

**Results of Assessment/Establishment of Cause
Achieving Standards For Rangeland Health
Conforming with Guidelines for Livestock Grazing Management**

Resource Area: Central Oregon Resource Area
Geographic Area of Assessment: Rudio Mountain
Allotment Areas Assessed: Two County Allotment #4145
Period Assessment Conducted: 2005

Assessment determination:

Standard 1 Meeting

Standard 2 Meeting

Standard 3 Meeting

Standard 4 Not Meeting Making progress toward meeting Livestock not contributing

Standard 5 Meeting

Guidelines for Livestock Grazing Management Conforms

Assessment Benchmark: Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington. Approved August 12, 1997 by the Secretary of the Interior.

Assessment Objectives: Per USDI/USDA Tech Reference 1734-6 of 2000: Provide preliminary assessment of soil/site stability, hydrologic function, biological integrity. Help land managers identify areas that are potentially at risk for degradation. Provide early warnings of potential problems and opportunities. Provide capability to communicate fundamental ecological concepts to a variety of audiences. Improve communications among interest groups. Provide capability to select monitoring sites for future monitoring programs. Help understand and communicate rangeland health issues.

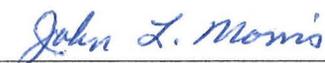
Per BLM, Oregon State Office IB No. OR-98-315 of 7/24/98: Assess rangeland condition relative to Rangeland Health Standards; determine cause in those cases where standards are not being met; and take action that will result in progress toward standards attainment where these are not being met.

Assessment Preparers



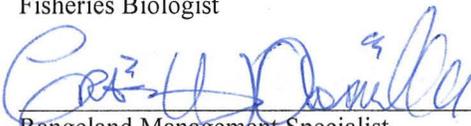
Wildlife Biologist

9/12/05
Date



Fisheries Biologist

9/19/05
Date



Rangeland Management Specialist

12 SEP '05
Date



Hydrologist

12 SEP 2005
Date

Assessment Approval



Field Manager

9/30/05
Date

Appendices:

- A Allotment Assessment Findings
- B Maps

Appendix A Allotment Assessment Findings

Notes:

1. This information applies only to BLM-administered lands within the allotment.
2. Where Allotment Monitoring Sites are referenced, information from these sites will include photographs, vegetation data, trend rating forms, cover worksheets, and/or Rangeland Health Evaluation Summary Worksheets (all located in the respective allotment's monitoring files).

Allotment:

Public Land Upland Acres: 13,796

Public Land AUMs: 1,105

Public Land Stream Miles: 8 miles of perennial streams

Table 1

PERENNIAL STREAM NAME	BLM MILES	PFC ASSESSMENT
BONE CREEK	0.5	None
BRANSON CREEK & TRIB	0.8	2005 At Risk and with Downward Trend
HOLMES CREEK	0.9	1995 Non- Functioning 2005 Barely Functioning at Risk No Trend
JOHN DAY RIVER	1.6	1995 Functioning at Risk
ROSE CREEK	0.4	None
RUDIO CREEK	2.9	2005 Properly Functioning
UNNAMED	0.5	None

Allotment Name	Ownership	Condition	Dominant Vegetation	ACRES
Two County				14016
	BLM			14016
		<i>Mid Seral</i>		4874
			big sagebrush / bluebunch wheatgrass	1405
			bluebunch wheatgrass	229
			ponderosa pine / bitterbrush / snowberry / elk sedge / Idaho fescue	1555
			stiff sagebrush / Sandberg bluegrass	0
			western juniper / Idaho fescue	1191
			No Data	494
		<i>Late Seral</i>		1473
			big sagebrush+bitterbrush / bluebunch wheatgrass	187
			Idaho fescue	1176
			ponderosa pine / douglas fir/ bitterbrush / elk sedge	110
		<i>Early Seral</i>		546

Idaho fescue	305
Idaho fescue / bluebunch wheatgrass	25
Sandberg bluegrass	216
<i>No Data</i>	7123
big sagebrush / bluebunch wheatgrass	1068
bitterbrush / big sagebrush / Idaho fescue	876
bitterbrush / bluebunch wheatgrass	4149
stiff sagebrush	2
No Data	1027

I. Standard 1 (Watershed Function - Uplands)

A. Determination

- Meeting the Standard
- Not Meeting the Standard; Making Significant Progress Toward
- Not Meeting the Standard; Not Making Significant Progress Toward

B. Establishment of Cause:

- Livestock are significantly contributing to the failure to meet the standard
- Livestock are not significant contributors to the failure to meet the standard
- Failure to meet the standard is related to other uses or conditions: ___ on-site ___ off-site

C. Rationale/Evidence

An interdisciplinary tour on 12, 13, and 14 April 2005 revealed two major watershed concerns. Trespass horses are year round residents of the allotment. Branson Creek, in particular, shows evidence of erosion due to the preference horses show for the area. Juniper invasion is impairing watershed function in drainages; especially Holmes Creek, Burnt Coral Creek, and the slopes between John Day River and the rim of the allotment. Young juniper trees were evident on upland flats, but are not yet contributing to watershed degradation.

Overall, however, the soils look fairly intact. Pedestals are due to frost heaving rather than erosion. While there are indicators of erosion, such as litter movement, water flow patterns and some soil loss, these indicators are not present in sufficient quantity to be of concern.

Overall, this standard is being met. See the recommendations section for concerns for those areas not meeting this standard.

II. Standard 2 (Watershed Function - Riparian/Wetland Areas)

A. Determination

- Meeting the Standard
- Not Meeting the Standard; Making Significant Progress Toward
- Not Meeting the Standard; Not Making Significant Progress Toward
- Standard Does Not Apply

B. Establishment of Cause:

- Livestock are significantly contributing to the failure to meet the standard
- Livestock are not significant contributors to the failure to meet the standard
- Failure to meet the standard is related to other uses or conditions: X on-site; ___ off-site
- Not Applicable

C. Rationale/Evidence

In April 2005, an interdisciplinary team conducted a Properly Functioning Condition Assessment on Holmes Creek, Holmes Creek tributaries and Branson Creek. The upper 1 mile of Branson Creek headwaters was rated as Properly Functioning, although some trespass horses were impacting a pond in the upper reach. Two ½ mile segments with a lower gradient support decadent cottonwood, pine, alder, willow and a few sedge species. These segments were rated as Functioning at Risk with a Downward trend. Season long grazing by either horses, cattle, or a combination thereof is removing riparian vegetation and inhibiting the ability of the riparian are to recover. The lowest 1 mile of BLM land on Branson Creek was rated as Functioning at Risk with Trend Not Apparent.

BLM owns two miles of Holmes Creek. The downstream mile runs water perennially. The upper reaches run water in the spring, but dry up in late summer. The presence of a cattle watering trough in the main channel would suggest that the grazing system on this reach is not oriented toward riparian restoration. In 1995, an interdisciplinary team rated Holmes Creek as Non-Functioning. In 2005, an interdisciplinary team rated Holmes Creek as Functioning at Risk with No Apparent Trend. Several factors beyond the control of BLM management are contributing to non-attainment. Upstream logging and historic logging near the channel have removed large wood from the system. Road encroachment also limits the ability of the channel to access its floodplain and distribute energy with sinuosity. Riparian vegetation included choke cherry, ocean spray, elder berry, nettle, rose, mock orange, goose berry. Some bushes were browsed, and the floodplain contained mostly short bulbous bluegrass and cheat grass. The rocky substrate of this channel limits the amount of degradation or aggradation the channel will exhibit. However, large wood would allow the channel to redevelop a system of pools and capture sediment to build a small floodplain.

An interdisciplinary team assessed the main stem John Day River in 1995. The one and a half miles of the John Day River on BLM land in the Two County Allotment was rated as Functioning at Risk with a slightly upward trend.

The three miles of Rudio Creek on this allotment are down in the bottom of a steep walled canyon. The floodplain is densely forested with fir, pine and infrequent hardwoods. Grazing is not likely to be an influence in this stream reach because of its inaccessibility. In 2005, an interdisciplinary team rated Rudio Creek as Properly Functioning.

Overall, this allotment is meeting the standard, but Holmes Creek (3/4 mile) and Branson Creek (1 mile) are not meeting the standard. Livestock or trespass horses may be contributing to not meeting the standard on Branson Creek. See recommendations.

III. Standard 3 (Ecological Processes)

A. Determination

- Meeting the Standard
- Not Meeting the Standard; Making Significant Progress Toward
- Not Meeting the Standard; Not Making Significant Progress Toward
- Standard Does Not Apply

B. Establishment of Cause:

- Livestock are significantly contributing to the failure to meet the standard
- Livestock are not significant contributors to the failure to meet the standard
- Failure to meet the standard is related to other uses or conditions: x on-site; off-site

C. Rationale/Evidence

Forest stocking levels have created forest health issues such as disease and stunted tree growth. The rangeland is fairly intact. Some areas have plant communities that have been altered from what would be expected under pristine conditions. Several plant communities have desirable perennial grasses only growing in protected areas, such as under shrubs. Some rangelands, especially Holmes Creek, Burnt Coral Creek, and the slopes between John Day River and the rim of the allotment, are not meeting standards

because juniper has encroached and shrub and grass functional groups have been reduced. The majority of the allotment, however, has enough diversity in vegetation to warrant a passing standard.

A trend plot (3x3 photo plot) in the Branson Creek pasture was established in 1988 and re-measured in 1993 and 1998. The plot diagrams show a decrease in *Agropyron spicata* and *Festuca idahoensis* between 1988 and 1993 and an increase in *Poa secunda*. From 1993 to 1998 the plot diagrams show a rebound in *Festuca idahoensis*, an increase in *Poa secunda*, and both death and recruitment of *Agropyron spicata*.

Overall, this standard is being met. See the recommendations section for concerns for those areas not meeting this standard.

IV. Standard 4 (Water Quality)

A. Determination

- Meeting the Standard
- Not Meeting the Standard; Making Significant Progress Toward
- Not Meeting the Standard; Not Making Significant Progress Toward
- Standard Does Not Apply

B. Establishment of Cause (if applicable)

- Livestock are significantly contributing to the failure to meet the standard
- Livestock are not significant contributors to the failure to meet the standard
- Failure to meet the standard is related to other uses or conditions: x on-site; x off-site
- Not Applicable

C. Rationale/Evidence

Approximately one and a half miles of the John Day River is on BLM land within the Two County Allotment. The John Day River is listed as water quality limited on the 303d list for the parameter of temperature for the beneficial use of salmonid fish rearing and anadromous fish passage. This standard is not being met.

Standards one and two are being met for the majority of BLM lands. On less than half the BLM land, standards one and two are not being met and livestock are significantly contributing to failure to meet these standards. Current BLM management in this allotment is not contributing to non-attainment of the water quality standard. The inventoried riparian areas on Branson Creek were in a downward or static trend. However, the entire Branson Creek watershed is only a fraction of a percent of the contributing water for the 303d listed reach of the John Day River. There was no indication that grazing on BLM land is significantly contributing to water quality degradation at a watershed scale.

V. Standard 5 (Habitat for Native, T&E and Locally Important Species)

A. Determination

- Meeting the Standard
- Not Meeting the Standard; Making Significant Progress Toward
- Not Meeting the Standard; Not Making Significant Progress Toward
- Standard Does Not Apply

B. Establishment of Cause:

- Livestock are significantly contributing to the failure to meet the standard
- Livestock are not significant contributors to the failure to meet the standard
- Failure to meet the standard is related to other uses or conditions: x on-site; off-site

C. Rationale/Evidence:

Most upland habitats support healthy, productive and diverse communities of native plants and animals appropriate

to soil, climate, and landform. An exception to this is areas where increased juniper occupation has altered the habitat function of many upland sites. In these cases juniper is out-competing (or has already out-competed) many significant plant and shrub species making those sites less diverse and productive habitats for wildlife species. Big game winter range is also being negatively impacted as many shrub species are disappearing from these juniper dominated shrub-steppe ecosystems.

Western Juniper can be an important element in the habitat for many wildlife species, but at densities that allow a healthy understory of shrubs and grasses (Miller, R.F. 2001. Managing western juniper for wildlife. Woodland Fish and Wildlife MISC 0286 Washington State University Cooperative Extension, Pullman WA). Biology, Ecology and Management of Western Juniper (Miller, R.F., J.D. Bates, T.J. Svejcar, F.B. Pierson, L.E. Eddleman. 2005. Technical Bulletin 152, Oregon State University, Corvallis OR) states that "there is no known data that suggest there are juniper-obligate species, or species that require dense, closed western juniper woodlands. Maintaining low densities of western juniper on portions of the landscape increases the abundance, diversity, and richness of avian and small mammal populations in the shrub-steppe. However, as western juniper dominance increases, wildlife abundance, species richness, and diversity decline. This will also occur as the proportion of area dominated by western juniper at the landscape level increases."

Desirable wildlife cover and structure conditions in rangelands currently dominated by annual grass species (cheat grass and medusahead rye), and juniper may be difficult to obtain in the short or long term without rehabilitation efforts, regardless of the grazing system.

Summer steelhead/Redband trout Oncorhynchus mykiss have been identified in Holmes Creek including BLM lands in T.10 S., R. 26 E., Sec 5 NW1/4SE1/4 (.1 mile.), Sec. 9 SW1/4NE1/4 and E1/2SE1/4 (.75 mile). Burnt Corral Creek, a tributary to Holmes Creek also is fish bearing in Sec. 15 SW1/4NW1/4 and NE1/4SW1/4 (.5 mile). Other BLM lands within this allotment along Holmes Creek are in, Sections 21 NE1/4SW1/4 (.1). Holmes Creek is non fish bearing above the confluence of Burnt Corral Creek. Steelhead, the anadromous form of rainbow trout have not been confirmed at this location so it is not known if the O. mykiss are native residents or steelhead that periodically exhibit the anadromous life form when water conditions are favorable for adult upstream spawning migrations and/or downstream smolt migrations. Research has shown generations of the anadromous vs resident life history may alter between the resident and anadromous life histories depending on water availability among other unknown factors. Oregon Department of Fish and Wildlife did not attempt to differentiate between the two forms when they surveyed for fish bearing streams. Mid-Columbia ESU (ecological significant unit) steelhead is listed as threatened under the Endangered Species Act.

Approximately 3.25 mile of Holmes Creek and 1.2 miles of Burnt Corral Creek is within this allotment with 3.1 miles being private land.. There is approximately 4.5 total miles of stream in the Holmes Creek subwatershed. No other fish bearing streams have been identified in this allotment. The BLM does not have authority to manage grazing on private lands within the allotment.

The majority of the channel along both Holmes Creek and Burnt Corral is shaded by mature alder. These streams are fairly steep but appear to be quite stable. The public road adjacent to the stream confines the floodplain in several locations.

Overall, this standard is being met. See the recommendations section for concerns for those areas not meeting this standard.

VI. Guidelines for Livestock Grazing Management:

- Conforms with Guidelines for Livestock Grazing Management
- Does not conform with Guidelines for Livestock Grazing Management, Guideline No(s)

Recommendation:

The grazing allocation from the John Day RMP is for 1105 AUMs from 4/1 to 11/30. This is 12.5 acres per AUM. The grazing preference needs to be adjusted to reflect the current actual use. The RMP also classifies this allotment

as a Custodial (C) allotment. This classification should be reconsidered to reflect the importance of the anadromous fish habitat on the allotment, amount of public land and recreation potential.

The juniper encroachment needs to be treated with juniper cutting and prescribed fire. The over stocked timber stands need to be evaluated and treated to improve forest health. Trespass horses need to be removed. Further monitoring of livestock use patterns needs to be conducted to verify that livestock are not contributing to the degradation of Holmes Creek and Branson Creek. The in-channel watering trough needs to be moved off-channel. Pasture fences need to be mapped. BLM needs to pursue defining a grazing management system with the lessee by creating an Allotment Management Plan.