

WOOD PASS - TREND STUDY NO. 2-32-11

Vegetation Type: Wyoming Big Sagebrush

Range Type: Crucial Deer Winter

NRCS Ecological Site Description: [Semidesert Shallow Loam \(Utah Juniper-Pinyon\), R034XY233UT](#)

Land Ownership: BLM

Elevation: 6,800 ft (2,073 m)

Aspect: Southeast

Slope: 1%

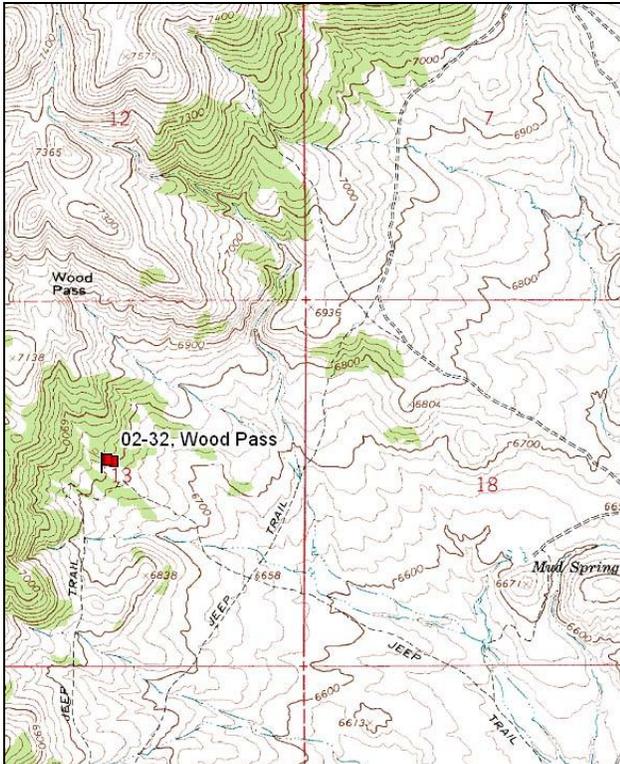
Transect bearing: 165° magnetic

Belt placement: line 1 (11 & 95ft), line 2 (71ft), line 3 (59ft), line 4 (71ft), line 5 (34 ft)

Directions:

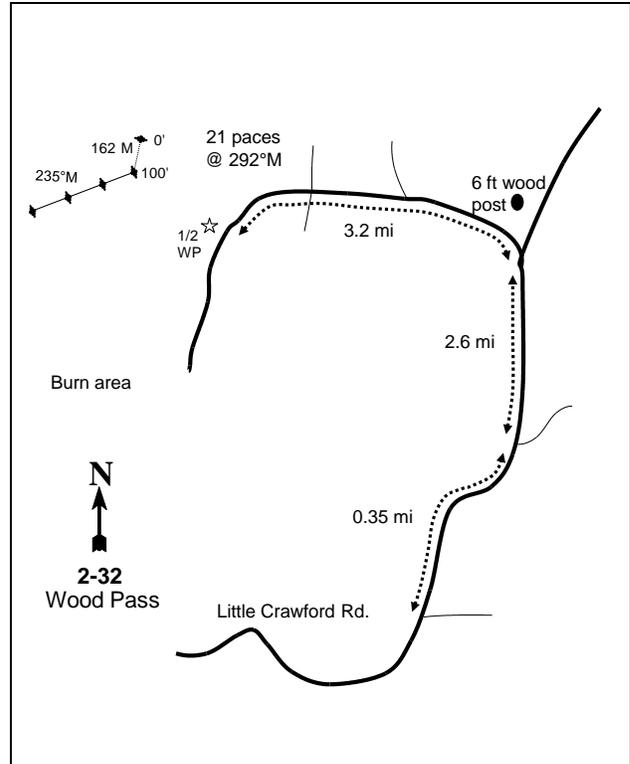
From the intersection of Wilson Lane and Little Crawford Road east of Woodruff proceed northeast for 1.35 miles to a fork. Turn left and travel 0.35 mile to another fork. Turn left and proceed 2.6 miles to a third fork marked by a six-foot tall wooden post. Turn left and proceed 3.2 miles staying on the main road, to a witness post just off the right side of road. From the witness post walk 21 paces at 292 degrees magnetic to the 100-foot baseline stake. Walk 100 feet at 342 degrees magnetic from the 100-foot stake to the 0-foot baseline stake. The 0-foot stake is marked by browse tag #7942. The baseline doglegs at 100 feet and runs 235 degrees magnetic.

Map Name: Woodruff Narrows



Township: 10N Range: 7E Section: 13

Diagrammatic Sketch:



GPS: NAD 83, UTM 12S 491501 E 4606053 N

## Site Information

Site Description: This study is located on the east side of the Crawford Mountains approximately a half mile south of Wood Pass. The area is administered by the Bureau of Land Management (BLM) as part of the Cumberland/Uinta allotment. The vegetation is comprised of an open Utah juniper (*Juniperus osteosperma*) woodland with an abundant association of low-growing black sagebrush (*Artemisia nova*) and Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*). Animal presence includes cattle in spring and summer, and deer and elk in winter. Pronghorn and sage-grouse occupy the area continuously. Depending on the winter, snow depth could limit mid-winter utilization of the sagebrush. Deer/pronghorn pellet groups were sampled in low abundance in 2001, but moderate abundance in 2006 and 2011. A deer carcass was seen near the site in 2011. Elk pellet groups were sampled in moderate abundance in 2006, but low abundance in 2011. Sampled cattle sign has been minimal since 2001 (Table - Pellet Group Data).

Browse: The preferred browse species include black sagebrush and Wyoming big sagebrush. Black sagebrush has a moderately dense population that occurs within the more shallow soils of the study site. The black sagebrush population has had a high amount of decadence within the population over the sample years. The black sagebrush has displayed light to moderate utilization over the course of the study. The sagebrush population has had good vigor within the population since the outset of the study, though vigor was poor in 1990 and 2006. Recruitment of young Wyoming sagebrush has been fairly poor within the population, though recruitment was good in 1984 and 2011. There is most likely some hybridization between the black sagebrush and the Wyoming big sagebrush. However, Wyoming big sagebrush occurs on the deeper soil on the site, and has a moderately dense population. The Wyoming big sagebrush population has had high decadence within the population since the outset of the study, though decadence has decreased steadily. The majority of Wyoming big sagebrush has displayed light to moderate utilization. Recruitment of young Wyoming big sagebrush plants has been good over the sample years (Table - Browse Characteristics). The Utah juniper population is moderately dense and has varied in density since 1996 (Table - Point Quarter Tree Data), but cover has steadily increased since 2001 (Table - Canopy Cover, Line Intercept). A few of the more mature juniper trees on the site have been highlined.

Herbaceous Understory: The herbaceous understory is comprised of diverse communities of grasses and forbs, but are not abundant. Sandberg bluegrass (*Poa secunda*) is the most abundant perennial grass species. The most common forb is Hoods phlox (*Phlox hoodii*), and it accounts for over half of the forb cover (Table - Herbaceous Trends).

Soil: The soil is classified in the Solak series. The parent material consists of residuum and colluvium weathered from conglomerate composed of sandstone, quartzite, and limestone. Soils have a clay loam texture with a soil reaction that is slightly alkaline (pH 7.4). Phosphorus may have limited availability for plant growth and development at 4.5 ppm (Tiedemann and Lopez 2004) (Table - Soil Analysis Data). Exposed bare ground cover is common and is found between the interspaces of browse cover. Adequate protective ground cover is provided by high amounts of vegetation and litter, but is mainly found within the shelter of browse species (Table - Basic Cover). Due to the formation of an active gully and soil movement the soil erosion condition was classified to be slight in 2006, but stable in 2001 and 2011.

## Trend Assessments

### Browse:

- **1984 to 1990 - slightly up (+1):** The density for black sagebrush increased 28% from 1,198 plants/acre to 1,531 plants/acre. Decadence within the black sagebrush population increased from 50% to 65%. The black sagebrush population increased in poor vigor from 0% to 26%. The density for Wyoming big sagebrush remained similar. Decadence within the Wyoming big sagebrush

population decreased from 56% to 41%, but is still considered to be very high. The Wyoming big sagebrush population increased in poor vigor from 14% to 15%.

- **1990 to 1996 - slightly up (+1):** Differences in density may be related to the larger sample area used in 1996; therefore, trend was determined using other parameters. Decadence within the black sagebrush population decreased to 25%, but is still considered to be high. The black sagebrush population decreased in poor vigor to 2%. Decadence within the Wyoming big sagebrush population decreased to 30%, but is still considered to be high. Poor vigor was not observed within the Wyoming big sagebrush population.
- **1996 to 2001 - slightly down (-1):** The density for black sagebrush remained similar decreasing from 3,800 plants/acre to 3,760 plants/acre. Decadence within the black sagebrush population increased to 31%. The black sagebrush population increased in poor vigor to 6%. The density for Wyoming big sagebrush decreased 18% from 2,440 plants/acre to 2,000 plants/acre. Decadence within the Wyoming big sagebrush population decreased to 21%. The Wyoming big sagebrush population increased in poor vigor to 7%.
- **2001 to 2006 - stable (0):** The density for black sagebrush decreased 5% to 3,560 plants/acre. Decadence within the black sagebrush population increased to 37%. The black sagebrush population increased in poor vigor to 30%. The density for Wyoming big sagebrush decreased 3% to 1,940 plants/acre. Decadence within the Wyoming big sagebrush population increased to 42%. Plants displaying poor vigor within the Wyoming big sagebrush population increased to 69%.
- **2006 to 2011 - slightly down (-1):** The density for black sagebrush population decreased 22% to 2,760 plants/acre. Decadence within the black sagebrush population decreased to 19%. The black sagebrush population decreased in poor vigor to 9%. The density for Wyoming big sagebrush increased 9% to 2,120 plants/acre. Decadence within the Wyoming big sagebrush population decreased to 20%, and poor vigor decreased to 16%.

#### Grass:

- **1984 to 1990 - slightly up (+1):** The sum of nested frequency for perennial grasses increased 15%. Bluebunch wheatgrass (*Agropyron spicatum*) and Sandberg bluegrass increased significantly in nested frequency. Sandburg bluegrass was the most common perennial grass species on the site.
- **1990 to 1996 - up (+2):** The sum of nested frequency for perennial grasses increased 27%. Western wheatgrass (*Agropyron smithii*) increased significantly in nested frequency, and had a cover of 1%. Sandberg bluegrass maintained dominance within the perennial grass community, and had a cover of 3%. Annual grasses were included in the sample for the first time in 1996. Cheatgrass (*Bromus tectorum*) was a minor component within the herbaceous understory.
- **1996 to 2001 - stable (0):** The sum of nested frequency for perennial grasses remained similar. Needle-and-thread (*Stipa comata*) increased in nested frequency, and increased in cover from less than 1% to 1%. The perennial grass Sandberg bluegrass maintained dominance and increased in cover from 3% to 4%.
- **2001 to 2006 - slightly up (+1):** The sum of nested frequency for perennial grasses increased 18%. Western wheatgrass and Indian ricegrass (*Oryzopsis hymenoides*) increased significantly in nested frequency. Both species increased in cover to 1%. Bluebunch wheatgrass decreased significantly in nested frequency, and decreased in cover from 2% to less than 1%.
- **2006 to 2011 - stable (0):** The sum of nested frequency for perennial grasses remained similar. Western wheatgrass and Sandberg bluegrass decreased significantly in nested frequency, and cover remained similar at less than 1% and 5%, respectively. Bottlebrush squirreltail (*Sitanion hystrix*) increased significantly in nested frequency, and had a cover of less than 1%.

#### Forb:

- **1984 to 1990 - down (-2):** The sum of nested frequency for perennial forbs decreased 38%. Lobeleaf groundsel (*Senecio multilobatus*) and clover (*Trifolium sp.*) decreased significantly in nested frequency.

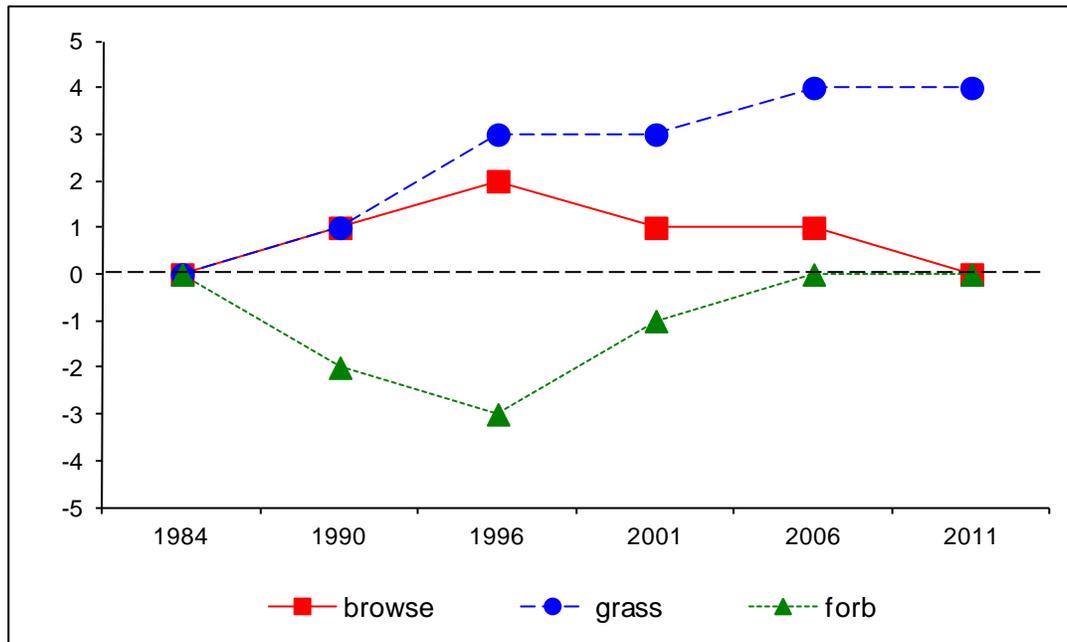
- **1990 to 1996 - slightly down (-1):** The sum of nested frequency for perennial forbs decreased 10%. Low penstemon (*Penstemon humilis*) decreased significantly in nested frequency.
- **1996 to 2001 - up (+2):** The sum of nested frequency for perennial forbs increased 50%. *Cryptantha* (*Cryptantha* sp.), low penstemon, and clover increased significantly in nested frequency. *Cryptantha* had a cover of 1%.
- **2001 to 2006 - slightly up (+1):** The sum of nested frequency for perennial forbs increased 10%. Tapertip hawksbeard (*Crepis acuminata*) decreased significantly in nested frequency. However, the increase in the sum of nested frequency is not due to any one specific species, and is likely due to small, accumulative increases in nested frequency across the perennial forb community.
- **2006 to 2011 - stable (0):** The sum of nested frequency for perennial forbs remained similar. Low fleabane (*Erigeron pumilus*) increased significantly in nested frequency, and maintained cover less than 1%.

DEER DESIRABLE COMPONENTS INDEX - LOW POTENTIAL SCALE --  
Management unit 2, study no: 32

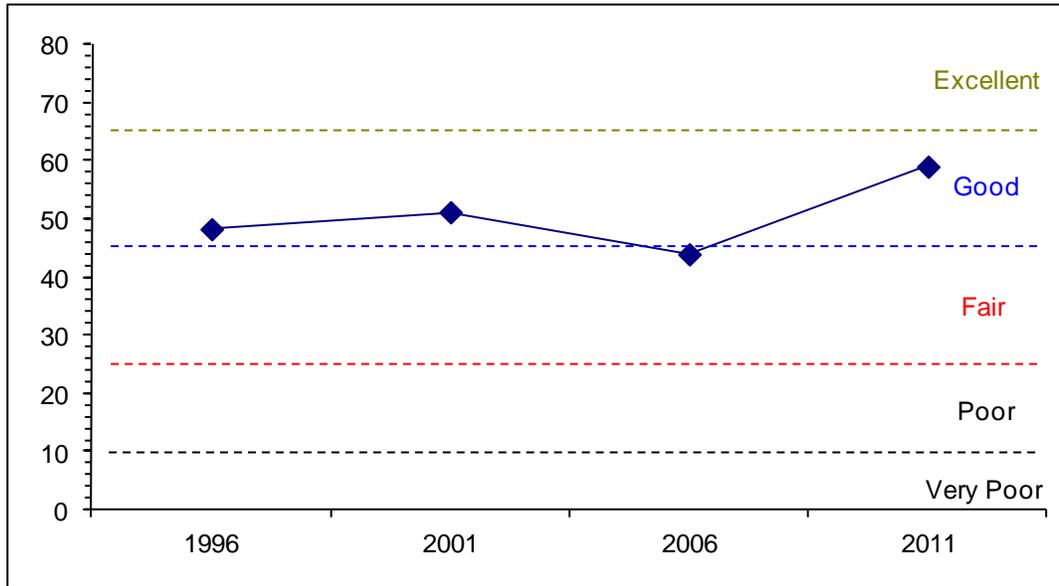
Year	Preferred Browse Cover	Preferred Browse Decadence	Preferred Browse Young	Perennial Grass Cover	Annual Grass Cover	Perennial Forb Cover	Noxious Weeds	Total Score	Ranking
96	16.8	6.8	7.1	11.7	-0.1	6.0	0.0	<b>48.3</b>	Good
01	17.3	7.1	3.9	16.9	-0.3	8.3	-2.0	<b>51.2</b>	Good
06	14.4	3.4	2.0	15.2	0.0	8.9	0.0	<b>43.9</b>	Fair-Good
11	16.1	9.2	13.5	14.0	0.0	6.2	0.0	<b>59.0</b>	Good

### Trend Summary

CUMULATIVE RANGE TREND ASSESSMENT--  
Management unit 2 Study no: 32



DEER DESIRABLE COMPONENTS INDEX TREND, LOW POTENTIAL SCALE--  
 Management unit 2, Study no: 32



HERBACEOUS TRENDS--  
 Management unit 02, Study no: 32

Type	Species	Nested Frequency						Average Cover %			
		'84	'90	'96	'01	'06	'11	'96	'01	'06	'11
G	Agropyron smithii	b31	a-	bc88	b58	c98	b66	.97	.49	.89	.42
G	Agropyron spicatum	bc47	c79	ab34	bc64	a8	bc51	.65	2.08	.10	.41
G	Bromus tectorum (a)	-	-	ab25	b30	a4	ab20	.10	.45	.01	.06
G	Carex sp.	-	-	-	-	6	10	-	-	.06	.05
G	Oryzopsis hymenoides	a8	a17	ab32	a19	bc47	c64	.52	.63	.86	.65
G	Poa fendleriana	-	-	13	10	21	7	.07	.10	.21	.04
G	Poa secunda	a145	bc206	bc191	bc198	c233	ab181	3.28	3.77	4.71	4.83
G	Sitanion hystrix	b36	a9	ab26	ab16	a9	b35	.11	.57	.06	.42
G	Stipa comata	ab7	ab5	a17	b25	b28	ab16	.21	.78	.53	.09
G	Stipa lettermani	a-	a-	a-	a-	b11	b13	-	-	.15	.08
Total for Annual Grasses		0	0	25	30	4	20	0.10	0.45	0.00	0.06
Total for Perennial Grasses		274	316	401	390	461	443	5.84	8.43	7.60	7.02
Total for Grasses		274	316	426	420	465	463	5.94	8.89	7.61	7.09
F	Agoseris glauca	-	-	3	3	11	4	.00	.03	.05	.01
F	Alyssum alyssoides (a)	-	-	a-	a6	a5	b43	-	.01	.01	.08
F	Antennaria rosea	-	4	8	15	12	6	.31	.25	.36	.18
F	Arabis sp.	a-	a-	ab10	a1	a-	b13	.02	.00	-	.04
F	Arenaria sp.	1	-	-	-	-	3	-	-	-	.00
F	Astragalus convallarius	a8	a-	ab10	ab7	b22	ab12	.02	.10	.20	.07
F	Astragalus utahensis	29	14	21	14	20	20	.12	.11	.13	.24
F	Calochortus nuttallii	4	-	-	-	-	1	-	-	-	.00
F	Camelina microcarpa (a)	-	-	-	-	2	-	-	-	.00	-
F	Chaenactis douglasii	7	-	-	-	-	4	-	-	-	.01
F	Chenopodium fremontii (a)	-	-	-	-	-	6	-	-	-	.02

Type	Species	Nested Frequency						Average Cover %			
		'84	'90	'96	'01	'06	'11	'96	'01	'06	'11
F	<i>Cirsium undulatum</i>	-	-	-	3	-	4	-	.00	-	.01
F	<i>Collinsia parviflora</i> (a)	-	-	-	-	11	11	-	-	.02	.16
F	<i>Collomia linearis</i> (a)	-	-	-	3	-	-	-	.03	-	-
F	<i>Comandra pallida</i>	6	5	-	-	3	5	-	-	.00	.03
F	<i>Cordylanthus ramosus</i> (a)	-	-	a15	ab36	b51	c120	.10	.18	.88	4.66
F	<i>Crepis acuminata</i>	11	2	3	1	5	11	.06	.00	.01	.07
F	<i>Cryptantha</i> sp.	a25	a-	a8	b47	a11	a9	.09	.58	.10	.13
F	<i>Cymopterus</i> sp.	-	-	-	2	1	-	-	.03	.00	-
F	<i>Cynoglossum officinale</i>	-	-	-	3	-	-	-	.00	-	-
F	<i>Descurainia pinnata</i> (a)	-	-	6	8	-	5	.01	.03	.00	.01
F	<i>Draba</i> sp. (a)	-	-	-	1	-	-	-	.00	-	-
F	<i>Erigeron pumilus</i>	a-	a-	a-	a-	a8	b20	-	-	.02	.12
F	<i>Eriogonum umbellatum</i>	-	-	-	-	1	3	-	-	.00	.03
F	<i>Gayophytum ramosissimum</i> (a)	-	-	-	-	-	1	-	-	-	.00
F	<i>Haplopappus acaulis</i>	-	4	-	-	-	-	-	-	-	-
F	<i>Holosteum umbellatum</i> (a)	-	-	-	-	-	9	-	-	-	.02
F	<i>Ipomopsis aggregata</i>	5	-	-	-	-	-	-	-	-	-
F	<i>Lappula occidentalis</i> (a)	-	-	3	9	3	15	.00	.02	.01	.05
F	<i>Microsteris gracilis</i> (a)	-	-	-	2	-	-	-	.01	-	-
F	<i>Penstemon humilis</i>	b49	b36	a3	b24	b25	ab24	.01	.22	.51	.24
F	<i>Phlox hoodii</i>	ab115	b133	ab104	ab111	ab100	a78	2.30	2.45	2.47	1.02
F	<i>Phlox longifolia</i>	ab11	a6	ab13	ab5	b22	ab26	.03	.04	.13	.05
F	<i>Ranunculus testiculatus</i> (a)	-	-	-	-	-	7	-	-	-	.01
F	<i>Senecio multilobatus</i>	b21	a-	a3	a4	ab5	ab10	.00	.03	.01	.13
F	<i>Trifolium</i> sp.	b45	a6	a3	b43	b66	b48	.00	.27	.39	.64
Total for Annual Forbs		0	0	24	65	72	217	0.12	0.29	0.93	5.03
Total for Perennial Forbs		337	210	189	283	312	301	3.00	4.16	4.43	3.08
Total for Forbs		337	210	213	348	384	518	3.12	4.45	5.36	8.11

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

BROWSE TRENDS--

Management unit 02, Study no: 32

Type	Species	Strip Frequency				Average Cover %			
		'96	'01	'06	'11	'96	'01	'06	'11
B	Artemisia nova	55	52	54	46	6.93	7.48	7.47	6.80
B	Artemisia tridentata wyomingensis	50	41	40	42	6.50	6.23	4.05	5.90
B	Chrysothamnus nauseosus consimilis	0	2	0	2	-	-	-	-
B	Chrysothamnus viscidiflorus stenophyllus	13	11	10	12	.10	.53	.31	.16
B	Eriogonum microthecum	1	2	2	1	.03	.15	.03	.18
B	Juniperus osteosperma	23	20	20	21	7.63	11.09	12.79	14.11
B	Leptodactylon pungens	0	1	1	1	-	.03	.03	.00
B	Opuntia sp.	1	0	0	0	-	-	-	-
B	Tetradymia canescens	0	1	1	2	-	-	.03	.03
Total for Browse		143	130	128	127	21.20	25.53	24.72	27.20

CANOPY COVER, LINE INTERCEPT--

Management unit 02, Study no: 32

Species	Percent Cover		
	'01	'06	'11
Artemisia nova	-	8.93	9.23
Artemisia tridentata wyomingensis	-	5.11	6.09
Chrysothamnus viscidiflorus stenophyllus	-	.40	.06
Eriogonum microthecum	-	-	.11
Juniperus osteosperma	12.60	18.11	20.11

KEY BROWSE ANNUAL LEADER GROWTH--

Management unit 02, Study no: 32

Species	Average leader growth (in)		
	'01	'06	'11
Artemisia nova	0.5	0.6	1.3
Artemisia tridentata wyomingensis	0.9	0.8	2.4

POINT-QUARTER TREE DATA--

Management unit 02, Study no: 32

Species	Trees per Acre			
	'96	'01	'06	'11
Juniperus osteosperma	236	216	309	284

Average diameter (in)			
'96	'01	'06	'11
5.2	6.0	5.0	5.3

BASIC COVER--

Management unit 02, Study no: 32

Cover Type	Average Cover %					
	'84	'90	'96	'01	'06	'11
Vegetation	1.75	6.00	29.52	36.61	33.29	36.42
Rock	2.00	3.25	1.21	1.04	2.42	.76
Pavement	14.75	18.00	4.10	3.92	11.23	7.20
Litter	55.50	41.00	39.92	40.78	40.39	38.04
Cryptogams	3.00	8.75	4.83	3.94	3.76	5.57
Bare Ground	23.00	23.00	21.77	37.10	28.82	36.95

SOIL ANALYSIS DATA --

Management unit 02, Study no: 32, Study Name: Wood Pass

Effective rooting depth (in)	pH	Clay Loam			%OM	PPM P	PPM K	ds/m
		%sand	%silt	%clay				
9.7	7.4	32.9	36.7	30.4	3.3	4.5	70.4	0.7

PELLET GROUP DATA--

Management unit 02, Study no: 32

Type	Quadrat Frequency				Days use per acre (ha)		
	'96	'01	'06	'11	'01	'06	'11
Rabbit	15	20	21	13	-	-	-
Elk	2	-	4	1	-	33 (81)	13 (33)
Deer/Pronghorn	38	17	29	16	19 (46)	21 (51)	27 (68)
Cattle	1	4	6	3	9 (23)	17 (43)	4 (9)

BROWSE CHARACTERISTICS--

Management unit 02, Study no: 32

Year	Plants per Acre (excluding seedlings)	Age class distribution			Seedling (plants/acre)	Utilization			Average Height Crown (in)
		% Young	% Mature	% Decadent		% moderate	% heavy	% poor vigor	
<b>Artemisia nova</b>									
84	<b>1198</b>	11	39	50	-	78	0	0	9/16
90	<b>1531</b>	9	26	65	66	39	0	26	10/13
96	<b>3800</b>	3	73	25	-	20	2	2	11/21
01	<b>3760</b>	1	68	31	-	4	0	6	12/22
06	<b>3560</b>	2	62	37	2060	.56	.56	30	12/19
11	<b>2760</b>	33	49	19	520	20	4	9	11/19
<b>Artemisia tridentata wyomingensis</b>									
84	<b>4664</b>	14	30	56	199	71	6	14	18/24
90	<b>4532</b>	38	21	41	-	53	15	15	18/20
96	<b>2440</b>	26	44	30	100	28	2	0	17/31
01	<b>2000</b>	16	63	21	-	12	0	7	16/28
06	<b>1940</b>	8	49	42	1360	27	8	69	15/23
11	<b>2120</b>	21	59	20	320	12	.94	16	14/21

		Age class distribution					Utilization			
Year	Plants per Acre (excluding seedlings)	% Young	% Mature	% Decadent	Seedling (plants/acre)	% moderate	% heavy	% poor vigor	Average Height Crown (in)	
<b>Atriplex canescens</b>										
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	6/10	
06	0	0	0	-	-	0	0	0	-/-	
11	0	0	0	-	-	0	0	0	-/-	
<b>Chrysothamnus nauseosus consimilis</b>										
84	0	0	0	0	-	0	0	0	-/-	
90	0	0	0	0	-	0	0	0	-/-	
96	0	0	0	0	-	0	0	0	24/28	
01	40	0	100	0	-	0	0	0	31/45	
06	0	0	0	0	-	0	0	0	29/40	
11	40	0	0	100	-	0	0	0	30/39	
<b>Chrysothamnus viscidiflorus stenophyllus</b>										
84	466	0	71	29	-	0	0	0	10/12	
90	1398	29	71	0	-	38	24	0	7/11	
96	500	16	32	52	-	12	0	36	8/11	
01	380	21	79	0	-	0	0	0	9/17	
06	360	0	44	56	60	0	0	17	10/16	
11	420	33	57	10	20	5	0	14	9/11	
<b>Eriogonum microthecum</b>										
84	0	0	0	-	-	0	0	0	-/-	
90	0	0	0	-	-	0	0	0	-/-	
96	20	0	100	-	-	0	0	0	6/9	
01	60	0	100	-	-	0	0	0	5/10	
06	40	0	100	-	-	0	0	0	5/11	
11	20	0	100	-	-	0	0	0	6/8	
<b>Juniperus osteosperma</b>										
84	266	50	50	0	-	0	0	0	69/43	
90	399	33	67	0	-	33	33	0	84/49	
96	500	28	72	0	-	0	0	0	-/-	
01	460	26	70	4	20	4	0	0	-/-	
06	460	22	70	9	60	0	0	9	16/17	
11	500	16	60	24	40	0	0	4	-/-	
<b>Leptodactylon pungens</b>										
84	0	0	0	-	-	0	0	0	-/-	
90	66	0	100	-	266	0	0	0	2/3	
96	0	0	0	-	-	0	0	0	-/-	
01	20	0	100	-	-	0	0	0	-/-	
06	20	0	100	-	-	0	0	0	6/11	
11	20	0	100	-	-	0	0	0	3/6	

		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>Opuntia</i> sp.										
84	0	0	0	-	-	0	0	0	-/-	
90	66	0	100	-	-	0	0	0	3/9	
96	60	0	100	-	-	0	0	0	4/8	
01	0	0	0	-	-	0	0	0	4/8	
06	0	0	0	-	-	0	0	0	5/21	
11	0	0	0	-	-	0	0	0	6/18	
<i>Symphoricarpos oreophilus</i>										
84	0	0	0	-	-	0	0	0	-/-	
90	0	0	0	-	-	0	0	0	-/-	
96	0	0	0	-	-	0	0	0	14/27	
01	0	0	0	-	-	0	0	0	15/29	
06	0	0	0	-	-	0	0	0	10/23	
11	0	0	0	-	-	0	0	0	5/19	
<i>Tetradymia canescens</i>										
84	0	0	0	0	-	0	0	0	-/-	
90	132	50	0	50	-	50	50	0	-/-	
96	0	0	0	0	-	0	0	0	6/8	
01	20	0	100	0	-	0	0	0	11/19	
06	40	0	100	0	-	0	0	0	11/21	
11	60	67	33	0	-	0	0	0	10/19	