

United States Department of Agriculture Natural Resources Conservation Service

Ecological Site Description

Site Type: Rangeland

Site Name: Saline Lowland (SL), 10-14" P.Z., High Plains Southeast

Site ID: R034AY338WY

Major Land Resource Area: 34A-Cool Central Desertic Basins and Plateaus

Physiographic Features

This site occurs on gently sloping land along perennial or intermittent streams. Slopes are mostly from 0 to 5%

Landform: alluvial fans, drainage ways, & stream terraces

Aspect: N/A

	<u>Minimum</u>	<u>Maximum</u>
Elevation (feet):	5500	7500
Slope (percent):	0	10
Water Table Depth (inches):	none within 60 inches	
Flooding:		
Frequency:	none	none
Duration:	none	none
Ponding:		
Depth (inches):	0	0
Frequency:	none	none
Duration:	none	none
Runoff Class:	negligible	moderate

Climatic Features

Annual precipitation ranges from 10-14 inches per year. Wide fluctuations may occur in yearly precipitation and result in more dry years than those with more than normal precipitation.

Temperatures show a wide range between summer and winter and between daily maximums and minimums. This is predominantly due to the high elevation and dry air, which permits rapid incoming and outgoing radiation. Cold air outbreaks in winter move rapidly from northwest to southeast and account for extreme minimum temperatures. Extreme storms may occur during the winter, but most severely affect ranch operations during late winter and spring.

Daytime winds are generally stronger than nighttime and occasional strong storms may bring brief periods of high winds with gusts to more than 50 mph.

Growth of native cool season plants begins about April 15 and continues to about June 15. Some green up of cool season plants usually occurs in September.

The following information is from the "Laramie" climate station:

	<u>Minimum</u>	<u>Maximum</u>	<u>5 yrs. out of 10 between</u>
Frost-free period (days):	57	149	June 1 – September 16
Freeze-free period (days):	94	183	May 15 – September 28
Annual Precipitation (inches):	5.8	17.34	

Mean annual precipitation: 11.53 inches

Mean annual air temperature: 42.2°F (30.4°F Avg. Min. to 53.9°F Avg. Max.)
 For detailed information visit the Natural Resources Conservation Service National Water and Climate Center at <http://www.wcc.nrcs.usda.gov/> website. Other climate station(s) representative of this precipitation zone include "Dixon " and "Medicine Bow".

Influencing Water Features

Wetland Description:	<u>System</u>	<u>Subsystem</u>	<u>Class</u>	<u>Sub-class</u>
None	None	None	None	None

Stream Type: None

Representative Soil Features

The soils of this site are deep, loamy soils with high salinity. The depth to a seasonal high water table ranges from about 2 feet to more than 4 feet and is beneficial to the woody plants but not to the majority of the forbs or grasses. These soils may occasionally receive overflow water

Major Soil Series correlated to this site include:

- Parent Material Kind: alluvium
- Parent Material Origin: mixed
- Surface Texture: sandy loam, fine sandy loam, loam, silty clay loam
- Surface Texture Modifier: none
- Subsurface Texture Group: clay loam, sandy clay loam, silty clay
- Surface Fragments ≤ 3" (% Cover): 0-10
- Surface Fragments > 3" (%Cover): 0
- Subsurface Fragments ≤ 3" (% Volume): 0-15
- Subsurface Fragments > 3" (% Volume): 0-10

	<u>Minimum</u>	<u>Maximum</u>
Drainage Class:	Somewhat poor	well
Permeability Class:	slow	moderately slow
Depth (inches):	40	>60
Electrical Conductivity (mmhos/cm) ≤20":	8	16
Sodium Absorption Ratio ≤20":	10	20
Soil Reaction (1:1 Water) ≤20":	8.8	9.6
Soil Reaction (0.1M CaCl2) ≤20":	NA	NA
Available Water Capacity (inches) ≤30":	2	3
Calcium Carbonate Equivalent (percent) ≤20":	5	20

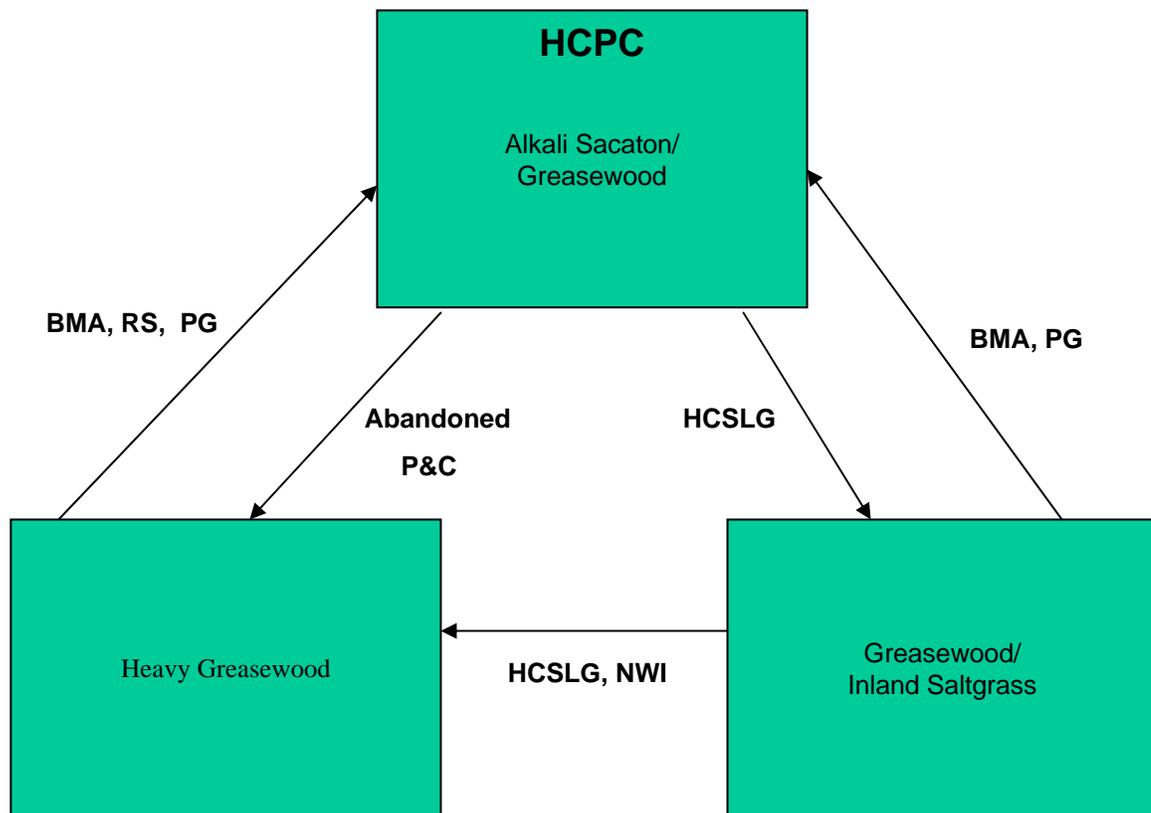
Plant Communities

Ecological Dynamics of the Site:

As this site deteriorates from improper grazing management, species such as greasewood increase and annuals invade. Grasses such as alkali sacaton and basin wildrye will decrease in frequency and production.

The Historic Climax Plant Community (description follows the plant community diagram) has been determined by study of rangeland relic areas, or areas protected from excessive disturbance. Trends in plant communities going from heavily grazed areas to lightly grazed areas, seasonal use pastures, and historical accounts have also been used.

The following is a State and Transition Model Diagram that illustrates the common plant communities (states) that can occur on the site and the transitions between these communities. The ecological processes will be discussed in more detail in the plant community narratives following the diagram.



BMA – Brush Management (all methods)
 BMC – Brush Management (chemical)
 BMF – Brush Management (fire)
 BMM – Brush Management (mechanical)
 CSP – Chemical Seedbed Preparation
 CSLG – Continuous Season-long Grazing
 DR – Drainage
 CSG – Continuous Spring Grazing
 HB – Heavy Browse
 HCSLG – Heavy Continuous Season-long Grazing
 HI – Heavy Inundation
 LPG – Long-term Prescribed Grazing
 MT – Mechanical Treatment (chiseling, ripping, pitting)
 MCSLG – Moderate Continuous Season Long Grazing

NF – No Fire
 NS – Natural Succession
 NWC – Noxious Weed Control
 NWI – Noxious Weed Invasion
 NU – Nonuse
 P&C – Plow & Crop (including hay)
 PG – Prescribed Grazing
 RPT – Re-plant Trees
 RS – Re-seed
 SGD – Severe Ground Disturbance
 SHC – Severe Hoof Compaction
 WD – Wildlife Damage (Beaver)
 WF – Wildfire

Plant Community Composition and Group Annual Production
Reference Plant Community (HCPC)

COMMON NAME/GROUP NAME	SCIENTIFIC NAME	SYMBOL	Annual Production (Normal Year)		
			Group	lbs./acre	% Comp.
			Total: 1800		
GRASSES AND GRASS-LIKES					
GRASSES/GRASSLIKES					
Alkali sacaton	Sporobolus airoides	SPAI	1	450 - 630	25 - 35
Basin wildrye	Leymus cinereus	LECI4	2	180 - 360	10 - 20
Western wheatgrass	Pascopyrum smithii	PASM	3	90 - 270	5 - 15
Inland saltgrass	Distichlis spicata	DISP	4	90 - 180	5 - 10
Nuttalls alkaligrass	Puccinellia nuttalliana	PUNU2	5	90 - 180	5 - 10
MISC. GRASSES/GRASSLIKES			6	90 - 180	5 - 10
Indian ricegrass	Achnatherum hymenoides	ACHY	6	0 - 90	0 - 5
Mat muhly	Muhlenbergia richardsonis	MURI	6	0 - 90	0 - 5
Sandberg bluegrass	Poa secunda	POSE	6	0 - 90	0 - 5
Threadleaf sedge	Carex filifolia	CAFI	6	0 - 90	0 - 5
other perennial grasses (native)		2GP	6	0 - 90	0 - 5
FORBS			7	90 - 180	5 - 10
Milkvetch	Astragalus spp.	ASTRA	7	0 - 90	0 - 5
other perennial forbs (native)		2FP	7	0 - 90	0 - 5
TREES/SHRUBS					
Greasewood	Sarcobatus vermiculatus	SAVE4	8	180 - 360	10 - 20
MISC. SHRUBS			9	90 - 180	5 - 10
Birdfoot sagebrush	Artemisia pedatifida	ARPE6	9	0 - 90	0 - 5
Fourwing saltbush	Atriplex canescens	ATCA2	9	0 - 90	0 - 5
Gardner's saltbush	Atriplex gardneri	ATGA	9	0 - 90	0 - 5
Rubber rabbitbrush	Ericameria nauseosa	ERNA10	9	0 - 90	0 - 5
Winterfat	Krascheninnikovia lanata	KRLA2	9	0 - 90	0 - 5
other shrubs & half shrubs (native)		2SHRUB	9	0 - 90	0 - 5

This list of plants and their relative proportions are based on near normal years. Fluctuations in species composition and relative production may change from year to year dependent upon precipitation or other climatic factors.

Plant Community Narratives

Following are the narratives for each of the described plant communities. These plant communities may not represent every possibility, but they probably are the most prevalent and repeatable plant communities. The plant composition tables shown above have been developed from the best available knowledge at the time of this revision. As more data is collected, some of these plant communities may be revised or removed, and new ones may be added. None of these plant communities should necessarily be thought of as “Desired Plant Communities”. According to the USDA NRCS National Range and Pasture Handbook, Desired Plant Communities (DPC’s) will be determined by the decision-makers and will meet minimum quality criteria established by the NRCS. The main purpose for including any description of a plant community here is to capture the current knowledge and experience at the time of this revision.

Alkali Sacaton/Greasewood Plant Community (HCPC)

The interpretive plant community for this site is the Historic Climax Plant Community. This state evolved with grazing by large herbivores and is well suited for grazing by domestic livestock. Potential vegetation is about 70% grasses or grass-like plants, 10% forbs and 20% woody plants. Saline tolerant species dominate the state. The major grasses include alkali sacaton, basin wildrye, and rhizomatous wheatgrass. Other grasses on this site may include Indian ricegrass, Sandberg bluegrass, and inland saltgrass. Greasewood is the dominant woody plant. Other woody plants include Gardners Saltbush, Winterfat, Birdfoot Sagebrush, and Rubber Rabbitbrush.

A typical plant composition for this state consists of alkali sacaton 25-35%, basin wildrye 10-20%, rhizomatous wheatgrass 5-15%, other grasses and grass-like plants 5-10%, perennial forbs 5-10%, greasewood 10-20%, and 5-10% other woody species. Ground cover, by ocular estimate, varies from 65-75%.

The total annual production (air-dry weight) of this state is about 1800 pounds per acre, but it can range from about 1200 lbs./acre in unfavorable years to about 2500 lbs./acre in above average years.

The following is the growth curve of this plant community expected during a normal year:

Growth curve number: WY0902

Growth curve name: 10-14SE, EXTRA WATER SITES

Growth curve description: LL, OV, CYO, SL EXTRA WATER SITES

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0	0	0	5	15	35	35	10	0	0	0	0

(Monthly percentages of total annual growth)

This state is stable and well adapted to the Cool Central Desertic Basins and Plateaus climatic conditions. The diversity in plant species and seasonal water table allows for high drought resistance. This is a sustainable plant community (site/soil stability, watershed function, and biologic integrity).

Transitions or pathways leading to other plant communities are as follows:

- Heavy Continuous Season-long Grazing will convert this plant community to the *Greasewood/Inland Saltgrass State*.
- Plowing & Cropping (hayng) followed by abandonment will convert this plant community to *the Heavy Greasewood State*.

Greasewood/Inland Saltgrass Plant Community

This plant community evolved under heavy continuous grazing by domestic livestock. Saline tolerant grasses and forbs make up the majority of the understory. Greasewood has increased to over 30% of the annual production on the site. Dominant grasses include inland saltgrass, Sandberg bluegrass,

and rhizomatous wheatgrass. Dominant forbs found in this plant community include woody aster and poverty weed.

The total annual production (air-dry weight) of this state is about 1000 pounds per acre, but it can range from about 400 lbs./acre in unfavorable years to about 1700 lbs./acre in above average years.

The following is the growth curve of this plant community expected during a normal year:

Growth curve number: WY0902

Growth curve name: 10-14SE, EXTRA WATER SITES

Growth curve description: LL, OV, CYO, SL EXTRA WATER SITES

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0	0	0	5	15	35	35	10	0	0	0	0

(Monthly percentages of total annual growth)

The soil of this state is not well protected. The biotic integrity is somewhat compromised by more xeric species, decreased plant diversity, and increased bare ground. The watershed is somewhat functioning, but may produce excessive runoff.

Transitional pathways leading to other plant communities are as follows:

- Brush Management followed by deferment for 1 to 2 years as part of a Prescribed Grazing plan will result in a plant community very similar to the *Historic Climax Plant Community (Alkali Sacaton/Greasewood State)*, except that a higher proportion of greasewood will persist.
- Heavy Continuous Season-long Grazing and Noxious weed Invasion will convert this plant community to the *Heavy Greasewood State*.

Heavy Greasewood Plant Community

This plant community is the result of long-term improper grazing or haying and abandonment. This state is dominated by greasewood with much bare ground. Annuals such as cheatgrass, little barley, pepperweeds, and noxious perennials such as Russian knapweed and white top are the dominant understory.

The total annual production (air-dry weight) of this state is about 500 pounds per acre, but it can range from about 200 lbs./acre in unfavorable years to about 1000 lbs./acre in above average years.

The following is the growth curve of this plant community expected during a normal year:

Growth curve number: WY0902

Growth curve name: 10-14SE, EXTRA WATER SITES

Growth curve description: LL, OV, CYO, SL EXTRA WATER SITES

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0	0	0	5	15	35	35	10	0	0	0	0

(Monthly percentages of total annual growth)

Bare ground has increased. The soil of this state is not well protected. The watershed is nonfunctioning and usually produces excessive runoff. The biotic community is nonfunctioning due to annual and invasive plants.

Transitional pathways leading to other plant communities are as follows:

- Brush Management and Re-seeding followed by deferment for 1 to 2 years as part of a Prescribed Grazing plan over the long-term may return this state to near *Historic Climax Plant Community (Alkali Sacaton/Basin Wildrye State)*, except that a higher proportion of greasewood will persist. Additional deferment may be necessary and should be prescribed on an individual site basis.

Ecological Site Interpretations

Animal Community – Wildlife Interpretations

Alkali Sacaton/Greasewood Plant Community (HCPC): The high degree of plant species and structural diversity, proximity to areas with water at or near the soil surface, and woody plants in this community favors a large variety of wildlife. Greasewood provides suitable thermal and escape cover for mule deer and antelope. When found adjacent to sagebrush dominated sites, this plant community may provide brood rearing/foraging areas for sage grouse. This community provides habitat for a wide array of small mammals such as jackrabbits, cottontail rabbits, mice, and voles so diverse prey populations are available for badgers, fox, coyotes, and raptors such as red-tail and Swainson's hawks. Birds such as western kingbird, western meadowlark, lark bunting, and grasshopper sparrow will utilize this community for nesting and foraging.

Greasewood/Inland Saltgrass Plant Community: This plant community may be useful for the same large grazers that would use the Historic Climax Plant Community. However, the plant community composition is less diverse, and thus, less apt to meet the seasonal needs of these animals.

Heavy Greasewood Plant Community: This plant community exhibits a low level of plant species. In most cases it is not a desirable plant community to select as a wildlife habitat management objective.

Animal Preferences (Quarterly - 1,2,3,4) for commonly occurring plants in MLRA 34A, 10-14 inch High Plains Southeast

COMMON NAME/ GROUP NAME	SCIENTIFIC NAME	SCIENTIFIC SYMBOL	Cattle	Sheep	Horses	Mule Deer	Antelope	Elk
GRASSES/GRASSLIKES								
alkali bluegrass	<i>Poa junifolia</i>	POJU	UDUD	NDNU	UDUD	UDUU	UDUU	DPDD
alkali sacaton	<i>Sporobolus airoides</i>	SPAI	DDPU	UPDU	UPDU	UDUU	UDUU	UDPU
American mannegrass	<i>Glyceria grandis</i>	GLGR	DDDD	DDDD	DDDD	UUUU	UUUU	DDDD
Baltic rush	<i>Juncus balticus</i>	JUBA	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN
basin wildrye	<i>Leymus cinereus</i>	LECI4	DPDD	UPDU	DPDD	UDUU	UDUU	DPDD
Bloomer's ricegrass	<i>Oryzopsis bloomeri</i>	ORBL	PPPP	PPPP	PPPP	PPPP	PPPP	PPPP
blowout grass	<i>Redfieldia flexuosa</i>	REFL	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
blue grama	<i>Bouteloua gracilis</i>	BOGR2	UDPU	UDPU	UDPU	UDUU	UDUU	UDUU
bluebunch wheatgrass	<i>Pseudoroegneria spicata</i>	PSSP6	DPDD	UPDD	DPDD	UDUU	UDUU	DPDD
bluejoint reedgrass	<i>Calamagrostis canadensis</i>	CACA4	UPDU	UDUU	UDUU	UDUU	UDUU	UPDU
bottlebrush squirreltail	<i>Elymus elymoides</i>	ELELE	DDDD	DDDD	DDDD	UUUU	UUUU	DDDD
Canada wildrye	<i>Elymus canadensis</i>	ELCA4	UDUU	NUNN	UDUU	NUNN	NUNN	UDUU
Canby bluegrass	<i>Poa canbyi</i> (syn. to <i>Poa secunda</i>)	POCA (POSE)	PPPP	PPPP	PPPP	PPPP	PPPP	PPPP
green needlegrass	<i>Nassella viridula</i>	NAV14	DPDD	UPDU	DPDD	UDUU	UDUU	DPDD
Indian ricegrass	<i>Achnatherum hymenoides</i>	ACHY	DPDD	UPDU	DPDD	UDUU	UDUU	DPDD
inland saltgrass	<i>Distichlis spicata</i>	DISP	NUUN	NUUN	NUUN	NUUN	NUUN	NUUN
little bluestem	<i>Schizachyrium scoparium</i>	SCSC	UDPU	UPDU	UDPU	UDUU	UDUU	UDPU
mat muhly	<i>Muhlenbergia richardsonis</i>	MURI	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
mountain muhly	<i>Muhlenbergia montana</i>	MUMO	DDDD	DDDD	DDDD	DDDD	DDDD	DDDD
muttongrass	<i>Poa fendleriana</i>	POFE	PPPP	PPPP	PPPP	PPPP	PPPP	PPPP
Nebraska sedge	<i>Carex nebrascensis</i>	CANE2	UDUD	UPND	UDUD	UPND	UPND	UDUD
needleandthread	<i>Hesperostipa comata</i> ssp. <i>comata</i>	HECO8	DPDD	UPDU	DPDD	UDUU	UDUU	DPDD
needleleaf sedge	<i>Carex duriuscula</i>	CADU6	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
northern reedgrass	<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i>	CAST13	UPDU	UDUU	UPDU	UDUU	UDUU	UPDU
Nuttall's alkaligrass	<i>Puccinellia nuttalliana</i>	PUNU2	DPUD	NPND	DPUD	UDUU	UDUU	DPDD
plains reedgrass	<i>Calamagrostis montanensis</i>	CAMO	UPDU	UDUU	UPDU	UDUU	UDUU	UPDU
prairie junegrass	<i>Koeleria macrantha</i>	KOMA	UUUU	NDNU	UUUU	UDUU	UDUU	UUUU
sand dropseed	<i>Sporobolus cryptandrus</i>	SPCR	NUUN	NUUN	NUUN	NUUN	NUUN	NUUN
Sandberg bluegrass	<i>Poa secunda</i>	POSE	NPUN	NPUN	NPUN	NDUN	NDUN	NPUN
slender wheatgrass	<i>Elymus trachycaulus</i>	ELTR7	DPDD	UPDD	DPDD	UDUU	UDUU	DPDD
thickspike wheatgrass	<i>Elymus lanceolatus</i> ssp. <i>lanceolatus</i>	ELLAL	DPDD	UPDD	DPDD	UDUU	UDUU	DPDD
threadleaf sedge	<i>Carex filifolia</i>	CAFI	UDUD	UPND	UDUD	UPND	UPND	UDUD
tufted hairgrass	<i>Deschampsia caespitosa</i>	DECA18	PPPP	PPPP	PPPP	DDDD	DDDD	PPPP
western wheatgrass	<i>Pascopyrum smithii</i>	PASM	DPDD	UPDD	DPDD	UDUU	UDUU	DPDD
FORBS								
American bistort	<i>Polygonum bistortoides</i>	POBI6	DDDD	DDDD	DDDD	DDDD	DDDD	DDDD
arrowgrass	<i>Triglochin</i> spp.	TRIGL	TTTT	TTTT	TTTT	TTTT	TTTT	TTTT
aster	<i>Eucephalus</i> spp.	EUCEP2	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN
biscuitroot	<i>Lomatium</i> spp.	LOMAT	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
blue-eyed grass	<i>Sisyrinchium</i> spp.	SISYR	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
buckwheats	<i>Eriogonum</i> spp.	ERIOG	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
clovers	<i>Trifolium</i> spp.	TRIFO	PPPP	PPPP	PPPP	PPPP	PPPP	PPPP
deathcamas	<i>Zigadenus venenosus</i>	ZIVE	TTTT	TTTT	TTTT	TTTT	TTTT	TTTT
desert princesplume	<i>Stanleya pinnata</i>	STPI	TTTT	TTTT	TTTT	TTTT	TTTT	TTTT
dock	<i>Rumex</i> spp.	RUMEX	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
fleabanes	<i>Erigeron</i> spp.	ERIGE2	DDDD	DDDD	DDDD	DDDD	DDDD	DDDD
fringed sagewort	<i>Artemisia frigida</i>	ARFR4	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
hawksbeard	<i>Crepis acuminata</i>	CRAC2	UUUU	PPPP	UUUU	DDDD	DDDD	UUUU
Hoods phlox	<i>Phlox hoodii</i>	PHHO	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
horsetails	<i>Equisetum</i> spp.	EQUIS	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
iris	<i>Iris</i> spp.	IRIS	NUUN	NUUN	NNNN	NUUN	NUUN	NUUN
larkspur	<i>Delphinium</i> spp.	DELPH	TTTT	TTTT	TTTT	TTTT	TTTT	TTTT
milkvelch	<i>Astragalus</i> spp.	ASTRA	UDUU	UDUU	UDUU	UDUU	UDUU	UDUU
navelwort	<i>Paronychia</i> spp.	PARON	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN
paintbrushes	<i>Castilleja</i> spp.	CAST	DDDD	DDDD	DDDD	DDDD	DDDD	DDDD
penstemons	<i>Penstemon</i> spp.	PENST	UPPU	UPPU	UPPU	UPPU	UPPU	UPPU
phlox	<i>Phlox</i> spp.	PHLOX	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN
primrose	<i>Primula</i> spp.	PRIMU	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
pussytoes	<i>Antennaria</i> spp.	ANTEN	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN
Rush skeletonplant	<i>Lygodesmia juncea</i>	LYJU	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
sagebrush gilia (granite prickly phlox)	<i>Leptodactylon pungens</i>	LEPU	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
sandwort	<i>Arenaria</i> spp.	ARENA	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN
scarlet globemallow	<i>Sphaeralcea coccinea</i>	SPCO	UUUU	UDUU	UDUU	UPPU	UDDD	UUDD
scurfpea	<i>Psoraleum</i> spp.	PSORA2	NNNN	NUUN	NNNN	NUUN	NUUN	NUUN
stemless goldenweed	<i>Stenotus acaulis</i>	STAC	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
stonecrop	<i>Sedum</i> spp.	SEDUM	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
toadflax	<i>Comandra umbellata</i>	COUMP	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
violets	<i>Viola</i> spp.	VIOLA	DDDD	DDDD	DDDD	DDDD	DDDD	DDDD
water hemlock	<i>Cicuta</i> spp.	CICUT	TTTT	TTTT	TTTT	TTTT	TTTT	TTTT
waterleaf	<i>Hydrophyllum</i>	HYDR04	DDDD	PPPP	DDDD	PPPP	DDDD	DDDD
western ragweed	<i>Ambrosia psilostachya</i>	AMPS	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN
western yarrow	<i>Achillea millefolium</i>	ACMI2	NUUN	NUUN	NNNN	NUUN	NUUN	NUUN
wild onion	<i>Allium textile</i>	ALTE	UDUU	UDUU	UDUU	UDUU	UDUU	UDUU
woodyaster	<i>Xylorhiza</i> spp.	XYLOR	TTTT	TTTT	TTTT	TTTT	TTTT	TTTT
TREES, SHRUBS & HALF-SHRUBS								
antelope bitterbrush	<i>Purshia tridentata</i>	PUTR2	PDDD	PDDD	DDUD	PDDP	PDDP	PDDP
big sagebrush	<i>Artemisia tridentata</i>	ARTR2	UUUU	UUUU	UNNU	PPPP	PUPD	DUUU
birdfoot sagebrush	<i>Artemisia pedatifida</i>	ARPE6	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
black sagebrush	<i>Artemisia nova</i>	ARNO4	UUUU	PPPP	UUUU	PPPP	PPPP	UUUU
chokecherry (toxic in large amounts)	<i>Prunus virginiana</i>	PRVI	DDDD	DDDD	DDDD	PPPP	DDDD	DDDD
currant	<i>Ribes</i> spp.	RIBES	DDDD	DDDD	DDDD	PPPP	DDDD	DDDD
dogwood	<i>Cornus</i> spp.	CORNU	DDDD	DDDD	DDDD	DDDD	UUUU	DDDD
fourwing saltbush	<i>Atriplex canescens</i>	ATCA2	PDDP	PDDP	PDDP	PDDP	PDDP	PDDP
Gardner's saltbush	<i>Atriplex gardneri</i>	ATGA	PDDP	PDDP	DUUD	PDDP	PDDP	PDDP
greasewood (toxic in large amounts)	<i>Sarcobatus vermiculatus</i>	SAVE4	DUUD	DUUD	DUUD	DUUD	DUUD	DUUD
green rabbitbrush	<i>Chrysothamnus viscidiflorus</i>	CHVI8	DUUD	DUUD	UNNU	PUPD	PUPD	DUUD
greennolly summercypress	<i>Kochia americana</i>	KOAM	UUUU	DDDD	UUUU	UUUU	UUUU	UUUU
junipers	<i>Juniperus scopulorum</i>	JUSC2	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
limber pine	<i>Pinus flexilis</i>	PIFL2	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN
plains cottonwood	<i>Populus deltoides</i> ssp. <i>monilifera</i>	PODEM	DUUD	DUUD	DUUD	DUUD	DUUD	DUUD
rubber rabbitbrush	<i>Ericameria nauseosa</i>	ERNA10	UUUU	DUUD	UUUU	UDUU	DUUD	DUUU
serviceberry	<i>Amelanchier alnifolia</i>	AMAL2	DDDD	PPPP	DDDD	PPPP	DDDD	DDDD
shadscale saltbush	<i>Atriplex confertifolia</i>	ATCO	UUUU	DDDD	UUUU	DDDD	UUUU	UUUU
shrubby cinquefoil	<i>Dasiphora floribunda</i>	DAFL3	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
silver buffaloberry	<i>Shepherdia argentea</i>	SHAR	DUUU	DUUU	UUUU	UUUU	PUPD	DUUU
silver sagebrush	<i>Artemisia cana</i>	ARCA13	DUUD	DUUD	UNNU	PPPP	PDDP	DUUD
skunkbush sumac	<i>Rhus trilobata</i>	RHTR	DUUD	DUUD	UUUU	DUUD	DUUD	DUUD
spineless horsebrush	<i>Tetradymia canescens</i>	TECA2	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
spiny horsebrush	<i>Tetradymia spinosa</i>	TESP2	UUUU	UUUU	UUUU	UUUU	UUUU	UUUU
true mountainmahogany	<i>Cercocarpus montanus</i>	CEMO2	DDDD	PDDP	DDDD	UNNU	PDDP	PDDP
western snowberry	<i>Symphoricarpos occidentalis</i>	SYOC	UUUU	UUUU	UUUU	UUUU	DUUD	DUUU
wildrose	<i>Rosa woodsii</i> var. <i>woodsii</i>	ROWOW	UDUU	UDUU	NUUN	UDUU	UDUU	UDUU
willows	<i>Salix</i> spp.	SALIX	PUPD	PUPD	DUUD	UUUU	PUPD	PUPD
winterfat	<i>Krascheninnikovia lanata</i>	KRLA2	PPPP	PPPP	PPPP	PPPP	PPPP	PPPP

N = not used; U = undesirable; D = desirable; P = preferred; T = toxic

Animal Community – Grazing Interpretations

The following table lists suggested stocking rates for cattle under continuous season-long grazing under normal growing conditions. These are conservative estimates that should be used only as guidelines in the initial stages of the conservation planning process. Often, the current plant composition does not entirely match any particular plant community (as described in this ecological site description). Because of this, a field visit is recommended, in all cases, to document plant composition and production. More precise carrying capacity estimates should eventually be calculated using this information along with animal preference data, particularly when grazers other than cattle are involved. Under more intensive grazing management, improved harvest efficiencies can result in an increased carrying capacity. If distribution problems occur, stocking rates must be reduced to maintain plant health and vigor.

Plant Community	Production (lb./ac)	Carrying Capacity* (AUM/ac)
Alkali Sacaton/Greasewood (HCPC)	1200-2500	.5
Greasewood/Inland Saltgrass	400-1700	.3
Heavy Greasewood	200-1000	.1

* - Continuous, season-long grazing by cattle under average growing conditions.

Grazing by domestic livestock is one of the major income-producing industries in the area. Rangeland in this area may provide yearlong forage for cattle, sheep, or horses. During the dormant period, the forage for livestock use needs to be supplemented with protein because the quality does not meet minimum livestock requirements.

Hydrology Functions

Salinity/Alkalinity is the principal factor limiting forage production on this site. This site is dominated by soils in hydrologic groups B and C, with localized areas in hydrologic group D. Infiltration ranges from moderate to rapid. Runoff potential for this site varies from moderate to high depending on soil hydrologic group and ground cover. In many cases, areas with greater than 75% ground cover have the greatest potential for high infiltration and lower runoff. Areas where ground cover is less than 50% have the greatest potential to have reduced infiltration and higher runoff (refer to Part 630, NRCS National Engineering Handbook for detailed hydrology information).

Rills and gullies should not typically be present. Water flow patterns should be barely distinguishable if at all present. Pedestals may be present in association with bunchgrasses. Litter typically falls in place, and signs of movement are not common. Chemical and physical crusts are often present.

Recreational Uses

This site provides limited hunting opportunities.

Wood Products

No appreciable wood products are present on the site.

Other Products

None noted.

Supporting Information

Associated Sites

Similar Sites

Inventory Data References (narrative)

Information presented here has been derived from NRCS clipping data and other inventory data. Field observations from range trained personnel were also used. Other sources used as references include: USDA NRCS Water and Climate Center, USDA NRCS National Range and Pasture Handbook, and USDA NRCS Soil Surveys from various counties.

Inventory Data References

<u>Data Source</u>	<u>Number of Records</u>	<u>Sample Period</u>	<u>State</u>	<u>County</u>
SCS-RANGE-417	69	1967-1988	WY	Carbon & others

State Correlation

Type Locality

Field Offices

Baggs, Casper, Lander, Laramie, Medicine Bow, Riverton, Saratoga

Relationship to Other Established Classifications

Other References

Site Description Approval

State Range Management Specialist

Date