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

Rangeland Health Assessment Update for the
South Poverty Allotment #00430

April 2015

Summary of Rangeland Health Assessments for the South Poverty Allotment

Standard	2014	Summary 2014	2006	Summary 2006
1. Watershed Function – Uplands	Met	Trend studies read within the past two field seasons indicate a stable to upward trend for all locations (see Appendix A)	Met	Soil Surface Factor and Plant Community Composition did not substantially deviate from what was expected for the site.
2. Watershed Function Riparian/ Wetland Areas	Met	The National Wetlands Inventory (NWI) classified approximately 367 acres of lacustrine wetlands or ponds in this allotment. These lacustrine wetlands or ponds delineated are alkali playas, many with stockpond dugouts. Where applicable, these playas continue to meet lentic Proper Functioning Condition (see narrative below).	Met	The allotment contained 85 acres of lacustrine and 138 acres of lacustrine habitats. All acres were classified as Proper Functioning Condition in 1998.
3. Ecological Processes	Met	Trend data collected and analyzed for the past two field seasons indicate that the majority of the allotment is in stable to upward trend. The trend data collected supports the Ecological Site Inventory (ESI) observed apparent trend data in 1996 and 1997 that 79 percent or more of the allotment is in stable (or static) to upward trend.	Met	The Ecological Site Inventory (ESI 1996-1997; refer to Appendix A) indicated 51% of the allotment was in mid to late seral stage and 17% was in early seral stage. Thirty two percent of the allotment was seeded to crested wheatgrass and was not defined by seral stage. Observed Apparent Trend indicated that 79% of the allotment was in static or upward trend and 21% was in a downward trend. **Wildlife:** Much of the area supported healthy, diverse wildlife populations. Wildlife populations within non-native seedings and heavily infested cheatgrass areas were not as diverse as they could be if they were in a late seral stage or closer to their potential vegetative communities. They did, however, still have adequate levels of species diversity to remain functional. This standard was met from the aspect of wildlife populations and diversity.
4. Water Quality	Not Applicable	There are no perennial streams or wetlands within this allotment	Not Applicable	There were no perennial streams or wetlands within this allotment
5. Native, T/E, and Locally Important Species	Met	Sparse sagebrush cover continues to be a limiting factor for sagebrush associated wildlife species (see causes and potential treatments under 2006 RLH wildlife report). Site specific plant surveys associated with current and historic projects have been conducted. To date, no Special Status Plants have been found.	Met	**Wildlife:** Overall, this standard was met for wildlife species within this allotment. The occurrence of old wildfires (crested wheatgrass seedings), cheatgrass and salt desert shrub communities appeared to be limiting factors for sage grouse and most sagebrush-dependent wildlife species. **Plants:** This area was surveyed for special status plants and none were found.

STANDARD 1 - Upland Watershed -Upland soils exhibit infiltration and permeability rates, moisture storage, and stability that are appropriate to soil, climate, and landform.

Meets Standard.

Trend studies conducted throughout the allotment in the past two field seasons (2013 and 2014) show stable to upward trend throughout the allotment. This is evident by observed apparent trend (OAT), nested frequency trend, 180 pace transects, and photo trend monitoring. Three of these monitoring methods are quantitative in nature, the OAT, Nested Frequency Trends, and the 180 pace transects. These three studies all measure attributes that would affect permeability and soil stability or erosion potential. This includes perennial plant cover, amount of bare ground, biological crust cover, seedling establishment, litter, and plant community composition. Based on this quantitative data and supplemented with qualitative data (photo monitoring), the majority of the allotment was found to be in stable to upward trend.

STANDARD 2 -Riparian/Wetland-Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and landform.

Meets Standard.

The National Wetlands Inventory (NWI) classified approximately 367 acres of lacustrine wetland or ponds in this allotment. The majority of these acres are found within two large playas, the Poverty Basin and the Poverty Corners playas. These are unvegetated, seasonally-flooded alkali lakebeds during the few spring-early summer months when water is present. The remainder of the wetlands that were delineated consist of smaller playa lakebeds, the majority with constructed livestock dugout waterholes located throughout the allotment. These playas continue to meet Lentic Proper Functioning Condition (PFC) where this is applicable. Stockponds or dugouts within the playa are serving their intended purpose of providing seasonal water for both livestock as well as wildlife, and are not subject to PFC.

STANDARD 3 -Ecological Processes-Healthy, productive, and diverse plant and animal populations and communities appropriate to soil, climate, and landform are supported by ecological processes of nutrient cycling, energy flow, and hydrologic cycle.

Meets Standard.

Vegetation: Trend data collected and analyzed for the past two field seasons (2013 and 2014) indicate that the majority of the allotment is in stable to upward trend. The trend data collected supports the Ecological Site Inventory (ESI) observed apparent trend data in 1996 and 1997 that 79 percent or more of the allotment is in stable (or static) to upward trend (see Table 2, Appendix A).

Utilization data has been collected in this allotment annually for over 30 years. Table 1 (Appendix A) shows the past 19 years of Actual Use and Utilization data by pasture. Moderate or less (Moderate category is 40-60 percent) utilization is represented in all but two instances in the past 19 years. There were two occurrences when heavy (60-80 percent) use occurred in two separate pastures. One occurrence in 2006, and one in 2008. These were isolated incidents and both pastures were rested the following year.

Light to moderate scattered infestations *Bromus tectorm* (cheatgrass) are present within the allotment. The majority of the moderate infestations are located within the Wyoming big sage understory plant communities. Other non-native winter annual grass species such as *Vetenata*

dubia (north Africa grass) and *Taeniatherum caput-medusae* (medusahead) have a probability to invade this area due to the soil types and lack of other competitive vegetation. No other noxious weeds were found during the 2014 invasive plant survey, however there are several infestation of *Cardaria draba* (hoary cress), and *Halogeton glomeratus (*halogeton) in nearby areas. This allotment should continue to have periodic inventories for these and other invasive species. If detected, non-native invasive plants will be treated in accordance with the most updated invasive plant integrated pest management plan.

Wildlife: This standard is currently being met from the aspect of natural wildlife populations, diversity, and sustainability with current environmental conditions. The majority of habitats within the allotment are in functional condition and support natural ecological processes. Habitat quality and population levels fluctuate over time, and generally represent natural trends in the ecosystem; however, some species may show erratic or negative trends. These trends are determined through monitoring of habitat and animal composition and community structure. In 2006 and in 2013 the allotment was supporting the current and proposed number of mule deer and pronghorn antelope identified in ODFW big game management plans. This area supports diverse wildlife populations that are appropriate for the types of habitats available within the allotment.

STANDARD 4: NA

STANDARD 5: Native, T&E, and Locally Important Species

Meets Standard.

Plants:

Grasses: *Pseudoroegneria spicata (Agropyron spicatum), Poa secunda, Achnatherwn hymenoides (Oryzopsis humenoides), Leymus cinereus (Elymus cinereus), Elymus elymoides (Sitanion hystrix).*

Forbs: Few are evident at this time of year (late fall) *Zigadenus venenosus, Delphinium nuttallianum.*

Shrubs: *Ericameria nauseosa, Artemisia tridentata wyomingensis, Artemisia arbuscula.*

Special Status Species: This area has been surveyed for Bureau special status plants and none were found. At this point in time, there are no known Bureau special status plants found within the allotment.

Wildlife: Habitats currently support healthy, productive, and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soils, climate and landform.

Special status wildlife species or their habitats that may be present within these allotments include the Bald Eagle (*Haliaeetus leucocephalus*), Ferruginous Hawk (*Buteo regalis*), Peregrine

Falcon (*Falco peregrinus*), Burrowing Owl (*Speotyto cunicularia*), Greater Sage-Grouse *(Centrocercus urophasianus),* and pygmy rabbit (*Brachylagus idahoensis*). There are also three species with high public interest. These are mule deer (*Odocoileus hemionus*), California bighorn sheep (*Ovis canadensis*), and pronghorn antelope (*Antilocapra americana*).

No nesting or roosting habitat exists within this allotment for the Bald Eagle. It is suspected that they are occasional visitors to the area. Bald Eagle foraging does occur within the allotment; however it is probably restricted mostly to road killed deer adjacent to the major roadways and occasional carrion scattered through the allotment. Some marginal nesting habitat is available for Ferruginous Hawks and Peregrine Falcons on a few cliff faces within and adjacent to the allotment. No surveys have been conducted for Ferruginous Hawk or Peregrine Falcon and no incidental sightings exist within the allotment or surrounding area. There are no good foraging areas for Peregrine Falcons, but there are foraging areas for Ferruginous Hawk in scattered areas throughout the allotment. No Burrowing Owl sightings or nesting burrows have been observed within the allotment, however Burrowing Owls have been observed at locations adjacent to this allotment. Inventories for Burrowing Owls were conducted in 2000 and only occasional sightings were documented. There are no known resource conflicts for Peregrine Falcons, Ferruginous Hawks, Bald Eagles, or Burrowing Owls in the allotment.

Some marginal habitat is present for the pygmy rabbit, but no known locations exist within the allotment. No inventories have been conducted for this species within the allotment, however there are occasional sightings in the surrounding area and they are suspected to occur within portions of the allotment. There are no known resource conflicts for this species.

Habitat for bighorn sheep occurs on several small rims scattered across the allotment. The exact numbers of bighorns that use the allotment are not known, however it is suspected that bighorns only use the allotment for a portion of the year or may just pass through the allotment. There is little overlap in range between bighorns and cattle in general because of habitat partitioning. No major conflicts exist between bighorn sheep and cattle grazing within these allotments.

Pronghorn antelope are common in parts of the allotment. Pronghorn use is concentrated in portions of the allotment that have been burned, reseeded, or lack heavy shrub cover. No major conflicts exist between pronghorn and cattle grazing within this area.

Mule deer inhabit much of the allotment, but are widely spread and in low numbers. No high concentrations of wintering mule deer inhabit this allotment. No conflicts exist between mule deer and cattle grazing within this allotment. Bitterbrush is not very abundant and sagebrush browse use appears to be somewhat stable at this time.

There are two unoccupied pending Greater Sage-Grouse leks within the allotment, and another unoccupied pending lekwithin a mile and a half. None of these lek sites have been active for some time. The status of these three leks was checked from 2002-2005 and no birds were observed. The nearest occupied lek sites are 5-6 miles to the east. Large proportions of the allotment are currently unusable to sage-grouse due to grassland (crested wheatgrass) conversion from past wildfires, invasive cheatgrass, and salt desert scrub.

The allotment currently contains approximately 32% (14,370 acres) nesting and early brood rearing sage-grouse habitats. Winter habitat makes up an additional 34% (14,750 acres). These habitats are identified as Preliminary General Habitat (PGH). The other 34% (15,035 acres) of the allotment contains areas that are not suitable for sage-grouse primarily due to a lack of shrub cover due to past wildfires, and presence of seedings, cheatgrass, or salt desert shrub communities.

An estimated 56% of the area has the potential to become sage-grouse nesting or brood rearing habitat. Another 26% has the potential to become winter habitat. The remaining 18% of the area has no potential to become sage-grouse habitat. In order for sage-grouse habitats within these allotments to improve, much restoration work and time would be needed to return shrub cover to areas where it was removed by past wildfire.

Some areas that are now heavy cheatgrass or were seeded to created wheatgrass are slowly returning to sage-grouse nesting habitat. It is unclear how these will be used in the future by sage-grouse. There are similar habitats on the Vale BLM District that were cleared, seeded to crested wheatgrass, and then grazed. Sagebrush has returned to some of these areas and they are currently being used by sage-grouse despite the non-native understory of crested wheatgrass. No major conflicts exist between cattle grazing and sage-grouse within this allotment at this time.

Overall, this standard is being met for wildlife species within this allotment. The occurrence of old wildfires, cheatgrass, and salt desert shrub communities appear to be the limiting factors for sage-grouse and most sagebrush-dependent wildlife species. Efforts to improve this standard should focus on sagebrush restoration of past wildfire and seeded areas. This could be accomplished through intensive restoration efforts with fire, seeding, herbicides or through intensive grazing management. Use of intensive grazing to reduce root competition between crested wheatgrass and native shrubs and grasses can be accomplished successfully, but impacts from invasive species like cheatgrass should be considered before using this approach. Impacts to soils and availability of desirable seed sources also need to be accounted for.

2014 ID Team Members

Name	Title
David Probasco	Wildlife Biologist
Grace Haskins	Weed Management Specialist
Ian Grinter	Botanist
Michael Cutler	Rangeland Management Specialist
Theresa Romasko	Assistant Field Manager
Paul Whitman	Planning and Environmental Coordination

Guidelines for Livestock Management

Existing grazing management practices and levels of grazing use on the South Poverty Allotment are consistent with the Guidelines for Livestock Grazing Management (August 12, 1997). The pastures within the allotment continue to be grazed under a rest rotation grazing system, and are provided periodic growing season rest. The rest enables grass species recover and provide adequate cover for infiltration, moisture storage and maintains diverse plants communities.

2014 Determination

(X) Existing grazing management practices on the South Poverty 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 South Poverty 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.

/ Todd FOD 4-20-15

J. Todd Forbes Date
Field Manager
Lakeview Resource Area

Appendix A: South Poverty Allotment Monitoring Summary 2014 (see Monitoring Files for Raw Data):

Table 1. Actual Use and Utilization by Pasture

Year	South Poverty AUMs	% Utili-zation	South Abert AUMs	% Utili-zation	North Jug AUMs	% Utili-zation	South Jug AUMs	% Utili-zation	North west AUMs	% Utili-zation	North east AUMs	% Utili-zation	Water-haul AUMs	% Utili-zation	Total AUMs	Permitt-ed Active AUMs
1995	465	0%	569	0%	680	0%	0	0%	136	0%	308	0%	374	0%	2532	4202
1996	449	0%	0	41%	1611	0%	1253	0%	79	0%	512	50%	377	0%	4281	4202
1997	330	29%	292	34%	1198	45%	0	0%	884	35%	602	43%	462	56%	3768	4202
1998	361	3%	1350	60%	1041	48%	0	0%	0	0%	598	0%	364	30%	3714	4202
1999	302	20%	0	0%	1222	3%	0	0%	1233	0%	833	0%	502	0%	4092	4202
2000	347	40%	827	54%	806	33%	0	0%	1006	41%	0	0%	0	0%	2986	4202
2001	159	52%	1230	40%	1142	60%	0	0%	238	55%	781	47%	465	58%	4015	4202
2002	660	0%	0	0%	1313	0%	0	0%	794	0%	712	42%	423	35%	3902	4202
2003	453	48%	0	60%	252	43%	0	0%	688	54%	1053	48%	350	53%	2796	4202
2004	251	40%	0	0%	0	0%	676	0%	614	50%	0	0%	0	0%	1541	4202
2005	412	49%	0	38%	168	0%	1353	46%	0	0%	368	43%	128	37%	2429	4202
2006	450	22%	1179	67%	1034	13%	0	40%	1082	31%	0	0%	0	0%	3745	4202
2007	0	0%	769	0%	0	0%	1283	0%	556	0%	797	0%	33	0%	3438	4202
2008	933	50%	0	45%	1858	0%	0	0%	603	75%	0	0%	167	40%	3561	4202
2009	349	45%	0	0%	992	0%	1362	16%	0	15%	823	50%	0	0%	3526	4202
2010	0	0%	1155	0%	406	46%	943	30%	526	0%	666	0%	21	0%	3717	4202
2011	622	0%	808	0%	385	0%	1227	0%	112	17%	822	58%	197	0%	4173	4202
2012	0	0%	239	45%	179	36%	969	45%	1369	53%	621	13%	0	0%	3377	4202
2013	391	15%	954	30%	517	31%	802		615	48%	134	13%	270	0%	3683	4202
2014	506	36%	559	30%	198	29%	246	57%	90	13%	422	27%	0	0%	2021	4202
Avg. all years	**372**	**22%**	**497**	**27%**	**750**	**19%**	**506**	**12%**	**531**	**25%**	**503**	**22%**	**207**	**15%**	**3365**	
Avg. 10 years	**367**	**22%**	**560**	**26%**	**590**	**16%**	**790**	**25%**	**499**	**25%**	**469**	**21%**	**82**	**8%**	**3367**	

Table 2. South Poverty Allotment Trend Summary 2014

Trend Number and type	Trend	Recent Trend Reading
PS-01 OAT/Photo	Upward Trend	4/16/2014
PS-01 180/Photo	Stable	4/16/2014
PS-02 OAT/Photo	Upward Trend	8/6/2013
JM-01 OAT/Photo	Upward Trend	8/6/2013
JM-04 Freq. Trend/Photo	Upward Trend	8/10/2009
WJM-03 OAT/Photo	Upward Trend	4/16/2014
NA-01 Freq. Trend/Photo	Upward Trend sig. decrease in annual grass. Increase in per. grass, however not sig. 95% CI.	8/8/2013
NA-02 Photo	Stable	8/8/2013
NA-03 Freq. Trend/Photo	Upward Trend sig. decrease in annual grass. Increase in per. grass, however not sig. 95% CI.	8/7/2013
NA-04 Photo	Stable-Upward	8/8/2013
NA-05 Photo	Stable (playa, low potential)	8/13/2013

Pace 180 vegetation studies were established in this allotment as early as 1978. Permanent photo monitoring plots were established in conjunction with some of the 180 pace transects at this same time. Other photo monitoring plots were established in the early 1980's throughout the allotment. Nested Frequency Trends were established in various key areas in 1997 to supplement existing pace 180 and photo monitoring plots. Summaries of these monitoring efforts are described in Table 2. Photos and quantitative data (electronic and monitoring binders) are available at Lakeview Interagency Office.

Observed apparent trend (OAT) studies began in the South Poverty Allotment in 2009 to supplement the other existing monitoring efforts. OAT ratings show an average score of 33/35 which represents an Upward Trend throughout the allotment (see Table 2). Plant vigor had an average of 10/10. The majority of trend plots are located within crested wheatgrass monocultures representing the key forage species for the allotment. Seedlings of key forage species were rated at a 9 out of 10 overall with crested wheatgrass monocultures representing the key forage species. Surface litter was given an average rating of 5/5 with little or no movement of litter and little visible bare ground. The category of pedestaling was given an average score of 5/5. This score represents the commonality of fine or sandy soil and evidence of little erosion within the allotment. Gullies were rated as 5/5 or Not Applicable if not present. This rating also is evidence that erosion beyond what is expected for the site is not occurring.