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

Rangeland Health Assessment Update for the Rabbit Basin Allotment #516

1/23/13

The original Rabbit Basin Allotment Rangeland Health Assessment was conducted in 2003. This assessment included both Sunstone and Hogback Pastures of the allotment. Each pasture has one trend plot. RB-02 was established in the Sunstone Pasture in 1985. RB-03 was established in the Hogback Pasture in 1985.

The Hogback and Sunstone Pastures are grazed by the same operator. In 2012, Hogback Pasture was utilized from 3/16-4/15 and Sunstone Pasture was utilized from 2/20-3/15. The Rabbit Basin Allotment has 1,846 Active AUMs and only 733 of which were applied for in 2012.

Standard	Met 2003	Not Met 2003	Current Assessment 2012 Met/Not Met	Comments
1. Watershed Function – Uplands	Met	_	Met	The 2003 Rangeland Health Assessment stated that 28% of the allotment in the moderate Erosion Condition Class and that the loamy sand and sandy loam soils are susceptible to wind and water erosion. Rb-02 of the Sunstone Pasture has a strong diverse plant cover whereas RB-03 of the Hogback Pasture has good plant cover but is mostly crested wheatgrass and cheat grass. There is good plant vigor and plants are able to complete their reproductive cycle following grazing use each fall and winter, and are provided with periodic spring rest. Organic matter in the form of plant litter is accumulating and being incorporated into the soil. Available trend data shows that plant cover is increasing and the amount and distribution of bare ground is decreasing and is within the range of variability expected for the ecological sites found in the allotment.
2. Watershed Function Riparian/ Wetland Areas	Met	_	Met	The 2003 Rangeland Health Assessment stated that 318 acres of palustrine wetlands are found in this allotment and were rated at Proper Functioning Condition.
3. Ecological Processes	Met	_	Met	According to the 2003 Rangeland Health Assessment, 60% of the allotment is in an early seral stage. This is observed in the crested wheatgrass seeding found at RB-3 in Hogback Pasture. A stronger plant composition is found at RB-2 in Sunstone Pasture. Available trend data shows that organic matter is accumulating in the form of litter and is being incorporated into the soil in both pastures. Plant roots appear to be occupying the soil profile, stabilizing the soil.
4. Water Quality			_	There are no Oregon listed water quality limited streams in this pasture (Rangeland Health Assessment, 2003).
5. Native, T/E, and Locally Important Species	Met	_	Met	The allotment is supporting numbers of mule deer and pronghorn antelope identified by Oregon Department of Fish and Wildlife (ODFW) management plans. There are no special status plants present within this allotment. No special status plants are known to occur on the Rabbit Basin Allotment. Locally Important Plants species include Lewisia rediviva and Lomatium nevadense, both known to have cultural uses.
Guidelines for Livestock Management	Met	_	Met	Existing grazing management practices or levels of grazing use on the Rabbit Basin Allotment promote achievement of these guidelines. These pastures have and continue to be grazed during the winter, and are provided with periodic spring rest. This grazing season enables the grass species to complete their reproductive life cycle each year.

2012 Determination

- (X) Existing grazing management practices of levels of grazing use on the Rabbit Basin Allotment promote achievement of significant progress towards the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.
- () Existing grazing management practices or levels of grazing use on the Rabbit Basin Allotment will require modification or change prior to the next grazing season to promote achievement of the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

Sunstone and Hogback Pastures of the Rabbit Basin Allotment

Monitoring Summary 2012 (see Lakeview Resource Area Monitoring Files for Raw Data):

In 2012, Hogback Pasture was utilized from 3/16-4/15 and Sunstone Pasture was utilized from 2/20-3/15. The Rabbit Basin Allotment has 1,846 Active AUMs and only 733 of which were applied for in 2012. Rabbit Basin was split into two pastures in 2003. The Actual Use and Utilization data from 1992-2002 can be compared to the total AUMs in the data from 2003-2012. The average actual use from 2003-2011 is 952 AUMs (Sunstone-557; Hogback-395), and target utilization level of 50% was reached once and exceeded once in Hogback Pasture. Lots of remaining old feed was observed this year in both pastures.

Actual Use and Utilization

Year	Sunstone AUMs	% Utilization	Hogback AUMs	% Utilization	Total AUMs
2012		45		27	
2011	665	36	923	33	1588
2010	453	31	331	29	784
2009	446	26	144	20	590
2008	464		486	50	950
2007	713	30	186	51	899
2006	572		687		1259
2005	310		0		310
2004	293	13	286	14	579
2003	1099	40	508	38	1607
Average	557	31.6	394.5	32.75	952

Year	Rabbit Basin AUMs	% Utilization
2002	968	
2001	2009	38
2000	1402	54
1999		
1998	1097	37
1997	1012	
1996	719	52
1995	1486	55
1994	1111	57
1993	331	

Year	Rabbit Basin AUMs	% Utilization
1992	1552	61.3
Total	11687	
Average	1121	

Utilization in the Rabbit Basin Allotment has exceeded the target utilization of 50% one time in the last 20 years. The total active AUMs have been exceeded one time out of the last 10 years, and use has always been within permit dates. The permittee has turned in actual use each year for the last 10+ years.

Sunstone Pasture:

Observed Apparent Trend

RB-2	2005	2010	2012
Vigor	6	5	6
Seedlings	6	6	6
Surface	3	3	4
Litter			
Pedestals	5	4	5
Gullies	5	5	5
Total	25	23	26
Rating	Stable	Stable	Upward

Cover

COVCI				
	1985	2005	2010	2012
Bare Ground	64	38	41	30
Litter	25	20	22	30
Rock	0	4	0	0
Vegetation	11	38	36	40
Crust/Moss	0	0	1	0

% Composition

	1985	2005	2010	2012
Bluejoint	17	0	0	0
ELTR	0	50	34	35
SIHY	19	36	4	3
BRTE	13	6	0	0
ARTR	35	14	57	60
SAVE	0	0	3	0
Hop sage	0	0	2	2
Misc. forb	19	12	0	0

The RB-2 plot was established in the Sunstone Pasture of the Rabbit Basin Allotment in 1985. Although high scores were not given for vigor, trend photos and consecutive notes were made about tall and abundant green growth, especially Basin Wildrye. The percent bare ground has decreased and litter and vegetation cover has increased. The percent composition varies widely each year. Some cheat grass and mustard is present at this site, but overall this pasture is in stable condition.

Hogback Pasture:

Observed Apparent Trend

o book to day appear on the real and				
	2010	2012		
Vigor	6	7		
Seedlings	4	5		
Surface	4	5		
Litter				
Pedestals	4	5		
Gullies	5	5		
Total	23	27		
Rating	Stable	Upward		

Cover

	1985	2010	2012
Bare Ground	76	27	23
Litter	5	29	52
Rock	7	0	3
Gravel	0	0	0
Vegetation	12	43	22
Crust/Moss	0	1	0

% Composition

	1985	2010	2012
Cereal Rye	11	0	0
AGCR	17	74	100
BRTE	43	16	27
Mustard	0	9	0
Misc. forb	28	0	0
Astragalus	1	0	0
Lupin	0	1	0

The RB-3 plot was established in the Hogback Pasture of the Rabbit Basin Allotment in 1985. A wildfire occurred in 1983 and resulted in a crested wheatgrass seeding with cheat grass present throughout and very little forbes or grass diversity. The trend data and photo analysis indicates a stable trend at this site. Percent bare ground has decreased and the percent litter has increased over time.

Hogback Pasture Biological Soil Crusts

		% of
hogback BSC	Sum_ACRES	area
ND	443	6
0	23	0
1	1970	26
2	57	1
4	1938	26
6	1525	20
ND	1617	21

Sunstone Pasture Biological Soil Crusts

		% of
Sunstone BSC	Sum_ACRES	area
ND	361	1
1	436	2
2	2759	11
4	2172	9
6	16731	68
8	463	2
ND	1753	7