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

## UPDATE for the

## Oatman Flat Allotment (#00705)

June 2014

**Background**

The initial Oatman Flat Rangeland Health Assessment was completed in 2004. This allotment is located 4 miles northwest of Silver Lake, Oregon. An allotment management plan was drafted up sometime in the early 1980's, but is out of date with current management.

The Oatman Flat Allotment has a total of 28,256 acres of BLM administered lands and 6,966 private land acres. A 10 year permit authorization number 3601441 authorized 2082 AUM's to be used sometime between 4/15-7/31. This allotment contains 6 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 Assessments for Oatman Flat Allotment (00705)**

| Standard | 2004 Assessment | 2014 Assessment Update | Comments |
|---|---|---|---|
| **1. Watershed Function – Uplands** | Met | Met | The 2004 rangeland health assessment (RHA) found Soil Surface Factor for the majority of the allotment (71%) was in the slight category and 16% of the allotment in the stable category. Plant composition and community structure of grasses, forbs, and shrubs were what was expected for the area. There was good plant vigor and plants able to complete their reproductive cycle following the grazing rotation. Organic matter in the form of litter was accumulating and being incorporated into the soil.<br><br>Trend data shows that plant cover and the amount of distribution of bare ground is within the range of variability expected for the ecological sites found in the allotment. Due to the diverse vegetation within the allotment, the most abundant vegetation type only comprises 20% of the allotment and is dominated by juniper, mountain big sagebrush, with an Idaho Fescue understory. Some cheatgrass occurs in the allotment. Juniper is continuing to encroach into the allotment and is having a negative impact on watershed function. Some successful juniper treatments have occurred in recent years in the Hockeman/East Ceres Flat and Black Hills Pastures totaling 1300 acres. |
| **2. Watershed Function Riparian/ Wetland Areas** | Met | NA | There are no perennial streams in the allotment. There are a number of intermittent drainages that seasonally flow during precipitation events or during spring snowmelt. The National Wetland Inventory (NWI) classifies several of these drainages as "riverine" systems, but due to their intermittent nature, they do not support wetland or riparian vegetation.<br><br>The NWI also mis-identifies about 535 acres of forested/shrub wetlands on BLM-administered lands within the allotment. Based on examination of digital orthophotos, these areas actually represent playa lakebeds that do not support wetland/riparian vegetation or are alkaline shrublands that do not meet the definition of a wetland. The NWI also identifies about 28.7 acres of palustrine, emergent wetlands and 3 acres of freshwater ponds scattered across BLM-administered lands. Virtually all of these acres represent livestock water developments and are not wetlands. For these reasons, this standard is not applicable to the allotment. |
| **3. Ecological Processes** | Met | Met | Most plant reproduction is appropriate for site conditions and organic matter is being incorporated in the soil. Trend photos indicate appropriate vigor of vegetation species with trends stable to upward within the allotment. Noxious weeds |

| | | | |
|---|---|---|---|
| | | | mentioned in the 2004 RHA update are a few small historic patches of musk thistle and diffuse knapweed. These species are being managed through the more up to date IPM invasive plant management program. Current noxious weeds occurring in the allotment are Mediterranean sage and spotted knapweed. Other likely invasive plants to invade the allotment are bull thistle, Canada thistle, and medusahead rye. |
| **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 | The allotment supports an appropriate assemblage of sagebrush-steppe wildlife habitat and populations. There are 730 AUMs of forage allocated for deer and pronghorn, another 150 AUMs of forage allocated for elk, and 28 AUMs allocated for other wildlife. These forage allocations are adequate to support currently wildlife populations.<br><br>Special Status wildlife species or their habitats that may be present within the allotment include bald eagle, ferruginous hawk, peregrine falcon, burrowing owl, kit fox, sage-grouse, and pygmy rabbit. Species of high public interest in the allotment are mule deer, elk, and pronghorn antelope. About 2,240 acres of sage-grouse preliminary general habitat (PGH) occurs within the Connelly Hills/Horning Gap pastures of the allotment. |

**Guidelines for Livestock Management**

Existing grazing management practices or levels of grazing use on the Oatman Flat 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 optimal 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 Oatman Flat Allotment promote achievement of, or make significant progress towards, the Oregon Standards for Rangeland Health and conform with the applicable Guidelines for Livestock Grazing Management.

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

Thomas E. Rasmussen, Field Manager

6/3/14
Date

## Oatman Flat Allotment Monitoring Summary:

The Oatman Flat Allotment is categorized as an Improve (I) category allotment. The allotment has low forage production potential and historically some conflict with livestock grazing in the winter competing for deer winter range. Livestock grazing was changed from winter grazing to spring and summer grazing eliminating the conflict between livestock and wildlife. An allotment management plan (AMP) drafted up in the early 1980's that implemented portions of the management goals. These included vegetation treatments of juniper and establishment of a rotation grazing system.

Connelly Hills RNA located in the allotment. This area was designated to protect habitat essential for maintenance of plant species diversity and has four cells representative of the plant communities described by the Heritage Cell Designations in Basin and Range Ecosystems.

Vegetation on the allotment is very diverse including mountain and basin varieties of big sage brush, two species of rabbitbrush, bitterbrush, juniper, and ponderosa pine with a wide variety of understory species.

**Actual Use and Utilization for pastures in the Oatman Flat Allotment**

| Year | Hockeman/East Ceres Flat | | Ceres Flat West | | Oatman Flat/West | | Black Hills | | Coyote Butte/Oatman East | | Connelly Hills | | Total AUMs for the year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AUM | % use | AUM | % use | AUM | % use | AUM | % use | AUM | % use | AUM | % use | |
| **2013** | 217 | | 118 | 55 | 118 | 73 | 289 | 57 | rest | | rest | | 742 |
| **2012** | rest | | 95 | 44 | 95 | 44 | rest | | 353 | 60 | rest | | 543 |
| **2011** | 155 | | rest | | rest | | 271 | 72 | rest | | 191 | | 617 |
| **2010** | rest | | 164 | | 144 | 0 | rest | | 356 | | rest | | 664 |
| **2009** | 132 | 45 | rest | | rest | | 325 | 87 | rest | | 365 | | 822 |
| **2008** | rest | | rest | | rest | | rest | | 410 | | rest | | 410 |
| **2007** | 75 | | 75 | | 117 | | 252 | 45 | rest | | 296 | 64 | 815 |
| **2006** | rest | | rest | | rest | | rest | | 523 | | rest | | 523 |
| **2005** | 345 | | 74 | | 74 | 57 | 334 | 51 | rest | | rest | | 827 |
| **2004** | rest | | rest | | rest | | rest | | 376 | 47 | 376 | | 752 |
| **Average** | **184** | **45** | **105** | **50** | **110** | **58** | **294** | | **404** | | **307** | **64** | |

Livestock grazing use did exceed the allowable 50% use levels on occasion in all pastures except the Hockeman Pasture. This was always followed by grazing rest on the pasture the next year. Long–term trend in all pastures shows the vegetation to be appropriate to the landscape and in stable trend.

## Oatman Flat Allotment Trend Plot Summaries:

### OF-1 - West Pasture

Years Data was Recorded: 1972, 1976, 1979, 1981, 1993, 1997, 2003, 2008, 2010
Photo Trend: *Stable*.
In 2008, a juniper removal project and subsequent burning was implemented. The site is in an early seral stage and looks to be stable.

**Observed Apparent Trend**

| OF-1 | **2014** | **2010** | **2008** |
|---|---|---|---|
| **Vigor** | 8 | 8 | 8 |
| **Seedlings** | 6 | 4 | 4 |
| **Surface Litter** | 3 | 4 | 3 |
| **Pedestals** | 3 | NA | 5 |
| **Gullies** | 5 | NA | 5 |
| **Total** | 25 | 16/25 | 25 |
| ***Rating*** | *stable* | *stable* | *stable* |

### OF-2 - East Pasture

Years Data Recorded –1976, 1979, 1981, 2009, 2012
This site has very sandy soil and sparse vegetation. Vegetation that is present shows good diversity of species that look to be very stable.

**Observed Apparent Trend**

| OF-2 | **2012** |
|---|---|
| **Vigor** | 6 |
| **Seedlings** | 6 |
| **Surface Litter** | 3 |
| **Pedestals** | 4 |
| **Gullies** | 5 |
| **Total** | 24 |
| ***Rating*** | *Stable* |

**Percent Cover**

| OF-2 | **2012** | **1987** |
|---|---|---|
| **Bare Ground** | 57 | 51 |
| **Litter** | 17 | 32 |
| **Rock** | 2 | 1 |
| **Vegetation** | 23 | 16 |
| **Crust** | 1 | 0 |

**OF-3 - Connelly Hills/Horning Gap Pasture**

Years Data Recorded: 1969, 1974, 1980, 1982, 1987, 1993, 2003, 2008, 2012
Photo Trend: *Stable.* Site has been dominated by juniper since 1969. An increase in Juniper and Sagebrush has occurred on site, perennial grass species have remained diverse and stable.

**Observed Apparent Trend**

| OF-3 | **2012** | **2008** | **2003** |
|---|---|---|---|
| **Vigor** | 7 | 5 | 8 |
| **Seedlings** | 6 | 5 | 5 |
| **Surface Litter** | 4 | 5 | 4 |
| **Pedestals** | 4 | 8 | 3 |
| **Gullies** | 8 | 8 | 5 |
| **Total** | 26 | 19 | 25 |
| ***Rating*** | *upward* | *stable* | *stable* |

**Percent Cover**

| OF-3 | **2012** | **1980** | **1962** | **1957** |
|---|---|---|---|---|
| **Bare Ground** | 76 | 45 | 63 | 63 |
| **Litter** | 16 | 18 | 10 | 7 |
| **Rock** | 2 | 4 | 3 | 3 |
| **Vegetation** | 6 | 33 | 24 | 27 |
| **Crust** | 0 | 0 | 0 | 0 |

**OF-4 - Hockeman/Ceres Flat East**

Data Recorded: 1976, 1979, 1981, 1985, 1997, 2003, 2008, 2012
Photo Trend: *upward*
Photos show decrease in observed bare ground and an increase in sagebrush and perennial grass cover in the plot. Perennial grasses look to have high vigor and no cheatgrass or other annual grasses observed on the site.

**Observed Apparent Trend**

| OF-3 | **2012** | **2008** | **2003** |
|---|---|---|---|
| **Vigor** | 7 | 8 | 6 |
| **Seedlings** | 7 | 7 | 5 |
| **Surface Litter** | 4 | 3 | 4 |
| **Pedestals** | 4 | 4 | 3 |
| **Gullies** | 5 | 5 | 5 |
| **Total** | 27 | 27 | 23 |
| ***Rating*** | *upward* | *upward* | *stable* |

**Percent Cover**

| OF-3 | **2012** |
|---|---|
| **Bare Ground** | 54 |
| **Litter** | 16 |
| **Rock** | 2 |

| | |
|---|---|
| **Vegetation** | 28 |
| **Crust** | 0 |

**OF-05**

Data Recorded: 1966, 1969 1974, 1978, 1981, 1986, 1987, 1993, 1997, 2003, 2008, 2012.
Photo Trend: *Stable*
Chemical treatment of sagebrush was implemented in the late 1960's with a result of increasing perennial grass cover. Natural successional processes occurred over time increasing shrub cover. Prescribe or wildfire occurring between 1982 and 1987 again decreased shrub present on site. In 2003, OAT was downward with a lack of grass cover on site. Vegetative cover is dominated by sagebrush and rabbit brush and an increase in bare ground was observed. Some cheatgrass is on site. In 2012, the site looks to be stable with abundant shrub and vegetative cover to be representative of mid to late seral status community.

**Observed Apparent Trend**

| OF-05 | **2012** | **2003** |
|---|---|---|
| **Vigor** | 6 | 4 |
| **Seedlings** | 6 | 4 |
| **Surface Litter** | 3 | 3 |
| **Pedestals** | 4 | 3 |
| **Gullies** | 5 | 5 |
| **Total** | 24 | 19 |
| ***Rating*** | *stable* | *stable* |

**Percent Cover**

| OF-5 | **2012** | **2003** | **1987** |
|---|---|---|---|
| **Bare Ground** | 60 | 53 | 56 |
| **Litter** | 15 | 29 | 34 |
| **Rock** | 4 | 0 | 0 |
| **Vegetation** | 15 | 18 | 9 |
| **Crust** | 0 | 0 | 0 |

**Nested Frequency Data collected in 2012 at OF-5**

| | Hits By Frame Size | | | | | % by Frame Size | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **4** (36in^2) | **3** (144in^2**)** | **2** (288in^2) | **1** (576in^2) | | **4** | **3** | **2** | **1** |
| Grasses | | | | | | | | | |
| ARTR | 4 | 9 | 17 | 23 | | 4 | 9 | 17 | 23 |
| CHVI | 3 | 6 | 8 | 19 | | 3 | 6 | 8 | 19 |
| CHNA | 6 | 8 | 18 | 28 | | 6 | 8 | 18 | 28 |
| PUTR | 2 | 2 | 3 | 3 | | 2 | 2 | 3 | 3 |
| STTH | 10 | 21 | 26 | 36 | | 10 | 21 | 26 | 36 |
| SIHY | 11 | 26 | 39 | 56 | | 11 | 26 | 39 | 56 |
| STIPA1 | 7 | 11 | 21 | 29 | | 7 | 11 | 21 | 29 |
| FEID | 1 | 2 | 2 | 2 | | 1 | 2 | 2 | 2 |
| BRTE | 5 | 8 | 14 | 20 | | 5 | 8 | 14 | 20 |
| Forbes | 11 | 26 | 36 | 49 | | 11 | 26 | 36 | 49 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Astragulus | 0 | 1 | 2 | 2 | | 0 | 1 | 2 | 2 |

**OF-6 - Coyote Butte Pasture**

Data Recorded: 1979, 1987, 1991, 2009, 2012
Photo Trend: *Stable to Upward*
Photos show stable vegetation with increased vigor of perennial grass species and increased cover of shrub species with an overall decreased bare ground.

**Observed Apparent Trend**

| OF-06 | **2012** |
|---|---|
| **Vigor** | 7 |
| **Seedlings** | 8 |
| **Surface Litter** | 3 |
| **Pedestals** | 3 |
| **Gullies** | 5 |
| **Total** | 26 |
| ***Rating*** | *Upward* |

**Percent Cover**

| OF-6 | **2012** |
|---|---|
| **Bare Ground** | 51 |
| **Litter** | 19 |
| **Rock** | 0 |
| **Vegetation** | 29 |
| **Crust** | 1 |

**OF-7 - West Ceres Flat Pasture**

Data Recorded: 1987, 1991, 1999, 2008, 2012,
Photo Trend: *Stable*
Photos show some increased cover of sagebrush and rabbitbrush on site, however very sandy soil and little changes over time at this site.

**Observed Apparent Trend**

| OF-07 | **2012** | **2008** |
|---|---|---|
| **Vigor** | 6 | 5 |
| **Seedlings** | 6 | 4 |
| **Surface Litter** | 5 | 2 |
| **Pedestals** | 5 | 5 |
| **Gullies** | 5 | 5 |
| **Total** | 27 | 21 |
| ***Rating*** | *Upward* | *Stable* |

**OF- 08 - Connely Hills/Horning Gap Pasture**

Data Recorded: 1993, 2008, 2012
Photo Trend*: Stable*

Very little changes have occurred on this trend site. Vegetation is very sand dune- like with little grass species and primarily rabbit brush.

**Observed Apparent Trend**

| OF-8 | **2012** | **2003** |
|---|---|---|
| **Vigor** | 4 | 7 |
| **Seedlings** | 6 | 4 |
| **Surface Litter** | 3 | 4 |
| **Pedestals** | 5 | 5 |
| **Gullies** | 5 | 5 |
| **Total** | 23 | 25 |
| ***Rating*** | *Stable* | *Stable* |

**OF-09 - Black Hills Pasture**

Data Recorded: 1957, 1962, 1991, 2008, 2012,
Photo Trend: *Stable*
Photos show the vegetation moving toward late successional stage with increases in older Juniper and subsequent decrease in sagebrush and perennial grass species on site. Bare ground observed looks to be slightly increasing however this is natural with Juniper getting older on site. Overall the site looks to be stable. Observed apparent trend in 2010 was documented as downward due to a lack of perennial grass species, little litter accumulation, and lack of seedling establishment. This is typical of this highly sandy soil site and its late successional status with invasion from Juniper.

**Observed Apparent Trend**

| OF-9 | **2010** | **2008** |
|---|---|---|
| **Vigor** | 2 | 4 |
| **Seedlings** | 1 | 3 |
| **Surface Litter** | 1 | 5 |
| **Pedestals** | 5 | 5 |
| **Gullies** | 5 | 5 |
| **Total** | 14 | 22 |
| ***Rating*** | *downward* | *stable* |

**Percent Cover**

| OF-9 | **2010** | **2008** |
|---|---|---|
| **Bare Ground** | 82 | 70 |
| **Litter** | 16 | 30 |
| **Rock** | 0 | 0 |
| **Vegetation** | 2 | 0 |
| **Crust** | 0 | 0 |