

Trend Study 10-3-05

Study site name: Lower McCook Ridge Chaining .

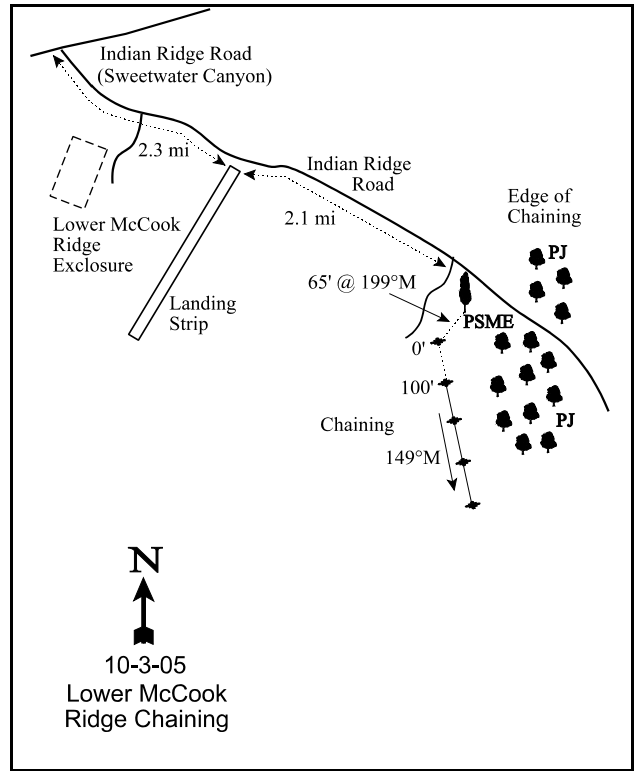
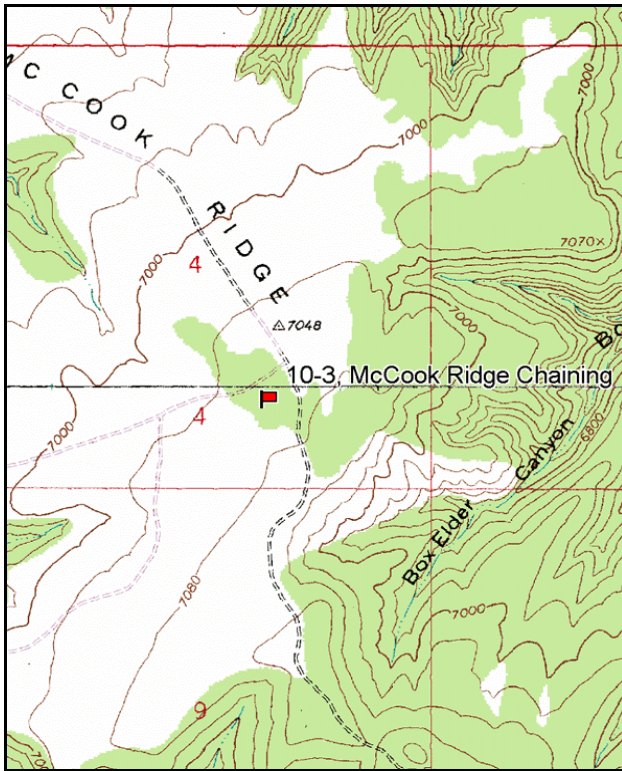
Vegetation type: Chained, Seeded PJ .

Compass bearing: frequency baseline 149 degrees magnetic.

Frequency belt placement: line 1 (11 & 95ft), line 2 (34ft), line 3 (59ft), line 4 (71ft).

LOCATION DESCRIPTION

From the intersection of the Indian Ridge and McCook Ridge roads, go southeast on McCook Ridge for 2.3 miles to a landing strip on the right side of the road (just past enclosure). Proceed an additional 2.1 miles up McCook Ridge into a chained area. Turn right off the main road before the edge of the chaining, and proceed over to a large, lone douglas fir. The 0-foot baseline stake, marked by browse tag # 9036, is 13 paces from the tree at a bearing of 199°M. The frequency baseline is marked by a green, 12-18 inch tall fenceposts.



Map Name: Burnt Timber Canyon .

Diagrammatic Sketch

Township 14S , Range 24E , Section 4

GPS: NAD 27, UTM 12S 4387337 N, 651731 E

## DISCUSSION

### Lower McCook Ridge Chaining - Trend Study No. 10-3

The Lower McCook Ridge Chaining study is located on a pinyon-juniper chaining that was chained in the 1960's. This chaining was retreated in April of 2005 by a bullhog to remove much of the pinyon and juniper. A total of 600 acres were bullhogged and no seeding took place. The study site is located about 2 miles southeast of the Lower McCook Ridge enclosure at approximately 7,030 feet in elevation. The terrain is a broad, flat (5% slope) ridge. The study monitors important deer and elk winter range that is also grazed by livestock in the Sweetwater allotment from May 1 to October 31. Cattle use the area on a rotational deferred management system, with selective periods for rest. Wildlife use was light in 2000 with an estimated 25 deer days use/acre (62 ddu/ha) and 19 elk days use/acre (47 edu/ha) from the pellet group transect data. Use was similar in 2005 with 24 deer days use/acre (60 ddu/ha) and 20 elk days use/acre (50 edu/ha). Cattle use was 2 cow days use/acre (4cdu/ha). A large wildfire started in the area in late May of 2000. The firefighters were finishing putting the fire out when the site was read during the first week of June 2000. The edge of the fire came within a thousand feet of the study area to the east. In 2005, grasses were abundant in the burned area.

Soils are intermediate in texture on the surface, but increasing in clay content a few inches below the surface. Texture is a clay loam with an estimated effective rooting depth of nearly 16 inches. Soil reaction is neutral (pH of 7.1). Penetrometer readings estimate the majority of the rockiness to be between 5 and 15 inches below the surface. Phosphorus levels (7.8 ppm) are marginal (Tiedemann and Lopez 2004). Organic matter is moderately high at 4%. There is evidence of shrinking clays in the soil with surface cracks present. Mountain big sagebrush occupies areas of deeper soils (15 inches) with dwarf rabbitbrush occupying areas with more shallow soils (11 inches). Erosion is minimal because of level terrain, a fair vegetation cover, and the presence of large amounts of persistent, well distributed litter and chaining debris.

Pinyon and juniper trees that survived the chaining were increasing in size. Photos indicate that juniper and pinyon trees increased considerably in size from 1982 to 2000. Point-center quarter data from 1995 estimated 106 pinyon trees/acre. This increased to 127 pinyon trees/acre in 2000. Juniper density was 89 trees/acre in 1995 and 147 trees/acre in 2000. Line-intercept data estimated an average of 4% overhead canopy cover from pinyon and juniper trees in 2000. Two months after the bullhog treatment in 2005, pinyon density was reduced to 42 trees/acre, while juniper density was 65 trees/acre. This density may decline as 64% of the pinyon trees and 68% of the juniper trees sampled in 2005 were trees that had been treated by the bullhog, but still had live green branches near the base of the tree.

Mountain big sagebrush is the key browse species. There are some individual sagebrush plants that appear to be hybrids between mountain big sagebrush (*Artemisia tridentata vaseyana*) and basin big sagebrush (*Artemisia tridentata tridentata*) or black sagebrush (*Artemisia nova*), but all sagebrush was classified as mountain big sagebrush. In 1995, the sample size was increased to get a better sample of shrub density. Sagebrush density was 3,160 plants/acre in 1995. This declined to 2,980 plants/acre in 2000 and declined another 30% in 2005 to 2,080 plants/acre. Some of the decline in 2005 may be due to trampling from the bullhog treatment. Twelve percent of the population was classified as trampled in addition to the 20% that were classified as dying. Percent decadence and percent of the population dying remained constant in 2000 and 2005. Recruitment was poor in 2000 and 2005. There have not been enough young plants to replace those that have been dying. The reduction of pinyon and juniper may reduce competition enough for sagebrush to increase in the future.

Other preferred species include: rubber rabbitbrush, winterfat, and fourwing saltbush. However, these species are infrequent and in low densities. If more preferred shrubs such as antelope bitterbrush, true mountain mahogany or fourwing saltbush were a part of the original seed mixture, they have failed to become established.

Dwarf rabbitbrush is a very abundant browse species. This small prostate shrub numbered 6,266 plants/acre in 1982 and 27,266 by 1988. Densities then dropped to 13,660 plants/acre in 1995 and 15,500 plants/acre in 2000. In 2005, density were much lower at only 3,280 plants/acre. Cover has remained constant at about 5% from 1995 to 2005. Use on dwarf rabbitbrush was light to moderate prior to 2005 and was moderate to heavy in 2005.

Grass composition consists of 13 perennial species. The most common is crested wheatgrass, however sum of nested frequency significantly declined in 2005. Cover was down to 6% in 2005 from 10% in 2000. Blue grama and Sandberg bluegrass are the only other species which have had more than 1% average cover. Sum of nested frequency for all grasses decreased considerably in 2000 then again slightly in 2005, most likely due to drought. Grasses were reportedly heavily grazed in the past. Smooth brome decreased with each sampling and was not found at all in 2005. Forb composition is diverse, but not abundant. The only seeded forb encountered was alfalfa which had a quadrat frequency of only 6% in 1995, 4% in 2000, and 2% in 2005. Sum of nested frequency for perennial forbs decreased in 2000 and again in 2005.

#### 1982 APPARENT TREND ASSESSMENT

Soil trend appears stable with little evidence of soil loss. Vegetation trend also appears stable. The nearly total lack of forbs and the heavy use of grasses are negative factors which could result in rapid reinvasion of pinyon and juniper and increase in density of sagebrush.

#### 1988 TREND ASSESSMENT

Soil trend is slightly up with basal vegetation cover more than doubling and percent bare ground decreasing from 20% in 1982 to only 10% this year. The browse trend is slightly down. The sagebrush population shows high levels of utilization and decadence. Dwarf rabbitbrush and broom snakeweed have increased dramatically since the last reading and appear to have expanding populations. Juniper has increased in density and both pinyon and juniper have increased considerably in size since the last reading. They appear to be regaining dominance of the treatment area. Trend for grasses is up due to increased quadrat frequencies. Forbs are still lacking and of little importance on this site.

#### TREND ASSESSMENT

soil - slightly up (+1)

browse - slightly down (-1)

herbaceous understory - up (+2)

#### 1995 TREND ASSESSMENT

The soil trend is stable overall. Ground cover characteristics are slightly down due to increased bare ground and decreased litter values. Erosion is not currently a problem on the site due to the level terrain and adequate vegetation and litter cover. The decline in litter cover is primarily due to the decomposition of debris from the churning. The browse trend has improved. The mountain big sagebrush density has nearly doubled since 1988. Vigor is good, percent decadence is low, and most are only lightly hedged. Dwarf rabbitbrush dropped in density by 50% and broom snakeweed declined 68% since 1988. Trend for the herbaceous understory is up with increased sum of nested frequencies for grasses and forbs. Nested frequency of crested wheatgrass, intermediate wheatgrass, and smooth brome declined significantly while frequency of prairie junegrass and mutton grass increased significantly. Alfalfa, the only seeded forb encountered, increased in nested frequency. The Desirable Components Index (see methods) rated this site as good. Sagebrush is not overly abundant, but recruitment is high and percent decadence is low.

#### TREND ASSESSMENT

soil - stable (0)

browse - up (+2)

herbaceous understory - up (+2)

winter range condition (DC Index) - good (70) Mid-level potential scale

#### 2000 TREND ASSESSMENT

Trend for soil is stable. Ground cover characteristics are similar to 1995. Percent cover of bare soil increased in 2000, but percent cover of vegetation and litter remained nearly stable. Trend for browse is slightly down due to downward trends in many key factors for mountain big sagebrush. The mountain big sagebrush population shows increases in percent decadence, poor vigor, and utilization. Also, there is a high proportion of plants classified as dying (<1% to 19%). Currently, there are not enough young plants to replace the decadent and dying plants in the population. Many of these downward factors for sagebrush could improve with a return to normal precipitation patterns. Trend for the herbaceous understory is down. Sum of nested frequency for perennial grasses and forbs decreased by nearly 30% in 2000 due to drought. The DCI score declined to poor to fair due to increased percent decadence of sagebrush and lower recruitment.

#### TREND ASSESSMENT

soil - stable (0)

browse - slightly down (-1)

herbaceous understory - down (-2)

winter range condition (DC Index) - poor to fair (51) Mid-level potential scale

#### 2005 TREND ASSESSMENT

The soil trend is stable. Bare ground is similar to 2000, while vegetation cover is down and litter cover is up due to the bullhog treatment. The reduction of pinyon and juniper from the treatment should positively effect the browse and herbaceous understory. The browse trend is slightly down in 2005 due to the lower numbers of mountain big sagebrush. Density was 30% lower than in 2000 and strip frequency declined from 54% in 2000 to 46% in 2005. Decadence remained at about 30%, while 20% of the population was classified as dying. Recruitment has been poor with the last two readings. Reduction of competition with pinyon and juniper should benefit sagebrush. The trend for the herbaceous understory is slightly down. The sum of nested frequency for perennial grasses and forbs declined 12% since 2000. Crested wheatgrass, which is the most abundant species, declined significantly in sum of nested frequency. The DCI score declined to poor. Sagebrush cover is low, while decadence is high, and recruitment is low. Perennial forb cover has also declined with each reading since 1995.

#### TREND ASSESSMENT

soil - stable (0)

browse - slightly down (-1)

herbaceous understory - slightly down (-1)

winter range condition (DC Index) - poor (41) Mid-level potential scale

HERBACEOUS TRENDS --  
Management unit 10 , Study no: 3

Type	Species	Nested Frequency				Average Cover %		
		'88	'95	'00	'05	'95	'00	'05
G	<i>Agropyron cristatum</i>	c <sub>257</sub>	ab <sub>168</sub>	b <sub>196</sub>	a <sub>143</sub>	6.43	10.21	5.64
G	<i>Agropyron dasystachyum</i>	a <sub>2</sub>	b <sub>132</sub>	b <sub>104</sub>	a <sub>41</sub>	.56	.64	.37
G	<i>Agropyron intermedium</i>	c <sub>67</sub>	b <sub>21</sub>	a <sub>-</sub>	b <sub>14</sub>	.16	-	.24
G	<i>Agropyron spicatum</i>	b <sub>13</sub>	b <sub>16</sub>	a <sub>-</sub>	ab <sub>4</sub>	.16	-	.03
G	<i>Bouteloua gracilis</i>	a <sub>6</sub>	c <sub>106</sub>	b <sub>86</sub>	b <sub>58</sub>	1.25	1.59	1.49
G	<i>Bromus inermis</i>	c <sub>52</sub>	b <sub>22</sub>	ab <sub>3</sub>	a <sub>-</sub>	.28	.03	-
G	<i>Carex sp.</i>	b <sub>33</sub>	a <sub>11</sub>	a <sub>3</sub>	a <sub>10</sub>	.36	.30	.12
G	<i>Elymus junceus</i>	16	12	3	6	.33	.15	.33
G	<i>Koeleria cristata</i>	a <sub>11</sub>	c <sub>54</sub>	ab <sub>28</sub>	bc <sub>43</sub>	.48	.14	.77
G	<i>Oryzopsis hymenoides</i>	ab <sub>6</sub>	b <sub>6</sub>	a <sub>-</sub>	ab <sub>7</sub>	.07	-	.19
G	<i>Poa secunda</i>	a <sub>18</sub>	b <sub>81</sub>	b <sub>73</sub>	b <sub>90</sub>	2.02	1.40	2.41
G	<i>Sitanion hystrix</i>	b <sub>8</sub>	ab <sub>4</sub>	a <sub>-</sub>	ab <sub>4</sub>	.01	-	.06
G	<i>Stipa comata</i>	a <sub>1</sub>	a <sub>9</sub>	a <sub>-</sub>	b <sub>31</sub>	.01	-	.71
Total for Annual Grasses		0	0	0	0	0	0	0
Total for Perennial Grasses		490	642	496	451	12.16	14.48	12.39
Total for Grasses		490	642	496	451	12.16	14.48	12.39
F	<i>Antennaria rosea</i>	a <sub>-</sub>	c <sub>30</sub>	b <sub>12</sub>	bc <sub>19</sub>	.17	.03	.11
F	<i>Arabis sp.</i>	a <sub>7</sub>	b <sub>29</sub>	a <sub>5</sub>	a <sub>2</sub>	.87	.01	.03
F	<i>Arenaria fendleri</i>	14	3	5	11	.03	.04	.02
F	<i>Astragalus spatulatus</i>	b <sub>34</sub>	a <sub>-</sub>	a <sub>5</sub>	a <sub>-</sub>	-	.03	-
F	<i>Caulanthus crassicaulis</i>	2	-	-	-	-	-	-
F	<i>Calochortus nuttallii</i>	-	6	-	2	.01	-	.00
F	<i>Castilleja sp.</i>	-	22	-	-	.11	-	-
F	<i>Crepis acuminata</i>	-	6	-	-	.01	-	-
F	<i>Cymopterus sp.</i>	-	-	-	5	-	-	.01
F	<i>Delphinium sp.</i>	-	2	-	-	.00	-	-
F	<i>Erigeron sp.</i>	-	-	5	-	-	.01	-
F	<i>Erigeron pumilus</i>	-	3	6	1	.04	.02	.00
F	<i>Haplopappus acaulis</i>	a <sub>11</sub>	b <sub>8</sub>	ab <sub>15</sub>	ab <sub>8</sub>	.33	.54	.21
F	<i>Hymenoxys acaulis</i>	-	12	1	3	.80	.00	.03
F	<i>Lappula occidentalis (a)</i>	-	2	-	2	.00	-	.00
F	<i>Machaeranthera grindelioides</i>	b <sub>62</sub>	a <sub>13</sub>	a <sub>23</sub>	a <sub>8</sub>	.14	.17	.08
F	<i>Medicago sativa</i>	a <sub>1</sub>	b <sub>14</sub>	ab <sub>8</sub>	ab <sub>5</sub>	1.24	.39	.06
F	<i>Oenothera caespitosa</i>	-	-	1	-	-	.00	-
F	<i>Orthocarpus sp. (a)</i>	-	4	-	-	.01	-	-

T y p e	Species	Nested Frequency				Average Cover %		
		'88	'95	'00	'05	'95	'00	'05
F	Penstemon pachyphyllus	-	3	-	4	.02	-	.06
F	Physaria acutifolia	-	-	1	-	-	.00	-
F	Phlox austromontana	2	-	-	-	-	-	-
F	Phlox longifolia	<sub>a</sub> -	<sub>c</sub> 41	<sub>b</sub> 13	<sub>ab</sub> 2	.08	.03	.00
F	Physaria sp.	9	-	-	-	-	-	-
F	Polygonum douglasii (a)	-	7	-	-	.02	-	-
F	Sphaeralcea coccinea	<sub>a</sub> -	<sub>b</sub> 28	<sub>b</sub> 19	<sub>b</sub> 18	.08	.04	.22
F	Streptanthus cordatus	-	1	-	1	.00	-	.03
F	Taraxacum officinale	-	6	-	-	.01	-	-
Total for Annual Forbs		0	13	0	2	0.03	0	0.00
Total for Perennial Forbs		142	227	119	89	3.99	1.34	0.89
Total for Forbs		142	240	119	91	4.02	1.34	0.89

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

#### BROWSE TRENDS --

Management unit 10 , Study no: 3

T y p e	Species	Strip Frequency			Average Cover %		
		'95	'00	'05	'95	'00	'05
B	Artemisia frigida	1	1	1	-	.15	.03
B	Artemisia tridentata vaseyana	52	54	46	5.73	7.76	4.46
B	Ceratoides lanata	5	7	3	.09	.01	-
B	Chrysothamnus depressus	47	48	43	5.34	4.88	4.76
B	Chrysothamnus nauseosus hololeucus	1	1	2	-	.00	.00
B	Gutierrezia sarothrae	31	29	30	.35	.36	.42
B	Juniperus osteosperma	0	7	4	1.62	1.14	.18
B	Leptodactylon pungens	0	3	1	-	.15	-
B	Opuntia fragilis	1	0	0	.01	-	-
B	Pediocactus simpsonii	0	0	5	-	-	-
B	Pinus edulis	0	4	3	1.79	3.83	.78
Total for Browse		138	154	138	14.95	18.32	10.67

CANOPY COVER, LINE INTERCEPT --

Management unit 10 , Study no: 3

Species	Percent Cover	
	'00	'05
Artemisia tridentata vaseyana	-	4.88
Chrysothamnus depressus	-	3.40
Gutierrezia sarothrae	-	.25
Juniperus osteosperma	-	.61
Pinus edulis	4.40	.35

KEY BROWSE ANNUAL LEADER GROWTH --

Management unit 10 , Study no: 3

Species	Average leader growth (in)
	'05
Artemisia tridentata vaseyana	1.9

POINT-QUARTER TREE DATA --

Management unit 10 , Study no: 3

Species	Trees per Acre	
	'00	'05
Juniperus osteosperma	147	65
Pinus edulis	127	42

Average diameter (in)	
'00	'05
2.5	3.4
4.2	3.2

BASIC COVER --

Management unit 10 , Study no: 3

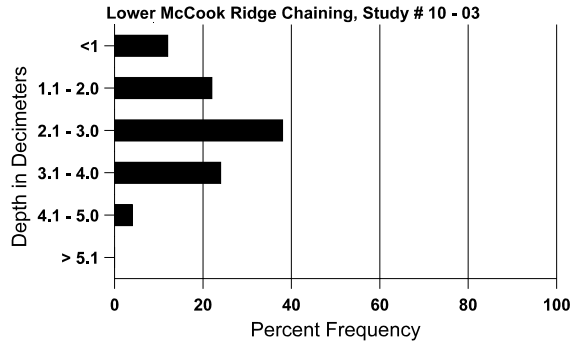
Cover Type	Average Cover %				
	'82	'88	'95	'00	'05
Vegetation	5.25	12.50	32.93	34.54	21.94
Rock	1.00	2.50	2.11	1.52	.46
Pavement	.75	5.25	2.95	1.11	1.33
Litter	73.25	69.00	36.46	34.29	46.71
Cryptogams	0	.50	6.62	5.81	2.19
Bare Ground	19.75	10.25	26.86	37.16	36.87

SOIL ANALYSIS DATA --

Herd Unit 10, Study # 3, Study Name: Lower McCook Ridge Chaining

Effective rooting depth (in)	Temp °F (depth)	pH	%sand	%silt	%clay	%OM	ppm P	ppm K	dS/m
15.7	56.6 (16.1)	7.1	34.0	31.4	34.6	4.0	7.8	144.0	0.8

## Stoniness Index



### PELLET GROUP DATA --

Management unit 10 , Study no: 3

Type	Quadrat Frequency		
	'95	'00	'05
Rabbit	16	33	47
Elk	24	5	11
Deer	13	6	18
Cattle	2	1	1

Days use per acre (ha)	
'00	'05
-	-
19 (48)	20 (50)
25 (62)	24 (60)
-	2 (4)

### BROWSE CHARACTERISTICS --

Management unit 10 , Study no: 3

		Age class distribution (plants per acre)					Utilization					
Y	Plants per Acre (excluding seedlings)	Seedling	Young	Mature	Decadent	Dead	% moderate	% heavy	% decadent	% dying	% poor vigor	Average Height Crown (in)
<b>Artemisia frigida</b>												
82	<b>0</b>	-	-	-	-	-	0	0	-	-	0	-/-
88	<b>0</b>	-	-	-	-	-	0	0	-	-	0	-/-
95	<b>60</b>	-	-	60	-	-	0	0	-	-	0	9/11
00	<b>80</b>	-	-	80	-	-	0	0	-	-	0	7/5
05	<b>20</b>	-	-	20	-	-	0	0	-	-	0	2/4
<b>Artemisia tridentata vaseyana</b>												
82	<b>1932</b>	400	666	1266	-	-	48	17	0	-	0	22/25
88	<b>1532</b>	266	266	866	400	-	57	13	26	-	9	24/29
95	<b>3160</b>	40	1580	1480	100	-	27	0	3	.63	.63	24/31
00	<b>2980</b>	-	160	1800	1020	100	40	9	34	19	19	23/26
05	<b>2080</b>	-	60	1400	620	160	42	37	30	20	32	19/24

		Age class distribution (plants per acre)					Utilization					
Year	Plants per Acre (excluding seedlings)	Seedling	Young	Mature	Decadent	Dead	% moderate	% heavy	% decadent	% dying	% poor vigor	Average Height Crown (in)
<b>Atriplex canescens</b>												
82	0	-	-	-	-	-	0	0	-	-	0	-/-
88	0	-	-	-	-	-	0	0	-	-	0	-/-
95	0	-	-	-	-	-	0	0	-	-	0	-/-
00	0	-	-	-	-	-	0	0	-	-	0	26/24
05	0	-	-	-	-	-	0	0	-	-	0	-/-
<b>Ceratoides lanata</b>												
82	0	-	-	-	-	-	0	0	0	-	0	-/-
88	199	-	133	66	-	-	0	0	0	-	0	15/5
95	120	-	-	120	-	-	0	0	0	-	0	6/8
00	160	-	-	140	20	-	38	0	13	13	13	9/8
05	100	-	20	60	20	-	20	60	20	20	20	5/6
<b>Chrysothamnus depressus</b>												
82	6266	-	-	6266	-	-	0	100	0	-	0	3/9
88	27266	1266	12200	14533	533	-	40	.48	2	-	.24	4/9
95	13660	60	860	12800	-	-	0	0	0	-	0	5/11
00	15500	-	1620	11320	2560	160	54	.25	17	3	3	3/10
05	3280	-	320	2360	600	180	48	26	18	7	9	4/8
<b>Chrysothamnus nauseosus hololeucus</b>												
82	0	-	-	-	-	-	0	0	0	-	0	-/-
88	0	-	-	-	-	-	0	0	0	-	0	-/-
95	60	60	40	20	-	-	0	0	0	-	0	36/43
00	20	-	20	-	-	-	0	0	0	-	0	37/38
05	40	-	20	-	20	-	50	0	50	50	50	18/9
<b>Gutierrezia sarothrae</b>												
82	66	-	-	66	-	-	0	0	0	-	0	4/1
88	4598	-	1066	3466	66	-	0	0	1	-	0	8/5
95	1480	40	340	1140	-	-	0	0	0	-	0	7/7
00	1380	-	360	900	120	-	0	0	9	1	1	4/5
05	1120	40	140	980	-	-	0	0	0	-	0	6/7
<b>Juniperus osteosperma</b>												
82	66	-	66	-	-	-	0	0	0	-	0	-/-
88	132	66	66	66	-	-	50	0	0	-	0	118/79
95	0	-	-	-	-	-	0	0	0	-	0	-/-
00	140	-	100	40	-	-	0	0	0	-	0	-/-
05	80	20	60	-	20	-	0	0	25	-	25	-/-

		Age class distribution (plants per acre)					Utilization					
Year	Plants per Acre (excluding seedlings)	Seedling	Young	Mature	Decadent	Dead	% moderate	% heavy	% decadent	% dying	% poor vigor	Average Height Crown (in)
<b>Leptodactylon pungens</b>												
82	<b>0</b>	-	-	-	-	-	0	0	-	-	0	-/-
88	<b>0</b>	-	-	-	-	-	0	0	-	-	0	-/-
95	<b>0</b>	-	-	-	-	-	0	0	-	-	0	-/-
00	<b>80</b>	-	-	80	-	-	0	0	-	-	0	8/11
05	<b>20</b>	-	-	20	-	-	0	0	-	-	0	4/9
<b>Opuntia fragilis</b>												
82	<b>0</b>	-	-	-	-	-	0	0	-	-	0	-/-
88	<b>66</b>	-	66	-	-	-	0	0	-	-	0	-/-
95	<b>20</b>	-	20	-	-	-	0	0	-	-	0	4/14
00	<b>0</b>	-	-	-	-	-	0	0	-	-	0	-/-
05	<b>0</b>	-	-	-	-	-	0	0	-	-	0	3/12
<b>Pediocactus simpsonii</b>												
82	<b>66</b>	-	-	66	-	-	0	0	-	-	0	1/4
88	<b>0</b>	-	-	-	-	-	0	0	-	-	0	-/-
95	<b>0</b>	-	-	-	-	-	0	0	-	-	0	-/-
00	<b>0</b>	-	-	-	-	-	0	0	-	-	0	0/1
05	<b>120</b>	-	-	120	-	-	0	0	-	-	0	1/2
<b>Pinus edulis</b>												
82	<b>400</b>	-	-	400	-	-	0	0	-	-	0	33/18
88	<b>399</b>	-	266	133	-	-	0	0	-	-	0	94/73
95	<b>0</b>	-	-	-	-	-	0	0	-	-	0	-/-
00	<b>80</b>	40	40	40	-	-	0	0	-	-	0	-/-
05	<b>60</b>	20	60	-	-	-	0	0	-	-	0	-/-