

**EVALUATION AND DETERMINATION**  
**Achieving the OR/WA Standards for Rangeland Health**  
**and**  
**Conformance with the Guidelines for Livestock Grazing Management**

Field Office: Medford Determination Date(s): July 8, 2008  
 Grazing Allotment Name/Number: Box R/10137

**Standard 1 Watershed Function – Uplands**

1 <input checked="" type="checkbox"/> Meeting the Standard	5 <input type="checkbox"/> Not Meeting the Standard, cause not determined
2 <input type="checkbox"/> Not Meeting the Standard, but making significant progress towards	
3 <input type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are not significant factors	6 <input checked="" type="checkbox"/> Conforms with Guidelines for Livestock Grazing Management.
4 <input type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are significant factors	7 <input type="checkbox"/> Does not conform with Guidelines for Livestock Grazing Management

**Causal Factors for Achievement:**

Several factors influence aspects of upland watershed function. Past management practices (timber harvest and historic livestock use), fire-suppression and existing roads are influencing nutrient cycling, water capture and retention, and plant productivity.

**Rationale for Determination:**

A Rangeland Health Field Assessment was conducted on the allotment at a loamy shrub scabland ecological site in August 2007. The indicators pertaining to Soil/Site Stability revealed that eight indicators (80 percent) were rated none-to-slight; one indicator (10 percent) was rated slight-to-moderate; one indicator (10 percent) was rated moderate; and no indicators were rated, moderate-to-extreme, or extreme-to-total departure from reference conditions. Line-point-intercept data was collected at the ecological site. Appropriate levels of ground cover and canopy cover were found along the transect. Species composition was not what would be expected due to the high percentage of *Poa bulbosa*, a non-native perennial grass that was introduced through seeding by the BLM (USDI 2007).

**Standard 2 Watershed Function – Riparian/Wetland Areas**

1 <input type="checkbox"/> Meeting the Standard	5 <input type="checkbox"/> Not Meeting the Standard, cause not determined
2 <input type="checkbox"/> Not Meeting the Standard, but making significant progress towards	
3 <input checked="" type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are not significant factors	6 <input checked="" type="checkbox"/> Conforms with Guidelines for Livestock Grazing Management.
4 <input type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are significant factors	7 <input type="checkbox"/> Does not conform with Guidelines for Livestock Grazing Management

**Causal Factors for Non-Achievement:**

Several factors influence the functionality of riparian and wetland areas. Management practices including road construction and water withdrawals contribute to elevated fine sediment levels, lack of riparian shade, elevated water temperatures, loss of connectivity, aquatic habitat degradation, and excessively low summer flows prevent the attainment of the rangeland health standard for riparian/wetland areas in the Box R Allotment.

**Rationale for Determination:**

Properly Functioning Condition (PFC) Assessments were conducted in the riparian areas of the allotment in 1999 (BLM Stream Surveys). Upstream of the northern parcel, a diversion diverts most of Beaver Creek leaving the streambed dry during most of the irrigation season and effectively reducing the amount of streamside vegetation. Where Beaver Creek runs through the southern parcel, the stream is downcut, lacks structure, and at the time of the survey appeared to be vertically and horizontally unstable (USDI 1999). Lacking structure and water for at least part of the year compromises this stream system. The sections of Beaver Creek within the northern BLM parcel of the allotment are Functioning-at-Risk with a Downward Trend and the section in the southern BLM parcel is Non-Functional; however, this does not appear to be as a result of grazing, but due to the water diversion. BLM surveys (1999) indicated actively eroding stream banks along 15-25 percent of the surveyed reach length in the northern parcel and 80 percent of the surveyed reach length in the southern parcel. Surveys conducted on Beaver Creek (ODFW 2003), upstream of the northern parcel noted actively eroding streambanks along 22 percent of the surveyed reach length. Similar surveys by ODFW were not conducted for sections of Beaver Creek that flow through the allotment. The tributary to Corral Creek in the southern parcel is surrounded on either side by an agricultural lease that allows for hay production and pasturage which restricts sinuosity and channel function through this segment.

**Standard 3 Ecological Processes**

1 <input checked="" type="checkbox"/> Meeting the Standard	5 <input type="checkbox"/> Not Meeting the Standard, cause not determined
2 <input type="checkbox"/> Not Meeting the Standard, but making significant progress towards	
3 <input type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are not significant factors	6 <input checked="" type="checkbox"/> Conforms with Guidelines for Livestock Grazing Management.
4 <input type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are significant factors	7 <input type="checkbox"/> Does not conform with Guidelines for Livestock Grazing Management

**Causal Factors for Achievement:**

There is a healthy mix of live and dead/decaying matter on the rangeland. The plant communities in this allotment are diverse. Current livestock grazing is not intense enough to contribute to additional conversion of native plant communities to exotic grasslands.

**Rationale for Determination:**

The forested portion of this allotment supports a diverse mix of forest plant communities, where invasive plant species are generally confined to some road-sides or localized disturbed areas (Hosten 2007). The dry meadows and oak woodland plant communities support a diverse mix of plant species. However, invasive plant species are scattered in patches through out the majority of the non-conifer areas, particularly annual grasses. In areas where these annual grass species are already well established the plant community has likely crossed over a threshold into a less desirable stable state. Introduction and establishment of exotic annual grasses occurred in past decades, and current livestock grazing is not intense enough to contribute to additional conversion of native plant communities to exotic annual grasslands. The spread of bulbous bluegrass, a non-native grass introduced in seeding projects, is problematic for maintaining native dominated communities and can only be indirectly linked to patterns of livestock use (Hosten et al. 2007d).

**Standard 4 Water Quality**

1 <input type="checkbox"/> Meeting the Standard	5 <input type="checkbox"/> Not Meeting the Standard, cause not determined
2 <input type="checkbox"/> Not Meeting the Standard, but making significant progress towards	
3 <input checked="" type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are not significant factors	6 <input checked="" type="checkbox"/> Conforms with Guidelines for Livestock Grazing Management.
4 <input type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are significant factors	7 <input type="checkbox"/> Does not conform with Guidelines for Livestock Grazing Management

**Causal Factors for Non-Achievement:**

Several factors influence water quality in this allotment. Management practices including road construction and water withdrawals contribute to elevated fine sediment levels, elevated water temperatures, loss of connectivity, aquatic habitat degradation, and excessively low summer flows.

**Rationale for Determination:**

This allotment is not meeting Standard 4 (Water Quality) because the portion of Beaver Creek that flows through the allotment is listed on the Oregon DEQ’s 2004/2006 Clean Water Act Section 303(d) for failing to meet temperature (summer) standards (non-spawning core cold water habitat for redband trout). Current livestock grazing practices are not considered significant factors in non-achievement of this standard; non-achievement is primarily due to water withdrawals that leave the stream dry during most of the irrigation season, effectively reducing the amount of streamside vegetation.

Properly Functioning Condition (PFC) Assessments were conducted in the riparian areas of the allotment in 1999 (BLM Stream Surveys). Upstream of the northern parcel, a diversion diverts most of Beaver Creek leaving the streambed dry during most of the irrigation season and effectively reducing the amount of streamside vegetation. Where Beaver Creek runs through the southern parcel, the stream is downcut, lacks structure, and at the time of the survey appeared to be vertically and horizontally unstable (USDI 1999). Lacking structure and water for at least part of the year compromises this stream system. The sections of Beaver Creek within the northern BLM parcel of the allotment are Functioning-at-Risk with a Downward Trend and the section in the southern BLM parcel is Non-Functional; however, this does not appear to be as a result of grazing, but due to the water diversion.

BLM surveys (1999) indicated actively eroding stream banks along 15-25 percent of the surveyed reach length in the northern parcel and 80 percent of the surveyed reach length in the southern parcel. Surveys conducted on Beaver Creek (ODFW 2003), upstream of the northern parcel noted actively eroding stream banks along 22 percent of the surveyed

reach length. Similar surveys by ODFW were not conducted for sections of Beaver Creek that flow through the allotment. The tributary to Corral Creek in the southern parcel is surrounded on either side by an agricultural lease that allows for hay production and pasturage which restricts sinuosity and channel function through this segment.

Macroinvertebrate surveys conducted at the confluence of Beaver and Corral Creeks (below the allotment) found cold water biota and intolerant taxa present in low abundance and low richness in erosional habitats (Aquatic Biology Associates 1993). Factors contributing to moderate truncation of the macroinvertebrate community include: high (near lethal) summer water temperatures, loss of habitat complexity, excessive bedrock, poor detrital retention, and reduction of flushing peak flows (Aquatic Biology Associates 1993). In Corral Creek, cold water biota and intolerant taxa are only present in very low abundance and very low richness. Severe truncation of the Corral Creek macroinvertebrate community is attributed to high (near lethal) summer water temperatures, loss of habitat complexity, high sediment levels from erosion, and excessive bedrock (Aquatic Biology Associates 1993).

**Standard 5 Native, T&E, and Locally Important Species**

1 ■ Meeting the Standard	5 □ Not Meeting the Standard, cause not determined
2 □ Not Meeting the Standard, but making significant progress towards	
3 □ Not Meeting the Standard, current livestock grazing management practices are not significant factors	6 ■ Conforms with Guidelines for Livestock Grazing Management.
4 □ Not Meeting the Standard, current livestock grazing management practices are significant factors	7 □ Does not conform with Guidelines for Livestock Grazing Management

**Causal Factors for Achievement:**

Several factors influence abundance and distribution of native, T&E, and locally important species in this allotment. Management practices (timber harvest and historic livestock use), fire suppression, environmental factors (elevation, slope, aspect, soils), and high road densities all influence Threatened and Endangered (T&E) and locally important species.

**Rationale for Determination:**

There are no effects to Special Status or T & E terrestrial wildlife species in this allotment.

There are no effects to Special Status or T & E aquatic species or their habitat from this

action because: 1) Coho Critical Habitat (CCH) is 15 miles downstream, below a reservoir that acts as a sediment trap in all but the worst flood conditions, 2) very little sign of cattle along the stream segments in this allotment, and 3) irrigation diversion captures flow of Beaver Creek for some portion of the year leaving the stream dry in places.

There are no known occurrences or federally threatened and endangered species and one Bureau Sensitive Species within the Box R allotment. *Nemaladus capillaris* is an annual herb that is in an area that receives no-slight use by livestock.

In the non-conifer habitats, medusahead and other exotic annual grasses are present in most meadows, and dominant in some areas. The areas most likely to experience conversion from native perennial grasslands to exotic annual grasslands have already undergone conversion, and current stocking rates are unlikely to convert additional areas of remnant native grassland. BLM monitoring data in surrounding areas suggests exotic annual grasses are not spreading under current grazing regimes.

/s/ John Gerritsma

7/8/08

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John Gerritsma  
Field Manager  
Ashland Resource Area

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Date