## RANGELAND HEALTH ASSESSMENT FOR PORTIONS OF THE FORT ROCK AND CHRISTMAS VALLEY AREAS

**INCLUDING ALLOTMENTS:** 

903 BEASLEY LAKE

908 COUGAR MOUNTAIN

910 HOGBACK BUTTE

915 SQUAW BUTTE

101 EAST GREEN MOUNTAIN

Oregon Standards for Rangeland Health

Standard 1 - Upland Watershed -Upland soils exhibit infiltration and permeability rates, moisture storage, and stability that is appropriate to soil, climate, and landform.

Standard 2 - Riparian/Wetland-Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and landform.

Standard 3 -Ecological Processes-Healthy, productive, and diverse plant and animal populations and communities appropriate to soil, climate, and landform are supported by ecological processes of nutrient cycling, energy flow, and hydrologic cycle.

Standard 4 - Water Quality Standards- Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.

Standard 5 - Biological Diversity-Habitats support healthy, productive, and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate, and landform.

#### **Allotment Overviews**

Locations: The allotments are generally located in the Fort Rock and Christmas Valley areas. See attached Maps for specific locations.

Vegetation: The dominant plant community is comprised of western juniper. Shrub components include a diversity of mountain big sagebrush, basin big sagebrush, rabbitbrush and greasewood. A wide variety of grasses are present including squirreltail, Idaho fescue, basin wildrye, Indian ricegrass, western needlegrass, needle-and-thread grass and bluebunch wheatgrass. Six percent of the total acreage has been seeded to crested wheatgrass. Cheatgrass is present in a few locations; however it dominates less than 3% of the overall vegetation. See attached Ecological Site Inventory (ESI) Allotment and summary tables for further information.

#### 903 Allotment-Beasley Lake

Public Acres: 2460 Other Acres 534

Category: M

7.5 Minute Topographic Map: Fort Rock

One permittee- Dinsdale

AUMs of authorized use: 232 AUMs active

Season of use: 4/1-10/31.

Grazing system: Early use during spring and summer

#### 908 Allotment- Cougar Mountain

Public Acres: 8282 Other Acres: 3405

Category: M

7.5 Minute Topographic Maps: Schaub lake, Lane Lake, Cougar Mountain & Hogback Butte

Three permittees-Ferns, Kittredge & O'Keefe AUMs of Authorized Use: 616 AUMs active

Season of Use: Summer, Fall, Winter

Grazing system: Rest rotation. Four of the five pastures are grazed each year; the first pasture used is rested the

following year. The Crested Wheatgrass and South Native pastures are used last.

#### 910 Allotment- Hogback Butte

Public Acres: 4384 Other Acres: 4234

Category: M

7.5 Minute Topographic Maps: Hogback Butte, & Fox Bute

AUMs of Authorized Use: 680 AUMs active One permittee- Quartz Mountain Grazing Group

Season of Use: Spring and Fall

Grazing system: Rest rotation. The eastside pastures are grazed one year and the Westside pastures the next

year.

915 Allotment- Squaw Butte

Public Acres: 8230 Other Acres: 460

7.5 Minute Topographic Map: Fox Butte, Walker Butte & Hogback Butte

One permittee- Iverson

AUMs of Authorized Use: 1000 AUMs Season of Use: Spring, Summer, Fall

Grazing System: Deferred

10101 (101) Allotment- East Green Mountain

Public Acres: 17241 Other Acres: 1440

Category: M

7.5 Minute Topographic Maps: Jacks Place, Crack In The Ground, Christmas Lake & Peters Creek Sink

AUMs of Authorized Use: 980AUMs active

One grazing permittee- Roth

Season of Use: Spring, Summer, Fall

Grazing System: Rest Rotation.

STANDARD 1 - Upland Watershed -Upland soils exhibit infiltration and permeability rates, moisture storage, and stability that are appropriate to soil, climate, and landform.

Overall the five allotments in this assessment are functioning properly, and meeting the standard as indicated by the distribution and amount of ground cover, long-term trend studies, upland forage utilization surveys and SSF data compiled from ESI. Current livestock grazing is not a factor in areas not meeting the standard. Two percent of the area is not functioning to the potential for the individual sites. Cheatgrass invasion is the main contributor to not meeting the standard. The entire area is susceptible to juniper expansion which could impact the areas ability to meet this standard within the next 10-20 years.

Indicators used to evaluate this standard are Soil Surface Factor (SSF) which documents erosion class and soil susceptibility to accelerated erosion; plant community composition which indicates the root capacity of the soil profile; grazing management, and existing vegetation monitoring (forage utilization and trend studies). Ecological Site Inventory (ESI) is preliminary and is used for estimation purposes only.

SSF data is available on 85% of the public land considered in this assessment. The acreage without data represents vegetative areas too small to be mapped, transition zones between vegetative communities and soil types, and rock outcrops. The majority (60%) of the area has an SSF rating of stable to slight and 40% of the area has a moderate SSF rating. The recommended grazing systems from the Lakeview Grazing EIS have basically been followed for the last 20 years throughout the assessment area. Overall grazing management is maintaining a healthy, diverse perennial vegetative cover which assists in properly functioning soil properties.

Long-term trend including photo plots and frequency studied have been read from 1970-2006. Overall the studies show an increase in shrub cover and a healthy grass and forb component; except for plot EG2, in the East Green Mountain Allotment, which shows a loss of mountain big sagebrush. Drought stress from 1996-2002 and aroga moth infestations in 2003-2005 are the suspected causes of reductions in mountain big sagebrush. Juniper encroachment is significant in allotments 910, 915 and 101.

Areas not meeting the standard comprise only 2% of the total acreage. These areas have increased annual herbaceous species (cheatgrass) and/or decrease or loss of perennial herbaceous species. Loss of deep rooted perennial species equates to overall loss in root capacity to stabilize soil and store water within the plant community and effective rooting zone. Please refer to allotment specific tables and the ESI summary for the assessment area for full vegetative information. The following are considered not meeting the standard and would require rehabilitation such as seeding to move toward meeting the standard:

- 794 acres of cheatgrass with various shrub components found in allotment 101.
- 218 acres of basin big sagebrush/ cheatgrass and or squirreltail in downward trend found mostly below 5000' elevation in allotments 903 & 908.

STANDARD 2 - Riparian/Wetland-Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and landform.

There are neither perennial or major intermittent streams nor associated riparian areas in these allotments and so this standard does not apply.

STANDARD 3- Healthy productive and diverse plant and animal populations and communities appropriate to soil, climate, and landform are supported by ecological processes of nutrient cycling, energy flow and the hydrologic cycle.

A review of the range monitoring data (photos, trend transects, climate, field observations, OAT and professional judgment) indicate that overall the majority of the assessment area (96%) is meeting this standard. Plant communities are healthy, diverse and appropriate for each site.

Indicators used to evaluate this standard include animal populations, vegetative composition, presence of weed species, ecological status, OAT, long-term trend studies, current plant composition as compared to a defined Potential Natural Community (PNC) for the soil type and precipitation zone. SSF, OAT, Range Site, Seral Stage and PNC are from the Lake County ESI survey which is preliminary at this time. ESI data is used for estimation purposes only.

Please refer to the Tables presented in the Allotment Overview for summary of ESI data which shows the diversity of plant communities and indicators used to evaluate this standard.

Health, productivity and diversity of plant species are good throughout the assessment area. Small areas have inhibited productivity and diversity in which livestock grazing is not contributing towards these areas not meeting the standard. These areas are dominated by cheatgrass usually resulting from some disturbance such as fire or farming. The following plant communities are not meeting this standard and would require rehabilitation to such as reseeding to move toward meeting the standard.

- 794 acres of cheatgrass with various shrub components found in allotment 101.
- 218 acres of basin big sagebrush/ cheatgrass and or squirreltail in downward trend found mostly below 5000' elevation in allotments 903 & 908.
- 280 acres of juniper in a downward trend found mainly in allotment 101

Long-term trend studies show significant juniper expansion into sagebrush steppe communities in allotments 910, 915 and 101 which would reduce the plant diversity and overall health of perennial grasses, forbs and shrubs in the area within the next 10-20 years if left untreated.

#### **Noxious Weeds**

Noxious weeds are not known to occur in the allotments 903, 908, 910, 915 or 101. However, diffuse and spotted knapweeds are present in Fort Rock. The close proximity of the Beasley Lake Allotment #903 to the town of Fort Rock and the associated well traveled roads presents the likelihood that these knapweed species will spread along the roads bounding and within the allotment in the future.

#### Wildlife:

Much of this area supports healthy diverse wildlife populations. The expansion of western juniper in some habitats has lead to a decrease in diversity where juniper stands are at their highest density. Western juniper stands on Green Mountain and along the eastern edge of the Devils Garden lava flow are old growth stands and as such are very dense. Wildlife diversity within these allotments is served well by this mix of old and young western juniper stands. However, there is far more of the young western juniper than is needed to maintain wildlife diversity. Wildlife diversity within these areas would best be served by decreasing young western juniper stands and maintaining healthy sagebrush communities. Ecological processes and species diversity is adequate to make these allotments functional. Standard 3 is being met.

STANDARD 4- Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.

There are no perennial or major intermittent surface waters on BLM lands in these allotments and so no water quality standards to be met.

STANDARD 5- Native, T&E, and locally important species. Habitats support healthy, productive and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate and landform.

#### This standard is met throughout the assessment area.

#### **Plant Communities**

This standard is being met for healthy, productive and diverse populations of plant communities.

There are no known locations of BLM Special Status plants species in the five allotments. The areas have been surveyed, none were found.

There is a good component of grass species including: Leymus triticoides (Elymus triticoides), Achnatherum hymenoides (Oryzopsis hymenoides), Hesperostipa comata (Stipa commata), Achnaterum thurberianum (Stipa thurberiana), Poa secunda, Elymus elymoides (Sitanion hystrix), Pseudoroegneria spicata (Agrophyron spicatum), Elymus cinereus (Leymus cinereus), Festuca idahoensis, and Koeleria macrantha (Koerleria nitida).

At least 50 different forb species are present in the assessment area as well as nine shrub species and two tree species.

#### Wildlife:

There are no listed T&E or sensitive aquatic species known in the area.

Special status wildlife species or their habitats that are present within these allotments include the bald eagle (Haliaeetus leucocephalus), ferruginous hawk (Buteo regalis), peregrine falcon (Falco peregrinus), burrowing owl (Speotyto cunicularia), Townsend's big-eared bat (Corynorhinus townsendii), sage-grouse (Centrocercus urophasianus), and pygmy rabbit (Brachylagus idahoensis). There are also four species with high public interest. These are mule deer (Odocoileus hemionus), elk, (Cervus elaphus), California bighorn sheep (Ovis canadensis) and pronghorn antelope (Antilocapra americana).

No nesting habitat is available within the allotments for bald eagles. Some marginal roosting habitat exists within allotment 910 for the bald eagle. There are also marginal wintering areas defined in portions of allotments 908 and 10101. It is suspected that bald eagles are occasional visitors to much of the area. Bald eagle foraging does occur within all of these allotments; however it is probably restricted mostly to winter killed deer adjacent to the major roadways and scattered through the allotments.

No nesting habitat is available for peregrine falcons. No incidental sightings of peregrines exist within the allotments, but occasional sightings occur within the vicinity of Christmas Valley to the south. There is some potential nesting habitat for ferruginous hawks on scattered junipers within these allotments and sightings occur throughout the area. No surveys have been conducted for ferruginous hawk. Ferruginous hawk foraging habitat exists through portions of the allotments. There are no resource conflicts for peregrine falcons, ferruginous hawks or bald eagles.

No observations of burrowing owls exist within the vicinity of the allotment. It is assumed that they may occasionally occur within the allotment. There are no resource conflicts for this species.

There are no known roost sites within these allotments for Townsend's big-eared bats, however known roosting sites do occur directly adjacent to allotment 910 and probably also occur in or adjacent to other allotments. It is suspected that Townsend's forage across portions of all of these allotments. There are no known resource conflicts for this species.

Habitat is present for pygmy rabbit, but no known locations exist within these allotments for these species. No inventories have been conducted for this species within these allotments. The nearest known populations of pygmy rabbits are over 15 miles to the south. It is suspected that pygmy rabbits could occur within portions of these allotments. There are no known resource conflicts for this species.

Bighorn sheep inhabit portions of all of these allotments. There is some overlap in range between bighorns and cattle, however bighorn sheep use is light at this time and is mostly restricted to the Cougar Mountain area and the fringes of the lava flows in the area. Some impacts to bighorn sheep from expanding stands of young western juniper in the Cougar Mountain area are expected within the next 10-20 years. Bighorn sheep would benefit from the removal of western juniper in these areas. No major conflicts exist between bighorn sheep and cattle grazing within these allotments.

Pronghorn antelope occur in portions of these allotments. Pronghorn use is concentrated mostly in allotments 903, 908 and 10101. Most pronghorn use is restricted to crested wheat seeding or sagebrush areas adjacent to private agricultural fields. No major conflicts exist between pronghorn and cattle grazing within this allotment.

Mule deer inhabit all of these allotments year round. High to moderate concentrations of wintering mule deer also occur in each of these allotments. Wintering deer depend on bitterbrush and big sagebrush as winter forage. Both of these browse species are common within these allotments. There is potential for conflicts to exist between mule deer and cattle grazing within these allotments. These conflicts arise with fall grazing systems, where livestock can turn their attention to green bitterbrush rather than dry grasses. If livestock densities are sufficient during these times, livestock use on bitterbrush can be extensive. High concentrations of wintering mule deer can also cause extensive use to bitterbrush. It is very difficult to determine the level of utilization when both livestock and deer occur in these pastures at the same time.

Because of the rest rotation and deferred rotation grazing systems within these allotments, the season of use can not be adjusted on all pastures. Livestock bitterbrush utilization within these allotments will not be allowed to exceed 15% of the current year's growth on two out of every three years. This can be accomplished by using rotation grazing systems. It is recommended that allotment utilization monitoring include shrub utilization to determine potential future conflicts. There are no major conflicts between livestock and mule deer at this time.

Elk occur year round throughout portions of allotments 910, 915 and 10101 and on adjacent public and private lands. Historically elk were absent from the surrounding area. They have only increased in density over the last 15 – 20 years. Some potential forage conflicts exist between livestock and elk. These conflicts are minimal however. Elk use on the adjacent private lands is most common during the alfalfa growing season and use on the public lands increases as fall and winter approach. For this reason, elk numbers within these allotments fluctuate greatly over the year and between years. No major conflicts exist between elk and livestock at this time.

Habitats for sage-grouse occur throughout most of these allotments. Sage-grouse numbers are low within these allotments and the surrounding areas. Please refer to the attached Table A for current and potential sage-grouse habitats. There are no sage-grouse lek sites within allotment 10101. The nearest active lek sites are approximately 8 miles to the east. Habitats in allotment 10101 consist of 3063 acres (16%) of nesting, 1959 acres (10%) of brood, 456 acres (2%) of winter and 14093 acres (72%) of non-habitat. Allotment 10101 at best has the potential to have 8108 acres (41%) of nesting and 11462 acres (59%) of non-habitat. Western juniper is the dominant factor affecting sage-grouse habitats within this allotment. Much of the western juniper in this allotment is made up of very old stands of trees. These stands provide habitats for many other wildlife species. No conflicts exist between livestock and sage-grouse within this allotment.

There are no sage-grouse lek sites within allotment 915. The nearest active lek sites are approximately 10 miles to the east and 9 miles to the west. Sage-grouse habitats within allotment 915 consist of 3291acres (39%) of nesting, 1352 acres (16%) of brood, 2616 acres (31%) of winter and 1274 acres (15%) of non-habitat. Allotment 915 at best has the potential to have 8124 acres (95%) of nesting and 404 acres (5%) of non-habitat. Limiting factors and threats for sage-grouse habitats in allotment 915 are mostly from western juniper in the south and western portions of the allotment. At this time, western juniper has not greatly altered sagebrush habitats in this allotment, however, small western junipers are established across much of the allotment and will greatly reduce habitats for sage-grouse over the next 20 years if left unchecked. Sage-grouse habitat would greatly benefit from juniper removal within this allotment. No conflicts exist between livestock and sage-grouse within this allotment.

There are no sage-grouse lek sites within allotment 910. The nearest active lek sites are approximately 5 miles to the west and 7 miles to the northeast. Sage-grouse habitats within allotment 910 consist of 6185 acres (69 %) of nesting, 1744 acres (19%) of brood, 0 acres (0%) of winter and 1082 acres (12%) of non-habitat. Allotment 910 at best has the potential to have 7995 acres (89%) of nesting and 1016 acres (11%) of non-habitat. Limiting factors and threats for sage-grouse habitats in allotment 910 are mostly from western juniper. At this time, western juniper has altered sagebrush habitats in only small patches within this allotment; however, small western junipers are well established in some area within the allotment. This will greatly reduce habitats for sage-grouse in these areas over the next 20 years if left unchecked. Sage-grouse habitat would benefit from juniper removal within portions of this allotment. No conflicts exist between livestock and sage-grouse within this allotment.

There are no sage-grouse lek sites within allotment 908. The nearest active lek sites are approximately 5 miles to the west. Sage-grouse habitats within allotment 908 consist of 0 acres (0 %) of nesting, 3749 acres (30%) of brood, 2670 acres (21%) of winter and 6149 acres (49%) of non-habitat. Allotment 908 at best has the potential to have 6004 acres (48%) of nesting, 3506 acres (28%) of brood, and 3060 acres (24%) of non-habitat. Limiting factors and threats for sage-grouse habitats in allotment 908 are mostly from western juniper in the north and central portions of the allotment, and from salt desert shrub communities on the south end of the allotment. At this time, western juniper has not greatly altered sagebrush habitats in this allotment, however, small western junipers are established across much of the northern end of the allotment and on Cougar Mountain. This will greatly reduce habitats for sage-grouse over the next 20 years if left unchecked. Sage-grouse habitat would greatly benefit from juniper removal within portions of this allotment. No conflicts exist between livestock and sage-grouse within this allotment.

There are no sage-grouse lek sites within allotment 903. The nearest active lek sites are approximately 4 miles to the north. There is one inactive lek site approximately ½ mile to the north near the town of Ft. Rock; however this lek site has been inactive for decades. Sage-grouse habitats within allotment 903 consist of 0 acres (0%) of nesting, 25 acres (1%) of brood, 1370 acres (45%) of winter and 1657 acres (54%) of non-habitat. Allotment 903 at best has the potential to have 934 acres (31%) of nesting, 400 acres (13%) of brood, 1509 acres (49%) of winter and 209 acres (7%) of non-habitat. Limiting factors and threats for sage-grouse habitats in allotment 903 are mostly from non-sagebrush communities. These include areas previously seeded to crested wheatgrass, lakebeds, and salt desert shrub communities. Sage-grouse habitat would benefit from reestablishment of sagebrush into crested wheat seedings within the allotment; however it is unclear if sagebrush can be effectively reestablished within these seedings. There are similar habitats on the Vale BLM district that were cleared, seeded to crested wheatgrass, and then heavily grazed. Sagebrush has returned to some of these areas and they are currently being used by sage-grouse despite the non-native understory of crested wheatgrass. No conflicts exist between livestock and sage-grouse within this allotment.

In order for sage-grouse habitats within these allotments to improve, restoration work would be needed to combat the expansion of western juniper. Sagebrush and bitterbrush are still present in many areas where small western juniper has established. Removal of western juniper in these areas while it is still relatively small would maintain sagebrush and bitterbrush within these areas and would greatly increase sage-grouse habitats.

Overall, this standard is being met for wildlife species within these allotments. The expansion of western juniper appears to be the largest limiting factors for sage-grouse and most sagebrush dependant wildlife habitats. Efforts to improve this standard should focus on removal of expanding western juniper and sagebrush restoration.

#### Current Management and Recent Management Changes

Team Members Title

Todd Forbes Wildlife Biologist

Lucile Housley Botanist

Erin McConnell Natural Resource Specialist (NRS), Weeds

Alan Munhall Fisheries Biologist

Theresa Romasko RMS

Robert Hopper Supervisory RMS
David Draheim Supervisory NRS

#### Determination

Existing grazing management practices or levels of grazing use on the Allotments promote achievement of significant progress towards the Oregon Standards and Guidelines for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

() Existing grazing management practices or levels of grazing use on the Allotments will require modification or change prior to the next grazing season to promote achievement of the Oregon Standards and Guidelines for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

Field Manager, Lakeview Resource Area

Date

Vegetation	Acres	% of	SSF A	cres				OAT A	Acres		Acres of Vegetative Community in Seral Stage					
Community		veg									III Sciai Stage					
		_	Stable	Slight	Moderate	Critical	Severe	Down	Static	Up	PNC	Late	Mid	Early		
ARTRT/BRTE Basin big sagebrush/ cheatgrass	7	<1		7				7					7			
ARTRT/ELEL5 Basin big sagebrush/ Bottlebrush squirreltail	1147	57	14	1133				1133	14				1147			
ARTRT/LETR2 Basin big sagebrush/ Basin wildrye	31	2			31			31				31				
Total basin big sagebrush	1185	59	14	1140	31			1171	14			31	1154			
CHNA2/AGCR Gray rabbitbrush/ crested wheatgrass	195	10		195					195		n/a in	troduced	l plant cor	nmunity		
CHNA2/LECI4 Gray rabbitbrush/ Basin wildrye	156	8		156				141	15				156			
CHNA2/STCO4 Gray rabbitbrush/ Needle and threadgrass	59	3		59				59					59			
CHNA2/STOC2 Gray rabbitbrush/ western needlegrass	121	6		103	18			121					121			
Total gray rabbitbrush	531	26		513	18			321	210				336			
CHVI8/AGCR Green rabbitbrush/ crested wheatgrass	291	15		291				291			n/a in	troduced	l plant cor	nmunity		
Total Vegetation	2007	100	14	1944	49			1783	224			31	1490			
Percentages			1%	97%	2%			89%	11%			2%	74%			
Unknown Transition zones, rock outcrop	453															
Total Allotment Acres	2460															

Stable   Stable   Stight   Moderate   Critical   Severe   Down   Static   Up   PNC   Late   Mid   Infants   Infant	Vegetation Community	Total Acres	% of veg	SSF A	cres					Acres of Vegetative Community in Seral Stage					
Basin big sagebrush/ created wheatgrass   211   3%   170   41   211   211   211   221			Comp	Stable	Slight	Moderate	Critical	Severe	Down	Static	Up	PNC	Late	Mid	Early
Basin big sagebrush/ cheatgrass   221   3%   10   211   211   10   221		261	3%			261			n/a intro	duced pla	nt con	ununity		•	
Basin big sagebrush/ squirreltail   281   4%   59   222   281   281   281   281   Basin big sagebrush   Basin wildrye   2735   422   291   281   432   281   460		211	3%		170	41			211					211	
Basin big sagebrush   Basin wildrye   Totals basin big sagebrush   974   13%   239   735   422   291   281   432     ARTRV/ELL5   Mountain big sagebrush / squirreltail   460   6%   460   460   460   460     ARTRV/FEID   Mountain big sagebrush / Idaho fescue   631   8%   397   234   234   397   631     ARTRV/STOC2   337   17%   19   1318   1318   19   1337     Totals Mountain big sagebrush / western needlegrass   1337   17%   19   1318   1778   253   397   1091   1337     CHNA2/AGCR Gray rabbitbrush / crested wheatgrass   586   8%   586   7/a introduced plant community     CHNA2/CLEL5   Gray rabbitbrush / squirreltail   263   3%   263   263   263     CHNA2/CRHY Gray rabbitbrush / Indian ricegrass   145   2%   145   145     CHNA2/STOC2   678   810   10%   810   810   810     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   955   263   955     Totals gray rabbitbrush   1804   23%   1659   145   263   263   263   263   263   263   26		221	3%		10	211			211	10				221	
ARTRV/ELEL5 Mountain big sagebrush/ squirreliail  ARTRV/EELD Mountain big sagebrush/ Idaho fescue  631 8% 397 234  ARTRV/STOC2 Mountain big sagebrush/ Western meedlegrass  Totals Mountain big sagebrush 2428 31% 416 694 1318  1318 19 1337  1798 19 1337  1798 253 397 1091 1337  CHNA2/AGCR Gray rabbitbrush/ crested wheatgrass  CHNA2/ELEL5 Gray rabbitbrush/ squirreltail  CHNA2/CRHY Gray rabbitbrush/ indian ricegrass  145 296 145 145  CHNA2/CGR Gray rabbitbrush/ western needlegrass  810 10% 810  Totals gray rabbitbrush  Totals gray rabbitbrush  1804 23% 1659 145 263 955  263 955	Basin big sagebrush/ Basin wildrye	281	4%		59	222				281			281		
Mountain big sagebrush/ squirreltail   Mountain big sagebrush/ Idaho fescue   G31   8%   397   234     234   397   G31	Totals basin big sagebrush	974	13%		239	735			422	291			281	432	
ARTRV/STOC2	ARTRV/ELEL5 Moumtain big sagebrush/ squirreItail	460	6%		460				460				460		
Mountain big sagebrush/ western   needlegrass   170		631	8%	397	234					234	397		631		
CHNA2/AGCR   Gray rabbitbrush/ crested wheatgrass   586   8%   586     586	ARTRV/STOC2 Mountain big sagebrush/ western needlegrass	1337	17%	19		1318			1318	19				1337	
CHNA2/ELEL5	Totals Mountain big sagebrush	2428	31%	416	694	1318			17 <b>7</b> 8	253	397		1091	1337	
Gray rabbitbrush/ squirreltail         263         376         263         203         2		586	8%		586				n/a introduced plant community						
Gray rabbitbrush/ Indian ricegrass       143       143         CHNA2/STOC2       810       10%       810         Gray rabbitbrush/ western needlegrass       1804       23%       1659       145       263       955       263       955		263	3%		263				263				263		
Gray rabbitbrush/ western needlegrass  Totals gray rabbitbrush  1804  23%  1659  145  263  955  263  955		145	2%			145				145				145	
267 267 733		810	10%		810	. 100				810				810	
CUNACII PCIA	Totals gray rabbithrush	1804	23%		1659	145			263	955			263	955	
CHNAC/LEC14 Rubber rabbitbrush/ basin wildrye 657 9% 657 657	CHNAC/LECI4	657	9%	-	657					657				657	

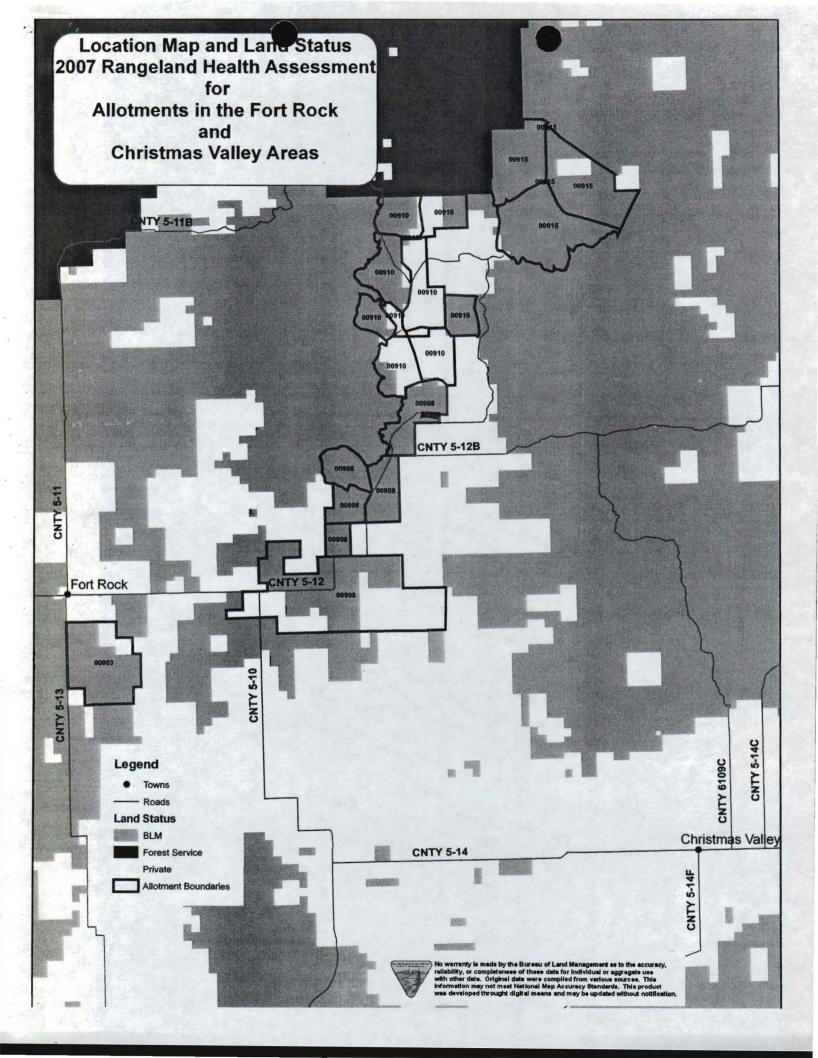
Cougar Mountain Allotment #908 (continued)	Total Acres	% of veg	SSF					OAT			Seral St	f Vegetativ age	e Commu	
Vegetation Community			Stable	Slight	Moderate	Critical	Severe	Down	Static	Up	PNC	Late	Mid	Early
CHV18/LEC14 Green rabbitbrush/ basin wildrye	74	1%		74			-		74				74	
CHV18/LETR5 Green rabbitbrush/ creeping wildrye	75	1%		75				75					75	
Totals green rabbitbrush	149	2%		149				75	74	1			149	
JUOC/ARTRT/BRTE Western jumiper/ basin big sagebrush/ cheatgrass	38	<1%		38				38				38		
JUOC/ARTRV/FEID Western juniper/ mountain big sagebrush/ Idaho fescue	398	5%		398					398			398		
JUOC/CHNA2/ELEL5 Western juniper/gray rabbitbrush/ squirreltail	159	2%		159					159				159	
JUOC/CHNA2/PSSPS Western juniper/ gray rabbitbrush/ bluebunch wheatgrass	537	7%		91	446				446	91		446	91	
Totals western juniper	1132	15%		686	446			38	1003	91		882	250	
/LEC14/CHAN2 Basin wildrye/ soap plant	313	4%		313					313		1	313		
SAVE4/BRTE Black greasewood/cheatgrass	300	4%		300				300				300		
Totals vegetation	7757		416	4697	2644			2876	3546	488		3130	3780	
Total Percentages	_		5%	61%	34%			42%	51%	7%		45%	55%	-
Unknown, transition zones, rock outcrop	525				-					-				-

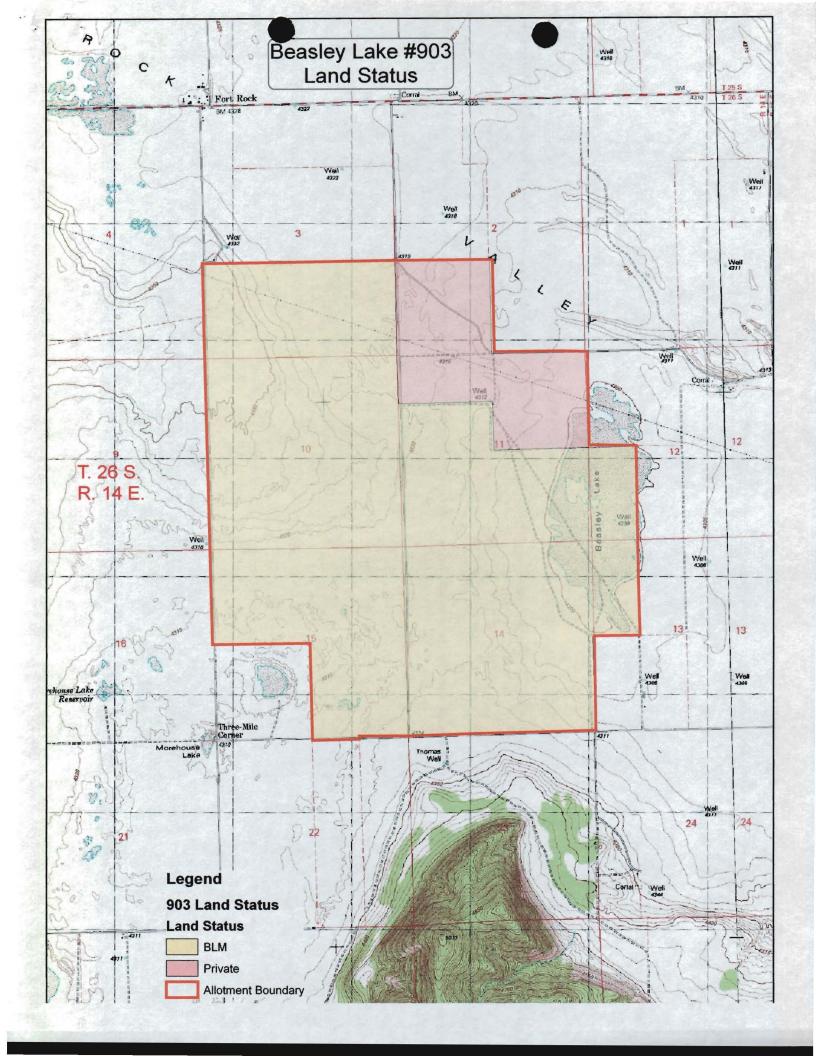
1460 235 228	veg comp  39%  6%	Stable 785	Slight 494	Moderate 181	Critical	Severe	Down	Static	Up	Comm	unity in	Seral S	·
235	39%				Critical	Severe	Down	Static	Up	PNC	Late	Mid	Early
235	6%	785	494	181							1		1
				Ī			:	223	1237		1460		
228	6%			235				235				235	
			228					228				228	
1923	51%	785	722	416				686	1273		1460	463	
84	2		84					84				d plant	
393	24		764	129				508	385		893		
546	14	21	525					63	483		84	462	
1439	38%	21%	1289	129				571	868		977	462	
31	2	18	63					81			81		
254	6		196	58				254		254			
335	9%	18	259	58				335		254	81		
781	86	824	2354	603				1676	2105	254	2518	925	
		22%	62%	16%				44%	56%	7%	67%	24%	
503													
1384													
39.554 54 560	93 46 439 1 1 54 85 781	93 24 46 14 439 38% 1 2 54 6 35 9% 781 86	93 24 46 14 21 439 38% 21% 18 54 6 54 6 824 22% 03	93       24       764         46       14       21       525         439       38%       21%       1289         1       2       18       63         54       6       196         35       9%       18       259         781       86       824       2354         03       22%       62%	93       24       764       129         46       14       21       525         439       38%       21%       1289       129         1       2       18       63         54       6       196       58         35       9%       18       259       58         781       86       824       2354       603         03       22%       62%       16%	93       24       764       129         46       14       21       525         439       38%       21%       1289       129         1       2       18       63         54       6       196       58         35       9%       18       259       58         781       86       824       2354       603         22%       62%       16%	93       24       764       129         46       14       21       525         439       38%       21%       1289       129         1       2       18       63         54       6       196       58         35       9%       18       259       58         781       86       824       2354       603         22%       62%       16%	93       24       764       129         46       14       21       525         439       38%       21%       1289       129         1       2       18       63         54       6       196       58         85       9%       18       259       58         781       86       824       2354       603         03       22%       62%       16%	93       24       764       129       508         46       14       21       525       63         439       38%       21%       1289       129       571         1       2       18       63       81         54       6       196       58       254         35       9%       18       259       58       335         781       86       824       2354       603       1676         03       16%       44%	93       24       764       129       508       385         46       14       21       525       63       483         439       38%       21%       1289       129       571       868         1       2       18       63       81       81         54       6       196       58       254       335         781       86       824       2354       603       1676       2105         22%       62%       16%       44%       56%			

Vegetation	Total	% of	SSF A	cres				OAT A	cres			of Veget		
Community	Acres	veg comp									Comm	unity in	Seral St	age
			Stable	Slight	Moderate	Critical	Severe	Down	Static	Up	PNC	Late	Mid	Early
ARAR8/FEID Low sagebrush/ Idaho fescue	112	2%		112					112			112		
ARTRV/FEID Mountain big sagebrush/ Idaho fescue	3723	55%		3723					3607	116	740	1831	1152	
ARTRV/CAREX Mountain big sagebrush/ sedge	63	1%		63					63				63	
ARTRV/PSSPS Mountain big sagebrush/ bluebunch wheatgrass	154	2%		154	-				154				154	
Total mountain big sagebrush	3940	58%		3940					3824	116	740	1831	1369	
CHVIS2/FEID Green Rabbitbrush/ Idaho fescue	289	4%			289				289			289		
JUOC/ARTRV/FEID Western juniper/ mountain big sagebrush/ Idaho fescue	1802	27%		1222	580				1660	142	136	1666		
JUOC/ARTRV/PSSPS Western juniper/ mountain big sagebrush/ bluebunch wheatgrass	260	4%		260					195	65		111	149	
Total western juniper	2062	30		1482	580				1855	207	136	1777	149	
PIPO/ARPA6/FEID Ponderosa Pine/ Greenleaf Manzanita/ Idaho fescue	149	2%		149						149			149	
PIPO/ARTRV/FEID Ponderosa pine/ mountain big sagebrush/ Idaho fescue	232	3%		232					96	136		198	34	
Total ponderosa pine	381	6%		381			-		96	285		198	183	
Total	8230			5915	869				6176	608	876	4207	1701	
Total Percentages				87%	13%				91%	9%	13%	62%	25%	
Unknown, transition zones, rock outcrop	1446													
Total Acres	6784													

Vegetation Community	Acres	% of Veg Comp	SSF Acr	es				OAT Acı	es		Acres of Vegetative Community in Seral Stage				
			Stable	Slight	Moderate	Critical	Severe	Down	Static	Up	PNC	Late	Mid	Early	
ARTRT/; JUOC/ARTRT & ARTRT/ELEL5 Basin big sagebrush/ & basin big sagebrush/ squirreltail	560	4%		348	212			294	266		75		485		
ARTRT/AGCR & CHVI8/AGCR & CHNA2/AGCR Various crested wheatgrass	632	4%	-	632				n/a intro	duced plant	commu	nity				
RT/BRTE; ARTRV/BRTE; A2/BRTE; CHVI8/BRTE Various overstory/ cheatgrass	794	6%		521	273			51	743			:	732	44	
ARTRT/STCO4; CHVI8/STCO4; JUOC/ARTRT/STCO4 Various overstory / needle and thread grass	856	6%		834	22				836	20		816	40		
ARTRT/STTH2 Basin big sagebrush/ Thurber needlegrass	357	2%		144	213				357			26	331		
ARTRV/FEID & JUOC/ARTRV/FEID Mountain big sagebrush/ Idaho fescue & western juniper	1618	11%		1292	326				1229	389		1024	577		
ARTRV/STTH2 & JUOC/ARTRV/STTH2 Mountain big sagebrush/ Thurber needlegrass & western juniper	1099	8%		118	981			167	932			468	631		
CHNA2/ELEL5 Gray rabbitbrush/ squirreltail	885	6%		387	498			387	498				885		
IA2/PSSPS Gray rabbitbrush/ bluebunch wheatgrass	187	1%			187					187		187			
CHVI8/STTH2 Green rabbitbrush/ Thurber needlegrass	156	1%		156				156						156	
JUOC/ARAR8/FEID Western juniper/ low sagebrush/ Idaho fescue	82			82						82		82			
JUOC/ARTRV/PSSPS Western juniper/ mountain big sagebrush/ bluebunch wheatgrass	252	2%		252						252		252			
JUOC/CHNA2/BRTE	1200	9%			1200				1200				1200		
JUOC/FEID	5670	40%			5670				536	5134					
Total basin big sagebrush	1332			900	432			724	563			464	823	+	

Vegetation Community	Acres	% of Veg Comp	SSF							Acres of Vegetative Community in Seral Stage				
			Stable	Slight	Moderate	Critical	Severe	Down	Static	UP	PNC	Late	Mid	Early
Total mountain big sagebrush	347				347				347			27	266	54
Total gray rabbitbrush	2079			1460	619			387	1692			121	1923	
Total green rabbitbruash	277		_	277				257		20		_	26	194
Total juniper	10319			2080	8239		_	170	9524	625	75	7624	2620	
Total vegetation	14348	100%		4766	9582			761	6331	6064	75	2855	4396	200
Percentages				33%	67%			8%	46%	42%	1%	20%	74%	1%
Unknown	2893													





# Beasley Lake #903 **Dominant Vegetation** and Ecological Status ARTRT/ELEL5 ARTRT/ELEL5 ARTRT/ELEL5 ARTRT/ELEL5 CHVI8/AGCR CHVI8/AGCR ARTRT/BRTE ARTRT/BRTE SAVE4/DISPS2SAVE4/DISPS2 CHVI8/AGCR CHVI8/AGCR CHNA2/AGCR CHNA2/AGCR ARTRT/ELEL5 ARTRT/ELEL5 CHNACILE CI4 ARTRT/LETR5 ARTRT/LETR5 ARTRT/LETR5 ARTRT/LETR5

CHNA2/STOC2 CHNA2/STOC2

### Legend

903

**Ecological Status** 

Introduced Plant Community

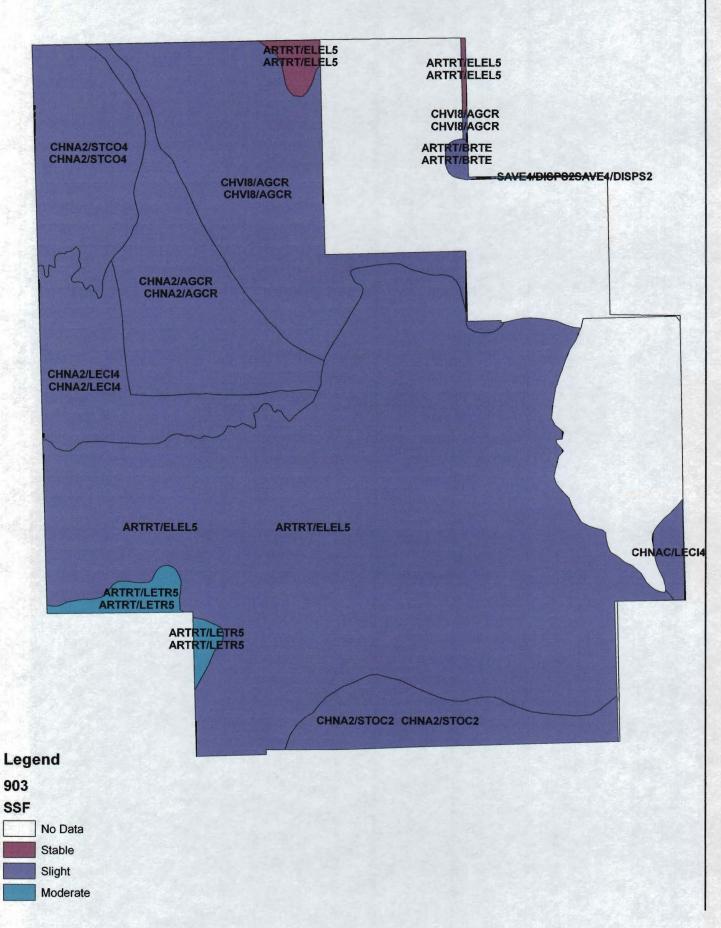
CHNA2/STCO4 CHNA2/STCO4

CHNA2/LECI4 CHNA2/LECI4

Mid

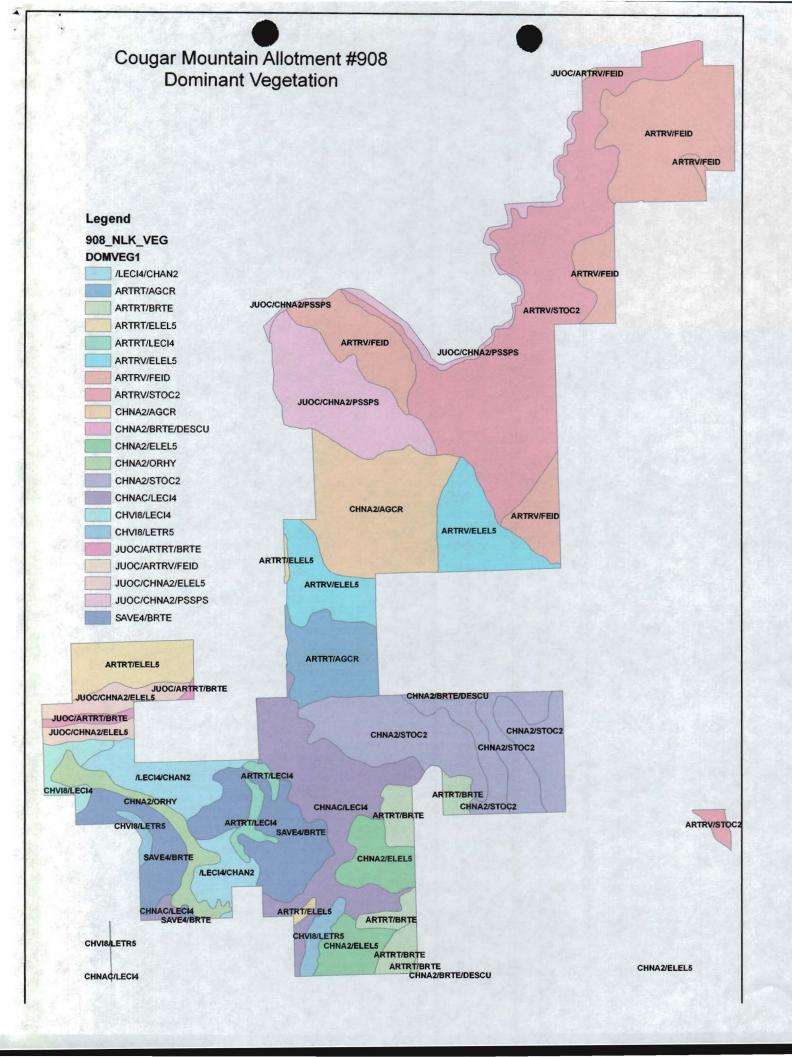
Late

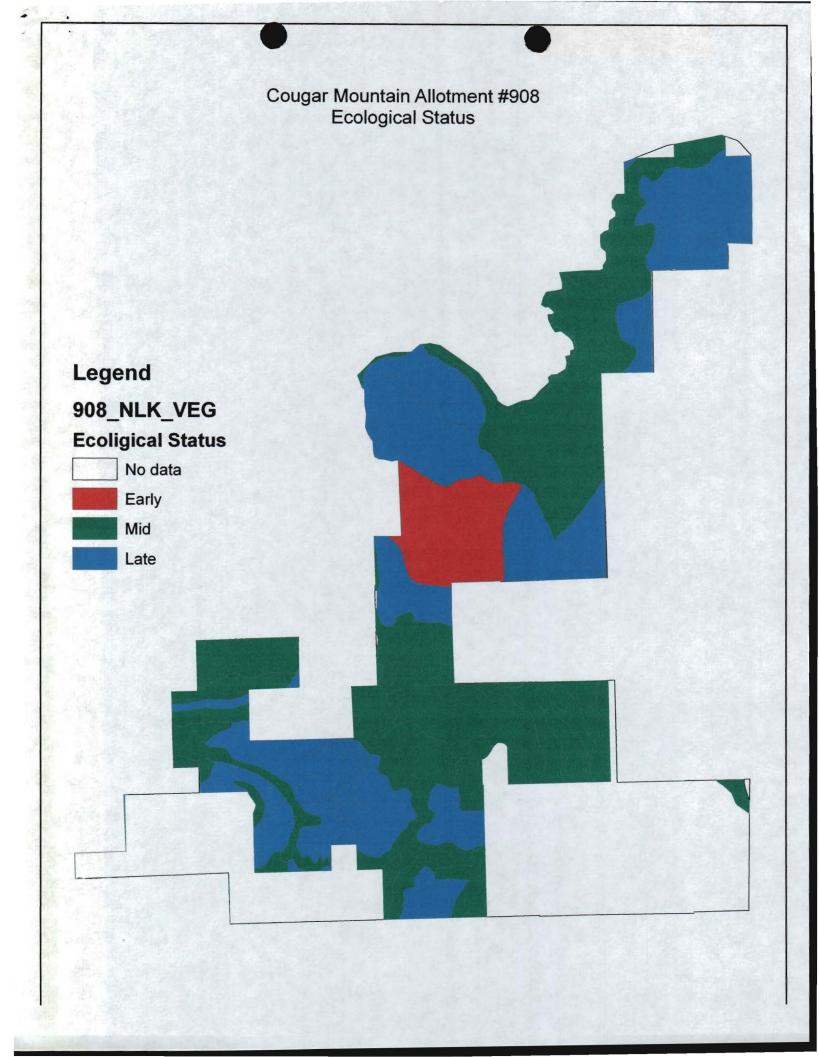
# Beasley Lake #903 Soil Surface Factor (SSF)

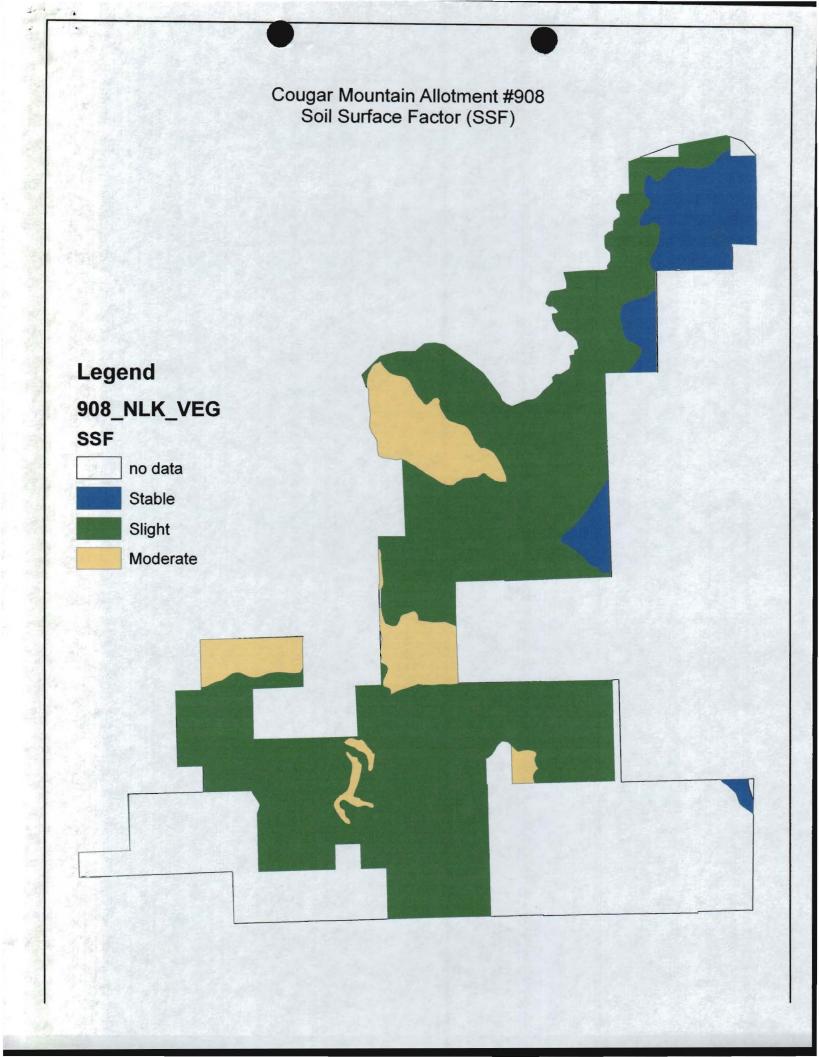


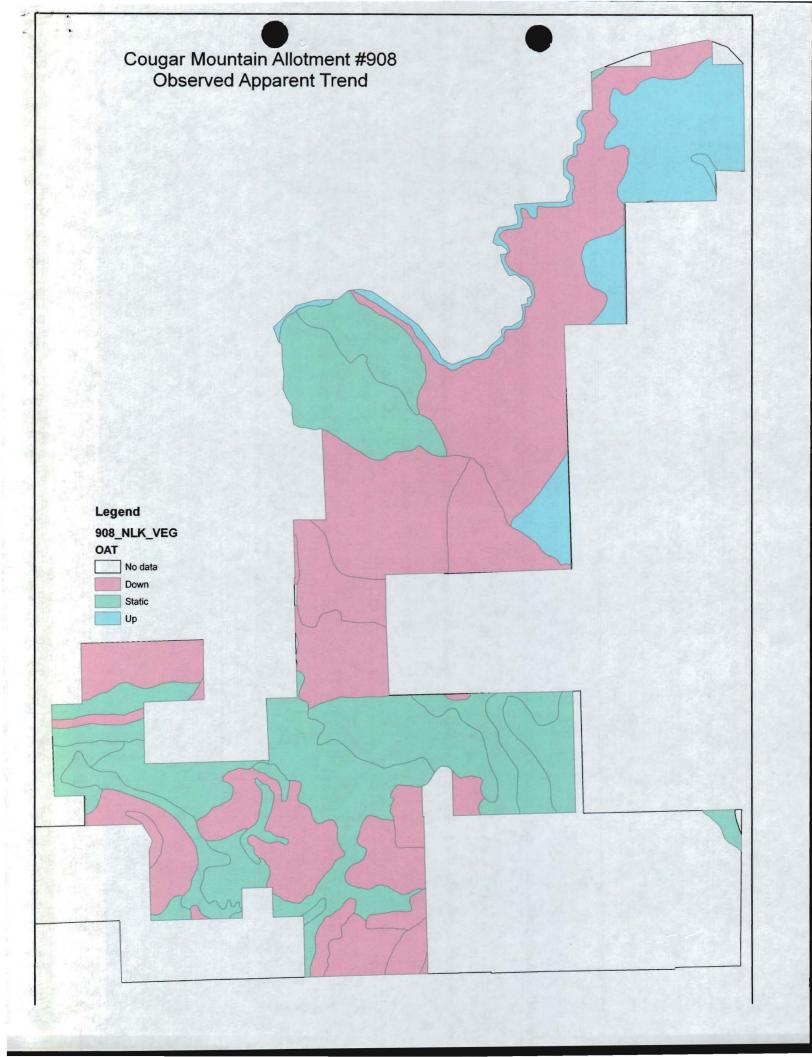
# Beasley Lake #903 Observed Apparent Trend (OAT) From ESI Data ARTRT/ELEL5 ARTRT/ELEL5 ARTRT ELEL5 ARTRT ELEL5 CHVI8 AGCR CHVI8 AGCR ARTRT/BRTE ARTRT/BRTE CHNA2/STCO4 CHNA2/STCO4 SAVE4/DISPS2SAVE4/DISPS2 CHVI8/AGCR CHVI8/AGCR CHNA2/AGCR CHNA2/AGCR CHNA2/LECI4 CHNA2/LECI4 ARTRT/ELEL5 ARTRT/ELEL5 CHNAC/LECI4 ARTRT/LETR5 ARTRT/LETR5 ARTRT/LETR5 ARTRT/LETR5 CHNA2/STOC2 CHNA2/STOC2 Legend 903 OAT No Data Down Static

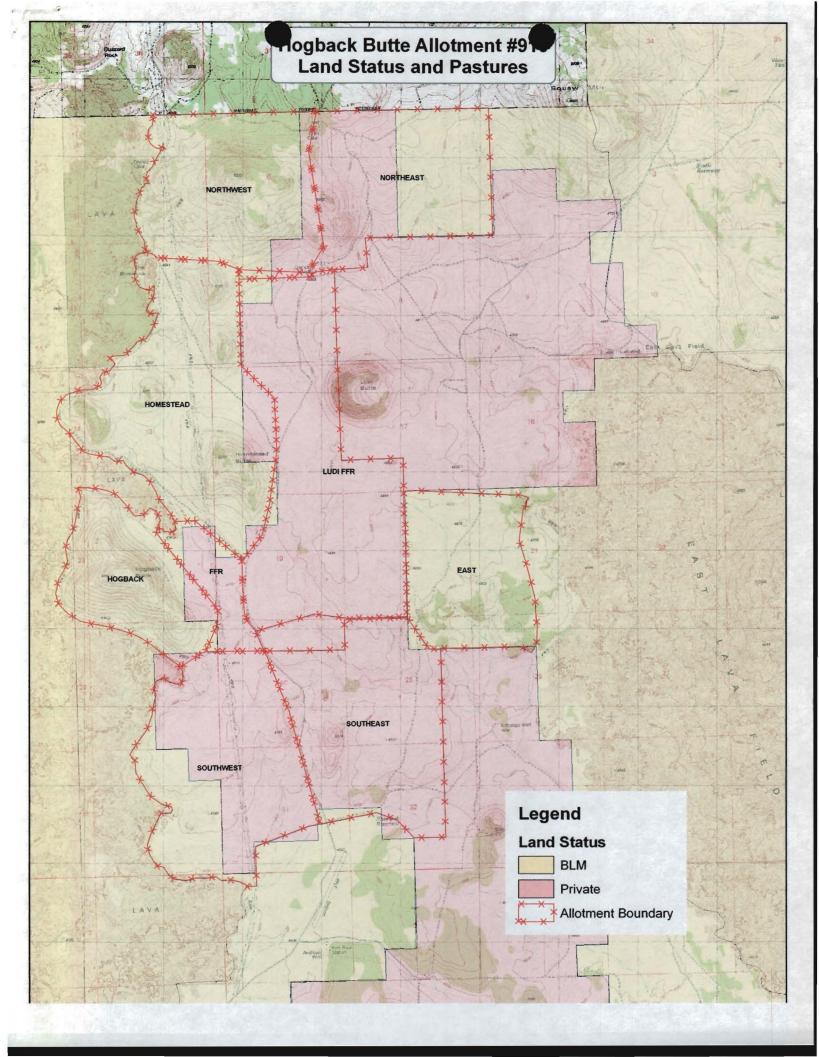
COUGAR MOUNTAIN ALLOTMENT #908 ANDREWS PASTURE Legend **Land Status Land Status** NORTH COUGAR PASTURE PRIVATE **BLM** NORTH PASTURE (GRAVEL PIT) 908 SOUTH COUGAR PASTURE CRESTED WHEATGRASS PASTURE (WEST JULIAN) SOUTH NATIVE PASTURE

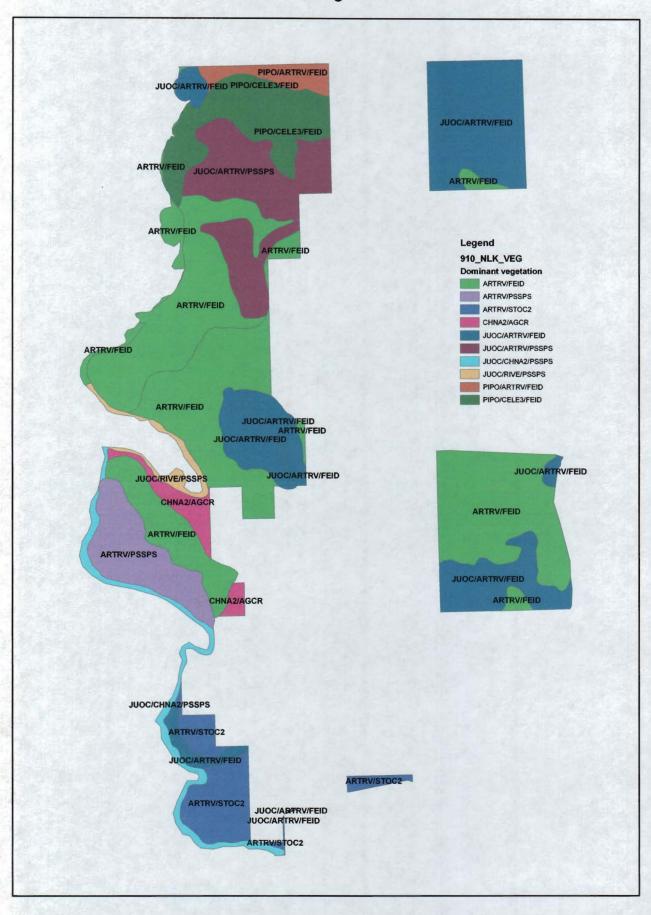




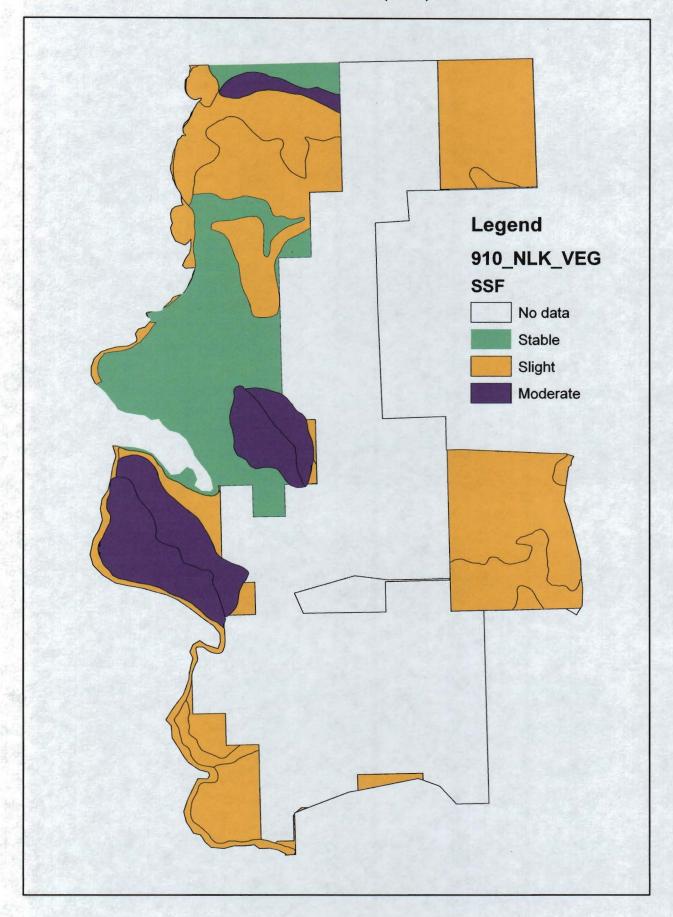


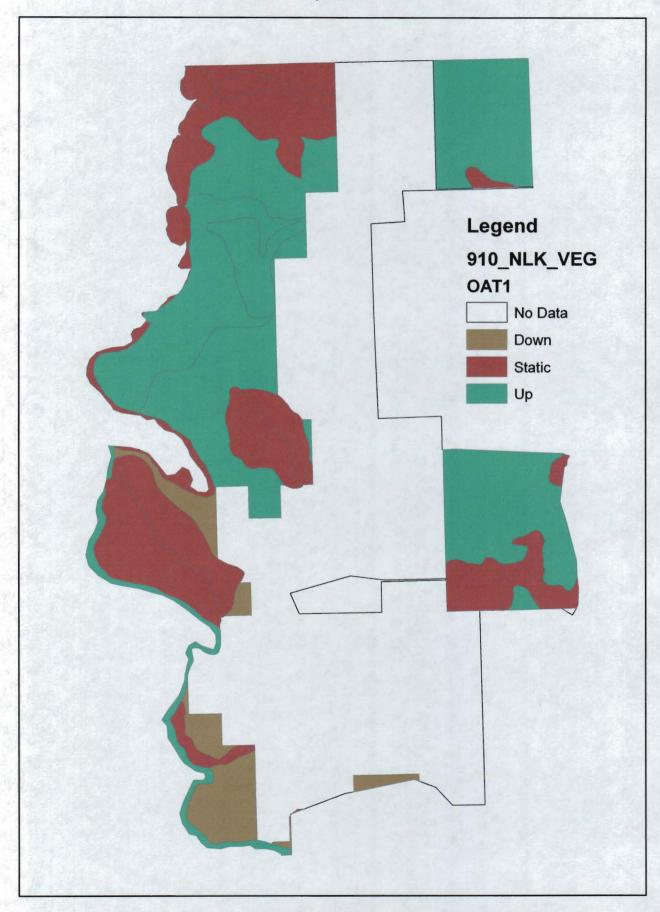




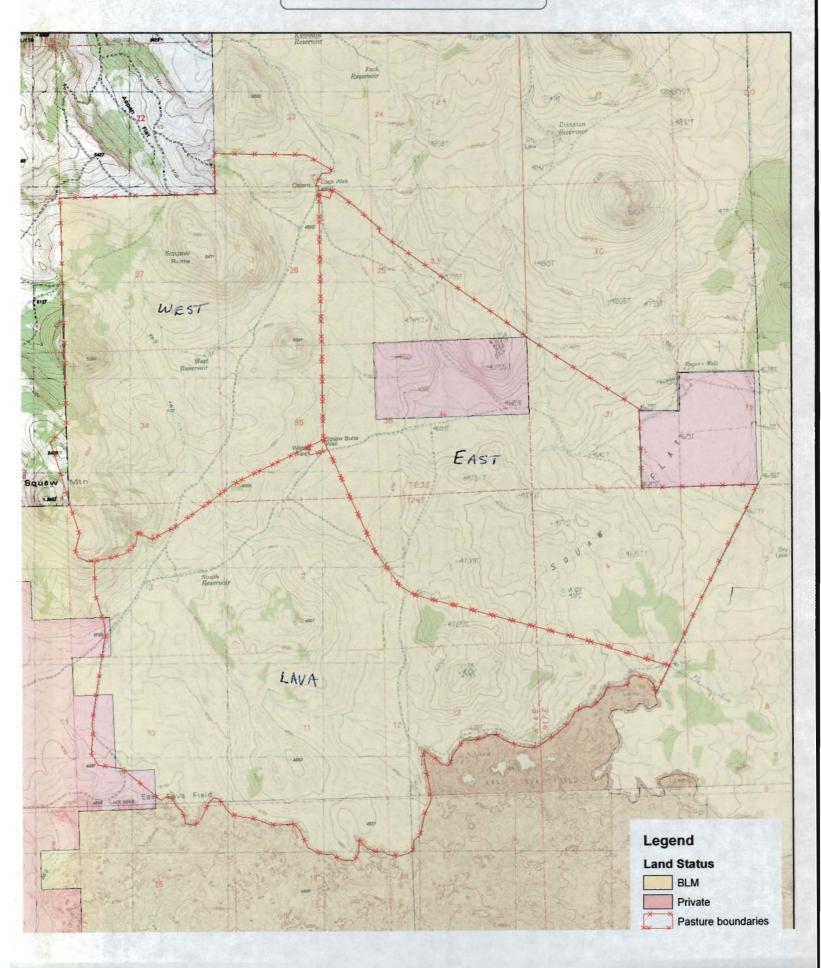




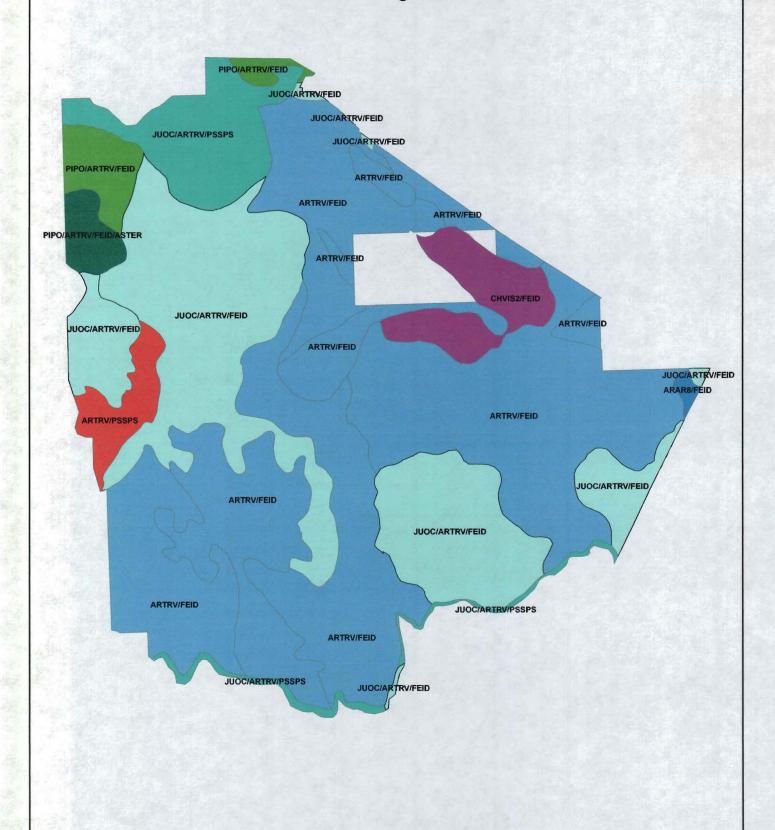


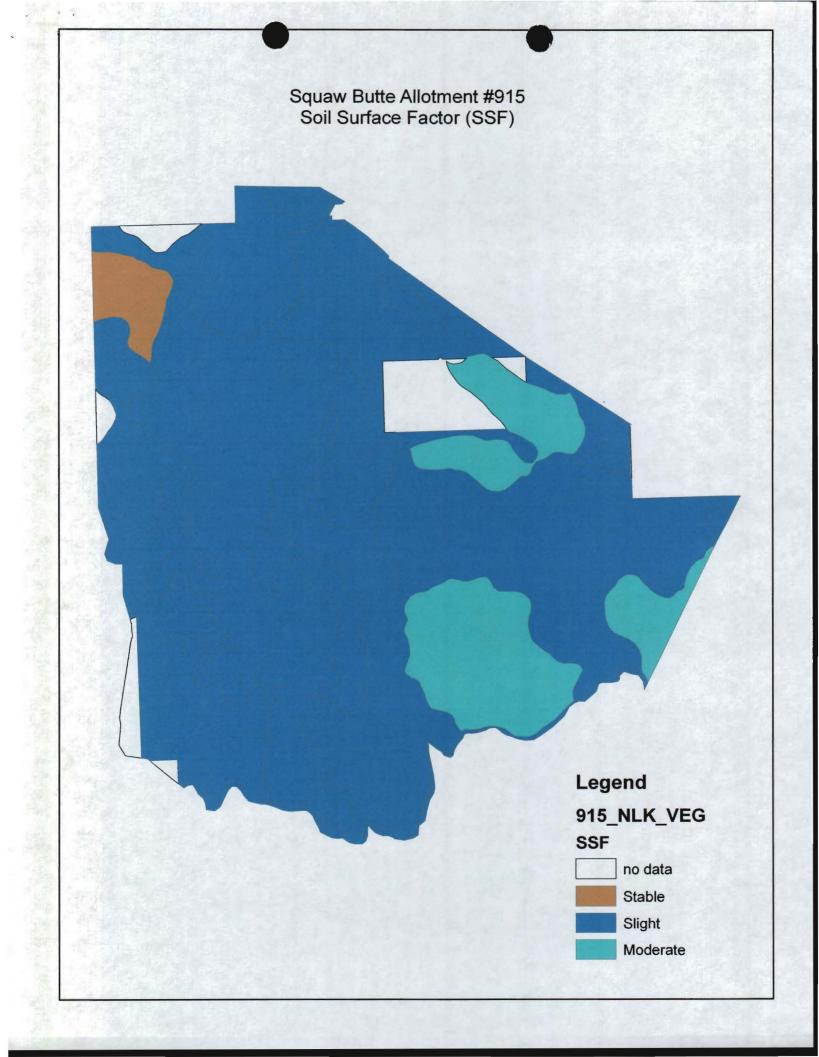


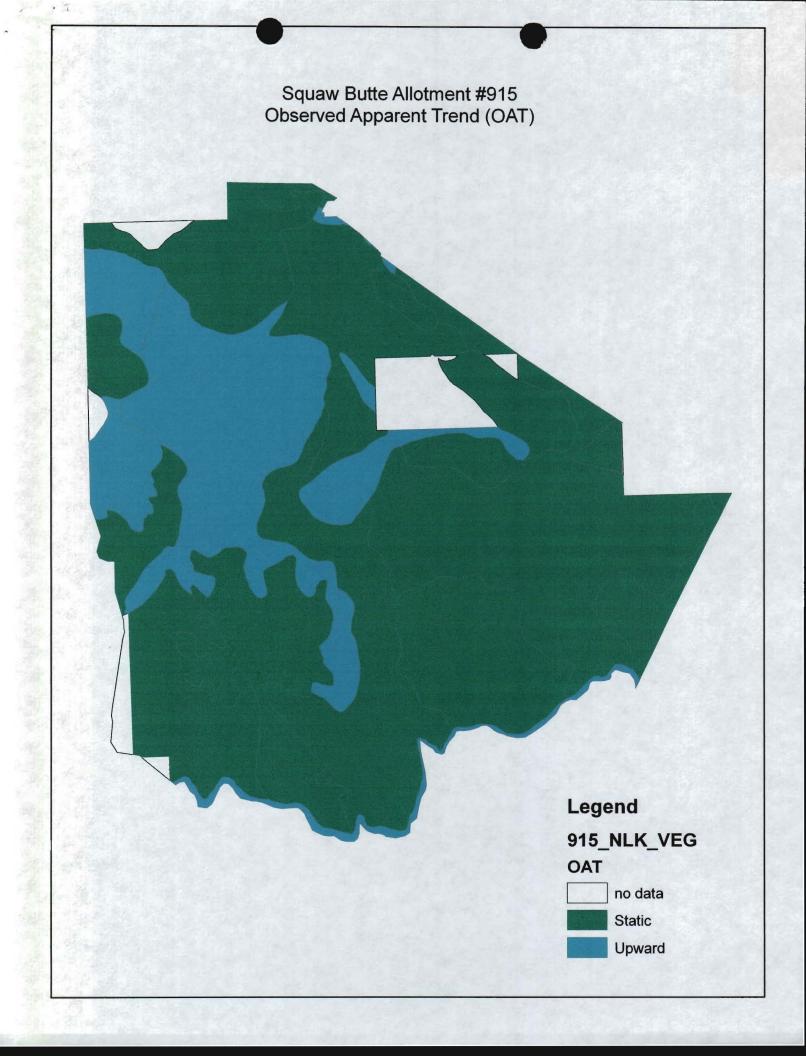
# Squaw Butte Allotment #91 Land Status and Pastures

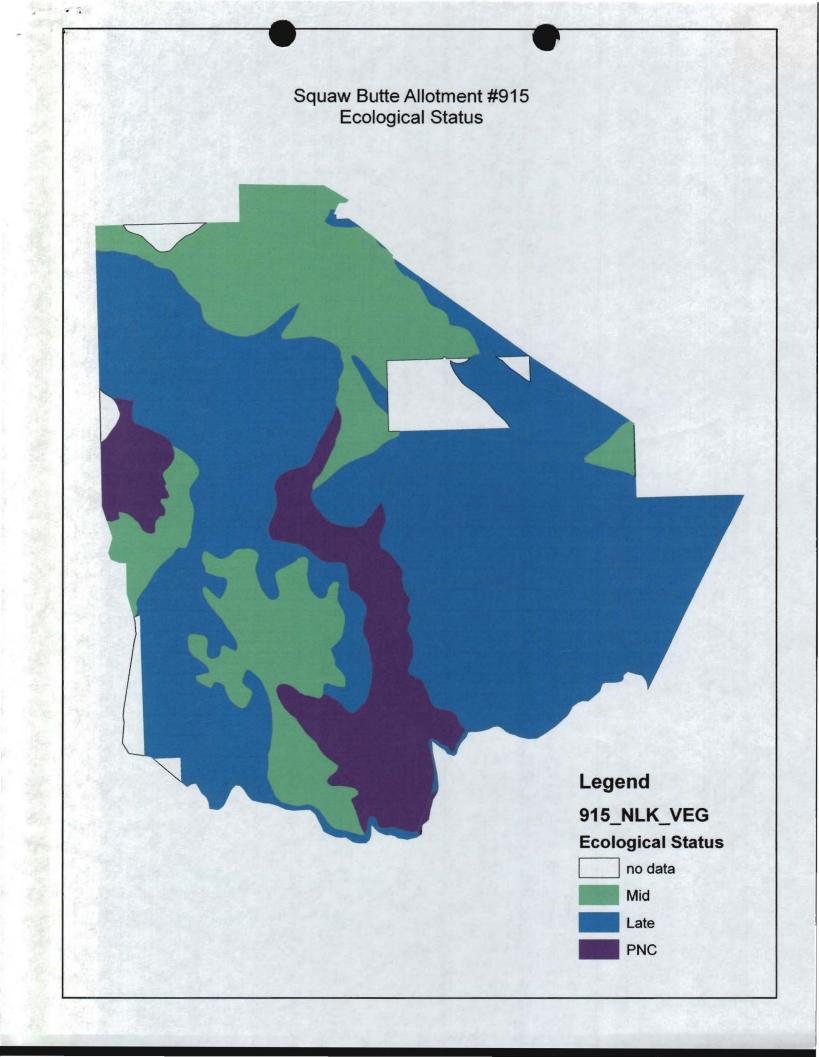


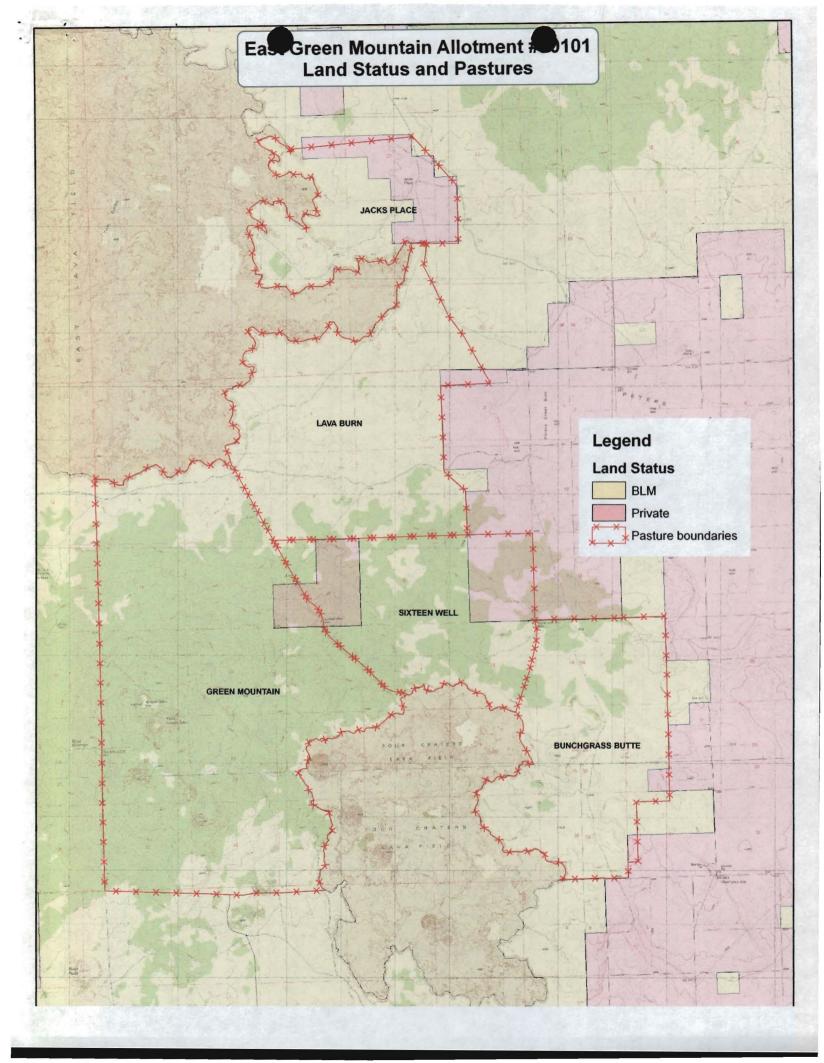
## Squaw Butte Allotment #915 Dominant Vegetation











# East Green Mountain Allotment #10101 Ecological Status Legend 10101\_NLK\_VEG **Ecological Status** Early Mid late PNC

#### East Green Mountain Allotment #10101 **Dominant Vegetation** Legend 10101\_NLK\_VEG **Dominant Vegetation** ARTRT/ ARTRT/AGCR ARTRV/FEID ARTRT/BRTE JUOC/ARTRV/FEID ARTRT/ELEL5 JUOC/ARTRV/PSSPS ARTRT/STCO4 ARTRT/ELELS ARTRT/STTH2 JUOC/ARTRV/FEID ARTRV/BRTE JUOC/ARTRV/PSSPS ARTRV/FEID ARTRV/STTH2 CHNA2/AGCR CHNA2/BRTE ARTRT/STTH2 CHNA2/ELEL5 CHNA2/PSSPS JUOC/ARTRY/PSSPS CHVI8/AGCR CHVI8/BRTE CHNA2/BRTE RTRV/BRTE CHVI8/STC04 ARTRT/STTH2 CHVI8/STTH2 CHNA2/AGCR JUOC//FEID JUOC/ARTRT JUOC/ARTRT/STC04 JUOC/ARTRV/FEID JUOC/CHNA2/BRTE JUOC/ARTRV/PSSPS JUOC/ARTRV/STTH2 JUOC/CHNA2/BRTE JUOC/ARTRV/FEID JUOC//FEID JUOC//FEID JUOC/ARTRV/STTH2 JUOC/ARTRV/FEID CHNA2/ELEL5 ARTRT/ELELS JUOC//FEID JUOC/ARTRV/STTH2 CHNA2/ELEL5 CHNA2/AGCR ARTRV/STTH2 JUOC/ARTRT CHVI8/STTH2 CHNA2/PSSPSARTRT/AGCR CHVI8/AGCR ARTRT/STTH2 JUOC/ARTRT JUOC/ARTRT/STC04 ARTRT JUOC/ARTRV/FEID JUOCIARTRT CHVI8/STC04

## East Green Mountain Allotment #10101 Observed Apparent Trend

