

BOVINE EXCLOSURE - TREND STUDY NO. 1-6-11

Vegetation Type: Sagebrush

Range Type: Crucial Deer Winter, Crucial Elk Year-long

NRCS Ecological Site Description: [Upland Stony Loam \(Pinyon-Utah Juniper\), R028AY338UT](#)

Land Ownership: BLM

Elevation: 6,400 ft. (1,951 m)

Aspect: Southeast

Slope: 11%

Transect bearing: 165° magnetic

Belt placement: line 1 (11 & 95ft), line 2 (34 & 71ft), line 3 (59ft). Rebar: belt 4 on 13ft.

Directions:

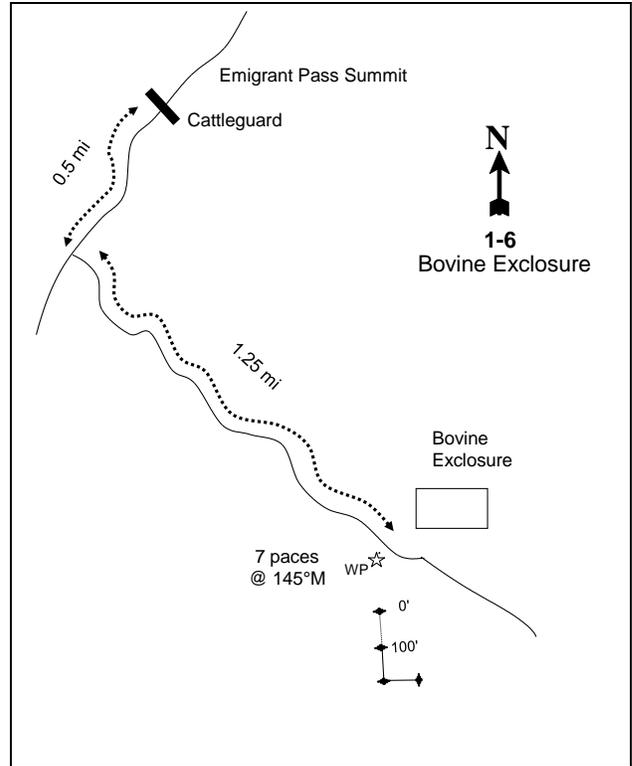
Proceed southwest to the summit of Emigrant Pass on Emigrant Pass Road. From the cattleguard at the summit, continue south 0.5 miles to a fork and turn left. Travel 1.25 miles on this road to the Bovine Exclosure where there is a witness post on the right side of the road. From the witness post, follow an azimuth of 145 degrees magnetic for 7 paces to the 0-foot stake of the baseline marked with browse tag #7909. The bearing of the baseline is 165 degrees magnetic. Line 3 changes direction to 59 degrees magnetic.

Map Name: Emigrant Pass



Township: 9N Range: 16W Section: 18

Diagrammatic Sketch:



GPS: NAD 83, UTM 12S 273065 E 4598397 N

## BOVINE EXCLOSURE - TREND STUDY NO. 1-6

### Site Information

Site Description: The study is located immediately south of an enclosure on the north side of the Bovine mountains. The study is within a sagebrush (*Artemisia spp.*) and grass community with scattered Utah juniper (*Juniperus osteosperma*) and singleleaf pinyon pine (*Pinus monophylla*) woodland. The nearby enclosure needs repair. The area is managed by the Bureau of Land Management (BLM) as part of the White Lakes allotment. The study is located in a small saddle and thus much of the surrounding area is steeper. Although at a relatively high elevation, the study site receives substantial deer use during all but the most severe winters. However, during most years, the area is available and is considered crucial deer winter range. Pellet groups have been sampled in low abundance for deer since 2001, and a low abundance of cattle sign was sampled in 2011 (Table - Pellet Group Data).

Browse: Basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*), black sagebrush (*A. nova*), and antelope bitterbrush (*Purshia tridentata*) are the key browse species, and combined they provide the majority of the browse cover on the site. Extremely heavy vole damage during the winter of 1983-84 was noted for sagebrush and bitterbrush. Basin big sagebrush has the highest browse cover of the three preferred species (Table - Browse Trends). The density of Basin big sagebrush has steadily decreased since 1996. Decadence was high in 1984 and 2006, but has been more moderate in other sample years. Utilization of the Basin big sagebrush population has been mostly light to moderate through the sample years (Table - Browse Characteristics). Black sagebrush and bitterbrush densities have also decreased from 1996 to 2006, but the density of both species increased in 2011. Despite the decreases in densities, the covers of both black sagebrush and bitterbrush have remained similar or slightly increased since 1996 (Table - Browse Trends). Utilization of black sagebrush has been mostly light with some moderate use in 1996 and 2006. Bitterbrush displayed mostly light to moderate use in 1996 and 2001, but has displayed heavy use since 2006 (Table - Browse Characteristics).

Other browse species of interest include increaser shrubs such as broom snakeweed (*Gutierrezia sarothrae*) and stickleaf low rabbitbrush (*Chrysothamnus viscidiflorus* ssp. *viscidiflorus*) which are present, but have remained a minor component of the community (Table - Browse Characteristics). Utah juniper and singleleaf pinyon pine occur on the site in moderate density, but density has remained similar since 2001 (Table - Point-Quarter Tree Data). However, cover of juniper has slightly increased over the course of the study (Table - Browse Trends).

Herbaceous Understory: Six native perennial grasses have been sampled on the site, and perennial grass cover has been good over the course of the study. However, the annual grass species cheatgrass (*Bromus tectorum*) is also prevalent on the site, and at times has dominated the grass component in cover, though cover of cheatgrass has steadily decreased since 2001. Bluebunch wheatgrass (*Agropyron spicatum*) and Sandberg bluegrass (*Poa secunda*) are the dominant perennial grasses on the site, with the other perennial species being fairly rare. Forb composition features several large showy species and a variety of lower growing forms. Overall, forb composition and abundance is fair for most juniper-pinyon sites in this area. Important forbs include arrowleaf balsamroot (*Balsamorhiza sagittata*), tapertip hawksbeard (*Crepis acuminata*), two desert parsley species (*Lomatium triternatum* and *Lomatium. sp.*), and two kinds of milkvetch (*Astragalus beckwithii* and *A. ciberius*) (Table - Herbaceous Trends).

Soil: The soil is part of the Clavicon-Rock outcrop complex, which occurs on hillslopes. Parent material consists of colluvium and residuum derived from limestone, chert, and dolomite (Soil Survey Staff 2011). Soil texture is a loam, with a soil reaction that is slightly alkaline (pH 7.8) (Table - Soil Data Analysis). On steeper areas, erosion has resulted in more shallow soils with a lot of exposed rock. Ground cover is fair for perennial grasses, litter, rock, and pavement. Bare ground cover is moderately low (Table - Basic Cover). The soil erosion condition was classified as stable in 2001 and 2011, but was slight in 2006.

## Trend Assessments

### Browse:

- **1984 to 1990 - up (+2):** The density of basin big sagebrush increased two-fold from 1,532 plants/acre to 3,199 plants/acre. Decadence of basin big sagebrush decreased from 63% to 23%, and poor vigor decreased from 67% to 3%.
- **1990 to 1996 - stable (0):** Differences in density may be related to the larger sample area used in 1996; therefore, trend was determined using other parameters. There was little change in the decadence or vigor of basin big sagebrush. Recruitment of young basin big sagebrush plants decreased from 51% to 17% of the population, but is still considered to be good. Decadence was much lower in the black sagebrush population, decreasing from 80% to 7%.
- **1996 to 2001 - stable (0):** The density of basin big sagebrush decreased slightly by 7% from 2,040 plants/acre to 1,900 plants/acre, but cover remained similar. Recruitment of young basin big sagebrush plants decreased to just 5% of the population. Black sagebrush decreased in density 10% from 1,360 plants/acre to 1,220 plants/acre, but cover increased from 1% to 2%. Recruitment of young black sagebrush plants decreased from 10% to 5% of the population.
- **2001 to 2006 - slightly down (-1):** Density of basin big sagebrush decreased by 18% to 1,560 plants/acre, but cover increased to 7%. Decadence of basin big sagebrush increased from 31% to 40%, and poor vigor increased from 8% to 32%. Black sagebrush density decreased 25% to 920 plants/acre, but cover remained similar at 2%.
- **2006 to 2011 - stable (0):** Basin big sagebrush decreased by 8% to 1,440 plants/acre, and cover decreased to 5%. Decadence of basin big sagebrush decreased to 17%, and poor vigor decreased to 4%. Density of black sagebrush increased by 17% to 1,080 plants/acre, and cover increased to 3%.

### Grass:

- **1984 to 1990 - up (+2):** The sum of nested frequency of perennial grasses increased by 52%. Bluebunch wheatgrass and Sandberg bluegrass increased significantly in nested frequency.
- **1990 to 1996 - stable (0):** The perennial grass sum of nested frequency remained similar. Cheatgrass was included in the sample for the first time, and is prevalent on the site.
- **1996 to 2001 - slightly down (-1):** There was a slight decrease in the sum of nested frequency of perennial grasses, and cover remained similar at 12%. Cheatgrass increased significantly in nested frequency, and cover increased from 2% to 10%.
- **2001 to 2006 - slightly up (+1):** The perennial grass sum of nested frequency increased slightly, and cover increased to 13%. Cheatgrass decreased significantly in nested frequency, and cover decreased to 4%.
- **2006 to 2011 - stable (0):** The sum of nested frequency of perennial grasses remained similar, but cover increased to 16%. Cheatgrass decreased significantly in nested frequency, and cover decreased to 2%.

### Forb:

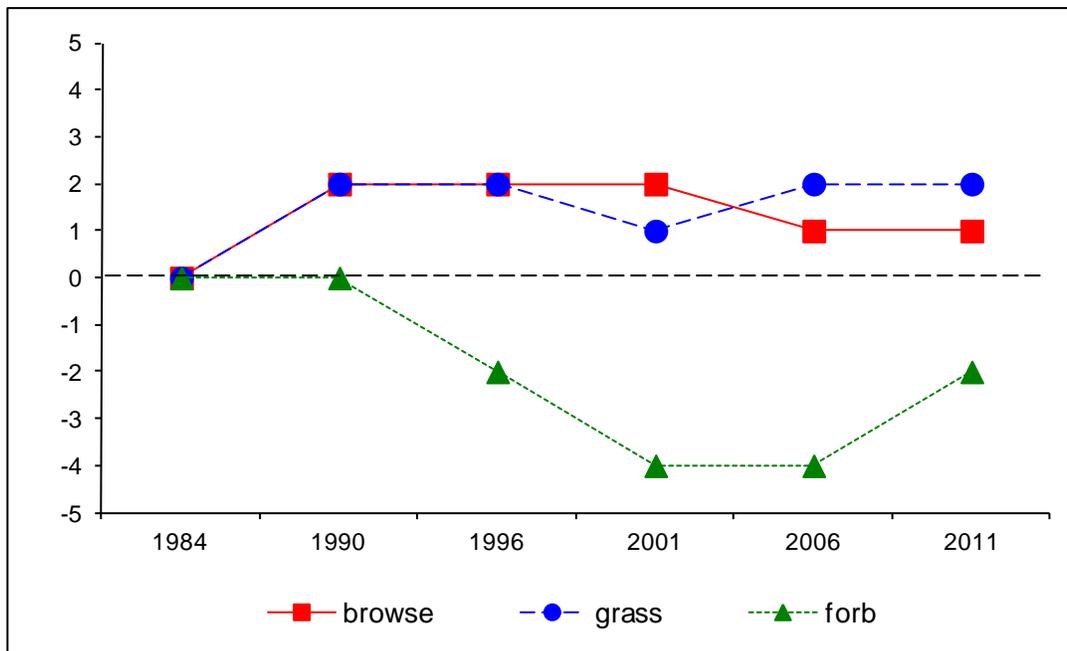
- **1984 to 1990 - stable (0):** There was little change in the sum of nested frequency of perennial forbs.
- **1990 to 1996 - down (-2):** The sum of nested frequency of perennial forbs decreased by 31%.
- **1996 to 2001 - down (-2):** The perennial forb sum of nested frequency decreased by 27%, but cover increased from 2% to 3%.
- **2001 to 2006 - stable (0):** The sum of nested frequency of perennial forbs decreased slightly, but cover increased to 5%.
- **2006 to 2011 - up (+2):** There was a 77% increase in the sum of nested frequency of perennial forbs, though cover remained similar at 5%. Annual forb sum of nested frequency increased substantially, and cover increased from less than 1% to 4%.

DEER DESIRABLE COMPONENTS INDEX - LOW POTENTIAL SCALE --  
 Management unit 1, study no: 6

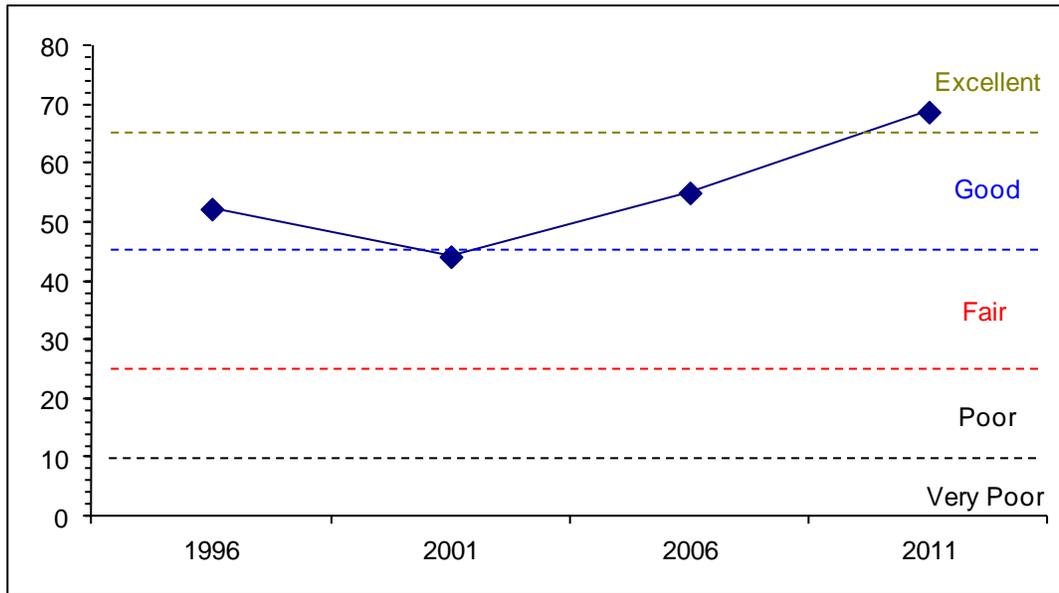
Year	Preferred Browse Cover	Preferred Browse Decadence	Preferred Browse Young	Perennial Grass Cover	Annual Grass Cover	Perennial Forb Cover	Noxious Weeds	Total Score	Ranking
96	9.9	8.5	7.8	23.4	-1.7	4.3	0.0	<b>52.3</b>	Good
01	11.1	7.5	2.8	24.4	-7.1	5.6	0.0	<b>44.2</b>	Fair-Good
06	14.1	6.0	2.6	25.7	-2.8	9.5	0.0	<b>55.0</b>	Good
11	13.3	10.9	5.7	30.0	-1.1	10.0	0.0	<b>68.8</b>	Excellent

**Trend Summary**

CUMULATIVE RANGE TREND ASSESSMENT--  
 Management unit 1 Study no: 6



DEER DESIRABLE COMPONENTS INDEX TREND, LOW POTENTIAL SCALE--  
 Management unit 1, Study no: 6



HERBACEOUS TRENDS--  
 Management unit 01, Study no: 6

Type	Species	Nested Frequency						Average Cover %			
		'84	'90	'96	'01	'06	'11	'96	'01	'06	'11
G	Agropyron dasystachyum	b <sub>35</sub>	a <sub>7</sub>	a <sub>10</sub>	a <sub>17</sub>	a <sub>13</sub>	a <sub>9</sub>	.21	.37	.10	.07
G	Agropyron spicatum	ab <sub>138</sub>	c <sub>207</sub>	b <sub>157</sub>	a <sub>119</sub>	a <sub>100</sub>	ab <sub>141</sub>	7.69	6.48	5.00	7.51
G	Bromus tectorum (a)	-	-	b <sub>223</sub>	c <sub>288</sub>	b <sub>237</sub>	a <sub>100</sub>	2.32	9.53	3.75	1.47
G	Elymus cinereus	b <sub>12</sub>	a <sub>2</sub>	a <sub>4</sub>	a <sub>2</sub>	ab <sub>4</sub>	a <sub>4</sub>	.15	.38	.30	.06
G	Oryzopsis hymenoides	-	1	8	10	7	5	.09	.12	.19	.24
G	Poa secunda	a <sub>54</sub>	b <sub>145</sub>	b <sub>145</sub>	b <sub>161</sub>	c <sub>204</sub>	bc <sub>180</sub>	3.32	4.40	7.21	7.96
G	Sitanion hystrix	a <sub>-</sub>	a <sub>-</sub>	b <sub>16</sub>	ab <sub>5</sub>	ab <sub>5</sub>	ab <sub>4</sub>	.24	.41	.03	.03
Total for Annual Grasses		0	0	223	288	237	100	2.32	9.53	3.75	1.47
Total for Perennial Grasses		239	362	340	314	333	343	11.71	12.18	12.84	15.88
Total for Grasses		239	362	563	602	570	443	14.04	21.72	16.60	17.36
F	Agoseris glauca	a <sub>-</sub>	b <sub>17</sub>	a <sub>5</sub>	a <sub>-</sub>	a <sub>3</sub>	ab <sub>15</sub>	.01	-	.04	.07
F	Allium sp.	a <sub>3</sub>	a <sub>-</sub>	a <sub>-</sub>	a <sub>-</sub>	a <sub>-</sub>	b <sub>25</sub>	-	-	-	.07
F	Arabis sp.	a <sub>-</sub>	ab <sub>10</sub>	b <sub>24</sub>	a <sub>-</sub>	a <sub>4</sub>	a <sub>4</sub>	.08	.00	.01	.00
F	Aster sp.	-	-	-	-	-	-	-	-	-	.00
F	Astragalus beckwithii	ab <sub>16</sub>	bc <sub>32</sub>	ab <sub>7</sub>	a <sub>6</sub>	ab <sub>14</sub>	a <sub>45</sub>	.05	.09	.14	.88
F	Astragalus cibarius	bc <sub>24</sub>	a <sub>-</sub>	a <sub>2</sub>	c <sub>33</sub>	ab <sub>6</sub>	a <sub>-</sub>	.00	.23	.33	-
F	Balsamorhiza sagittata	11	5	8	3	11	9	.87	.72	2.30	.66
F	Calochortus nuttallii	-	3	-	-	-	9	-	-	-	.02
F	Caulanthus crassicaulis	-	4	-	-	-	-	-	-	-	-
F	Chaenactis douglasii	-	-	-	-	6	-	-	-	.01	-
F	Collinsia parviflora (a)	-	-	a <sub>26</sub>	a <sub>25</sub>	a <sub>25</sub>	b <sub>151</sub>	.06	.11	.06	1.75
F	Collomia linearis (a)	-	-	11	17	-	-	.02	.12	-	-
F	Comandra pallida	-	4	5	9	12	6	.04	.10	.36	.04

Type	Species	Nested Frequency						Average Cover %			
		'84	'90	'96	'01	'06	'11	'96	'01	'06	'11
F	<i>Cordylanthus ramosus</i> (a)	b29	a-	a-	b49	a-	a-	-	.23	-	-
F	<i>Crepis acuminata</i>	c97	b45	a9	ab21	a18	ab34	.02	.56	.55	1.13
F	<i>Cryptantha</i> sp.	a-	a-	b18	a-	a4	a-	.06	-	.01	-
F	<i>Delphinium nuttallianum</i>	b52	a2	a3	a1	a5	b36	.01	.00	.01	.46
F	<i>Descurainia pinnata</i> (a)	-	-	a-	a4	a-	b23	-	.00	-	.05
F	<i>Erigeron pumilus</i>	15	10	12	16	4	10	.09	.29	.06	.11
F	<i>Eriogonum ovalifolium</i>	-	-	-	2	-	-	-	.00	-	-
F	<i>Galium aparine</i> (a)	c47	a-	b10	ab3	a-	ab10	.17	.00	-	.56
F	<i>Gayophytum ramosissimum</i> (a)	-	-	a-	a-	b11	a-	-	-	.02	-
F	<i>Gilia</i> sp. (a)	-	-	a-	b8	b8	b17	-	.02	.01	.05
F	<i>Hackelia patens</i>	-	23	17	7	8	11	.26	.10	.14	.49
F	<i>Helianthus annuus</i> (a)	-	-	-	-	-	3	-	-	-	.00
F	<i>Lappula occidentalis</i> (a)	-	-	a1	b25	ab8	ab9	.00	.05	.02	.02
F	<i>Lewisia rediviva</i>	-	-	-	-	-	3	-	-	-	.00
F	<i>Lomatium</i> sp.	6	-	-	3	3	2	-	.06	.15	.15
F	<i>Lomatium triternatum</i>	15	1	-	-	-	6	-	-	-	.04
F	<i>Machaeranthera grindelioides</i>	-	-	-	-	-	19	-	-	-	.09
F	<i>Microsteris gracilis</i> (a)	-	-	a3	b63	a32	b91	.00	.16	.07	.90
F	<i>Navarretia intertexta</i> (a)	-	-	b20	a-	ab10	a-	.04	-	.02	-
F	<i>Penstemon cyananthus</i>	a3	b33	c79	a1	a10	ab8	.43	.00	.08	.07
F	<i>Phlox hoodii</i>	-	-	-	-	2	-	-	-	.00	-
F	<i>Phlox longifolia</i>	b128	c172	a57	a78	a54	a54	.17	.58	.49	.66
F	<i>Ranunculus testiculatus</i> (a)	-	-	-	-	-	19	-	-	-	.11
F	<i>Schoenocrambe linifolia</i>	-	-	-	5	-	1	-	.01	-	.00
F	<i>Senecio multilobatus</i>	-	-	6	-	6	3	.06	-	.02	.04
F	Unknown forb-perennial	-	5	-	-	-	-	-	-	-	-
F	<i>Veronica biloba</i> (a)	-	-	a-	a-	b25	b36	-	-	.10	.16
Total for Annual Forbs		76	0	71	194	119	359	0.30	0.72	0.31	3.64
Total for Perennial Forbs		370	366	252	185	170	300	2.17	2.78	4.73	5.05
Total for Forbs		446	366	323	379	289	659	2.48	3.50	5.04	8.70

Values with different subscript letters are significantly different at alpha = 0.10

BROWSE TRENDS--

Management unit 01, Study no: 6

Type	Species	Strip Frequency				Average Cover %			
		'96	'01	'06	'11	'96	'01	'06	'11
B	Artemisia nova	35	32	25	26	1.13	2.18	2.44	3.01
B	Artemisia tridentata tridentata	57	49	47	41	4.94	5.21	7.03	5.10
B	Chrysothamnus nauseosus consimilis	7	9	6	7	.36	.53	.30	.71
B	Chrysothamnus viscidiflorus viscidiflorus	8	10	4	3	.04	.59	.15	.01
B	Gutierrezia sarothrae	8	7	7	3	.04	.01	.02	-
B	Juniperus osteosperma	3	6	6	7	4.12	3.54	5.19	6.63
B	Opuntia sp.	1	0	0	1	.00	-	.03	.03
B	Pinus monophylla	0	2	0	3	.38	.15	-	-
B	Purshia tridentata	9	8	5	8	1.57	1.25	1.53	2.08
Total for Browse		128	123	100	99	12.61	13.48	16.71	17.59

CANOPY COVER, LINE INTERCEPT--

Management unit 01, Study no: 6

Species	Percent Cover		
	'01	'06	'11
Artemisia nova	-	2.90	3.51
Artemisia tridentata tridentata	-	6.84	6.59
Chrysothamnus nauseosus consimilis	-	.16	.35
Chrysothamnus viscidiflorus viscidiflorus	-	1.36	-
Gutierrezia sarothrae	-	.21	.13
Juniperus osteosperma	5.19	7.61	8.08
Pinus monophylla	3.00	-	-
Purshia tridentata	-	1.00	1.53

KEY BROWSE ANNUAL LEADER GROWTH--

Management unit 01, Study no: 6

Species	Average leader growth (in)		
	'01	'06	'11
Artemisia nova	-	1.3	1.0
Artemisia tridentata tridentata	1.7	1.7	1.7
Purshia tridentata	1.3	1.7	-

POINT-QUARTER TREE DATA--

Management unit 01, Study no: 6

Species	Trees per Acre			
	'96	'01	'06	'11
Juniperus osteosperma	47	87	70	85
Pinus monophylla	7	27	24	25

Average diameter (in)			
'96	'01	'06	'11
10.7	6.4	6.5	5.2
5.3	3.2	3.1	1.7

**BASIC COVER--**

Management unit 01, Study no: 6

Cover Type	Average Cover %					
	'84	'90	'96	'01	'06	'11
Vegetation	3.50	5.75	31.63	42.52	35.96	42.73
Rock	.75	1.00	13.21	11.49	10.86	13.38
Pavement	18.00	13.75	6.57	10.76	11.02	7.28
Litter	55.00	51.50	39.79	42.78	31.26	33.53
Cryptogams	2.00	1.75	1.90	2.28	.38	1.62
Bare Ground	20.75	26.25	15.44	12.09	25.18	17.59

**SOIL ANALYSIS DATA --**

Management unit 01, Study no: 6, Study Name: Bovine Enclosure

Effective rooting depth (in)	pH	Loam			%OM	PPM P	PPM K	ds/m
		% sand	% silt	% clay				
17.7	7.8	36.7	37.0	26.3	2.8	10.1	217.6	0.5

**PELLET GROUP DATA--**

Management unit 01, Study no: 6

Type	Quadrat Frequency				Days use per acre (ha)		
	'96	'01	'06	'11	'01	'06	'11
Sheep	1	-	-	-	-	-	-
Rabbit	6	8	28	5	-	-	-
Deer	23	9	8	9	20 (50)	10 (25)	8 (17)
Cattle	-	-	1	1	-	-	4 (9)

**BROWSE CHARACTERISTICS--**

Management unit 01, Study no: 6

Year	Plants per Acre (excluding seedlings)	Age class distribution			Seedling (plants/acre)	Utilization		% poor vigor	Average Height Crown (in)
		% Young	% Mature	% Decadent		% moderate	% heavy		
<b>Artemisia nova</b>									
84	<b>199</b>	0	33	67	433	17	0	67	10/12
90	<b>166</b>	0	20	80	-	0	0	0	10/9
96	<b>1360</b>	10	82	7	20	34	0	0	10/18
01	<b>1220</b>	5	75	20	20	5	0	2	12/18
06	<b>920</b>	2	78	20	-	28	0	7	11/21
11	<b>1080</b>	20	63	17	20	9	0	13	11/21
<b>Artemisia tridentata tridentata</b>									
84	<b>1532</b>	9	28	63	-	33	20	67	15/11
90	<b>3199</b>	51	26	23	566	5	0	3	18/18
96	<b>2040</b>	17	56	27	100	22	3	3	22/28
01	<b>1900</b>	5	64	31	-	13	1	8	27/32
06	<b>1560</b>	1	59	40	320	36	6	32	24/41
11	<b>1440</b>	8	75	17	60	22	1	4	24/37

		Age class distribution					Utilization			
Year	Plants per Acre (excluding seedlings)	% Young	% Mature	% Decadent	Seedling (plants/acre)	% moderate	% heavy	% poor vigor	Average Height Crown (in)	
<i>Chrysothamnus nauseosus consimilis</i>										
84	33	100	0	0	-	0	0	0	-/-	
90	0	0	0	0	-	0	0	0	-/-	
96	180	44	56	0	-	0	0	22	20/21	
01	240	0	42	58	-	8	8	17	17/15	
06	160	0	50	50	-	0	0	25	26/23	
11	180	0	56	44	-	22	0	22	23/25	
<i>Chrysothamnus viscidiflorus viscidiflorus</i>										
84	232	28	57	14	-	14	14	0	10/15	
90	399	33	58	8	-	17	0	0	11/15	
96	220	0	100	0	-	0	0	0	12/18	
01	380	11	53	37	60	16	0	16	13/24	
06	120	0	100	0	-	0	0	0	13/24	
11	60	0	67	33	-	0	0	0	10/17	
<i>Gutierrezia sarothrae</i>										
84	0	0	0	0	-	0	0	0	-/-	
90	0	0	0	0	-	0	0	0	-/-	
96	900	31	69	0	280	0	0	0	5/7	
01	520	0	100	0	-	0	0	0	4/7	
06	520	4	92	4	220	0	0	0	4/5	
11	160	0	100	0	-	0	0	100	2/4	
<i>Juniperus osteosperma</i>										
84	66	0	100	0	-	0	0	0	69/187	
90	33	0	100	0	-	0	0	0	236/276	
96	60	0	100	0	20	0	0	0	-/-	
01	140	57	29	14	-	0	0	14	4/7	
06	120	67	33	0	60	0	0	0	-/-	
11	140	57	43	0	40	0	0	0	31/24	
<i>Leptodactylon pungens</i>										
84	0	0	0	-	-	0	0	0	-/-	
90	0	0	0	-	-	0	0	0	-/-	
96	0	0	0	-	-	0	0	0	-/-	
01	0	0	0	-	-	0	0	0	-/-	
06	0	0	0	-	-	0	0	0	6/15	
11	0	0	0	-	-	0	0	0	-/-	
<i>Opuntia sp.</i>										
84	133	0	100	-	-	0	0	0	4/8	
90	199	17	83	-	-	0	0	0	6/15	
96	20	100	0	-	-	0	0	0	5/13	
01	0	0	0	-	-	0	0	0	-/-	
06	0	0	0	-	-	0	0	0	5/13	
11	20	0	100	-	-	0	0	0	5/26	

		Age class distribution					Utilization			
Year	Plants per Acre (excluding seedlings)	% Young	% Mature	% Decadent	Seedling (plants/acre)	% moderate	% heavy	% poor vigor	Average Height Crown (in)	
<i>Pinus monophylla</i>										
84	<b>0</b>	0	0	-	-	0	0	0	-/-	
90	<b>0</b>	0	0	-	-	0	0	0	-/-	
96	<b>0</b>	0	0	-	-	0	0	0	-/-	
01	<b>40</b>	100	0	-	20	0	0	0	-/-	
06	<b>0</b>	0	0	-	40	0	0	0	-/-	
11	<b>60</b>	100	0	-	-	0	0	0	41/26	
<i>Purshia tridentata</i>										
84	<b>0</b>	0	0	0	-	0	0	0	-/-	
90	<b>0</b>	0	0	0	-	0	0	0	-/-	
96	<b>260</b>	15	69	15	-	38	31	8	17/39	
01	<b>220</b>	9	82	9	-	18	18	0	19/38	
06	<b>140</b>	29	71	0	-	14	71	0	18/40	
11	<b>300</b>	7	93	0	-	13	87	47	16/35	