Standards for Rangeland Health
and
Guidelines for Livestock Grazing Management
for
Public Lands in Oregon and Washington

UPDATE for the

Tuff Butte Allotment (#00707)

June 2014

Background

The initial Tuff Butte Rangeland Health Assessment was completed in 2004. This allotment is located 9 miles northeast of Silver Lake, Oregon. An allotment management plan was drafted up sometime in the early 1980s and is out of date with current management.

The Tuff Butte allotment has a total of 8,936 acres of BLM-administered lands and 2,192 private land acres. A 10-year permit (#3601441) authorized 536 AUMs to be used sometime between 4/1 and 7/15. 320 AUMs are allocated for deer/pronghorn, 180 AUMs are allotted for elk, and 20 AUMs are allocated for other wildlife (520 AUMs total for wildlife). This allotment contains 4 pastures grazed in a rest rotation grazing system during the spring and summer months.

Summary

The following table contains a summary of the 2004 rangeland health assessment and the update completed in 2014.

Summary of Rangeland Health Assessment for Tuff Butte Allotment (00707)

Standard	2004 Assessment	2014 Assessment Update	Comments
1. Watershed Function – Uplands	Met	Met	The 2004 rangeland health assessment (RHA) states that Soil Surface Factor (SSF) for the majority of the allotment (74%) was in the slight category with 10% being stable and 4% in the moderate SSF rating. Plants communities were stable with some juniper encroachment noted as impacting watershed function and ecological conditions. Some invasion of cheatgrass was previously documented. Some long-term trend photos showed a decrease in cheatgrass with the introduction of crested wheatgrass on some sites. Cheatgrass is still a component in the allotment today, but has decreased in total cover. Organic matter, in the form of litter, is accumulating and being incorporated into the soil. For these reasons, the allotment continues to meet this standard.
2. Watershed Function Riparian/ Wetland Areas	Met	Met	There are no perennial streams on BLM lands within the allotment. There are a few intermittent drainages that seasonally flow during precipitation events or spring snowmelt. Due to their intermittent nature, these drainages do not support wetland or riparian vegetation. As a result, there are no lotic wetlands or associated riparian areas. The National Wetland Inventory (NWI) shows about 350 acres of palustrine, emergent wetland along the western boundary of the allotment associated with the Paulina Marsh. The majority of these acres are on private land. The few acres located on BLM-administered lands were found to be in proper functioning condition (PFC) during the 2004 RHA and are assumed to still be in PFC. There are another 10 acres of freshwater ponds in this same area. Based upon a comparison with the digital orthophotos, these areas represent livestock water developments or playa lakebeds that do not support wetland vegetation or otherwise do not meet the definition of a wetland.
3. Ecological Processes	Met	Met	The dominant vegetation community (36%) on the allotment is rabbitbrush with crested wheatgrass or cheatgrass as the understory.

			Juniper/sagebrush/grass community is the next most abundant vegetation type on the allotment (33%) of the allotment. Most plant reproduction is appropriate and organic matter is being incorporated in the soil. Long-term trend monitoring photos generally indicate a stable to upward trend across the allotment. However one long-term monitoring site does show a decrease in trend due to an increase Juniper causing a decrease in perennial grasses on the site. Grazing is not a causal factor in the downward trend at this one site. Juniper has increased across the allotment and is impacting ecological community diversity and processes of energy flow. Known noxious weeds species located on this allotment include whitetop and medusahead.
4. Water Quality	NA	NA	This standard is not applicable to the assessment area. There are no perennial streams or other water sources in this allotment which must comply with State water quality standards.
5. Native, T/E, and Locally Important Species	Met	Met	No special status plant species have been documented within the allotment. The allotment supports an appropriate assemblage of wildlife species and populations. Special status wildlife species or their habitat that may be present in the allotment include the bald eagle, ferruginous hawk, peregrine falcon, burrowing owl, kit fox, sage-grouse, and pygmy rabbit. Species of high public concern may include mule deer, elk, and pronghorn antelope. No conflicts have been identified between any wildlife species and livestock grazing at this time. For these reasons, this standard continues to be met.

Guidelines for Livestock Management

Existing grazing management practices and levels of grazing use on the Tuff Butte Allotment are consistent with the Guidelines for Livestock Grazing Management (August 12, 1997). The allotment is grazed at an appropriate season coordinated with precipitation, plant growth, and plant form to promote appropriate vegetative cover and rangeland health. BLM lands are grazed in coordination with private lands to minimize conflicts and promote adequate livestock distribution.

Recommendations

The ID team recommends treating existing weeds using an integrated weed management approach and juniper that is invading the allotment and negatively affecting watershed health.

2014 Determination

(X) Existing grazing management practices on the Tuff Butte Allotment promote achievement of, or significant progress towards meeting the Oregon Standards for Rangeland Health and conform with the applicable Guidelines for Livestock Grazing Management.

( ) Existing grazing management practices on Tuff Butte Allotment will require modification or change prior to the next grazing season to promote achievement , or make significant progress towards, the Oregon Standards for Rangeland Health and conform with the applicable Guidelines for Livestock

Thomas E. Rasmussen, Field Manager — Date 6/3/14

Tuff Butte Allotment Monitoring Summary (2013):

The Tuff Butte allotment is categorized as an Improve (M) category allotment. This was based on forage production being near potential. No serious resource conflicts, some positive economic returns exist, and the present management is satisfactory. An allotment management plan was drafted that outlined range improvements. Some improvements outlined that were implemented include pipelines promoting water in the allotment and fences to improve pasture rotations.

Actual Use and Utilization for West Seeding/Collins, Bench, Lake and Sheep Dip Pastures

Year	Hayes Butte		West		East		Powerline		Total Yearly AUM
	AUM	% use	AUM	% use	AUM	% use	AUM	% use	
2013	22		rest	60*	rest	0	156	69	179
2012	rest		145	67	65	30	rest	0	210
2011	rest		103		rest		195		298
2010	rest		229		224	61	rest		
2009	rest		rest		139	55	329	64	467
2008	rest		343	50	rest		rest		343
2007	rest		rest		245		112	44	357
2006	rest		254	52	rest		rest		254
2005	rest		rest		241		169		410
2004	rest		244		rest		237		480
2003	22		287		23	40	rest	42?	333
2002	rest		rest		173		111		284
Average	**22**		**230**		**148**				**330**

*In 2013, some cows drifted down from Hayes Butte and Powerline pasture and utilized the AGCR seeding.

Utilization has averaged moderate for the last 10 years and vegetation based on long term trend looks to be appropriate for the landscape setting. The exception to this is the west pasture long term trend site is currently in a downward trend and has had utilization than 50% and higher every time it was measured. Crested wheatgrass plants look to have low vigor.

Trend Plot Monitoring Data Summary for Tuff Butte Allotment:

TB-01

Plot was terminated sometime after 1982 due to pipeline construction. Planting of crested wheatgrass looked to decrease cheatgrass on site between 1969 and 1982.

TB-2 - East Pasture

Years Data was recorded: re-established on BLM lands in 2012, previously established on private ground and data recorded
Photo Trend: 1967, 1970, 1971, 1976, 1979, 1980, 1982, 1987, 2008

Photo trend: *Upward*. Photos show a decrease in abundance of cheatgrass from 1969 likely due to the crested wheatgrass seedings and overall increase in cover of perennial grass species.

Observed Apparent Trend

TB-2	**2012**	**2008**
Vigor	6	8
Seedlings	4	6
Surface Litter	3	4
Pedestals	3	5
Gullies	5	5
Total	21	28
Rating	*stable*	*upward*

Percent Cover

TB-2	**2012**
Bare Ground	48
Litter	24
Rock	2
Vegetation	26
Crust	0

TB-03 - Hayes Butte Pasture

Years Data Recorded –1982 and 2012 general photos of area.
Photo Trend: *Upward.* Overall photos show upward trend with increase vigor and abundance of native species in 2012 compared to 1982 in the area. High native perennial grass species density, diversity and vigor on site with abundant Juniper communities as well.

Observed Apparent Trend

TB-03	**2012**
Vigor	10
Seedlings	10
Surface Litter	5
Pedestals	5
Gullies	5
Total	35
Rating	*upward*

Percent Cover

TB-03	**2012**
Bare Ground	29
Litter	11
Rock	28
Vegetation	32
Crust	0

TB-04 - West Pasture

Years Data Recorded: 1981, 1982, 1985, 1999, 2008, 2012.
Photo Trend: Photo trend looks *stable to downward*. An observed apparent trend in 2012 was recorded as downward due to heavy grazing and drought conditions. Long term photo trend of the site looks very similar over time with appropriate species diversity and density of perennial plants indicating the site looks stable. This pasture is typically grazed heavily and plants tend to have low vigor. This pasture was planted to crested wheatgrass maybe in the 1960's sometime.

Observed Apparent Trend

TB-04	**2012**	**2008**
Vigor	2	5
Seedlings	3	4
Surface Litter	3	3
Pedestals	3	5
Gullies	5	5
Total	16	22
Rating	*downward*	*stable*

Percent Cover

TB-04	**1981**
Bare Ground	54
Litter	40
Rock	1
Vegetation	5
Crust	0

TB-06 - West Pasture

Years Data Recorded: 1987, 2009, 2012
Photo Trend: *Stable to downward.* This site has been overtaken with Juniper and therefore a decrease in perennial grass species from 1987 to 2009 and 2012 has been observed. This is also the reason for the down observed apparent trend calls in 2009 and 2012. This is outside of the crested wheatgrass seeding in the pasture and soils are very sandy looks to have a high susceptibility to wind and water erosion.

Observed Apparent Trend

TB-6	**2012**	**2008**
Vigor	2	2
Seedlings	2	2
Surface Litter	3	2
Pedestals	3	5
Gullies	5	5
Total	15	16
Rating	*downward*	*downward*

Percent Cover

TB-6	**2012**
Bare Ground	76
Litter	13
Rock	1
Vegetation	0
Crust	0