

2006 Evaluation of Shirttail Creek Allotment (#1031) Relative to Rangeland Health Standards

Assessment Participants (Name & Discipline or Interest):

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I. Area Evaluated

The Shirttail Creek Allotment (#1031) is located about 3 miles south of Durkee Oregon (see Appendix 1: Map), and it is within the Pedro Mountain Geographic Unit as described in the Baker Resource Management Plan/Record of Decision dated July 1989. It is an allotment consisting of one pasture of 808 acres public land plus 889 acres private land, 755 acres of which are owned by Ash Grove Cement and grazing rights leased to the cattle grazing permittees. The active allowable use under the ten-year permit is 152 AUMs on public land (two permittees with 76 AUMs each) to be used in spring or fall within the dates of April 22 to May 21, and October 15 to November 14. The actual use has been only fall use in recent years (at least since 1996). There is an additional 44 AUMs of exchange-of-use authorized for private land (including Ash Grove Cement land) owned or used by the permittees.

II. Data and Information Used in the Evaluation

A. Trend Plot

Data from the trend plot is summarized in Appendix 2: Trend Data.

Indicators used are ground cover (compared to bare ground), and plant species frequency as measured in frequency transects.

B. Rangeland Health Assessments

Appendix 3 summarizes the results of the rangeland health assessments completed in 2006. Multidisciplinary teams viewed two representative sites on the allotment, assessing 17 rangeland health indicators at each site in accordance with Technical Reference 1734-6, Interpreting Indicators of Rangeland Health, 2000 (Version 4).

C. Proper Functioning Condition Assessments

PFC assessments of 17 riparian zone indicators on Shirttail Creek and Cottonwood Creek were completed in 2006, in accordance with Technical Reference 1737-15, A User Guide to Assessing Proper Functioning Condition, 1998.

D. Native, T & E, and Locally Important Species Habitat Ratings

These are habitat ratings for Standard 5 that were done with each rangeland health assessment. Indicators used were:

1. Presence or absence of T & E species or species of concern
2. Native Plant Communities
 - a. Age classes
 - b. Diversity
 - c. Habitat connectivity
 - d. Population recovery

E. Actual Use and Utilization Data

Appendix 4 summarizes the actual use records (reported by the permittees) and range forage utilization data (estimated by BLM range personnel in accordance with Technical Reference 4400-3, Utilization Studies and Residual Measurements).

III. Standards Evaluated

The standards evaluated are those presented in detail on pages 15-18 of the final version of “The Standards for Rangeland Health and Guidelines for Livestock Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington” (August 12, 1997).

A. Standard 1 - Upland Watershed Function

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

What Was Used to Evaluate the Status of this Standard: Rangeland health assessments, using the attributes of Soil & Site Stability and Hydrologic Function, plus the ground cover data from trend plots.

Determination for Standard 1:

Standard Met X

Standard Not Met _____

Standard Not Present _____

Livestock not a significant factor _____

Livestock a significant factor _____

The rangeland health assessment at the site in the south half of the allotment indicated slight-to-moderate departure from expected levels of these two attributes, and the site in the north half showed none-to-slight departure. The trend plot showed a minor decrease in litter between 1987 and 2003, but the standard overall appears to be met.

B. Standard 2 - Riparian/Wetland Watershed Function

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

What Was Used to Evaluate the Status of this Standard: proper functioning condition assessments for Shirttail Creek and Cottonwood Creek.

Determination for Standard 2:

:

Standard Met X

Standard Not Met _____

Standard Not Present _____

Livestock not a significant factor _____

Livestock a significant factor

The 0.68 mile of creeks in this allotment all was found to be at Proper Functioning Condition.

C. 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.

What Was Used to Evaluate the Status of this Standard: Rangeland health assessments, using the attribute of Biotic Integrity, plus plant species changes determined from trend plots.

Determination for Standard 3:

Standard Met

Standard Not Met X

Standard Not Present

Livestock not a significant factor X

Livestock a significant factor

The standard was met in the north half of the allotment, according to the rangeland health assessment completed there. But the rangeland health assessment at the site in the south half of the allotment indicated a moderate departure from expected biotic integrity, and invasive plant species were at the point where they were over 2% of the plant community. The low actual use and utilization from recent years, together with upward trend in Idaho fescue and bluebunch wheatgrass at the trend plot, suggest the ecological status of the plant community is improving. Historic livestock grazing resulted in ecological changes that are still obvious, but current livestock use is not a significant factor.

D. Standard 4 - Water Quality

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

What Was Used to Evaluate the Status of this Standard:

Professional judgment based mainly on the observations from the proper functioning condition assessments.

Determination for Standard 4:

Standard Met X

Standard Not Met

Standard Not Present

Livestock not a significant factor

Livestock a significant factor

See remarks for Standard 2 above.

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.

What Was Used to Evaluate the Status of this Standard: Native, T &E and locally important species habitat ratings done with each rangeland health assessment, plus sagebrush canopy cover estimates.

Determination for Standard 5:

Standard Met

Standard Not Met X

Standard Not Present

Livestock not a significant factor X

Livestock a significant factor

See remarks for Standard 3 above relating ecological processes to historic grazing. Juniper encroachment and disruption to habitat from the cement plant were identified as concerns. But the current livestock use is not a significant factor.

Conformance with Guidelines for Livestock Grazing Management

Current management is in conformance with guidelines

Recommendations

1. The existing ten-year permit must be interpreted as either spring or fall use in any given year, not both in the same year.
2. Weed treatments in this allotment are needed.
3. Juniper control is needed.
4. The amount of exchange-of-use allowed for Ash Grove Cement Company lands used for grazing should be reviewed and strictly limited. Due to ongoing mining activity, there is no longer as much grazing land usable and available to livestock.

IV. Appendices

Appendix 1: Map

Appendix 2: Trend Data

Appendix 3: Summary of Rangeland Health Evaluations

Appendix 4: Actual Use and Utilization Table