

2006 Evaluation of Dixie Creek Allotment (#1020) Relative to Rangeland Health Standards

Assessment Participants (Name & Discipline or Interest):

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I. Area Evaluated

The Dixie Creek Allotment (#1020) is located at Rye Valley, 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. The allotment consists of 4078 acres (public and private) split into two pastures. Each pasture was evaluated separately. The active grazing preference for the whole allotment, as shown on the ten-year permit, is 404 AUMs on public land plus 115 AUMs on private land, for a total of 519 AUMs (78% public land), within the dates of 5/1 to 10/13. Management has been alternating spring use and fall use, every other year, typically June use one year and October use the next year.

	Total <u>Acres</u>	Public Land <u>Acres</u>	<u>Predominant Elevations (feet)</u>
Upper Pasture	2009	1330	4400-5900
Lower Pasture	2069	1418	3080- 4800

II. Data and Information Used in the Evaluation

A. Trend Plots

Data from the trend plots 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 4 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

Appendix 4 summarizes the results of the PFC assessments completed in 2006, in which 17 indicators were assessed 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 5 summarizes the actual use records (reported by the permittee) 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.

Determinations for Standard 1:

Upper Pasture:

Standard Met X Standard Not Met _____ Standard Not Present _____

Livestock not a significant factor _____

Livestock a significant factor _____

In terms of departure from expected levels, Soil/Site Stability was rated as None-to-Slight, and Hydrologic Function was rated as Slight-to-Moderate (at both sites examined). At a third site, the trend plot showed a 6.5% increase in bare ground, which was due to less litter observed on the ground in 2003 than in 2007. The preponderance of evidence is that this standard is being met.

Lower Pasture:

Standard Met X Standard Not Met _____ Standard Not Present _____

Livestock not a significant factor _____

Livestock a significant factor _____

In terms of departure from expected levels, Soil/Site Stability was rated as None-to-Slight at both sites examined, and Hydrologic Function was rated as Slight-to-Moderate at one site and None-to Slight at the other.

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 streams in each pasture.

Determinations for Standard 2:

Upper Pasture:

Standard Met _____ Standard Not Met X Standard Not Present _____
Livestock not a significant factor _____
Livestock a significant factor X

65% of the stream mileage in the pasture was rated as Functioning at Risk with a Downward Trend. Utilization observations indicate heavy grazing use along riparian zones.

Lower Pasture:

Standard Met _____ Standard Not Met X Standard Not Present _____
Livestock not a significant factor _____
Livestock a significant factor X

66% of the stream mileage in the pasture was rated as Functioning at Risk with a Downward Trend. Another 17% was rated as Non Functional, primarily attributed to mining. Utilization data indicates heavy utilization by cattle along riparian zones. Scotch thistle is very abundant on the bottomlands next to streams.

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.

Determinations for Standard 3:

Upper Pasture:

Standard Met X Standard Not Met _____ Standard Not Present _____
Livestock not a significant factor _____
Livestock a significant factor _____

Biotic Integrity was rated as Slight-to-Moderate departure at both sites examined, and the trend plot showed a significant increase in the bluebunch wheatgrass.

Lower Pasture:

Standard Met X Standard Not Met Standard Not Present
Livestock not a significant factor
Livestock a significant factor

Biotic Integrity was rated as Slight-to-Moderate departure at one site, None-to-Slight at the other, and the trend plot showed a significant increase in the bluebunch wheatgrass.

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: Water quality data from South Fork Dixie Creek, plus professional judgment based mainly on the observations from the proper functioning condition assessments.

Determinations for Standard 4:

Upper Pasture:

Standard Met Standard Not Met X Standard Not Present
Livestock not a significant factor
Livestock a significant factor X

Lower Pasture:

Standard Met Standard Not Met X Standard Not Present
Livestock not a significant factor
Livestock a significant factor X

Riparian zone conditions in both pastures contributed to causing stream temperatures in South Dixie Creek to occasionally exceed standards. The riparian zone utilization cited in Standard 2 above suggests cattle are a significant factor.

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.

Determinations for Standard 5:

Upper Pasture:

Standard Met X Standard Not Met Standard Not Present
Livestock not a significant factor
Livestock a significant factor

Lower Pasture:

Standard Met X Standard Not Met Standard Not Present
Livestock not a significant factor
Livestock a significant factor

In both pastures, there were no species of T&E importance identified, and native species habitat was adequate. Juniper encroachment was identified as a concern.

Conformance with Guidelines for Livestock Grazing Management

Management does not conform to the guideline to provide adequate cover and plant community structure to promote streambank stability, debris and sediment capture, and floodwater energy dissipation in riparian areas.

Recommendations

1. Propose a grazing system involving rest-rotation.
2. Construct new fences to eliminate gaps in the current allotment fence.
3. Reduce amounts of grazing use or decrease time livestock are in the allotment. The initial reduction should be based on the percentage of the allotment where steep slopes limit cattle use (steepness of slope of over 50% will be considered not allocable for grazing in this allotment due to the grazing pressure on riparian zones). This will result in an 18% reduction in public land AUMs grazing preference, from 404 AUMs to 343 AUMs. The amount of AUMs credited to the unfenced private land would not change, remaining at 115 AUMs. This allotment and Spring Gulch Allotment with 7 AUMs public and 15 AUMs private could be consolidated, adding the Spring Gulch AUMs into the Dixie Creek Allotment
4. Deer Creek riparian zone should be monitored annually and the AUMs of use may be further adjusted based on utilization and actual use data. Utilization guidelines should be set at 50% for key herbaceous forage species and 30% for key woody species in the riparian zone. Failure to achieve utilization guidelines should trigger reductions in use, with the amount of reductions dependent on the utilization/actual use analysis.
5. Do not allow turnout in adjacent allotments until allotment boundary fences are fully maintained.
6. Investigate if there are any opportunities for offstream water development, and ensure that wildlife escape ramps are installed in all troughs.
7. Propose early spring use (with periodic rest years) for the Lower Pasture in order to benefit riparian vegetation.
8. Conduct increased use supervision.
9. Change dates on the 10-year permit. Instead of 5/1 to 10/13, change to a spring period of use and a fall period of use. Actual dates would be determined through coordination with the permittee in discussions in 2007.

IV. Appendices

Appendix 1: Map

Appendix 2: Trend Data

Appendix 3: Summary of Rangeland Health Evaluations

Appendix 4: Summary of Proper Functioning Condition Assessments

Appendix 5: Actual Use and Utilization Table