

**STANDARDS FOR RANGELAND HEALTH ASSESSMENT FOR
O'KEEFFE INDIVIDUAL ALLOTMENT #0216**

Standards for Rangeland Health and Guidelines for Livestock Grazing Management (BLM, 1997)

Introduction

The Range Reform '94 Record of Decision (BLM, 1995a) recently amended current grazing administration and management practices. The ROD required that region-specific standards and guidelines be developed and approved by the Secretary of the Interior. In the State of Oregon, several Resource Advisory Councils (RACs) were established to develop these regional standards and guidelines. The RAC established for the part of the state covering the Beaty Butte allotment is the Southeastern Oregon RAC. These standards and guidelines for Oregon and Washington were finalized on August 12, 1997 and include:

Standard 1 - Upland Watershed Function

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

Standard 2 - Riparian/Wetland Watershed Function

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 the hydrologic cycle.

Standard 4 - Water Quality

Surface water and groundwater quality, influenced by agency actions, complies with 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.

STANDARD 1 - UPLAND WATERSHED

This standard is being met on the allotment. The indicators used to evaluate this standard are Soil Surface Factor (SSF), which documents accelerated erosion; and plant community composition, which indicates root occupancy of the soil profile.

Soil Surface Factor (SSF) is an indicator of accelerated erosion and is a method of documenting observations regarding erosion. Of the 53,340 acres in O'Keeffe Individual Allotment, 2380 acres (4%) have an SSF rating of stable, 34,170 acres (64%) are rated as Slight, and 16,790 acres (31%) are unknown. These ratings indicate that 69% of the allotment have the two lowest levels of erosion in this methodology. A copy of the form used to document SSF is attached (Appendix B, "Determination of Erosion Condition Class").

Another indicator of Upland Watershed condition is plant composition and community structure. Current plant composition is compared to a defined Potential Natural Plant Community for the identified soil type and precipitation zone. Using the 1988 Ecological Site Inventory, the percent of the allotment in each seral stage is summarized in the table below. As can be seen most of the allotment is in the Mid seral (75%).

Seral Stage	Percent comparability to Potential Natural Community	Percent of allotment in seral stage
Early	0-25%	2%
Mid	26-50%	75%
Late	51-75%	5%
Climax	76-100%	2%
Unknown*		15%

* The unknown acres are the inclusions within a vegetation community that include transition areas and plant communities too small to be mapped separately.

The Observed Apparent Trend (Appendix C) determined during the ESI showed an upward trend on 11% of the allotment and static on 55% of the allotment. There is 3% that is downward trend and 31% is unknown. The 3% of the allotment that was rated in downward trend in 1988 is mostly cheatgrass communities that left over from wild fires that were not reseeded.

There are thirteen transects for monitoring trend on the allotment and they are scattered in 11 of the 14 pastures. The transects all have photo trend plots which illustrate no significant change over the last 30 years except in some of the middle elevation pastures. In the crested wheatgrass and intermediate wheatgrass seedings in these pastures there has been an increase

in the density of mountain big sagebrush since the seedings were planted in the 1960's. This is expected as with most 30 year seedings at this elevation the Mountain big sagebrush begins to reinvade the site. This is a desirable result as both plant species and structural diversity are increased.

STANDARD 2 - RIPARIAN/WETLAND

There are no perennial or major intermittent streams in this allotment. No PFC assessments have been completed but this evaluation will be revised to incorporate the results of these assessments as they are completed.

STANDARD 3 - ECOLOGICAL PROCESSES

This standard is being met. The trend study plots as described in Standard 1 illustrate no unexpected change in the vegetation over the last thirty years. The only noticeable change is the increase in mountain big sagebrush in some seedings and as described in standard 1 this is both expected and desirable. The Observed Apparent Trend for the vegetation communities as described in Standard 1 is static or upward on 66% of the allotment with 31% unknown..

The O'Keeffe Individual Allotment supports most of the terrestrial animals common to the sagebrush steppe in the Great Basin. The allotment provides habitat for huntable populations of mule deer, pronghorn antelope, and sage grouse. The 260 AUM's allocated to wildlife seem adequate to support the current wildlife populations, however, may need to be adjusted in the upcoming RMP to address the expansion of elk and potential competition with livestock for forage identified in the Oregon Department of Fish and Wildlife's (ODFW) elk management plan. There is currently no major competition between wildlife and domestic livestock for forage, either early green-up grasses and forbs or winter browse such as antelope bitterbrush and curl-leaf mountain mahogany which are both limited in distribution within the allotment.

The allotment lies within ODFW's Beaty Butte Big game Management Unit for deer, pronghorn antelope, and elk. Current populations are slightly below management objectives for mule deer and substantially below that proposed for elk. The allotment contains no crucial winter range habitat for mule deer or pronghorn antelope. Portions of the allotment are occasionally used by elk and California bighorn sheep from Fish Creek rim throughout the year. The allotment also contains year-round habitat for sage grouse and pronghorn antelope, however, no crucial habitat has been identified.

STANDARD 4 - WATER QUALITY STANDARDS

This standard is being met. There are no perennial or major intermittent streams in this allotment so no water quality problems have been identified.

STANDARD 5 - NATIVE, T&E, and LOCALLY IMPORTANT SPECIES

There are no big game habitat transects set up in the allotment due to the limited distribution of key browse (bitterbrush and mountain mahogany). The decadent or dead bitterbrush plants within the allotment are still providing forage and cover for deer, however, recruitment of young plants is relatively low. Overall the bitterbrush appears to show some improvement in vigor and stand replacement over the past 10-12 years.

The deer and pronghorn populations are healthy and increasing in number within the allotment - habitat quantity and quality do not appear to be limiting population size or health. Coyote predation is thought to be depressing mule deer recruitment, however, deer and pronghorn populations continue to fluctuate at or slightly below ODFW's Management Objective for the unit. A general hunt season is slowing the population expansion of elk within the unit, however, if ODFW, is unable to limit future expansion to the proposed Management Objective for the area competition with domestic livestock may occur and depredation on private lands may become an issue. Elk expansion will be addressed in the upcoming RMP.

The allotment also provides habitat for numerous small and nongame birds and mammals common to the Great Basin, as well as, sage grouse and marginal California bighorn sheep habitat. There are four known sage grouse lek found within the allotment. Sage grouse populations like the rest of southeastern Oregon are stable to declining. The allotment also provides habitat for raptors and some BLM and state sensitive wildlife species and federally listed species. No critical habitat or limitations have been identified for any of these species which include wintering bald eagles, and possibly pygmy rabbits and various sensitive bat species.

The Warner sucker is listed as a Threatened Species under the Endangered Species act. The intermittent channel from the West side of this allotment flow into Crump Lake which is occupied by suckers. There is no occupied habitat in the allotment. A Biological Evaluation was completed in 1995 which concluded that grazing in this allotment would have no effect on suckers.

Noxious weeds are known to occur in the allotment. Infestations are generally concentrated along travel routes and waterways, and around reservoirs and waterholes. However, a Mediterranean sage site of 100 acres exists in the crested seeding in Pasture #5 west of Caulderwood Reservoir. The early season of use in this pasture allows for the cattle to move off the site prior to seed set thus not contributing to the spread of the weed. Canada thistle is widespread in the middle and higher elevation pastures in areas where water is abundant throughout the growing season. Access to water by cattle may be compromised by the presence of the thistle, though cattle are not proven to contribute to its spread.

Special Status Plants: none known to occur in this area

Current Situation:

In the summer of 1999, Oregon Department of Agriculture will be surveying in the area for Mimulus species; Wool Lake is the site of a sensitive Mimulus species and is close to this Allotment. The Resource Area botanist has been into the area in the past

and conducted sensitive plant surveys and does not believe any monkeyflower species will be found in the allotment.

Also, part of the Allotment is being proposed, in conjunction with other lands, to be a "cultural ACEC."

CURRENT MANAGEMENT AND RECENT MANAGEMENT CHANGES

The current management is a variation of a deferred rest rotation system using 14 pastures (See Map) and the Allotment Management Plan has been in place since 1989 and was revised in 1994. The current system uses two herds (4808 AUMS) with about 600 head remaining throughout the summer and another 400 head leaving the allotment for the forest in late May.

There are three crested wheatgrass seeding pastures (5,12,13) that are grazed every year in the spring (3/5-5/1) either concurrently or in order depending on grass growth and vigor. The season of use should allow for adequate regrowth each growing season. If adequate regrowth does not occur during the growing season, then one or more of the seeding pastures would be rested the following spring.

The two herds are put into two of the middle elevation pastures (1,2,3,4,6,11, and 14) for about 1-3 weeks. Then one herd moves into another middle pasture for 2-3 weeks before moving off the allotment. The other herd uses a middle pasture one year and the alternate year uses pastures on the Cox Allotment (0217). The final result is that one year three middle elevation pastures are grazed and four are rested and the alternate year four are grazed and three are rested.

The herd that remains on the allotment moves to a high elevation pasture (7) in late May (1 month) and rotates into pasture 8 (1-2 weeks) and then pasture 10 for about a month. The following year the order is reversed and pasture 9 is used in the middle for 1-2 weeks while pasture 8 is rested.

The recent change in the AMP is the use of the Cox allotment and the exclusion of the Jacob reservoir pasture which is now part of the Hart Mountain National Wildlife Refuge.

Team Members

Title

Les Boothe	Range Management Specialist
Alan Munhall	Fishery Biologist
Vern Stofleth	Wildlife Biologist
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Determination

- ⊗ Existing grazing management practices or levels of grazing use on the O'Keeffe Individual Allotment promote achievement of significant progress towards the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

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

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3/12/99
Date