

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

UPDATE for the
West Venator and Ryegrass Pastures
of the
Alkali Winter Allotment #01001

June 2014

The Alkali Winter Allotment is located 60 miles north of Lakeview, Oregon. It encompasses approximately 79,472 acres of Bureau of Land Management (BLM) administered lands and 845 acres of other ownerships. The allotment is divided into seven pastures: West Venator, East Venator, Hutton Springs, Common, Hotch-Leah North, Hotch-Leah South, and Ryegrass Upper, and Ryegrass Lower. The original Alkali Winter Allotment Rangeland Health Assessment (RHA) was conducted in 2003 and the entire allotment met all five standards. This assessment is an update to the original RHA, and covers just the West Venator and Ryegrass Pastures. A summary of the 2003 RHA and recent assessment update are presented in the table below.

Summary of Rangeland Health Assessments for the West Venator and Ryegrass Pastures of the Alkali Winter Allotment

Standard	2003 Assessment	2014 Assessment	Comments
1. Watershed Function – Uplands	Met	<p>Not Met on a portion of two pastures</p> <p>Met on the majority of two pastures</p>	<p>This standard was met in the original 2003 RHA. Approximately 33% of the allotment was in the moderate SSF erosion condition class, which indicates some active erosion and evidence of past erosion. This occurred in areas with sandy soils that are susceptible to wind and water erosion.</p> <p>Grazing occurs during the winter each year and is designed to maintain healthy perennial vegetative communities. Winter grazing provided growing season rest every year, providing plants the opportunity to complete their annual lifecycles. Plant composition and community structure was used as an indicator to evaluate this standard in 2003. The allotment contained a variety of native, deep- rooted species that provided adequate cover to assist in properly functioning soils. Root systems of perennial vegetation assisted in holding soil in place. Perennial vegetation provided protective cover to reduce soil movement, decrease compaction and increase infiltration.</p> <p>In 2014, long-term trend monitoring indicated that this standard is being met in most areas of the two pastures. However, about 1,500 acres within the Ryegrass Pasture, and approximately 375 acres within the West Venator Pasture are not currently meeting this standard. Livestock grazing is not a causal factor. Grazing continues to occur in these pastures during the winter each year, allowing plants to complete their annual lifecycles. The downward trend in the Ryegrass Pasture may have been a result of an increase in cheatgrass and sagebrush cover. The downward trend within the West Venator Pasture is due to alkalinity of the soil.</p> <p>The ID team recommends rehabilitating the 1,500 acres in the Ryegrass Pasture by conducting weed treatment and seeding. The team did not recommend rehabilitation of the 375 acres within the West Venator Pasture due to the low productivity of the site, and small chance of success.</p>
2. Watershed Function Riparian/	Not Applicable	Not Applicable	There are no perennial streams, riparian areas, or wetlands on BLM-administered lands within the pastures.

Wetland Areas			
3. Ecological Processes	Met	<p>Not Met on a portion of 2 pastures</p> <p>Met on the majority of the 2 pastures</p>	<p>This standard was met in the original 2003 RHA. The ID team observed that there were no livestock grazing issues at that time. There were many areas with shrub cover and forb diversity depending on soil type. They noted biological soil crusts to be present. Hilltops and upper elevation areas possessed the greatest plant diversity including grasses forbs and shrubs.</p> <p>In 2014, long-term trend monitoring indicated that this standard is being met in most areas of the 3 pastures. However, approximately 1,500 acres within the Ryegrass Pasture and 375 acres within the West Venator Pasture were not meeting this standard; livestock grazing is not a causal factor. Grazing has continued to occur during the winter each year, allowing plants to complete their annual lifecycles. The downward trend in the Ryegrass Pasture may have been a result of an increase in cheatgrass and sagebrush cover. The downward trend within the West Venator Pasture is due to alkalinity of the soil.</p> <p>The 2003 RHA noted that hoary cress was present around the troughs below Poor Jug Well. To date, noxious weeds known to occur within the Alkali Winter Allotment include Hoary Cress (<i>Cardaria draba (L.) Desv.</i>) and Bull thistle (<i>Cirsium vulgare (Savi) Ten.</i> Noxious weeds are currently being managed under the Integrated Noxious Weed Management Program EA (BLM2004b).</p> <p>The 2014 ID team recommends rehabilitating the 1,500 acres in the Ryegrass Pasture via weed treatment and seeding. The team did not recommend rehabilitation of the 375 acres within the West Venator Pasture due to the low productivity of the site, and small chance of success.</p>
4. Water Quality	Not Applicable	Not Applicable	There are no perennial streams, riparian areas, wetlands on BLM-administered lands within the 3 pastures.
5. Native, T/E, and Locally Important Species	Met	Met	<p>This standard was met in the original 2003 RHA. No special status or culturally important plant species were found within the allotment.</p> <p>The 2003 RHA noted that five special status wildlife species or their habitats occurred within the allotment. They included: Bald eagle, ferruginous hawk, peregrine falcon, burrowing owl, and pygmy rabbit. There were also 4 wildlife species of high public interest present, including sage-grouse, mule deer, California bighorn sheep, and pronghorn antelope.</p> <p>No bald eagle nests or nesting habitat existed within the allotment, but it was suspected that they were occasional visitors to the surrounding area. Bald eagle foraging was likely restricted to road kill adjacent to Highway 395 and occasional carrion scattered through the allotment.</p> <p>No nesting was documented within the allotment for peregrine falcons, but it might have been available on cliff faces to the east. Falcons were observed in the general area, but no sightings occurred within the allotment, nor</p>

		<p>were any good foraging areas available within close proximity of the allotment. There were no resource conflicts identified for peregrine falcons or bald eagles.</p> <p>Habitat was also suspected for ferruginous hawk, burrowing owl, and pygmy rabbits, but locations for these species were not known in the allotment. Occasional sightings of burrowing owls have occurred within the allotment, but during past inventories none were located.</p> <p>No specific inventories had been conducted for ferruginous hawks or pygmy rabbits; however, there have been sittings within the surrounding area. Pygmy rabbits have not been confirmed in the allotment to date. There were no resource conflicts identified for these species.</p> <p>Some mule deer winter range was noted along the eastern edge of the allotment, but no resource conflicts were identified with livestock.</p> <p>Bighorn sheep habitat was also noted along the eastern edge of the allotment in 2003 and is still present today, but no resource conflicts have been identified with livestock. ODFW has described the habitat in the surrounding area as adequate to accommodate future population expansion goals. The only limitation is limited perennial water sites and unrestricted movement from these sites.</p> <p>Pronghorn antelope were noted on the western edge and in the extreme southern portion of the allotment, due to lack of tall shrubs. No major conflicts were identified between pronghorn and livestock.</p> <p>In 2003, there were no sage-grouse leks noted within the allotment, but they were suspected to use portions of the allotment for other habitat requirements. Based on ODFW's most recent sage-grouse lek data, there are still no occupied leks found within the allotment. There are no leks within 4 miles of the West venator or ryegrass pastures within the allotment.</p> <p>In 2003, sage-grouse habitat within the allotment was characterized as containing approximately 4% suitable nesting habitat, 18% suitable brood rearing habitats, and 15% suitable winter habitat. This is still the case in 2014. The majority of these suitable habitats are located in the ryegrass pasture. The West Venator pasture was found to be primarily salt desert scrub community and crested wheatgrass seeding. No major conflicts were between sage-grouse and livestock were identified.</p> <p>Currently, about 6,875 acres of the allotment falls within preliminary general habitat (PGH), no preliminary priority habitat (PPH) exists within the allotment.</p> <p>Special status bats may occur, but likely only involve</p>
--	--	---

			<p>individuals occasionally foraging or migrating through the area.</p> <p>Habitat within the Alkali Winter Allotment is supporting an appropriate assemblage of sagebrush steppe wildlife species, no substantial conflicts exist with current livestock grazing management, and therefore the allotment is meeting this standard.</p>
--	--	--	---

2014 ID Team Members

Name	Title
Jayna Ferrell	Rangeland Management Specialist
Theresa Romasko	Assistant Field Manager
Grace Haskins	Weed Management Specialist
Jimmy Leal	Fisheries Biologist
Todd Forbes	Assistant Field Manager
Ian Grinter	Botanist
Paul Whitman	Planning and Environmental Coordinator

2014 Determination

Existing grazing management practices on the West Venator and Ryegrass Pastures of the Alkali Winter 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 the West Venator and Ryegrass Pastures of the Alkali Winter 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 applicable Guidelines for Livestock Grazing Management.



Thomas E. Rasmussen, Field Manager

6/8/14

Date

Alkali Winter (West Venator and Ryegrass Pastures) Monitoring Summary

The West Venator and Ryegrass Pastures are grazed during the winter (11/1-2/28) each year. The total permitted AUMs for the West Venator and Ryegrass Pastures are 2,005 (permit #3601487). The total average actual use over the last 10 years is 1,453 AUMs for West Venator and 275 AUMs for Ryegrass. Of the years utilization data has been collected, the target utilization of 65% (associated with winter use) has not been exceeded on the pastures (Table 1).

Table 1. West Venator and Ryegrass Pastures (Alkali Winter Allotment #01001) Actual Use and Utilization Data by Year

Year	West Venator AUMs	% Utilization (WV)	Ryegrass AUMs	% Utilization (RG)	Total AUMs (WV + RG)
2013	1155	40	280	10	1435
2012	805	37	233	30	1038
2011	1303	44	199	22	1502
2010	1687	39	295	38	1982
2009	1395	44	351	33	1746
2008	1588	46	420	13	2008
2007	1645	57	413	43	2058
2006	1680	32	0	non-use--BT	1680
2005	1505	54	317	27	1822
2004	1764	46	239	28	2003
2003	1692	34	431	32	2123
2002	2026	60			2026
2001	1709	43	274		1983
2000	1954	57			1954
1999	2209	38			2209
1998	1528		480		2008
1997	1971	75			1971
1996	1772		257*		1772
1995	1420				1420
1994	2417				2417
1993	688	30			688
1992		57			0
1991	1210	73			1210
1990	2668	63			2668
Avg 10 yrs	1452.7	43.9	274.7	27.1	1727.4
Average	1627.9	48.5	280.9	27.6	1814.0

West Venator Pasture Trend Plots

AW-4 (Photo and Pace 180) - *Stable*

Observed Apparent Trend

	2009	2012
Vigor	9	7
Seedlings	8	8
Surface Litter	5	5
Pedestals	5	3
Gullies	5	5
Total	31	23
Rating	<i>Upward</i>	<i>Upward</i>

%Cover

	1985	2009	2012
Bare Ground	50	31	23
Litter	21	11	29
Rock	18	3	2
Gravel	0	0	17
Vegetation	11	46	29
Crust/Moss	1	9	

% Composition

	1985	2009	2012
Crested Wheatgrass	72	73	89
Lupin		21	
Annual Forb		2	
Green Rabbitbrush		4	
Gray Rabbitbrush			4
Squirreltail	1		
Cheatgrass	26		1
Greasewood			1

Years in which photos were taken: 2012, 2009, 1994, 1986, 1985, 1984, 1983, and 1982.

Percent bare ground has decreased from 1985 through 2012 at plot AW-4. Litter has varied over the three years, and was lower in 2009. Cheatgrass was not recorded in 2009, but was recorded in 1985 and 2012. 2009 was noted to be a good growth year with abundant spring/early summer rain, explaining the influx of forbs, and the increase of vegetative cover recorded. 2012 was a fairly dry year. Percent composition of crested wheatgrass remained fairly stable, with an increase in 2012.

This photo plot was established in the spring of 1982, when the area was seeded, then taken again four times throughout the growing season and the fall of 1982 to show germination in the first year. Photos in 1983 show crested wheatgrass becoming established and increasing in frequency. Photo analysis indicates the site remaining stable through 2012, with differences being in the time of year the photo was taken, and the amount of regrowth that occurred after grazing. Cheatgrass was prevalent when the

seeding was established and younger, but is not as abundant in recent photos. Shrubs have slowly increased over the years, but are not abundant at this time.

Overall, trend at this site (AW-4) is stable.

AW-6 (Photo) - Stable

Observed Apparent Trend at AW-6

	2009	2012
Vigor	7	8
Seedlings	7	8
Surface Litter	5	5
Pedestals	3	5
Gullies	9	5
Total	27	31
Rating	<i>Upward</i>	<i>Upward</i>

Years in which photos were taken: 2012, 2009, 2002, 1989, 1986, 1985, 1984, and 1983.

This seeding was established in 1983, and photos indicate some crested wheatgrass seedlings within drill rows. 1984 through 1985 shows the seeding becoming established and more abundant. Greasewood increased between 1986 and 1989. The site remained stable from 1989 through 2012, with slight differences being the time of year the photo was taken.

Overall, trend at this site (AW-6) is stable.

Holding Pasture (used with the West Venator Pasture)

AW-7 (Photo) - Stable

Observed Apparent Trend at AW-7

	2000	2009	2012
Vigor	6	8	7
Seedlings	2	8	4
Surface Litter	5	4	5
Pedestals	5	5	3
Gullies	5	5	5
Total	23	30	24
Rating	<i>Stable</i>	<i>Upward</i>	<i>Stable</i>

Years in which photos were taken: 2012, 2009, 2000, 1989, 1984, and 1983.

This plot was established to record changes in the area resulting from the rehabilitation effort in this part of the Sharp Top Fire of 1983. This study would compare sites inside and outside of the enclosure surrounding the Poor Jug Well. The 1983 photos show the area after the Sharp Top Fire. The 1984 photos show the area being composed mostly of cheatgrass and mustard. Crested wheatgrass and squirreltail plants are sparse. By 1989, the crested wheatgrass seeding has become established, and plants are abundant for the site. The photos indicate that use has occurred within the enclosure. Shrubs (mainly greasewood) have become established and are fairly abundant in the 1989 photos. The 3X3 plot inside the enclosure shows an increase of crested wheatgrass plants and an increase in vigor of existing plants as compared to 1989. There is also an increase in green rabbitbrush as seen in the 2000 photos as compared to the 1989 photos. This site has remained stable from 2009 through 2012 as indicated by photo analysis. Differences in photos include time of year the photos were taken, precipitation received, and regrowth that occurred.

Overall, trend at this site (AW-7) is stable.

West Venator Pasture

AW-16 (Photo) – Stable

Observed Apparent Trend at AW-16

	2000	2009	2012
Vigor	6	5	7
Seedlings	2	5	5
Surface Litter	3	4	5
Pedestals	5	4	4
Gullies	5	5	5
Total	21	23	26
Rating	<i>Stable</i>	<i>Stable</i>	<i>Upward</i>

Years in which photos were taken: 2012, 2009, 2000, 1993, 1987, 1985, 1984, 1983, 1982, 1981

This trend plot was established in 1981 to record the establishment of the Venator Seeding and monitor future use of the area. The 1981 photos were taken in the fall and show the area after being drill seeded. The 1982 photos were taken in June, and show crested wheatgrass seedlings along with cheatgrass. The 1982 photos were taken in the fall, and show tall crested wheatgrass seed heads with little vegetative growth. Cheatgrass is abundant at this site, and a few greasewood plants are establishing. The 1983 photos show the crested wheatgrass plants becoming more abundant and vegetative. The 1983 photos were taken in the spring as well as the fall. The photos that were taken in the spring show cheatgrass growing within the interspaces of the crested wheatgrass plants. The 1987 photos show the crested wheatgrass plants minus the cheatgrass in the 1983 photos. The 1987 photos appear show little change as compared to 1983, with the exception of residual vegetation. The 1993 photos show a decrease of crested wheatgrass plants and downward trend as compared to the 1987 photos. The majority of the vegetation is greasewood and mustard in the 1993 photos, and crested wheatgrass plants are extremely difficult to see within the 3X3 plot, as compared to the 1987 photos. The 1993 photos were taken the later part of July, everything is dry, and existing crested wheatgrass plants are extremely difficult to see. In 2000, the crested wheatgrass plants are visible and are present

at the site and some within the 3X3 plot, although the number has slightly decreased since the 1987 photos. Greasewood has increased at this site in 2000 as compared to 1993 and previous photos. Photo analysis indicates trend has been stable since the 1993 photos. The 2009 photos indicate a stable trend between 2000 and 2009. Cheatgrass is also fairly prevalent on the site in 2009. The 2009 photos were taken the middle of June, and the 2012 photos were taken in the middle of July. Crested wheatgrass plants remain relatively unchanged between years; however, the site appeared extremely dry in 2012. Cheatgrass was prevalent in the 2009 photos, but has dried up becoming litter by the time the photos were taken.

This plot has experienced a downward trend in the past, but has remained stable in recent years. This area has been grazed during the winter for many years, at a time when plants are dormant. This grazing system allows plants to complete their annual lifecycles. This site is a highly alkaline site, and may be difficult site for perennial grass species survive. This site is not currently meeting rangeland health standards 1 and 3, but this does not appear to be due to current livestock grazing practices. Rehabilitation of the site would be needed to improve site conditions, but the ID team does not recommended this due to the low productivity of the site, and the unlikelyhood of success.

Overall, trend at this site (AW-16) is stable.

Ryegrass Pasture

AW-14 (Photo) – Stable

Observed Apparent Trend at AW-14

	2000	2009	2012
Vigor	4	4	3
Seedlings	2	4	3
Surface Litter	3	4	4
Pedestals	3	5	5
Gullies	4	5	5
Total	16	24	20
Rating	<i>Downward</i>	<i>Stable</i>	<i>Stable</i>

Years in which photos were taken: 2012, 2009, 2000, 1992, 1982, 1981, 1980, 1979, 1977, 1976, 1975, 1973, 1970.

This trend plot was established in 1970 to record vegetative and erosion trend in Alkali Winter area, which is now the Ryegrass Pasture. This pasture was established, and fence built, in 1991. Photos were analyzed from 1992 through 2012, from when the pasture was established to present.

The 1992 photos show a healthy stand of sagebrush without a healthy understory. The 1992 photos show bare ground between sagebrush plants. The 2000 photos are similar to the 1992 photos, but there is one or two perennial grass species present under the sagebrush. The photos from 2009 were taken in the same general area, but they were not taken in the same exact location. Sagebrush appears stable in the 2009 photos as compared to the 2000 and 1992 photos. The 2009 photos show an increase of cheatgrass and annual mustard, as compared to previous years. Litter accumulation has also

increased. The 2012 photos appear to have been taken closer to the original location than the 2009 photos. The 2012 photos show an abundance of cheatgrass with a few (2-3) perennial grass species visible. This trend plot experienced a downward trend previous to 1992. An increase in cheatgrass and sagebrush cover may have been the cause of the downward trend. Current livestock grazing use has not contributed to the poor condition at this trend site. This pasture has been grazed during the winter (when plants are dormant) for the last thirteen years, which allows plants to complete their annual lifecycles. This site is in poor condition, but has remained stable from 1992 through 2012. This site is not meeting Rangeland Health Standards 1 and 3, but current livestock grazing does not appear to be a contributing factor.

The ID team made recommendations to improve the site by conducting both weed/invasive species treatment and reseeding with a mix of native and nonnative species.

AW-18 (Photo) – Stable

Observed Apparent Trend at AW-18

	2012
Vigor	6
Seedlings	5
Surface Litter	3
Pedestals	3
Gullies	5
Total	22
Rating	<i>Stable</i>

This trend plot was established in the Ryegrass Pasture in 2012. The purpose of this plot was to add an additional long-term monitoring site to the pasture. The observed apparent trend recorded the site as stable in 2012. In the photos, bare ground is abundant. Grass species are lacking between the shrubs, and shrub seedlings are visible. Squirreltail seedlings are present on the site and that there is an abundance of cheatgrass. Cheatgrass can also be seen in the photos, but not in abundance. Based on the photos, OAT, and field notes, this site is stable. This site is not meeting rangeland health standards 1 and 3, but livestock grazing does not appear to be a contributing factor. This pasture has been grazed during the winter (when plants are dormant) for the last thirteen years, allowing plants to complete their annual lifecycles.

Overall, trend at this site (AW-18) is stable.

The ID team made recommendations to improve the site by conducting weed/invasive species treatment and reseeding with a mix of native and nonnative species.

AW-19 (Photo) - Stable

Observed Apparent Trend at AW-19

	2012
Vigor	7
Seedlings	6
Surface Litter	4
Pedestals	5
Gullies	5
Total	27
Rating	<i>Upward</i>

%Cover

	2012
Bare Ground	35
Litter	21
Rock	3
Gravel	0
Vegetation	34
Crust/Moss	7

% Composition

	2012
Squirreltail	17
Sandberg bluegrass	43
phlox	4
basin big sagebrush	26
green rabbitbrush	6
greasewood	1
gray rabbitbrush	1
hopsage	1

This trend plot was established in the Ryegrass Pasture in 2012. The purpose of this plot was to add an additional long-term monitoring site to the pasture. The observed apparent trend recorded at the site was upward in 2012.

Shrubs appear healthy and vigorous with a grass understory. Grass species are present between shrubs in the interspaces. Percent bare ground is about 35% with percent vegetation cover being about 34%. A forb was recorded at this site and comprised about 4% of the percent composition. Considering the monitoring data, observed apparent trend, and photo monitoring, this site is stable and is currently meeting RHA Standard 1 and 3.

Overall, trend at this site (AW-19) is stable.



