

Rangeland Health Standards Assessment

Allotment #914 West Green Mountain

Allotment Overview:

Allotment boundaries: refer to attached map.

7.5 Minute Topographic Maps: Crack in the Ground, Lane Lake, Hogback Butte, Jacks Place.

AUMs of Authorized Use: 1392 AUMs

Permitted Season: 4/15-11/15

Allotment Category: M

Total Acres: 21,656 acres BLM, 4,246 acres Private

The allotment area lies at an elevation of 4500-4700 feet with Green Mountain to the east, lava beds to the north and the Fort Rock-Christmas Valley floor to the south and west. Soils are sandy loam; vegetation is characterized by scattered-heavy juniper overstory with big sagebrush and rabbitbrush in the understory. Needlegrasses are the characteristic grasses on these sandy soils with Thurber's needlegrass, Columbia needlegrass, and Needleandthread being common. Other abundant grasses are Idaho fescue and squirreltail.

Grazing Management:

The West Green Mountain allotment is managed under the West Green Mountain Allotment Management Plan (AMP) signed in 1984. The grazing system is a rest rotation system utilizing 6 separate pastures on the BLM. These six pastures allow the allotment to be separated into approximately two equal grazing blocks- one block grazed one year while the other is rested, and then rotated the following year.

Summary of Monitoring Data:

Results of examination of photo plot data from 1984 to 2003 (most recent year photo plots were taken) are as follows:

All photo points show a significant increase in woody species- sagebrush and juniper. Rabbit brush has significantly decreased in all photo points in the last 20 years and been replaced by sagebrush. All 3x3 photo points exhibit cycles of key species coming and going in the plant community. Monitoring data highlights the ongoing transition of the plant communities in the West Green Mountain Allotment from a Phase II juniper woodland (trees are codominant with shrubs and herbs and all three vegetation layers influencing ecological processes on the site) to a Phase III juniper woodland (trees are dominant vegetation and the primary plant layer influencing ecological processes on the site).

Frequency data conducted on monitoring sites WG-2, WG-3, and WG-4 from 1987 to 2003 all show a decrease in key species (Key species are Feid, Sihy, and Stipa spp.) and an increase in the frequency of sagebrush and rabbitbrush (increase of 10-31% in these plant communities).

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

Meets Standard.

Indicators used to evaluate this standard are Soil Surface Factor (SSF), which documents erosion class and soil susceptibility to accelerated erosion; and plant community composition, which indicates the root capacity of the soil profile.

Soil Surface Factor is used to determine soil erosion condition. Soil Surface Factors used in the rating process are: soil movement, surface litter, surface rock, pedestalling, flow patterns, rills and gullies. Each factor is allotted points according to erosion conditions and the points totaled. Erosion condition classes are assigned based on a 0-100 scale. The following classes were used:

Erosion condition class	Points
Stable	0-20
Slight	21-40
Moderate	41-60
Critical	61-80
Severe	81-100

Refer to Appendix A for tables summarizing the available Ecological Site Inventory (ESI) data rating the SSF by acre within the allotment.

The second factor used to evaluate Standard one is plant community composition, which indicates root occupancy of the soil profile (Please refer to Standard 5 for a list of native plant species observed on the allotment tour).

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

Meets standard.

No areas classified as riparian-wetland areas occur in Allotment #914. Water sources are from wells and waterholes.

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.

Meets standard.

The Ecological Site Inventory for North Lake County (ESI 1998 and 2000; refer to Appendix A) found that 81% of the allotment is in mid to late seral stage. Observed Apparent Trend indicated that 61% of the allotment is in static or upward trend with 39% of the allotment being in a downward trend. The areas rated in downward trend consist of western juniper/cheatgrass or sagebrush/cheatgrass primarily in the lower half of the Gerkin pasture. These plant communities were heavily grazed in the past prior to implementation of the 1984 AMP which incorporated a rest rotation system within the allotment. The current rest rotation management system should improve trend over time in these plant communities. Since cheatgrass is a significant component of these plant communities, any wildfires should be aggressively reseeded with a mixture of native and non-native plant species as abundance of existing native plant species are generally not adequate to revegetate this area naturally.

Also of concern is the expansion of western juniper (previously mentioned in the Summary of Monitoring Data section) through all of the West Green Mountain Allotment. Juniper is expanding into areas previously not occupied by juniper and increasing in density within existing stands. Juniper control options would include cutting and burning of slash or making trees available for firewood. Much of the needed juniper control would be targeted at the younger age of junipers 100 years and younger. Reseeding of treatment sites would also be considered in areas lacking sufficient native plant cover.

Also noted during the summer of 2004 and spring of 2005 among the sagebrush community in the south end of the Gerkin pasture and the adjoining Crack in the Ground Allotment is the significant sagebrush mortality among the older more decadent plants. This mortality is assumed to be a result of drought stress and is a natural process during extended drought.

Wildlife report:

This area supports healthy diverse wildlife populations that are appropriate for the type of habitats available within this allotment. The majority of habitat within this allotment is in good ecological condition. Much is in mid to late seral stages of western juniper and are not heavily infested with non-native species or noxious weeds. This standard is currently being met from the aspect of wildlife populations and diversity.

Weeds report :

No noxious weeds were noted on the rangeland health assessment tour on November 16, 2004, and there are no confirmed noxious weed reports within the allotment.

Botanist report:

This allotment has a variety of plant communities, which are adapted to the pumiceous, sandy, porous soils. This is especially true in locations on the southern end of the allotment where Indian rice grass and several *Stipa* grass species are prevalent. After several years of drought, some of the shrub communities are dying; however, these areas are limited and rest/rotation grazing does not seem to have an effect on the viability of the shrubs. In the past there have been wildland fires in the allotment; past seedings were not

successful, but recent rehab seedings has been very effective, and grasses and forbs are coming into the affected areas. The increase of wildlife populations, elk, deer and sheep, does not appear to have a negative effect on the plant populations.

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

Meets standard.

This standard is not applicable to this allotment because there are no perennial stream areas that would be guided by State water quality standards.

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.

Meets standard.

Wildlife report:

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

No nesting habitat exists within these allotments for the peregrine falcon, or bald eagle although it is suspected that they may be occasional visitors to the area. There are no resource conflicts for peregrine falcons or bald eagles.

Habitat is present for ferruginous hawk, burrowing owl and pygmy rabbits. No specific inventories have been conducted to date for these species within the allotment, however there are sightings within the surrounding area and they are suspected to occur within the allotment. There are no resource conflicts for these species.

There are no known roost sites within this allotment for Townsend's big-eared bats, however it is likely that they occur in caves scattered throughout the surrounding area and forage within the allotment. There are no resource conflicts for this species.

This allotment is within mule deer winter range. Potential conflicts exist within this allotment due to the timing of fall grazing and the presence of bitterbrush. Bitterbrush and big sagebrush are key forage species for wintering mule deer. Although timing of grazing is a potential conflict, shrub abundance and browse use appears to be somewhat

stable at this time. Limiting factors for browse are due to increased densities of western juniper throughout much of the allotment. Within the Lakeview RMP, livestock grazing use on browse species is not allowed to exceed 15% of the current years growth for more than 1 out of every three years. This is probably sufficient to maintain current bitterbrush densities within the allotment area.

Pronghorn antelope are occasional visitors to the allotment, but are not found in great numbers within the allotment. This is probably also due to the densities of western juniper. No major resource conflicts exist for pronghorn.

Elk occur year round throughout the allotment and adjacent public and private lands in moderate numbers. 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 the allotment fluctuate greatly over the year and between years. No major conflicts exist between elk and livestock at this time.

Sage-grouse habitat exists within the allotment, but it is only a small portion of the allotment and it is heavily fragmented due to western juniper densities. There are no known lek sites within the allotment or the surrounding areas. Sage-grouse are probably occasional visitors to the southern edge of the allotment, but no appreciable sage-grouse use occurs within the allotment.

This standard is being met for wildlife species within this allotment. Western juniper has made some portions of this allotment unsuitable for some species of wildlife. Some species could benefit from removal of western juniper, however much of the western juniper on this allotment was well established before the control of wildfires.

Botanists report:

Most of the allotment has been surveyed for BLM special status plant species, and there is only one known area where plants exist. Bureau of Land Management special status plant species occur in T26S, R17E, Section 9 of the allotment: Cusick's buckwheat (*Eriogonum cusickii*) and snowline cymopterus (*Cymopterus nivalis*). Cusick's buckwheat is a BLM Sensitive plant species and BLM policy requires that its presence be considered when taking federal actions to ensure that the species as a whole is sustained. The entire distribution of this species is very limited: it occurs in one other area in Lake County, one location in Klamath County, and in a few places in Harney County. Snowline cymopterus is a OR/WA BLM assessment species and is found in seven locations in the Lakeview District, in Harney County, Oregon, and is much more common in Montana, Utah, Wyoming, Idaho and Nevada. A Draft Conservation Agreement with the US Fish and Wildlife exists for these two species. No impact from grazing or OHVs has been noted since the site was discovered in 1994. At one time a two-track road lead to the plant site located on open ashflow deposits; however, that "road" was closed on 24 June 1994.

Plant list of northern area:

Shrubs/trees:

Juniperus occidentalis
Purshia tridentata
Chrysothamnus viscidiflorus
Purshia tridentata
Ribes cereum
Ericameria nauseosa
(*Chrysothamnus nauseosus*)
Artemisia tridentata
Artemisia arbuscula

Forbs:

Eriogonum strictum
Eriogonum vimineum
Castilleja diffusa
Agoseris glauca
Antennaria dimorpha
Zygadenus venenosus
Leucocrinum montanum
Nama densum
Scutellaria nana
Mestzelis albicaulis
Phlox diffusa
Delphinium andersonii
Collinsia parviflora

Grasses:

Achnatherum hymenoides (*Oryzopsis hymenoides*)
Hesperostipa comata (*Stipa comata*)
Achnatherum thurberianum (*Stipa thurberiana*)
Achnatherum occidentale (*Stipa occidentalis*)
Poa secunda
Pseudoroegneria spicata
Elymus elymoides (*Sitanion hystrix*)
Leymus cinereus (*Elymus cinereus*)
Leymus triticoides (*Elymus triticoides*)

Eriogonum ovalifolium
Chaenactis douglasii
Crepis acuminata
Erigeron bloomeri
Layia glandulosa
Lygodesmia spinosa
Penstemon speciosus
Senecio canus
Nicotiana attenuata
Weeds/introduced species
Bromus tectorum
Ranunculus testiculatus

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

Team Members

Lance Okeson
Todd Forbes
Lucile Housley
Erin McConnell
Robert Hopper
Ken Kestner

Title

RMS
Wildlife Biologist
Botanist
Weed Management
Supervisory NRS
Supervisory NRS

Determination

Existing grazing management practices or levels of grazing use on the West Green Mountain Allotment promote achievement of significant progress toward 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 West Green Mountain Allotment will require modification or change prior to the next grazing season to promote achievement of the Oregon standards and Guidelines for Livestock Grazing Management.



Field Manager, Lakeview Resource Area

6/27/05

Date

Appendix A

Summary of ESI Data 1998-2000 Allotment #914														
Vegetation Community	Total Acres	% of total acres	SSF Acres					OAT Acres			Acres of Vegetative Community in Seral Stage			
			Stable	Slight	Moderate	Critical	Severe	Down	Static	Up	PNC	Late	Mid	Early
Basin big sage with native grass understory	1598	7%		1390	208			164	1434			602	996	97
Mountain big sage with native grass understory	3057	14%	2146	343	568				2948	109		255	2705	
Sage brush with cheatgrass understory	3629	17%		2167	1462			3629					3629	
Rabbit brush native understory	284	.5%		284					284				284	
Rabbit brush cheategrass understory	8	-----		8				8					8	
Juniper with native understory	6083	28%		890	5193				1426	4657		6029	54	
Juniper with cheatgrass understory	2977	14%		2244	733			632	2345				2977	
cheatgrass	.5	-----			.5			.5						.5
Rock outcrop	192	.01%												
Unknown	3827.5	18%												
Totals	21656	99%	2146	7326	8164.5			4433.5	8437	4766		6886	10653	97.5

West Green Mountain #914



steigleder pasture

well

heifer

boundary pasture

ward well

gerkin pasture

Legend

- Bureau of Land Management
- Bureau of Reclamation
- Department of Defense
- Federal Aviation
- US Forest Service
- US Fish & Wildlife
- General Services Administration
- Bureau of Indian Affairs
- Local Government
- National Parks
- Private
- State
- Unknown
- gra polygon selection



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