

**RANGELAND HEALTH STANDARDS
ASSESSMENT**

Coyote/Colvin Allotment #0517

Total Acres (approximate): 123,000

Lakeview Resource Area

June 27, 2000

Current Management and Recent Management Changes

The current grazing management is a multi-pasture rest rotation system beginning in early spring and ending in October. There was a Section 7& Biological Evaluation completed in January, 1994 for a portion of the allotment, followed by a Biological Opinion issued by the USFWS(April 25, 1994). In March of 1996 a change to the determination for the area evaluated was made from "not likely to adversely affect" to "no effect" based on additional findings submitted by the BLM to the FWS (ref. 1-7-96-F-117). Based on a review of these changes at a Level 1 streamlining consultation meeting, the FWS concurred with BLM's determination.

The Friday riparian pasture was operational in 1998 following completion of the fence in 1997. Cattle use occurs early every year (June 1-July 10) then moves onto the National Forest. This grazing plan is currently being monitored for five years at which time it will be evaluated to its effectiveness. The previous management before the fence for the area included all of the Colvin Timbers pasture and historically this pasture was grazed after July 1 on an annual basis. In 1993, the entire pasture had complete rest including the riparian meadows/springs on the private land. This year marked the turn around in grazing management because during the preceding years the pasture was grazed every other year for the late use pasture. The Colvin Timbers pasture continues to alternate use with Twin Lakes pasture.

The special status plants within the allotment are of concern and will to be continued to be monitored. The plant populations in Miners Draw may need some immediate protection from cattle grazing that is in close proximity to a plant site. The major attractant for cattle is the available water hole, this also is the problem associated with Foley Lake special status plant site. For Miners the solution may be to pipe and trough water away from the site and at Foley Lake a larger enclosure may be warranted to minimize the impacts from cattle concentration.

STANDARD 1 - WATERSHED FUNCTION-UPLANDS

This standard is being met.

Indicators used to evaluate this standard are Soil Surface Factor (SSF), which documents accelerated erosion; and plant community composition, which indicates root occupancy of the soil profile. The baseline SSF information with additional updates and existing vegetation monitoring (forage utilization studies) were the basis for this assessment.

Soil Surface Factor (SSF) is an indicator of accelerated erosion and is a method of documenting observations regarding erosion (refer to attachment 1). In 1994 a Biological Evaluation was conducted for the livestock grazing occurring within the watershed that contributes water to habitat for Warner suckers, a species listed as threatened under the Endangered Species Act. The allotment area evaluated comprised approximately 23,000 acres or 18 percent. Of the total acres in the evaluation area, 12,103 acres (53%) have an SSF rating of stable, 3,289 acres (14%) are rated as slight, and 7,752 acres (33%) were not rated. These areas represent private lands within the allotment and inclusions within a vegetation community too small to be mapped. The remaining acres of the allotment have been mapped under the Ecological Site Inventory (ESI) project however, the data still needs to be properly downloaded to usable information and organized by pastures. Other range vegetation information is available from photo monitoring sites scattered throughout the allotment and have been summarized.

Another indicator to consider is the management system of the current grazing. The grazing is managed using a multi-pasture rest rotation system. There is a total of six pastures in the allotment and annually three pastures receive either growing season or complete years rest from cattle grazing. Overall, the upland soil and vegetative resources in the allotment appear to be functioning properly given the amount and distribution of ground cover based on several data analysis; SSF survey, ecological site mapping, observation readings and photos from existing upland monitoring plots, climate records, and annual livestock forage utilization studies.

STANDARD 2 - WATERSHED FUNCTION-RIPARIAN/WETLAND

This standard is not being met.

While the existing conditions are largely a result of past grazing practices and channel manipulation, current management of livestock is resulting in significant progress towards meeting the standard. Some areas along the streams are intermittent with short perennial reaches; Colvin, Clover, and Upper Snyder Creeks because of past livestock use coupled with extreme disturbance from water diversions are incapable of meeting this standard. For example, although lotic PFC site inventories have not been completed on these streams, because of channelizing and diversion Colvin, and Upper Snyder Creeks and tributaries to Clover Creek would not likely be in PFC. Lentic PFC has been completed on 720 acres. All areas are in PFC except the 35 acres around Colvin Lake which is functioning at risk due to livestock trampling and grazing. Colvin Lake is one of the two main water sources in the Colvin Timbers pasture. The current grazing management prescription implemented in 1998, of alternate years rest is providing for making progress towards PFC and therefore no change in livestock management is warranted at this time.

The springs and streams in the Colvin riparian pasture have historically received heavy use from livestock because of the annual late season grazing system. In 1998 a new grazing system was implemented that prescribed spring grazing only and limit use on woody riparian species. This system should improve riparian conditions in this pasture. Most of the springs in the allotment, especially in the West Coyote Hills pasture have been fenced to exclude livestock and have improved in condition and functioning.

STANDARD 3 - ECOLOGICAL PROCESSES

This standard is being met.

The largest vegetation component in the allotment is comprised of Low sagebrush and mixed perennial grasses (Twin Lakes and Colvin Timbers pastures). These plant communities also represent the key areas that are consistently grazed by cattle and wildlife. The allotment has other plant communities including the Colvin Timbers for which the vegetation is mostly comprised of ponderosa pine type forest. There is a variety of other vegetation communities in the allotment, although not nearly as extensive they do offer unique diversity including; woodlands (aspen, juniper), mountain mahogany bitterbrush/Low sagebrush, mountain big sagebrush/snow berry, Black sagebrush inclusions and riparian zones (Honey, Rabbit, and Snyder Creeks). The Observed Apparent Trend data collected (excluding the riparian areas) during the ESI along with subsequent updates following the Biological Evaluation (1994), showed an upward trend on 20% of the allotment and static trend on 80% of the allotment. All range photo trend sites within the allotment were updated and analyzed in 1998 and the vegetation trend at these areas was determined to be static.

Another potential indicator that addresses ecological processes is plant composition and desired plant communities. Current plant composition is compared to a defined Potential Natural Plant Community for the identified soil type and precipitation zone. Using the 1988 Ecological Site Inventory (ESI), the percent of the allotment in each seral stage is summarized in Table-1 below. As can be seen most of the allotment is currently in the Mid seral (65%) stage.

TABLE-1

Seral Stage	Percent comparability to Potential Natural Community	Percent of allotment in seral stage
Early	0-25%	7%
Mid	26-50%	65%
Late	51-75%	6%
PNC	>75%	8%
Unknown*		12%

* The unknown acres are the inclusions within a vegetation community that include transition areas and plant communities too small to be mapped separately.

From the review of all the range vegetation monitoring data (photos, trend transects, climate, field observations and professional judgement), it appears that a large percentage of the vegetation in the allotment is in good condition with a static/upward trend.

The Coyote/Colvin Allotment supports most of the terrestrial animals common to the sagebrush steppe in the Great Basin. The allotment provides habitat for mule deer, pronghorn antelope, Rocky Mountain elk, California bighorn sheep, and sage grouse. There is currently no major competition between wildlife and domestic livestock for forage, either early green-up grasses and forbs or winter browse such as antelope bitterbrush and curl-leaf mountain mahogany which are both limited in distribution within the allotment.

The crested wheat seedings on the north end of the allotment along the Hogback Road are not in good shape. In 1999 there has been a huge increase of cheat grass under the crested wheat. After seeing the results of the Crump Lake wildland fire, a possibility for rehabilitation of these seedings would be to propose a series of small scale prescribed fires. No re-planting would be necessary and the fire would rejuvenate the "wolfy" plants; area needs to be analyzed for treatment.

The allotment lies within ODFW's Warner Big Game Management Unit for deer, pronghorn antelope, and elk. Current populations are slightly below management objectives for mule deer and substantially below that proposed for elk. The allotment contains crucial winter range habitat for mule deer and pronghorn antelope. Portions of the allotment are occasionally used by elk throughout the year. The allotment also contains year-round habitat for sage grouse.

STANDARD 4 - WATER QUALITY

This standard is being met.

There are no streams listed as Water Quality Impaired in the Allotment. There are no streams that provide perennial flow over a long enough reach to monitor for temperature, the primary factor for listing as Water Quality Impaired in this area.

STANDARD 5 - NATIVE, T&E, and LOCALLY IMPORTANT SPECIES

This standard is being partially met.

Overall, the allotment exhibits a wide diversity of native plant communities and adequate litter with standing dead material left at the end of each grazing season to provide proper nutrient cycling, hydrologic cycling and energy flow. Some plant communities, because of past use, frequent fire or other histories of extreme disturbance, are incapable of meeting this standard. For example, a shallow-rooted annual grass like cheatgrass can completely dominate some sites on the surface but do not fully occupy the potential rooting depth of some soils, thereby reducing nutrient cycling well below optimum levels. In addition, these plants have a relatively short growth period and thus capture less sunlight than more diverse plant communities. Plant communities like the above example are considered to have crosses the threshold of recovery and may require great expense to be recovered. The cost of recovery must be weighed against the site's potential ecological/economic value in establishing treatment priorities. The cheatgrass problems in the allotment are pronounced in the Coyote Hills pastures and along other lower elevation gradients throughout. The Coyote Hills however has had a history of past disturbances (grazing, fire, mining, and recreation).

In the upland areas of the allotment, the invasive plants (noxious weeds) present are mainly in disturbed areas (main road, ditches and waterholes). These plants include Hoary cress (whiteweed) (Miners Draw), Mediterranean sage (Friday spring, Mule Lake), and Canada and Bull thistle (springs, creeks, waterholes). Mapping and inventory of these and other known weed sites is ongoing and some control methods and treatments have begun. Larger and more continuous stands of noxious weeds can be found along the riparian zone of Honey Creek which is excluded from grazing. In addition Russian Knapweed is beginning to appear along the Hogback county road inside the East pasture. The most common invasive plants are Canada thistle and Hoary cress with some additional patches of Mediterranean sage showing up.

Special status plants occur in the following pastures; West Coyote Hills, and Twin Lakes. Refer to attached report for special status plant resources. The standard is not being met for these plants. However, modification of the summer grazing in 1998 to alternate years rest has provided for making progress toward attainment of the standard. This will be evaluated for five years and other options such as fencing may be required for attainment of the standard if the modification in the grazing system does not continue to show improvement in the standard.

The ESI data displayed in Table-1 shows a mix of vegetation stages in the allotment. The upland areas in excellent condition or PNC primarily exist along the rim of Honey Creek, and areas within the Colvin Timbers pasture. The good condition uplands or late-seral are mostly found above the 5500 ft. elevation on north aspects. The acres in mid and early seral primarily exists along Fish lake, the historic highway trailing route and areas immediately to playas.

Quaking aspen communities are scattered throughout the allotment in Friday, Colvin Timbers, and West Coyote Hills pastures. Though small in size ranging from 1 to 10 acres, these "islands" contribute to the ecological diversity in an area predominately sagebrush and scattered junipers. The aspen communities represent less than 1 percent of the allotment acreage however, all stands are currently under encroachment from western junipers, mahogany, fir and pine with some areas completely occupied. The aspen stands have been affected by historic livestock use over 80 years ago with sheep followed by cattle during a period of optimum climatic conditions. Consequently, reduced fire intervals resulted from reduction of fine fuels, fire suppression management improved, and the western juniper seed source continued to increase. The existing condition of the aspen plant community is a product of past events and the current management of livestock is not a factor in the expansion of juniper or decline of the aspen.

The habitat provided within the allotment is crucial to wintering deer in that it adjoins with winter range on the forest to the south. It provides habitat connectivity as well as a spatial distribution of lower elevation range critical during high snowfall years.

The deer, elk, pronghorn, and bighorn populations are healthy and increasing in number within the allotment. Habitat quantity and quality do not appear to be limiting population size or health. Coyote predation is thought to be depressing mule deer recruitment, but deer and pronghorn populations continue to fluctuate at or slightly below ODFW's Management Objective for the unit. A general hunt season is slowing the population expansion of elk within the unit. However, if ODFW is unable to limit future expansion to the proposed Management Objective for the area, competition with domestic livestock may occur and depredation on private lands may become an issue. Elk expansion will be addressed in the upcoming RMP.

The allotment also provides habitat for numerous small nongame birds and mammals common to the Great Basin, as well as sage grouse and California bighorn sheep habitat. There are four known sage grouse leks found within the allotment. Sage grouse populations, like the rest of southeastern Oregon, are stable to declining. The allotment also provides habitat for raptors and some BLM and state sensitive wildlife species and federally listed species.

No critical habitat or limitations have been identified for any of these species which include wintering bald eagles, and possibly pygmy rabbits and various sensitive bat species.

The California bighorn sheep population along Abert Rim in the allotment has steadily increased since the initial transplant of 12 animals from Hart Mountain in 1988 to a current population of 40-45 animals and should reach ODFW's Management Objective of 100 animals in the next 10-15 years. Livestock grazing does not appear to be limiting or depressing bighorn expansion within the allotment.

The Warner sucker is listed as a Threatened Species under the Endangered Species act. Snyder and

Honey Creek in the pasture have been excluded from livestock use since 1980. There is no occupied habitat in the allotment. Because Colvin Creek flows into occupied habitat below the allotment, it was initially determined in the Section 7 consultations that grazing may have affected the Warner suckers. After new information was collected and evaluated it was then determined that grazing was having no effect because channel diversions had eliminated the connection to habitat.

Team Members

Title

David Pacioretty	Range Management Specialist
Alan Munhall	Fishery -Riparian-Watershed
Vern Stofleth	Wildlife Biologist
Lucile Housley	Botanist-special status plants
Robert Hopper	Supervisory Range Management
Erin McConnell	Noxious Weeds
Ken Kestner	Supervisory Natural Resource Specialist

Determination

- Existing grazing management practices or levels of grazing use in the Coyote-Colvin 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 Coyote-Colvin 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.

Scott R. Florence

Scott Florence
Field Manager, Lakeview Resource Area

6/27/00

Date

Standard 3

The crested wheat seedings on the north end of the allotment along the Hogback Road are not in good shape. In 1999 there has been a huge increase of cheat grass under the crested wheat. After seeing the results of the Crump Lake wildland fire, a possibility for rehabilitation of these seedings would be to propose a series of small scale prescribed fires. No re-planting would be necessary and the fire would rejuvenate the "wolfy" plants; area needs to be analyzed for treatment.

Standard 5

The standard is **not being met** in regards to the Bureau Sensitive Plant species in the allotment. However, mitigation might reverse these trends.

Special Status Plants:

1. Columbia Cress (Rorippa columbiae)

Status: Federal Status: former category 2, Oregon State Candidate, Oregon Natural Heritage Program List 1 (endangered or threatened throughout range), Bureau of Land Management: Bureau Sensitive.

This plant is being managed under a Conservation Agreement between the Bureau of Land Management and the US Fish and Wildlife Service. This plan entails detailed monitoring starting in 1995.

Current Situation: Columbia cress in the past occurred in the Twin Lakes Pasture. There were two known populations, one at Foley Lake and one at Featherbed Lake. In 1983, one plant only was found at Binkey Lake, but no Columbia cress plants have been observed there since. No plants have been seen at Featherbed Lake since 1995. No plants have been observed at Foley Lake since 1997. From past records this does not necessarily indicate that the populations have been extirpated (loss of a population at a particular site), but that they may return.

History of plant populations: In 1983, 100 plants in all were found growing around Featherbed Lake. Also, in 1983, 30 plants were found per square meter growing in Foley Lake. In 1990, few plants were found in Featherbed Lake, photo/monitoring plots were established; and at Foley Lake 85 plants were found in 16 plots (grazed area) and 53 plants were found in 16 plots (within area within closure). In 1995, no plants were found at Featherbed Lake (heavy Arnica chamissonia invasion). At Foley Lake, 35 plants were found in 16 plots (grazed area) and 121 plants were found in 16 plots (within exclosure). In 1996, 58 plants were found in 16 plots outside exclosure, 371 plants were found in 16 plots inside exclosure. In 1997, frost killed off the plants in late June and none were found in the entire lake bed. No plants have been seen since that date at either lake. The perennial Columbia cress has been observed (at Malheur Lake and other areas) to be present for some years and then absent, variations in presence and numbers seem to depend directly on availability and periodicity of water, herbivory (livestock and

wildlife), competition from other plants (Arnica at Featherbed lake), rust (observed on plants at Foley Lake) and insect predation (small caterpillars on plants in 1996 were not identified). The general trend was being established at Foley Lake that outside of the exclosures either trampling or grazing by livestock and wildlife was causing the general decline of the population.

Management objective: Maintain/enhance the populations of Rorippa columbiae on the Coyote-Colvin Allotment.

Recommendations: The global range of Columbia cress includes the states of Oregon, California, and Washington. Populations are widely scattered, and generally composed of few individuals, making this species especially vulnerable to local extirpation. Populations in all three states are under the Conservation Agreement. The Conservation Agreement will continue and monitoring studies will be conducted for two more years, at which time the USFWS will analyze the need to list the species as threatened or endangered. Grazing by livestock is the factor over which BLM has the most control, and it is being proposed that the entire parameter of Foley Lake be fenced to exclude grazing from that population for when it "returns." The area is also being considered for a Research Natural Area/Area of Critical Environmental Concern and this process will analyze grazing and other threats to the population. A grazing system which avoids use of Featherbed Lake from April through October may help the re-establishment of the population there.

2. Prostrate Buckwheat (Eriogonum prociduum)

Status: Federal status: former Federal Candidate, Oregon State Candidate, Oregon Natural Heritage Program List 1 (threatened with extinction throughout range), and Bureau of Land Management Bureau Sensitive Species plant species.

Current Situation: Prostrate buckwheat occurs in the Coyote Hills Pasture, where it grows in three sub-populations within a one-half mile stretch of Miner's Draw. The plants grow on light-colored hydrothermally altered soils composed of rhyolite and tuff deposits. The sites are sparsely vegetated and vary from level to steep slopes. The northernmost site is about 100 feet from a waterhole, and in the past some evidence of cattle trampling was noted at the site (see Ginger King allotment evaluation, 1992). At present there has been a large increase of trampling and cheat grass has heavily invaded the site. Cheatgrass seldom grows on this type of substrate, trampling is probably causing a break-up of the soil surface. While it is doubtful the cheatgrass would out-compete the buckwheat, annual grass increases the possibility of wild fire burning the area.

The population in Miner's Draw is one of five known populations of prostrate buckwheat on the Lakeview District. The species has a very limited global distribution, occurring only in Lake County, Oregon; Modoc and Lassen Counties, California; and Washoe County, Nevada. There are less than fifteen populations worldwide.

Management Objective: Maintain the population of Eriogonum prociduum on the Coyote-Colvin Allotment.

Recommendations: Avoid any type of surface disturbance at and within the general vicinity of the subpopulations. If possible, an alternative water source to the one near the subpopulation (most northerly) should be found or construct a water pipe/diversion from the existing one to divert livestock use away from the plant site. Less desirable would be to construct a fence around the subpopulation; some action should be taken soon. No salting for livestock should be conducted within the sites or within 0.5 mile surrounding the sites. No new watering areas should be developed with 0.5 mile of the sites.

3. Nodding Melic (Melica stricta)

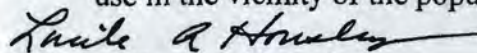
Status: Oregon Natural Heritage Program List 4 (rare but currently secure, not currently threatened or endangered), Bureau of Land Management Tracking species,

Current Situation: Small population of about 25 plants of nodding melic occurs in Miner's Draw in the Coyote Hills Pasture. The population is at the same site as subpopulation #3 of prostrate buckwheat described above. The plants grow at the top edge of a steep slope. Livestock are not attracted onto the steep, sparsely vegetated area, and currently do not impact the species at this site.

Nodding melic flowers and produces seed from June through August. The total range of this species is southeast Oregon and California, east across the Great Basin through Nevada to northern Utah. There are five very small populations known on the Lakeview District.

Management Objective: Maintain the population of Melica stricta on the Coyote-Colvin Allotment.

Recommendations: Avoid any type of disturbance to the plants or their habitat. Continue to monitor site and avoid any management actions that would increase livestock use in the vicinity of the populations, such as watering or salting for livestock.



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