Source	# of Records	Sample Period	State	County

State Correlation:

This site has been correlated with the following sites: _____

Type Locality:

State: _____

County: _____

Latitude: _____

Longitude: _____

Township: _____

Range: _____

Section: _____

Is the type locality sensitive? Yes No

General Legal Description: _____

Relationship to Other Established Classifications:

Other References:

