

## 2006 Evaluation of Rye Valley Allotment (#1037) Relative to Rangeland Health Standards

Assessment Participants (Name & Discipline or Interest):

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### I. Area Evaluated

The Rye Valley Allotment (#1037) 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 1840 acres split into two pastures. Each pasture was evaluated separately. The amount of active use allowable under the ten-year permit is 263 AUMs public land plus 11 AUMs private land for a total of 274 AUMs (96% public land), within the dates of 10/20 to 11/28. But spring use (4/16 to 5/25) was also specified under the 1984 allotment management plan (which called for two years spring use followed by two years fall use), and the lack of spring use dates on the ten-year permit was an oversight which needs to be corrected now that the ten-year permits have become more rigid. The existing ten-year permit, although giving only the fall use dates, states that the actual use will be in accordance with the allotment management plan. The allotment however is not easily usable as a fall allotment, and the last time it was scheduled for fall use was 1996. In the fall, cattle will not stay well in the uplands and instead try to get into the hayfields at the lower edge of the allotment. During the last several spring use periods, the goal has been to get the cattle off the range early enough in May to allow some regrowth in late spring.

	<u>Acres</u>	<u>Predominant Elevations (feet)</u>
East Pasture	1471	3200- 4800
West Pasture	369	3200- 3800

### 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 3 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 3 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:**

East Pasture:

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

Rangeland health assessments indicated moderate departure in hydrologic function at one site and slight-to-moderate departure at the other. Soil and site stability was rated slight-

to-moderate at one site and none-to-slight at the other. The trend plot indicated lower litter cover and more bare ground in 2003 than in 1988. Litter cover was influenced by the degree of cattle grazing. Most of the disruption in hydrologic function was due to historic and not current cattle grazing, but the constant use of this pasture in spring months is slowing recovery in the upland watershed.

West Pasture:

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

Rangeland health assessment indicated slight-to-moderate departure in hydrologic function and none-to-slight in soil and site stability. The trend plot showed increased ground cover due to increased litter.

**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:**

East Pasture:

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

All 1.28 miles of Brown Draw were rated as Functional at Risk, trend not apparent. The amount of livestock use and loafing areas along riparian zones appeared to be a significant factor in holding back the riparian vegetation from providing sufficient bank cover.

West Pasture:

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

The majority of stream mileage (72%) was rated as Functional at Risk, trend not apparent. The remaining 28% was at Proper Functioning Condition. Although this pasture has been receiving very light grazing in recent years, grazing still has some adverse effects on the riparian vegetation.

**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:**

East Pasture:

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

Biotic integrity was rated as moderate departure from expected levels at one site and slight-to-moderate departure at the other site. However, increases in young sagebrush and apparent lack of vigor of Idaho fescue were noted at the better site. The trend plot indicated a static trend between 1988 and 2003. The preponderance of evidence is that this standard is not being met, and the history of spring grazing every year is likely a significant factor.

West Pasture:

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

Biotic integrity was rated as moderate departure from expected levels, but the trend plot showed an upward trend in Thurber's needlegrass. Utilization levels and litter buildup indicated very light use of uplands. 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.

**Determinations for Standard 4:**

East Pasture:

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

Brown Draw is a very low flow stream except during spring runoff, and there is a lack of water quality data in this stream. Remarks on PFC forms did not show obvious problems affecting water quality.

West Pasture:

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

All the streams in this pasture flow into North Fork of Dixie Creek, which has a history of exceeding state water quality standards for stream temperature. Remarks on PFC forms indicated some riparian revegetation is occurring but more yet is possible, and headcuts are still not stabilized. Although this pasture has been receiving very light grazing in recent years, grazing and trampling still have some adverse effects on the riparian vegetation, which affects water quality.

**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:**

East Pasture:

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

In rating the native plant community, invasive non-native species, missing plant age classes, and poor connectivity of habitat were reasons to conclude the standard was not met. The spring grazing use of this pasture every year is a significant factor in holding back improvement in the native plant community, although historic grazing more so than current grazing is responsible for the low ecological condition.

West Pasture:

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. But the current livestock use is not a significant factor, evident by the light amount of use on the uplands.

**Conformance with Guidelines for Livestock Grazing Management**

Guideline 6 under Livestock Grazing Management Guidelines says, “Provide periodic rest from grazing for rangeland vegetation during critical growth periods to promote plant vigor, reproduction and productivity. Spring grazing in recent years has not entirely met this guideline. Therefore, current management is not in conformance.

**Recommendations:**

1. Schedule periodic rest or deferment so the East Pasture of the allotment is not grazed in the spring more than two out of three years.
2. Manage the West Pasture as a riparian pasture with brief periods of use in spring and/or fall, with grazing periods tied to meeting riparian utilization objectives. The cattle should be removed when utilization triggers are reached, and the management would be the same as or similar to the new North Dixie Creek riparian pasture (see North Dixie Creek evaluation).

3. Change the dates on the 10-year permit to include a spring use period. Also modify the fall use period to adequately cover the period of potential fall grazing (may be later than November 28). Actual dates would be determined through coordination with the permittee in discussions in 2007.
4. Require that escape ramps (bird ladders) be installed in all troughs.

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