U.S. Department of the Interior
Bureau of Land Management

May 1, 2008

Proposed Decision
Grazing Permit Issuance for Higbee Bros. Varlin Higbee and Nolan Shumway
on the
South Coal Valley, Black Bluff, White River and Black Horse Allotments

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In Reply Refer to:
4160
EA File
NV-045.01

August 14, 2008

PROPOSED DECISION

Background Information

On August 14, 2008 the Finding of No Significant Impact (FONSI) for the Varlin S. Higbee, Higbee Brothers and Nolan Shumway. (Black Bluff, Black Horse White River and South Coal Valley Allotments) term permit renewals (EA No. NV-040-08-002) was signed. The Environmental Assessment (EA) and Standards Determination document and the FONSI are attached. This proposed decision is issued in accordance with 43 CFR 4160.1.

This decision complies with BLM Nevada Instruction Memorandum (IM) No. NV-2006-034 which provides guidance to facilitate the preparation of grazing permit renewal Environmental Assessments (EAs) as per the requirement set forth in BLM Washington Office IMs WO 2003-071 and WO 2004-126.

The proposed action associated with EA No. NV-040-08-002 is to issue a new term permit to Varlin S. Higbee, Higbee Brothers and Nolan Shumway. The term grazing permit under consideration is for Black Bluff, Black Horse White River and South Coal Valley Allotments.

Table of Permitted Use

Permittee	Allotments	AUMs	Period of Use
Varlin S. Higbee (2700038)	South Coal Valley	152 AUMs	3/1-5/15 and 9/1-2/28
	Black Bluff	744 AUMs	3/1-5/15 and 9/1-2/28
	Black Horse	240 AUMs	3/1-2/28
Higbee Brothers	South Coal Valley	118 AUMs	3/1-5/15 and 9/1-2/28
	Black Bluff	101 AUMs	3/1-5/15 and 9/1-2/28

(2705122)	Black Horse	264 AUMs	3/1-2/28
	White River	500 AUMs	3/1-5/15 and 10/1-2/28
Nolan Shumway (2705124)	South Coal Valley	566 AUMs	3/1-5/15 and 9/1-2/28
	Black Bluff	85 AUMs	3/1-5/15 and 9/1-2/28

The new grazing permit will reflect terms and conditions in accordance with the EA.

Fully processing and renewing the term permit for Varlin S. Higbee, Higbee Brothers and Nolan Shumway for the Black Bluff, Black Horse White River and South Coal Valley Allotments provides for a legitimate multiple use of the public lands and includes terms and conditions for grazing use that conform to Guidelines and will achieve significant progress toward the Standards for Nevada's Great Basin Area in accordance with all applicable laws, regulations, and policies and in accordance with Title 43 CFR 4130.2(a) which states **"**Grazing permits or leases shall be issued to qualified applicants to authorize use on the public lands and other lands under the administration of the Bureau of Land management that are designated as available for livestock grazing through land use plans". This decision specifically identifies management actions and terms and conditions to be appropriate to achieve management and resource condition objectives. The proposed actions that were developed under this proposed decision execute management actions that would ensure that Standards for Rangeland Health and multiple use objectives continue to be met and that significant progress is made towards those that are currently not met.

The standards were assessed for the Black Bluff, Black Horse White River and South Coal Valley Allotments by a BLM interdisciplinary team consisting of rangeland management specialists, wildlife biologist, weeds specialist, and watershed specialist. Documents and publications used in the assessment process include the Soil Survey of Lincoln County Nevada, North Part, and Ecological Site Descriptions for Major Land Resource Area 29 and 30, Interpreting Indicators of Rangeland Health (USDI-BLM et al. 2000), Sampling Vegetation Attributes (USDI-BLM et al. 1996) and the National Range and Pasture Handbook (USDA-NRCS 1997). A complete list of references is included at the end of this document. All are available for public review in the Ely BLM Field Station. The interdisciplinary team used rangeland monitoring data, professional observations, and photographs to assess achievement of the Standards and conformance with the Guidelines. The "Standard Riparian Functioning Condition Checklist" (USDI-BLM 2000) was completed for the riparian areas in the Black Bluff, Black Horse White River and South Coal Valley Allotments.

The assessment of rangeland health for the Black Bluff, Black Horse White River and South Coal Valley Allotments was conducted in March, 2008. It was determined that the Standards were not being achieved and grazing management is not in complete conformance with the Guidelines. A review and analysis of the monitoring data was conducted. As a result of this review, changes to the management of livestock were proposed. The complete standards determination is located in Appendix I of the EA (EA-NV-040-08-002). A summary of the findings for the allotment are as follows:

South Coal Valley

1. Soils Standard: Not Meeting the Standard, but making significant progress towards Achieving.

2. Ecosystem Components: Not Meeting the Standard, but making significant progress towards Achieving.

3. Habitat and Biota: Not Meeting the Standard, but making significant progress towards Achieving.

Conclusions of the Standard Determination:

Standard 1. Soils:

Conclusion: Standard Not Achieved. The majority of the South Coal Valley Allotment is meeting or making progress towards achieving the standard. The areas of concern mentioned above that are not meeting the standard should continue to be monitored. The primary reason for the reduced herbaceous component has been the drought years that took place during the late 90's and early 2000. In working with the BLM the permittees has been running substantially reduced Livestock grazing of both sheep and cattle within the allotment over the last six years. The reduction in use is a result of prolonged drought within the region during the late 1990's and early 2000's. Use on the allotment has been 10% to 70% percent of permitted use.

The allotment is maintaining a diverse functioning ecosystem. The presence of annual grasses should be maintained at a minimum to reduce the threat of wildfire within the allotment.

Standard 2. Ecosystem Components:

Conclusion: Standard Not Achieved. Line Intercept Cover data collected at the key areas indicates the major plant communities are composed of major plant species to meet ecological diversity standards. At Key Area one and two there are plant species that were present but not included within the study plot. These included Indian ricegrass and Bottlebrush squirreltail. However the frequency of desirable native grasses to shrubs is lacking in substantial quantity though present in composition. Due to the lack of frequency of cool season grasses such as Indian ricegrass and Bottlebrush squirreltail it is therefore not in conformance with the guidelines.

There is one lentic spring on the South Coal Valley Allotment. It is fully developed with a pipeline and therefore will not have Proper Functioning Condition (PFC) conducted.

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Standard 3. Habitat and Biota:

Conclusion: Standard not met. Existing grazing management and levels of grazing use on the South Coal Valley Allotment are not significant causal factors in failing to achieve the habitat standard. Utilization data shows the allotment has generally been grazed moderate or less for the recent past years and use on the allotment has been 10% to 70% percent of permitted use. The decline in frequency of major herbaceous species such as Indian ricegrass and Bottlebrush squirreltail are more attributed to historic grazing

practices of the previous century. The current management practices such as rest rotation grazing, water hauling and winter use only are aiding the range to recover and make significant progress towards achieving standards and guidelines.

Black Bluff Allotment

1. Soils Standard: Not Meeting the Standard, but making significant progress towards standard

2. Ecosystem Components: Not Achieving the Standard, and not making significant progress toward standard

3. Habitat and Biota: Not Achieving the Standard, not making significant progress toward standard

Conclusions of the Standard Determination:

Standard 1. Soils: Conclusion: (Standard Not Achieved). Livestock grazing is one contributing factor to not achieving the Standard. The primary reason cited is inadequate soil protection through inappropriate vegetation community. The primary causal factor is the season of use. The permit allows use to begin in first of September and doesn't end until May 15. Late May is too late on the allotment as many plants are in the critical growing period at that time. Utilization of cool season plants, especially Indian ricegrass and winterfat, during the critical growing season has resulted in a significant decrease in these species in the primary grazing area.

The reduction of key perennial species can have impacts on the overall protection of soils. Additionally, the vegetative cover which should be 20-30% at Study Site 1 and 10 to 20% at Study Site 2 is currently 23.5% and 9% respectively. The reduced cover can be due to a reduction and subsequent replacement of key perennial plants with undesirable species such as Halogeton or Russian thistle. The reduction of important grass, forb, and shrub species, some of which are highly favored by livestock, results in the reduced resilience of the community to resist (or recover from) disturbance. Large wildfires are becoming more commonplace in the salt desert due to the momentous increase of cheatgrass. Cheatgrass returns with robust vigor following fire thereby adding to the threat of habitat loss.

It should be noted that overall soils appear to be stable in the allotment as no outward signs of soil loss or soil movement was observed other than some pedestalling along the Winterfat bottoms that was noted during monitoring. The gentle slopes of the allotment help reduce or even prevent soil loss due to overland flow.

Standard 2. Ecosystem Components: Conclusion: (Standard Not Achieved). Livestock grazing is one contributing factor to not achieving the Standard. Vegetative cover is inadequate for the sites where livestock grazing has occurred during the evaluation period. The magnification of "increaser species" and the decline of "decreaser species" are attributed to continued spring grazing by livestock. Although utilization

limits were not exceeded, the almost yearly continued spring use has had an impact on the community, as reflected by the cover and frequency data.

Standard 3. Habitat and Biota: Standard not met (not achieved). Livestock grazing is one contributing factor to not achieving the Standard. General observations and data analysis indicate habitat is in a degraded state due to diminishing vegetative cover and poor community structure in the primary grazing area. Important wildlife cover and forage species such as ricegrass, winterfat, and fourwing saltbush are decreasing in number and vigor. Plant vigor and stature of desirable native shrub species have been affected in part by livestock grazing, particularly in the critical growing season. Fourwing, spiny hopsage and winterfat plants show poor growth forms and reduced woody biomass.

White River Allotment

1. Soils Standard: Not Meeting the Standard, but making significant progress towards standard

2. Ecosystem Components: **N**ot Achieving the Standard, and not making significant progress toward standard

3. Habitat and Biota: Not Achieving the Standard, not making significant progress toward standard

Conclusions of the Standard Determination:

Standard 1. Soils: Conclusion: (*Standard Not Achieved).* Livestock grazing is one contributing factor to not achieving the Standard. The primary reason cited is inadequate soil protection through inappropriate vegetation community. The primary causal factor is the season of use and recent droughty conditions. The permit allows use to begin in first of September and doesn't end until May 15. Late May is too late on the allotment as many plants are in the critical growing period at that time. Utilization of cool season plants, especially Indian ricegrass and winterfat, during the critical growing season has resulted in a significant decrease in these species in the primary grazing area.

The reduction of key perennial species can have impacts on the overall protection of soils. Additionally, the vegetative cover which should be 20-30% at KMA 2 and 10 to 20% at KMA 1 is currently 13.62% and 2.9% respectively. The reduced cover can be due to a reduction and subsequent replacement of key perennial plants with undesirable species such as Halogeton or Russian thistle. The reduction of important grass, forb, and shrub species, some of which are highly favored by livestock, results in the reduced resilience of the community to resist (or recover from) disturbance.

It should be noted that overall soils appear to be stable in the allotment as no outward signs of soil loss or soil movement was observed other than some pedestalling along the Winterfat bottoms that was noted during monitoring. The gentle slopes of the allotment help reduce or even prevent soil loss due to overland flow.

Standard 2. Ecosystem Components: Conclusion: (*Standard Not Achieved).* Livestock grazing is one contributing factor to not achieving the Standard. Vegetative cover is inadequate for the sites where livestock grazing has occurred during the evaluation period. The magnification of "increaser species" and the decline of "decreaser species" are attributed to continued spring grazing by livestock. Although utilization limits were not exceeded, the almost yearly continued spring use has had an impact on the community, as reflected by the cover and frequency data.

Standard 3. Habitat and Biota: Conclusion: (*Standard Not Achieved).* Livestock grazing is one contributing factor to not achieving the Standard. General observations and data analysis indicate habitat is in a degraded state due to diminishing vegetative cover and poor community structure in the primary grazing area. Important wildlife cover and forage species such as ricegrass, winterfat, and fourwing saltbush are decreasing in number and vigor. Plant vigor and stature of desirable native shrub species have been affected in part by livestock grazing, particularly in the critical growing season. Fourwing, spiny hopsage and winterfat plants show poor growth forms and reduced woody biomass.

Black Horse Allotment

1. Soils Standard: Meeting the Standard

2. Ecosystem Components: Meeting the Standard

3. Habitat and Biota: Meeting the Standard

Conclusions of the Standard Determination:

Standard 1. Soils: Conclusion: Standard met (achieved). The majority of the allotment is meeting or making progress towards achieving the standard. The areas of concern that are not meeting the standard should continue to be monitored. The primary reason for the reduced herbaceous component has been the drought years that took place during the late 90's and early 2000. The reduced herbaceous component at KMA 1 is normal for the site and is not a factor related to livestock grazing. Grazing should continue to be used during the winter months in order to reduce the buildup of fine fuels and prevent a frequent fire cycle. Monitoring will continue to ensure proper species composition and diversity.

Standard 2. Ecosystem Components: Standard met (achieved). Line Intercept Cover data collected at the key areas indicates the major plant communities are composed of major plant species to meet ecological diversity standards. At KMA 2 and KMA 3 there are plant species that were present but not included within the study plot. These included Fourwing saltbush, Cliffrose, Juniper and Flax. The frequency of the plants is below the potential native community standard (PNC) but is within the range site description. The

Seaman fire that occurred in 1984 aided immensely in moving the allotment towards achieving standard by moving it out of a woody dominated site. The composition of desirable native grasses to shrub is well within standard and therefore is in conformance with guidelines.

There is one lentic spring on the Black Horse Allotment. It is fully developed with a pipeline and therefore will not have Proper Functioning Condition (PFC) conducted

Standard 3. Habitat and Biota: Conclusion: Standard met (achieved). Existing grazing management and levels of grazing use on the Black Horse Allotment are insignificant factors within the allotment. The Seaman Fire that took place in 1984 burned 16,500 acres and caused a natural state in transition shift within the allotment that prevented the system from transitioning into a woody dominated site with a significantly reduced herbaceous understory. Utilization data and personal observations shows the allotment has generally been grazed moderate or less for the recent past years. In these areas, the current grazing management system conforms to the guidelines.

The project proposal was posted on the Ely Field Office web site, January 25, 2008; at **http://www.nv.blm.gov/ely/nepa/ea_list.htm** comments from two parties were received.

The preliminary EA was posted on the Ely external webpage on 7/11/2008 for a fifteen day comment period. A hard copy of the preliminary EA was mailed to the permittee and those publics who have specifically requested one and who have expressed an interest in range management actions on the Black Bluff, Black Horse White River and South Coal Valley Allotments. Comments were received from Western Watersheds and Rick Orr two interested publics. They were reviewed and considered associated with completing the final EA.

LIVESTOCK MANAGEMENT DECISION

In accordance with 43 CFR 4110.3, 4110.3-2(b) and 4130.3-1 permitted use for Varlin S. Higbee, Higbee Brothers and Nolan Shumway on the Black Bluff, Black Horse White River and South Coal Valley Allotments will be as follows:

Table 1. Current Term Permit for Varlin S. Higbee (#2700038)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley 10120	18 Cattle	3/1-5/15 and 9/1-2/28	100	Active	152
Black Bluff 10122	88 Cattle	9/1-2/28 and 3/1-5/15	100	Active	744
Black Horse 10123	20 Cattle	3/1-2/28	100	Active	240
*% Public Land is the percent of public land for billing purposes. **AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.					
Allotment AUMs Summary					

ALLOTMENT	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PREFERENCE
South Coal Valley	152	0	152
Black Bluff	759	0	759
Black Horse	243	0	243

The proposed term permit and allotment information is as follows:

Table 2. Proposed Term Permit for Varlin S. Higbee (#2700038)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley (10120)	18 Cattle	3/1-5/15 and 9/1-2/28	100	Active	152
Black Bluff (10122) *Lower East Pasture*	88 Cattle	9/1-2/28	100	Active	744
Upper West Pasture		3/1-5/15 and 9/1-2/28	100	Active	
Black Horse (10123)	20 Cattle	3/1-2/28	100	Active	240

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.

Table 3. Current Term Permit for Higbee Brothers (#2705122)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley 10120	14 Cattle	3/1-5/15 and 9/1-2/28	100	Active	118
Black Bluff 10122	12 Cattle	9/1-2/28 and 3/1-5/15	100	Active	101
Black Horse 10123	22 Cattle	3/1-2/28	100	Active	264
White River	67 Cattle	3/1-5/15 and 10/1-2/28	100	Active	500

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.

Allotment AUMs Summary

ALLOTMENT	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PREFERENCE
South Coal Valley	124	0	124
Black Bluff	103	0	103
Black Horse	267	0	267
White River	501	0	501

Table 4. Proposed Term Permit for Higbee Brothers (#2705122)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley (10120)	14 Cattle	3/1-5/15 and 9/1-2/28	100	Active	118
Black Bluff (10122) *Lower East Pasture*	12 Cattle	9/1-2/28	100	Active	101
Upper West Pasture		3/1-5/15 and 9/1-2/28	100	Active	
Black Horse (10123)	22 Cattle	3/1-2/28	100	Active	264
White River (11009) *Lower West Pasture*	67 Cattle	10/1-2/28	100	Active	500
Upper West Pasture		3/1-5/15 and 10/1-2/28	100	Active	
*% Public Land is the percent of public land for billing purposes. **AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.					

Table 5. Current Term Permit for Nolan Shumway (#274740)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley 10120	67 Cattle	3/1-5/15 and 9/1-2/28	100	Active	566
Black Bluff 10122	10 Cattle	9/1-2/28 and 3/1-5/15	100	Active	85
*% Public Land is the percent of public land for billing purposes. **AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.					

Allotment AUMs Summary

ALLOTMENT	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PREFERENCE
South Coal Valley	572	0	572
Black Bluff	84	0	84

Table 6. Proposed Term Permit for Nolan Shumway (#274740)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley 10120	67 Cattle	3/1-5/15 and 9/1-2/28	100	Active	566
Black Bluff (10122) *Lower East Pasture*	10 Cattle	9/1-2/28	100	Active	85
Upper West Pasture		3/1-5/15 and 9/1-2/28	100	Active	
*% Public Land is the percent of public land for billing purposes. **AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.					

The Bureau of Land Management would issue and fully process new term grazing permits for Varlin S. Higbee, Higbee Brothers and Nolan Shumway and authorize grazing on the Black Bluff, South Coal Valley, White River and Black Horse Allotments

Changes to all three permits are recommended to achieve the Standards on the Black Bluff and White River Allotments. The current term permit is shown in Table 1. Proposed changes are reflected in Table 2 for Varlin S. Higbee, table 3 reflects the current term permit for Higbee Brothers. Proposed changes are reflected in table 4. Table 5 shows the current term permit for Nolan Shumway. Table 6 reflects proposed changes to the permit.

The renewal of the term grazing permit will be for a period of ten years. This decision will be effective upon the decision becoming final or pending final determination on appeal. Proposed changes to the permit terms and conditions would affect the overall management of livestock based on timing and duration of grazing, and allowable use levels on perennial native plants.

Terms and conditions for grazing use which would become pertinent to the Varlin S. Higbee, Higbee Brothers and Nolan Shumway permit will be as follows:

1. Both allotments will be divided administratively into two pastures to account for the various ecological characteristics of the landforms. The Black Bluff Allotment will consist of the upper west pasture which is from the happy tree well west over the Seaman Mountain range. The Seaman range will act as a natural barrier to prevent livestock drift from the Coal Valley side of the allotment onto the winterfat bottoms on the White River Valley side which is where the lower east pasture will be located. The grazing season of use would be changed on the Black Bluff Allotment lower east pasture to 9/1 to 2/28. Season of use will remain the same as current on the upper west pasture which is 9/1 to 2/28 and 3/1 to 5/15. The White River Allotment will consist of the upper east pasture and lower west pasture. The upper east pasture will maintain the current season of use which is 10/1 to 5/15. Livestock drift will be prevented through the use of water hauls, herding and using the natural topographical barriers of the allotment. The lower west pasture will have a season of use of 10/1 to 2/28, this will allow for reduced spring use of cool season perennial grasses and shrubs to ensure full development of annual growth and seed development and to encourage regeneration and improved current vegetative condition within the more sensitive winterfat bottoms. Up to 14 days extension may be permitted on a case by case basis and requires the approval of the authorized officer prior to use. Should drift become an issue that is non-resolvable the whole of the Black Bluff and White River Allotments will default to the 10/1 to 2/28 season of use. Active use AUMs may not be exceeded.
2. A spring rest rotation will take place by all three permittees within the South Coal Valley, Black Horse and Upper West pasture of the Black Bluff Allotment. This will allow for rest 1 in four years for all or portions of the use areas to allow for seed generation and dissemination to maintain sustainability within the current ecological sites.
3. The lower east pasture of the Black Bluff Allotment and the lower west pasture of the White River Allotment will be rested for a period of not less than two years or until vigor and stature is established beginning for the 2008 grazing year.

The following recommended management practices would become part of the permit stipulations for grazing management to achieve the Standards for Rangeland Health:

1. Salt and/or mineral supplements for livestock would be located no closer than 1/2 mile from water sources. Use of nutritional supplements (not forage) would be encouraged to improve the ability of cattle to utilize forage in the winter months and to improve livestock distribution across the allotment.

2. Maximum allowable use levels would be established as follows:

- Perennial grasses: 40% current year's growth.

This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) to contribute to litter cover, and 3) develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover.

- Perennial shrubs, half-shrubs and forbs: 40% use on current annual production.

This use level is necessary to allow desirable perennial key browse species to develop woody stature able to withstand the pressure of grazing use.

3. Wildlife escape ramps would be required to be installed and maintained by the permittee at each trough used on the allotment.

Stipulations Common to All Allotments:

1. Livestock numbers identified in the term grazing permit are a function of seasons of use and permitted use for each allotment. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the allotment.

2. Deviations from specified grazing use dates will be allowed when consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.

3. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.

4. The payment of your grazing fees is due on or before the date specified in the grazing bill. This date is generally the opening date of your allotment. If payment is not received within 15 days of the due date, you will be charged a late fee assessment of $25 or 10 percent of the grazing bill, whichever is greater, not to exceed $250. Payment with Visa, Mastercard or American Express is accepted. Failure to make payment within 30 days of the due date may result in trespass action.

5. Pursuant to 43 CFR 10.4(G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CRF 10.2). Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.

6. Grazing will be in accordance with the Northeastern Great Basin Area Standards and Guidelines for grazing administration as developed by the Northeastern Great Basin Resource Advisory Council and approved by the Secretary of the Interior on February 12, 1997. Grazing use will also be in accordance with 43 CFR subpart 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for grazing administration.

7. If future monitoring data indicates that Standards and Guidelines for Grazing Administration are not being met, the permit will be reissued subject to revised terms and conditions.

AUTHORITY: The authority for this decision is contained in Title 43 of the Code of Federal Regulations, which states in pertinent part:

> 4110.2-4: "After consultation, cooperation, and coordination with the affected grazing permittees or lessees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may designate and adjust grazing allotment boundaries. The authorized officer may combine or divide allotments, through an agreement or by decision, when necessary for the proper and efficient management of public rangelands.
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> 4100.0-8: "The authorized officer shall manage livestock grazing on public lands under the principle of multiple-use and sustained yield and in accordance with applicable land use plans. Land use plans shall establish allowable resource uses (either singly or in combination), related levels of production or use to be maintained, areas of use, and resource condition goals and objectives to be obtained. The plans also set forth program constraints and general management practices needed to achieve management objectives. Livestock grazing activities and management actions approved by the authorized officer shall be in conformance with the land use plan as defined at CFR 601.0-5(b)."
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> 4110.3: "The authorized officer shall periodically review the permitted use specified in a grazing permit or lease and shall make changes in the permitted use as needed to manage, maintain or improve rangeland productivity, to assist in restoring ecosystems to properly functioning condition, to conform with land use plans or activity plans, or to comply with the provisions of subpart 4180 of this part. These changes must be supported by monitoring, field observations, ecological site inventory or other data acceptable to the authorized officer."

4110.3-2 (b): "When monitoring or field observations show grazing use or patterns of use are not consistent with the provisions of subpart 4180, or grazing use is otherwise causing an unacceptable level or pattern of utilization, or when use exceeds the livestock carrying capacity as determined through monitoring, ecological site inventory or other acceptable methods, the authorized officer shall reduce permitted grazing use or otherwise modify management practices."

4130.3: "Livestock grazing permits and leases shall contain terms and conditions determined by the authorized officer to be appropriate to achieve the management and resource condition objectives for the public lands and other lands administered by the Bureau of Land Management, and ensure conformance with the provisions of subpart 4180 of this part."

4130.3-1(a): "The authorized officer shall specify the kind and number of livestock, the period(s) of use, the allotment(s) to be used, and the amount of use, in animal unit months, for every grazing permit or lease. The authorized livestock grazing use shall not exceed the livestock carrying capacity of the allotment."

4130.3-2: "The authorized officer may specify in grazing permits or leases other terms and conditions which will assist in achieving management objectives, provide for proper range management or assist in the orderly administration of the public rangelands."

4160.1 (a)"Proposed decisions shall be served on any affected applicant, permittee or lessee, and any agent and lien holder of record, who is affected by the proposed actions, terms or conditions, or modifications relating to applications, permits and agreements (including range improvement permits) or leases, by certified mail or personal delivery. Copies of proposed decisions shall also be sent to the interested public."

.1 (b) "Proposed decisions shall state the reasons for the action and shall reference the pertinent terms, conditions and the provisions of applicable regulations. As appropriate, decisions shall state the alleged violations of specific terms and conditions and provisions of these regulations alleged to have been violated, and shall state the amount due under §§ 4130.8 and 4150.3 and the action to be taken under § 4170.1."

4180.1: "The authorized officer shall take appropriate action under subparts 4110, 4120, 4130, and 4160 of this part as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management needs to be modified to ensure that the following conditions exist.

(a) Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland,

riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity, and timing and duration of flow.

(b) Ecological processes, including the hydrologic cycle, nutrient cycle, and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.

(c) Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving, established BLM management objectives such as meeting wildlife needs.

(d) Habitats are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered species, Federal Proposed, Category 1 and 2 Federal candidate and other special status species."

Protest and Appeal

Protest

In accordance with 43 CFR 4160.2, any applicant, permittee, lessee or other interested public may protest the proposed decision under 4160.1 of this title, in person or in writing to Ron Clementsen, Field Manage, Caliente Field Office 1400 South Front St. P.O. Box 237 Caliente, Nevada 89008 within 15 days after receipt of such decision. The protest, if filed, must clearly and concisely state the reason(s) why the protestant thinks the proposed decision is in error.

In accordance with 43 CFR 4160.3 (a), in the absence of a protest, the proposed decision will become the final decision of the authorized officer without further notice unless otherwise provided in the proposed decision.

In accordance with 43 CFR 4160.3 (b), should a timely protest be filed with the authorized officer, the authorized officer will reconsider the proposed decision and shall serve the final decision on the protestant and the interested public.

Appeal

In accordance with 43 CFR 4.470 and 4160.4, any person who wishes to appeal or seek a stay of a BLM grazing decision must follow the requirements set forth in 4.470 through 4.480 of this title. The appeal or petition for stay must be filed with the BLM office that issued the decision within 30 days after its receipt or within 30 days after the proposed decision becomes final as provided in 4160.3 (a).

The appeal and any petition for stay must be filed at the office of the authorized officer Ron Clementsen, Field Manage, Caliente Field Office 1400 South Front St. P.O. Box 237 Caliente, Nevada 89008**.** Within 15 days of filing the appeal and any petition for stay, the appellant also must serve a copy of the appeal and any petition for stay on any person named in the decision and listed at the end of the decision, and on the Office of the Solicitor, Regional Solicitor, Pacific Southwest Region, U.S. Department of the Interior, 2800 Cottage Way, Room E-1712, Sacramento, California 95825-1890.

Pursuant to 43 CFR 4.471(c), a petition for stay, if filed, must show sufficient justification based on the following standards:

(1) The relative harm to the parties if the stay is granted or denied;
(2) The likelihood of the appellant's success on the merits;
(3) The likelihood of immediate and irreparable harm if the stay is not granted; and,
(4) Whether the public interest favors granting the stay.

43 CFR 4.471(d) provides that the appellant requesting a stay bears the burden of proof to demonstrate that a stay should be granted.

Any person named in the decision from which an appeal is taken (other than the appellant) who wishes to file a response to the petition for a stay may file with the Hearings Division in Salt Lake City, Utah, a motion to intervene in the appeal, together with the response, within 10 days after receiving the petition. Within 15 days after filing the motion to intervene and response, the person must serve copies on the appellant, the Office of the Solicitor and any other person named in the decision (43 CFR 4.472(b)).
At the conclusion of any document that a party must serve, the party or its representative must sign a written statement certifying that service has been or will be made in accordance with the applicable rules and specifying the date and manner of such service (43 CFR 4.422(c)(2)).

Sincerely,

/s/ Ron Clementsen

Ron Clementsen
Field Manager
Caliente Field Office

Enclosures:

1. Finding of No Significant Impact (FONSI)
2. EA NV-040-08-002 (including the standards determination document)
3. Allotment Map(s)

FINDING OF NO SIGNIFICANT IMPACT
FOR
HIGBEE BROS. VARLIN HIGBEE AND NOLAN SHUMWAY
ON THE SOUTH COAL VALLE, BLACK BLUFF, WHITE RIVER AND BLACK HORSE ALLOTMENTS
EA # NV-040-08-002

I have reviewed Environmental Assessment (EA) NV-040-08-002. After consideration of the environmental effects as described in the EA, and incorporated herein, I have determined that the proposed action associated with fully processing the term permit renewal identified in the EA will not significantly affect the quality of the human environment and that an Environmental Impact Statement (EIS) is not required to be prepared.
Environmental Assessment (EA) NV-040-08-002 has been reviewed through the interdisciplinary team process

I have determined the proposed action is in conformance with the with the Caliente Management Framework Plan approved under the Caliente Planning Unit Decision Summary and Record of Decision issued July 1, 1983, and the Final Environmental Statement Proposed Domestic Livestock Grazing Management Program for the Caliente Area signed September 21, 1979. This finding and conclusion is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR 1508.27), both with regard to the context and the intensity of impacts described in the EA.

Context:
The South Coal Valley, Black Horse, Black Bluff and White River Allotments are located 50 miles west of Caliente, Nevada in Coal and White River Valleys. They situated on the northern end of the Seaman Mountain Range. The South Coal Valley Allotment encompasses 46,702 acres, the Black Horse Allotment encompasses 15,399 acres, the Black Bluff Allotment encompasses 33,176 acres and the White River Allotment encompasses 7,607 acres of BLM managed lands, all in Lincoln County, Nevada. Elevation ranges from 4200 - 6100 ft above sea level. The Seaman Range runs through the Black Horse, South Coal Valley and Black Bluff Allotments. The White River Allotment within the White River Valley intersecting the north end of the Pahroc Mountain Range. Average annual precipitation is 8-12 inches in the lower elevations and 10-15 inches in the upper elevations. The majority of the allotments are characterized by the vegetation of the sagebrush deserts. In the benches near the foot of the Seaman Range, the salt desert vegetation transitions into Wyoming sagebrush and black sage. Much of these areas burned in the 1984 Seaman Fire which burned 16,500 acres. The allotments are in the Major Land Resource Area 29 – Southern Nevada Basin and Range.

Intensity:

1) ***Impacts that may be both beneficial and adverse.***

The Environmental Assessment considered both beneficial and adverse impacts of the proposed action. None of the impacts disclosed in the EA approach the threshold of significance, i.e. exceeding air or drinking water quality standards, contributing a decline in the population of a listed species, etc

2) ***The degree to which the proposed action affects public health or safety.***

The Proposed Action will not result in potentially substantial or adverse impacts to public health and safety.

3) ***Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.***

There is prime or unique farmland on the allotment, there are no parks, wetlands, wild and scenic rivers, or ecologically critical areas (ACECs) within the area of analysis. Cultural and historic resources typical of the general area occur on the allotment. Cultural resources are located in the Proposed Action area, accordingly, all ground disturbing project work will be subject to Section 106 and site monitoring will be conducted to ensure the proposed activity will not result in adverse impact to resources.
.

4) ***The degree to which the effects on the quality of the human environment are likely to be highly controversial.***

The effects of livestock grazing on public lands have become more controversial in the past several years. However, most effects were disclosed in the Schell MFP. Although public input has been sought for the proposed action, there has been little public interest and only a few comments on effects analyzed in the attached EA.

5) ***The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.***

The effects of livestock grazing are well known and documented. Management practices are employed to meet resource objectives. The effects analysis demonstrates the effects are not uncertain, and do not involve unique or unknown risk.

6) ***The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.***
The Proposed Action will not establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration. Renewing the grazing permit does not establish a precedent for other Rangeland Health Assessments

and Decisions. Any future projects within the area or in surrounding areas will be analyzed on their own merits and implemented or not, independent of the actions currently selected.

7) ***Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.***

No significant cumulative impacts have been identified in the EA. Past, present, and reasonably foreseeable future actions on-going in the cumulative impact assessment area would not result in cumulatively significant impacts For any actions that may be propose in the future, further environmental analysis, including the assessment of cumulative impacts, will be required.

8) ***The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP or may cause loss or destruction of significant scientific, cultural, or historical resources.***

Cultural resources have been identified in the project area and EA. Cultural Resource specialists assessed potential impacts from the proposed action on protected resources and determined implementation of preservation management practices would result in no adverse effect. The proposed action will not cause the loss or destruction of significant scientific, cultural or historical resources.

9) ***The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the ESA of 1973.***

The BLM is required by the Endangered Species Act of 1973, as amended, to ensure that no action on the public lands jeopardizes a threatened, endangered, or proposed species. The action complies with the Endangered Species Act, in that potential effects of this decision on listed species have been analyzed and documented (EA Chapter IV). The action will not adversely affect any endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species act of 1973, as amended.

10) ***Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.***

The proposed action will not violate or threaten to violate any Federal, State, or local law or requirement imposed for the protection of the environment.

/s/ Ron Clementsen **8/14/2008**
Ron Clementsen Date
Field Manager
Caliente Field Office

FINAL ENVIRONMENTAL ASSESSMENT
FOR HIGBEE BROS. VARLIN HIGBEE AND NOLAN SHUMWAY
ON THE SOUTH COAL VALLEY, BLACK BLUFF, WHITE RIVER AND BLACK HORSE ALLOTMENTS

I. BACKGROUND INFORMATION

Introduction

This environmental assessment (EA) addresses the impacts to public land resources from a proposal to renew the term grazing permit for Varlin S. Higbee, Higbee Brothers and Nolan Shumway on the Black Bluff, South Coal Valley, White River and Black Horse Allotments. This EA fulfills the National Environmental Policy Act (NEPA) requirement for site-specific analysis of resource impacts. Both the proposed action and alternatives to the proposed action are considered.

This EA is tiered to and incorporates by reference the Caliente Management Framework Plan. Approved February 26 1982. Standards and Guidelines for Grazing Administration were developed by the Mojave-Southern Great Basin Resource Advisory Council and approved by the Secretary of the Interior on February 12, 1997.

The term grazing permit under consideration is for South Coal Valley Allotment (10120), Black Bluff (10122), White River (11009) and Black Horse Allotments (10123) (see general location map). The Higbee Brothers current permit is to graze up to 14 cows from 03/01-5/15 and 9/1-2/28 for a total of 118 active animal unit months (AUM) of use on the South Coal Valley Allotment, the Black Bluff Allotment has a use period of 3/1-5/15 and 9/1-2/28 for 12 cattle for a total active AUMs of 101, the Black Horse Allotment has a use period of 3/1-2/28 for 22 cattle for a total active use of 264 AUMs, the White River Allotment has a use period of 3/1-5/15 and 10/1-2/28 for 67 cattle for a total active use of 500AUMs. Varlin S. Higbee is current permitted is to graze up to 18 cows from 03/01-5/15 and 9/1-2/28 for a total of 192 active animal unit months (AUM) of use on the South Coal Valley Allotment, the Black Bluff Allotment has a use period of 3/1-5/15 and 9/1-2/28 for 88 cattle for total active AUMs of 744, the Black Horse Allotment has a use period of 3/1-2/28 for 20 cattle for a total active use of 240 AUMs. Nolan Shumway is currently permitted to graze up to 67 cows from 03/01-5/15 and 9/1-2/28 for a total of 566 active animal unit months (AUM) of use on the South Coal Valley Allotment and the Black Bluff Allotment has a use period of 3/1-5/15 and 9/1-2/28 for 10 cattle for total of 85 active AUMs.

Current Permitted Use

Permittee	Allotments	AUMs	Period of Use
Varlin S. Higbee (2700038)	South Coal Valley	152 AUMs	3/1-5/15 and 9/1-2/28
	Black Bluff	744 AUMs	3/1-5/15 and 9/1-2/28
	Black Horse	240 AUMs	3/1-2/28
Higbee	South Coal Valley	118 AUMs	3/1-5/15 and 9/1-2/28

Brothers (2705122)	Black Bluff	101 AUMs	3/1-5/15 and 9/1-2/28
	Black Horse	264 AUMs	3/1-2/28
	White River	500 AUMs	3/1-5/15 and 10/1-2/28
Nolan Shumway (2705124)	South Coal Valley	566 AUMs	3/1-5/15 and 9/1-2/28
	Black Bluff	85 AUMs	3/1-5/15 and 9/1-2/28

The Mojave Southern Great Basin Area Standards for Rangeland Health were approved in 1997. An assessment of rangeland health for the Black Bluff, South Coal Valley, White River and Black Horse Allotments was conducted from January through March, 2008. Grazing management is not in complete conformance with the Guidelines. A review and analysis of the monitoring data was conducted. As a result of this review, changes to the management of livestock were proposed to improve the vegetative conditions of the allotments. The complete standards determinations are located in Appendix I. A summary of the findings for the allotment are as follows:

South Coal Valley

1. Soils Standard: Not Meeting the Standard, but making significant progress towards Achieving.

2. Ecosystem Components: Not Meeting the Standard, but making significant progress towards Achieving.

3. Habitat and Biota: Not Meeting the Standard, but making significant progress towards Achieving.

Conclusions of the Standard Determination:

Standard 1. Soils:

Conclusion: Standard Not Achieved. The majority of the South Coal Valley Allotment is meeting or making progress towards achieving the standard. The areas of concern mentioned above that are not meeting the standard should continue to be monitored. The primary reason for the reduced herbaceous component has been the drought years that took place during the late 90's and early 2000. In working with the BLM the permittees has been running substantially reduced Livestock grazing of both sheep and cattle within the allotment over the last six years. The reduction in use is a result of prolonged drought within the region during the late 1990's and early 2000's. Use on the allotment has been 10% to 70% percent of permitted use.

The allotment is maintaining a diverse functioning ecosystem. The presence of annual grasses should be maintained at a minimum to reduce the threat of wildfire within the allotment.

Standard 2. Ecosystem Components:

Conclusion: Standard Not Achieved. Line Intercept Cover data collected at the key areas indicates the major plant communities are composed of major plant species to meet ecological diversity standards. At Key Area one and two there are plant species that

were present but not included within the study plot. These included Indian ricegrass and Bottlebrush squirreltail. However the frequency of desirable native grasses to shrubs is lacking in substantial quantity though present in composition. Due to the lack of frequency of cool season grasses such as Indian ricegrass and Bottlebrush squirreltail it is therefore not in conformance with the guidelines.
There is one lentic spring on the South Coal Valley Allotment. It is fully developed with a pipeline and therefore will not have Proper Functioning Condition (PFC) conducted.
.

Standard 3. Habitat and Biota:
Conclusion: Standard not met. Existing grazing management and levels of grazing use on the South Coal Valley Allotment are not significant causal factors in failing to achieve the habitat standard. Utilization data shows the allotment has generally been grazed moderate or less for the recent past years and use on the allotment has been 10% to 70% percent of permitted use. The decline in frequency of major herbaceous species such as Indian ricegrass and Bottlebrush squirreltail are more attributed to historic grazing practices of the previous century. The current management practices such as rest rotation grazing, water hauling and winter use only are aiding the range to recover and make significant progress towards achieving standards and guidelines.

Black Bluff Allotment

1. Soils Standard: Not Meeting the Standard, but making significant progress towards standard

2. Ecosystem Components: Not Achieving the Standard, and not making significant progress toward standard

3. Habitat and Biota: Not Achieving the Standard, not making significant progress toward standard

Conclusions of the Standard Determination:

Standard 1. Soils: Conclusion: (Standard Not Achieved). Livestock grazing is one contributing factor to not achieving the Standard. The primary reason cited is inadequate soil protection through inappropriate vegetation community. The primary causal factor is the season of use. The permit allows use to begin in first of September and doesn't end until May 15. Late May is too late on the allotment as many plants are in the critical growing period at that time. Utilization of cool season plants, especially Indian ricegrass and winterfat, during the critical growing season has resulted in a significant decrease in these species in the primary grazing area.

The reduction of key perennial species can have impacts on the overall protection of soils. Additionally, the vegetative cover which should be 20-30% at Study Site 1 and 10 to 20% at Study Site 2 is currently 23.5% and 9% respectively. The reduced cover can be due to a reduction and subsequent replacement of key perennial plants with undesirable species such as Halogeton or Russian thistle. The reduction of important grass, forb, and

shrub species, some of which are highly favored by livestock, results in the reduced resilience of the community to resist (or recover from) disturbance. Large wildfires are becoming more commonplace in the salt desert due to the momentous increase of cheatgrass. Cheatgrass returns with robust vigor following fire thereby adding to the threat of habitat loss.

It should be noted that overall soils appear to be stable in the allotment as no outward signs of soil loss or soil movement was observed other than some pedestalling along the Winterfat bottoms that was noted during monitoring. The gentle slopes of the allotment help reduce or even prevent soil loss due to overland flow.

Standard 2. Ecosystem Components: Conclusion: (Standard Not Achieved). Livestock grazing is one contributing factor to not achieving the Standard. Vegetative cover is inadequate for the sites where livestock grazing has occurred during the evaluation period. The magnification of "increaser species" and the decline of "decreaser species" are attributed to continued spring grazing by livestock. Although utilization limits were not exceeded, the almost yearly continued spring use has had an impact on the community, as reflected by the cover and frequency data.

Standard 3. Habitat and Biota: Standard not met (not achieved). Livestock grazing is one contributing factor to not achieving the Standard. General observations and data analysis indicate habitat is in a degraded state due to diminishing vegetative cover and poor community structure in the primary grazing area. Important wildlife cover and forage species such as ricegrass, winterfat, and fourwing saltbush are decreasing in number and vigor. Plant vigor and stature of desirable native shrub species have been affected in part by livestock grazing, particularly in the critical growing season. Fourwing, spiny hopsage and winterfat plants show poor growth forms and reduced woody biomass.

White River Allotment

1. Soils Standard: Not Meeting the Standard, but making significant progress towards standard

2. Ecosystem Components: **N**ot Achieving the Standard, and not making significant progress toward standard

3. Habitat and Biota: Not Achieving the Standard, not making significant progress toward standard

Conclusions of the Standard Determination:

Standard 1. Soils: Conclusion: (*Standard Not Achieved).* Livestock grazing is one contributing factor to not achieving the Standard. The primary reason cited is inadequate soil protection through inappropriate vegetation community. The primary causal factor is the season of use and recent droughty conditions. The permit allows use to begin in first of September and doesn't end until May 15. Late May is too late on the allotment as many plants are in the critical growing period at that time. Utilization of cool season

plants, especially Indian ricegrass and winterfat, during the critical growing season has resulted in a significant decrease in these species in the primary grazing area.

The reduction of key perennial species can have impacts on the overall protection of soils. Additionally, the vegetative cover which should be 20-30% at KMA 2 and 10 to 20% at KMA 1 is currently 13.62% and 2.9% respectively. The reduced cover can be due to a reduction and subsequent replacement of key perennial plants with undesirable species such as Halogeton or Russian thistle. The reduction of important grass, forb, and shrub species, some of which are highly favored by livestock, results in the reduced resilience of the community to resist (or recover from) disturbance.

It should be noted that overall soils appear to be stable in the allotment as no outward signs of soil loss or soil movement was observed other than some pedestalling along the Winterfat bottoms that was noted during monitoring. The gentle slopes of the allotment help reduce or even prevent soil loss due to overland flow.

Standard 2. Ecosystem Components: Conclusion: (*Standard Not Achieved).* Livestock grazing is one contributing factor to not achieving the Standard. Vegetative cover is inadequate for the sites where livestock grazing has occurred during the evaluation period. The magnification of "increaser species" and the decline of "decreaser species" are attributed to continued spring grazing by livestock. Although utilization limits were not exceeded, the almost yearly continued spring use has had an impact on the community, as reflected by the cover and frequency data.

Standard 3. Habitat and Biota: Conclusion: (*Standard Not Achieved).* Livestock grazing is one contributing factor to not achieving the Standard. General observations and data analysis indicate habitat is in a degraded state due to diminishing vegetative cover and poor community structure in the primary grazing area. Important wildlife cover and forage species such as ricegrass, winterfat, and fourwing saltbush are decreasing in number and vigor. Plant vigor and stature of desirable native shrub species have been affected in part by livestock grazing, particularly in the critical growing season. Fourwing, spiny hopsage and winterfat plants show poor growth forms and reduced woody biomass.

Black Horse Allotment

1. Soils Standard: Meeting the Standard

2. Ecosystem Components: Meeting the Standard

3. Habitat and Biota: Meeting the Standard

Conclusions of the Standard Determination:

Standard 1. Soils: Conclusion: Standard met (achieved). The majority of the allotment is meeting or making progress towards achieving the standard. The areas of concern that are not meeting the standard should continue to be monitored. The primary reason for the reduced herbaceous component has been the drought years that took place during the late 90's and early 2000. The reduced herbaceous component at KMA 1 is normal for the site and is not a factor related to livestock grazing. Grazing should continue to be used during the winter months in order to reduce the buildup of fine fuels and prevent a frequent fire cycle. Monitoring will continue to ensure proper species composition and diversity.

Standard 2. Ecosystem Components: Standard met (achieved). Line Intercept Cover data collected at the key areas indicates the major plant communities are composed of major plant species to meet ecological diversity standards. At KMA 2 and KMA 3 there are plant species that were present but not included within the study plot. These included Fourwing saltbush, Cliffrose, Juniper and Flax. The frequency of the plants is below the potential native community standard (PNC) but is within the range site description. The Seaman fire that occurred in 1984 aided immensely in moving the allotment towards achieving standard by moving it out of a woody dominated site. The composition of desirable native grasses to shrub is well within standard and therefore is in conformance with guidelines.

There is one lentic spring on the Black Horse Allotment. It is fully developed with a pipeline and therefore will not have Proper Functioning Condition (PFC) conducted

Standard 3. Habitat and Biota: Conclusion: Standard met (achieved). Existing grazing management and levels of grazing use on the Black Horse Allotment are insignificant factors within the allotment. The Seaman Fire that took place in 1984 burned 16,500 acres and caused a natural state in transition shift within the allotment that prevented the system from transitioning into a woody dominated site with a significantly reduced herbaceous understory. Utilization data and personal observations shows the allotment has generally been grazed moderate or less for the recent past years. In these areas, the current grazing management system conforms to the guidelines.

B. Need for the Proposal

The need for the proposal is to provide for legitimate multiple uses of the public lands by renewing the term grazing permit for Varlin S. Higbee, Higbee Brothers and Nolan Shumway on the Black Bluff, South Coal Valley, White River and Black Horse Allotments with new terms and conditions for grazing use that conform to Guidelines and achieve the Standards for Nevada's Mojave-Southern Great Basin Area in accordance with all applicable laws, regulations, and policies and in accordance with Title 43 CFR 4130.2(a) which states "Grazing permits or leases authorize use on the public lands and other BLM-administered lands that are designated in land use plans as available for livestock grazing."

C. Relationship to Planning

The proposed action is consistent with Federal, State, and local plans to the maximum extent possible. The proposed action is in conformance with the Caliente Management Framework Plan (Approved 26 February 1982). The proposed action has been analyzed within the scope of other relevant plans, statutes, regulations, and executive orders listed below and found to be in compliance:

- State Protocol Agreement between the Bureau of Land Management (BLM), Nevada and the Nevada State Historic Preservation Office (1999)
- Mojave-Southern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (12 February 1997).
- Lincoln County Elk Management Plan – Revised 2006
- Endangered Species Act - 1973
- Wilderness Act - 1964
- Migratory Bird Treaty Act (1918 as amended) and Executive Order (1/11/01).
- Lincoln County Public Land and Natural Resource Management Plan (1997)

  "Grazing shall be managed to support a healthy range resource." (P. 15)

Relationship to Bureau Guidance

The proposed action also complies with BLM Nevada Instruction Memorandum (IM) No. NV-2006-034 which provides guidance to facilitate the preparation of grazing permit renewal Environmental Assessments (EA) as per the requirement set forth in BLM Washington Office IMs WO 2003-071 and WO 2004-126. This document complies with the IM guidance. It also complies with the requirements outlined in the following policies and manuals:

- Ely District Policy: Management Actions for the Conservation of Migratory Birds – 5/01/01.
- BLM Manual 8560, H-8560-1, 8561 (Wilderness Management)

  "The BLM must foster a natural distribution of native species of wildlife, fish, and plants by ensuring that ecosystems and ecological processes continue to function naturally" (.11 A 1).
- BLM Manual 8400 - Visual Resources Management

D. Identification of Issues

These permit renewal proposals were scoped internally by resource specialists on January 27, 2008 at the Ely BLM Field Office. It was identified that the two of the allotment are not achieving the Standards for Rangeland Health as written by the Mojave Southern Great Basin RAC and two were.

II. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

The Bureau of Land Management would issue and fully process new term grazing permits for Varlin S. Higbee, Higbee Brothers and Nolan Shumway and authorize grazing on the Black Bluff, South Coal Valley, White River and Black Horse Allotments Changes to all three permits are recommended to achieve the Standards on the Black Bluff and White River Allotments. The current term permit is shown in Table 1. Proposed changes are reflected in Table 2 for Varlin S. Higbee, table 3 reflects the current term permit for Higbee Brothers. Proposed changes are reflected in table 4. Table 5 shows the current term permit for Nolan Shumway. Table 6 reflects proposed changes to the permit.

Table 1. Current Term Permit for Varlin S. Higbee (#2700038)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley 10120	18 Cattle	3/1-5/15 and 9/1-2/28	100	Active	152
Black Bluff 10122	88 Cattle	9/1-2/28 and 3/1-5/15	100	Active	744
Black Horse 10123	20 Cattle	3/1-2/28	100	Active	240

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.

Allotment AUMs Summary

ALLOTMENT	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PREFERENCE
South Coal Valley	152	0	152
Black Bluff	759	0	759
Black Horse	243	0	243

The proposed term permit and allotment information is as follows:

Table 2. Proposed Term Permit for Varlin S. Higbee (#2700038)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley (10120)	18 Cattle	3/1-5/15 and 9/1-2/28	100	Active	152
Black Bluff (10122) *Lower East Pasture*	88 Cattle	9/1-2/28	100	Active	744
Upper West Pasture		3/1-5/15 and 9/1-2/28	100	Active	
Black Horse (10123)	20 Cattle	3/1-2/28	100	Active	240

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.

Table 3. Current Term Permit for Higbee Brothers (#2705122)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley 10120	14 Cattle	3/1-5/15 and 9/1-2/28	100	Active	118
Black Bluff 10122	12 Cattle	9/1-2/28 and 3/1-5/15	100	Active	101
Black Horse 10123	22 Cattle	3/1-2/28	100	Active	264
White River	67 Cattle	3/1-5/15 and 10/1-2/28	100	Active	500

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.

Allotment AUMs Summary

ALLOTMENT	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PREFERENCE
South Coal Valley	124	0	124
Black Bluff	103	0	103
Black Horse	267	0	267
White River	501	0	501

Table 4. Proposed Term Permit for Higbee Brothers (#2705122)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley (10120)	14 Cattle	3/1-5/15 and 9/1-2/28	100	Active	118
Black Bluff (10122) *Lower East Pasture*	12 Cattle	9/1-2/28	100	Active	101
Upper West Pasture		3/1-5/15 and 9/1-2/28	100	Active	
Black Horse (10123)	22 Cattle	3/1-2/28	100	Active	264
White River (11009) *Lower West Pasture*	67 Cattle	10/1-2/28	100	Active	500
Upper West Pasture		3/1-5/15 and 10/1-2/28	100	Active	

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.

Table 5. Current Term Permit for Nolan Shumway (#274740)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley 10120	67 Cattle	3/1-5/15 and 9/1-2/28	100	Active	566
Black Bluff 10122	10 Cattle	9/1-2/28 and 3/1-5/15	100	Active	85

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.

Allotment AUMs Summary

ALLOTMENT	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PREFERENCE
South Coal Valley	572	0	572
Black Bluff	84	0	84

Table 6. Proposed Term Permit for Nolan Shumway (#274740)

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
South Coal Valley 10120	67 Cattle	3/1-5/15 and 9/1-2/28	100	Active	566
Black Bluff (10122) *Lower East Pasture*	10 Cattle	9/1-2/28	100	Active	85
Upper West Pasture		3/1-5/15 and 9/1-2/28	100	Active	

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Preference due to a rounding difference with the number of livestock and the period of use.

The renewal of the term grazing permit would be for a period of ten years. Proposed changes to the permit terms and conditions would affect the overall management of livestock based on timing and duration of grazing, and allowable use levels on perennial native plants.

Terms and conditions for grazing use which would become pertinent to Varlin S. Higbee, Higbee Brothers and Nolan Shumway permits are proposed as follows:

4. Both allotments will be divided administratively into two pastures to account for the various ecological characteristics of the landforms. The Black Bluff Allotment will consist of the upper west pasture which is from the happy tree well west over the Seaman Mountain range. The Seaman range will act as a natural barrier to prevent livestock drift from the Coal Valley side of the allotment onto the winterfat bottoms on the White River Valley side which is where the lower east pasture will be located. The grazing season of use would be changed on the Black Bluff Allotment lower east pasture to 9/1 to 2/28. Season of use will remain the same as current on the upper west pasture which is 9/1 to 2/28 and 3/1 to 5/15. The White River Allotment will consist of the upper east pasture and lower west pasture. The upper east pasture will maintain the current season of use which is 10/1 to 5/15. Livestock drift will be prevented through the use of water hauls, herding and using the natural topographical barriers of the allotment. The lower west pasture will have a season of use of 10/1 to 2/28, this will allow for reduced spring use of cool season perennial grasses and shrubs to ensure full development of annual growth and seed development and to encourage regeneration and improved current vegetative condition within the more sensitive winterfat bottoms. Up to 14 days extension may be permitted on a case by case basis and requires the approval of the authorized officer prior to use. Should drift become an issue that is non-resolvable the whole of the Black Bluff and White River Allotments will default to the 10/1 to 2/28 season of use. Active use AUMs may not be exceeded.
5. A spring rest rotation will take place by all three permittees within the South Coal Valley, Black Horse and Upper West pasture of the Black Bluff Allotment. This will allow for rest 1 in four years for all or portions of the use areas to allow for seed generation and dissemination to maintain sustainability within the current ecological sites.
6. The lower east pasture of the Black Bluff Allotment and the lower west pasture of the White River Allotment will be rested for a period of not less than two years or until vigor and stature is established beginning for the 2008 grazing year.

The following recommended management practices would become part of the permit stipulations for grazing management to achieve the Standards for Rangeland Health:

1. Salt and/or mineral supplements for livestock would be located no closer than 1/2 mile from water sources. Use of nutritional supplements (not forage) would be encouraged to improve the ability of cattle to utilize forage in the winter months and to improve livestock distribution across the allotment.

2. Maximum allowable use levels would be established as follows:

- Perennial grasses: 40% current year's growth.

This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) to contribute to litter cover, and 3) develop

roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover.

- Perennial shrubs, half-shrubs and forbs: 40% use on current annual production.

This use level is necessary to allow desirable perennial key browse species to develop woody stature able to withstand the pressure of grazing use.

3. Wildlife escape ramps would be required to be installed and maintained by the permittee at each trough used on the allotment.

A full description of the proposed revised term permit is located in Appendix II of this EA.

Monitoring: Rangeland monitoring would continue to be collected for all four allotments to determine if the livestock management practices are meeting allotment objectives and progressing towards achieving the Standards for Rangeland Health as provided by the Mojave Southern Great Basin RAC.

Monitoring studies typically include but would not limited to: use pattern mapping, key forage plant method for utilization, cover studies, ecological condition studies, frequency (trend), apparent trend (based on observations), weed detection, professional observations, and photography. Drought assessments would be conducted as needed. Rapid assessment (riparian proper functioning condition) would be conducted as needed. Baseline monitoring could be conducted in association with watershed assessment. Monitoring could be conducted before, during, or following grazing use.

If a future assessment should result in a determination that changes are necessary for achieving the Standards and conforming to the Guidelines, the permit would be reissued subject to revised terms and conditions.

B. No Action Alternative

Under the No Action Alternative, the permit would be renewed without changes to season of use or to grazing use and management.

C. Other Alternatives

Since the alternative of no livestock grazing was fully described and analyzed in the Caliente Proposed Domestic Livestock Grazing Management Program Environmental Statement (page 8-19), released September 21, 1979, the effects of not renewing the term grazing permit are not analyzed in this document. The decision was that the lands within the South Coal Valley, Black Bluff, White River and Black Horse Allotments would be available for grazing, in which case, 43 CFR requires the issuance of grazing permits to qualified applicants. No additional site specific alternatives are necessary for analysis since there are no unresolved conflicts concerning alternative uses of available resources.

In addition to the proposed action and the no grazing alternatives, the *Caliente ES* analyzed several other alternatives:

1. The no-action alternative, which would have maintained the current level of grazing by livestock, cattle and wildlife
2. The Wild Horse and Burro Alternative, which would have slightly increased AUM's for livestock, and also have tripled the allocation of forage for Wild Horses and Burros.
3. The "Restricted Period of Use by Livestock" alternative, which would have eliminated grazing during the forage growing season and increased by about 50% the AUMs allocated for livestock
4. The "Reduced levels of Livestock" Alternative, which would have decreased livestock grazing by about half the current level
5. The "Reduced Management" Alternative, which would have increased livestock grazing by about 50%.

No additional site specific alternatives are necessary for analysis since there are no unresolved conflicts concerning alternative uses of available resources.

III. DESCRIPTION OF THE AFFECTED ENVIRONMENT

The South Coal Valley, Black Horse, Black Bluff and White River Allotments are located 50 miles west of Caliente, Nevada in Coal and White River Valleys. They situated on the northern end of the Seaman Mountain Range. The South Coal Valley Allotment encompasses 46,702 acres, the Black Horse Allotment encompasses 15,399 acres, the Black Bluff Allotment encompasses 33,176 acres and the White River Allotment encompasses 7,607 acres of BLM managed lands, all in Lincoln County, Nevada. Elevation ranges from 4200 - 6100 ft above sea level. The Seaman Range runs through the Black Horse, South Coal Valley and Black Bluff Allotments. The White River Allotment within the White River Valley intersecting the north end of the Pahroc Mountain Range. Average annual precipitation is 8-12 inches in the lower elevations and 10-15 inches in the upper elevations. The majority of the allotments is characterized by the vegetation of the sagebrush deserts. In the benches near the foot of the Seaman Range, the salt desert vegetation transitions into Wyoming sagebrush and black sage. Much of these areas burned in the 1984 Seaman Fire which burned 16,500 acres. The allotments are in the Major Land Resource Area 29 – Southern Nevada Basin and Range.

Mandatory Elements of the Human Environment

The mandatory elements of the human environment which must be considered because of requirements specified in statute, regulation, executive order or Bureau policy, are listed in Table 3. Elements that may be affected are further described in this EA. Those elements that are not present or would not be affected are also listed in Table 3, but will not be considered further in this document.

Table 3. Mandatory Elements of the Human Environment

Mandatory Element	No or Negligible Effect Beyond Those Disclosed in the RMP/FMP/Grazing EIS	May Be Affected	Not Present	Rationale
Air Quality	X			Dust occurs due to high valley winds and characteristically loose soil surfaces in and around lake beds with or without livestock grazing. Changes in grazing management could improve soil surface conditions.
Areas of Critical Environmental Concern (ACEC)			X	No ACECs occur in the allotment.
Cultural Resources	X			The allotments are predominately within a low to high cultural sensitivity level. To manage for no adverse effect, monitoring will occur for sites determined potentially NRHP eligible and located within the area of Proposed Activity.
Environmental Justice			X	No minority or low-income groups would be affected by disproportionately high and adverse health or environmental effects identified in the allotment.
Farmlands (Prime or Unique)	X			Prime farmland soils occur in the allotments. However livestock grazing does not change soil characteristics that affect farmland status.
Floodplains	X			The pluvial dry lake bed served as a floodplain in the valley in prehistoric times. Today, surface water does not flow on or through the allotment via any flood channel or plain. Rather, it gathers in the lake bed and evaporates.
Migratory Birds	X			A number of migratory bird species are known to have a distribution that overlaps with the proposed action area. Migratory bird nesting and foraging habitat may be located throughout the allotments.

Table 3. Mandatory Elements of the Human Environment

Mandatory Element	No or Negligible Effect Beyond Those Disclosed in the RMP/FMP/Grazing EIS	May Be Affected	Not Present	Rationale
				Based on known habitat associations, species composition may be somewhat anticipated. Where sagebrush occurs, migratory obligate species may use the area. Outside the breeding season, a number of species have the potential to use the area during the winter or migration. The potential for the proposed livestock grazing to negatively affect migratory birds is discountable because of low density of livestock within the allotments.
Native American Religious Concern	X			No concerns for the proposed action were identified by tribal representatives at the coordination meeting on February 12, 2008.
Noxious Weeds and Non-Native, Invasive Species		X		Surface disturbing activities associated with the proposed action may increase the risk of establishment or spread of these species in the allotment.
Federally Listed or Proposed Plant and Animal Species			X	None present
Special Status Animal and Plant Species (Federally candidate threatened or endangered species and state sensitive species)	X			There are no special status or threatened/endangered plant or animal species that occur within the allotments.
Wastes (Hazardous and Solid			X	No hazardous or solid wastes exist in the allotment nor would be introduced by the proposed action.
Water Quality (Drinking and Ground)	X			Sources of drinking water do not occur in the allotment. No surface water in the area is used for domestic drinking water.
Wetlands/Riparian	X			The only spring on the allotments South Coal Valley Allotment is the Seaman spring

Table 3. Mandatory Elements of the Human Environment

Mandatory Element	No or Negligible Effect Beyond Those Disclosed in the RMP/FMP/Grazing EIS	May Be Affected	Not Present	Rationale
				which is fully developed. There is an un-named spring on the Black Horse Allotment that is also fully developed. No known wetlands occur on the allotment.
Wild Horses and Burros	X			The Seaman Herd Management Area (HMA) occurs within the northern portions of the South Coal Valley and Black Bluff Allotments. Animal Management Level (AML) for the HMA is 159 horses.
Wild and Scenic Rivers			X	There are no wild and scenic rivers in or near the allotment.
Wilderness Values			X	The allotment boundaries do not overlap with any Wilderness or Instant Study Areas.

In addition to the mandatory elements of the human environment, the BLM considers other resources and uses that occur on public lands and the issues that may result from the implementation of the Proposed Action. The potential resources and uses, or non-mandatory elements that may be affected are listed in Table 4. A brief rationale for either considering or not considering the non-mandatory element further is provided. The non-mandatory elements that are considered in the EA are described in the Affected Environment and are analyzed in the Environmental Consequences section.

Table 4. Other Resources and/or Issues in the Allotment

Resource or Issue	No or Negligible Effect Beyond Those Disclosed in the RMP/FMP/Grazing EIS	May Be Affected	Not Present	Rationale
Livestock Grazing/Range/Standards and Guidelines		X		The proposed action reduces the season of use on two of the four allotments and implements changes to the management of livestock which would affect the livestock operation and progress

Table 4. Other Resources and/or Issues in the Allotment

Resource or Issue	No or Negligible Effect Beyond Those Disclosed in the RMP/FMP/Grazing EIS	May Be Affected	Not Present	Rationale
				toward achieving the Standards for Rangeland Health.
Vegetation		X		Proposed grazing management changes may affect vegetation in the allotment through improved management.
Soils		X		Grazing management changes may affect soils on the allotment through improved management.
Wildlife		X		Grazing management changes may affect wildlife habitat through improved grazing management.
Recreation	X			Grazing management changes would not affect recreation activities which occur on the allotment.
Visual Resource	X			Grazing activities would not affect Class IV VRM classified landscapes.

Potentially Affected Elements of the Human Environment

Based on the review of existing baseline data and surveys conducted in preparation of this EA, BLM specialists have identified the following as potentially affected elements of the human environment:

- Livestock Grazing/Rangeland Health/Standards and Guidelines
- Noxious Weeds and Invasive Non-Native Species
- Soils
- Vegetation
- Wildlife
- Cultural Resources

A. Livestock Grazing/Rangeland Health/Standards and Guidelines

The South Coal Valley, Black Horse and White River Allotments are cattle only allotments. The Black Bluff Allotment is a cattle and sheep allotment until the South Coal Valley Murphy Gap Allotment boundary fence is constructed. At which time the Black Bluff Allotment will become a cattle only allotment, the sheep use will be confined to the Murphy Gap Allotment. The current permit for cattle use is described in the proposed action. Grazing bills were examined for the permittee for grazing years 2000-2006 which is detailed within the standards evaluation which is appendix I of this document.
Grazing management typically involves cattle turnout in the fall and removal in the early or late spring, though at times, turnout occurs later, nearer the spring season. The allotments has experienced drought conditions in the recent past, resulting in poor vegetative production in drought years and decreased forage availability. The permittee has responded proactively to drought conditions by reducing herd size or by not turning livestock into the allotment.

The allowable use levels for the allotment were established in 1983 by proposed/final decision issued to Dean Carter and Sons. The use levels from the decision are shown in Table 5:

Table 4. Current Allowable Use Levels for all four Allotment

Key Species	Spring	Fall	Winter
Indian Ricegrass	30%	50%	50%
Small Galleta	30%	50%	50%
Winterfat	45%	45%	45%

In 1984 the Seaman Fire burned 16,500 acres of public land on the South Coal Valley, Western portions of the Black Bluff Allotment and a significant portion of the Black Horse Allotment. The area was allowed to re-establish naturally with a two to three year grazing rest.

B. Noxious Weeds and Invasive, Non-Native Species

There are currently no known documented weed infestations within the South Coal Valley or Black Horse allotments. The following species are found within the boundaries of the White River and Black Bluff allotments:

Tamarix spp.	Salt cedar
Centaurea stoebe	Spotted knapweed

The following species are found along roads and drainages leading to all of the allotments:

Acroptilon repens	Russian knapweed
Cirsium vulgare	Bull thistle
Centaurea stoebe	Spotted knapweed
Lepidium draba	Hoary cress

Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

All of the allotments were last inventoried for noxious weeds in 2007. While not officially documented the following non-native invasive weeds probably occur in or around the allotment: cheatgrass (*Bromus tectorum*), red brome (Bromus rubens), halogeton (*Halogeton glomerus*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

C. Soils

Soils in the allotment are found on mountain, alluvial fan, and bottomland areas. Soils in the mountains tend to have numerous rock fragments and the surface of the fine soil fraction ranges from loam to loamy sand. They are formed from colluviums and residuum. The alluvial fans have from 0 to 35% rock fragments with the surface of the fine soil fraction composed of coarse sandy loam, sandy loam, fine sandy loam and loamy sands. These soils are formed from alluvial parent material. The bottomlands usually contain less than 15% rock fragments and have fine fraction surface materials of silt loam, course sandy loam, sandy loam, fine sandy loam, and loamy sands. These are depositional areas for the watershed. Cryptogrammic crust formations do exist within the allotments in places where formations are favorable. Precipitation zones range from approximately 8" on the lower benches to 15+" in the upper benches. The average annual air temperature ranges from 42 to 50 degrees Fahrenheit. Frost free days average from 85 to 110 days.

D. Vegetation

The allotments are characterized by the salt desert shrub community which dominates much of South Coal Valley and sagebrush in the benchlands. Soils determine largely which plant communities occur on the ground. The soils are described in the soils section of this document. The primary range sites are described within appendix I of this document.

The majority of the allotment is dominated by three vegetation groups: sagebrush dominated groups, salt desert shrub, and spiny hopsage dominated groups. Sagebrush occurs on the lower slopes of the Seaman Mountains. The higher elevations within the South Coal Valley, Black Bluff and Black Horse Allotments are sagebrush/juniper sites with a diversity of herbaceous and forb species. These are described in detail within appendix I of this document.

Salt Desert Shrub

This area is extensive on the South Coal Valley, lower east pasture of the Black Bluff and lower west pasture of the White River Allotments. Often these areas are dominated by salt tolerant species but the sites range in location from the dry lake beds to mid-slope.

Vegetation is characterized by four-wing saltbush (*Atriplex canescens*), shadscale (*Atriplex confertifolia*), ephedra, winterfat (*Krasheninnikovia lanata*), Indian ricegrass, green molly (*Bassia americana*), and small galleta (*Pleuraphis jamesii*). Closer to the dry lake bed, greasewood (*Sarcobatus spp*.) dominates the community.

Sagebrush

These areas are very extensive on the allotments and occur in the primary grazing area. This community is characterized by Wyoming sagebrush (*Artemisia tridentata var. Wyomingensis*) which may be accompanied by an assortment of perennial native bunch grasses (Indian ricegrass (*Achnatherum hymenoides*), squirreltail (*Elymus elymoides*), *Poa* spp. needleandthread (*Hesperostipa comata*), small galleta (*Hilaria jamesii*) etc.

The invasive introduced annual grass cheatgrass is typically present throughout the allotments in varying densities. It is most dense along existing disturbances such as roads. It occurs in smaller densities elsewhere and is not a common problem in unburned areas. When climatic conditions are prime for cheatgrass, the species can amplify to undesirable densities putting the valley at high risk of wildfire.

E. Wildlife

The allotment provides year round habitat for game animals such as mule deer. Elk habitat encompasses the area but the allotment's location is not high quality habitat for elk. Elk have moved into the area recently, though their current numbers in the area are not known. Antelope are often observed in the flats on the South Coal Valley and White River allotments as well.

Wintering and breeding raptors are assumed to occupy and hunt in the area and pursue locally abundant prey species such as various small mammals and rodents. Blacktail jackrabbit numbers are currently high on all the allotments. One might also be able to observe foxes, cottontail rabbits, a variety of snakes and lizards, and numerous species of small mammals and songbirds.

F. Cultural Resources

Livestock grazing has been an historic use of federal lands, now managed by the Caliente Field Office, since the mid-19th century. The extent of effects from livestock grazing on archeological sites is difficult to determine, since extensive livestock grazing has occurred in this region for over 150 years. Though, it is likely that the majority of the livestock-related impacts on cultural resources occurred prior to the passage of the Taylor Grazing Act in 1934.

The BLM conducts field investigations and maintains files of archeological sites on public lands. Analyses of existing documentation indicates that concentrated livestock activities near water sources, along fences, and in areas where livestock seek shelter, could adversely affect cultural resources. Site monitoring is conducted by BLM archeologists, law enforcement rangers, and trained site stewards, to identify impacts and evaluate site conditions. Special management actions are taken when resource damage is noted.

Traditional Cultural Values: Although historic ranching and prehistoric occupation were prevalent in these allotments, currently there are no identified Traditional Cultural Properties within the Ely BLM District.

In accordance with the *Archeological Resources Protection Act of 1979*, "any material remains of past human life or activities which are of archaeological interest" shall be assessed and secured "for the present and future benefits of the American People". All ground disturbing developments related to this permit, such as the construction of fences, pipelines, and watering troughs, etc., as well as grazing practices that will create potential impacts such as salt blocks, will be subject to Section 106 review and, if needed, State Historic Preservation Office (SHPO) consultation as per implementation of the Nevada BLM/SHPO Protocol Agreement for cultural resources. Eligible cultural resources would be avoided or impacts mitigated as necessary before any surface disturbing treatments are initiated.

Prior consultation efforts for properties within the Ely District Office administrative area resulted in the identification that there are no known traditional cultural properties within the district.

IV. ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

A. Livestock Grazing/Rangeland Health/Standards and Guidelines

Proposed Action: Permitted livestock use would be affected by the change in the season of use on the Black Bluff and White River Allotments as well as the addition of pastures within the allotments. The season of use is proposed to change ***from*** September 1 to May 15th ***to*** September 1 to February 28th on the lower east pasture of the Black Bluff Allotment. The season of use is also being proposed to change ***from*** October 1 to May 15th on the lower west pasture of the White River Allotment ***to*** October 1 to February 28th. This represents a decrease by two and half months in the spring critical growing season within the sodic bottoms.

The adjustment to the allowable use levels takes into account the reduction in quantity of winterfat, fourwing saltbush, and cool season perennial grasses at the key areas. Allowable use levels set the limit which livestock can graze plant groups expressed in the percent of the plants' yearly annual production. For example, 40% use on Indian

ricegrass restricts usage to this level for the ricegrass population at the key areas and on the allotment in general.

Proper management through additional terms and conditions on the permit would result in improved livestock distribution, reduced grazing intensity on historically grazed areas serviced by the permanent watering sites, and progression towards achieving the Standards for Rangeland Health as described by the Mojave Southern Great Basin RAC. Further, livestock grazing would conform to the Guidelines provided in the Standards for Rangeland Health.

No Action: The season of use would remain unchanged at September 1 through May 15th on the South Coal Valley, Black Bluff and Black Horse Allotments. The season of use would remain unchanged at October 1st to May 15th on the White River Allotment. Reduced spring use on cool season plants would not occur. No progress would be made toward achievement of the Standards within those allotments where standards are failing.

B. Noxious Weeds and Invasive, Non-Native Species

Proposed Action: While there would still be a risk of noxious and non-native invasive weeds to spread to the allotment this risk would be slightly diminished due to reduced spring grazing in the Black Bluff – lower east pasture and the White River – lower west pasture areas which would allow healthier native plants to potentially out-compete noxious weeds by filling in bare spaces and preventing weeds from spreading. The allowable use levels identified in the proposed action are designed to prevent negative impacts to plant root development, carbohydrate storage and to maximize leaf growth. The roots of native plants fill in the interspaces which in turn can inhibit weed infestations and occurrences (Dietz. 1989).

A Risk Assessment for Noxious and Invasive Weeds was completed for each of the grazing permits and can be found in Appendix V.

No Action: The benefits of the reduced spring grazing in the Black Bluff – lower east pasture and the White River – lower west pasture areas would be lost in this alternative. The risk of new infestations in all areas of the allotments would be equal.

C. Soils

Proposed Action: The proposed action would increase litter, improve; vigor, stature and vegetative cover, thereby further maintaining resiliency to erosion and improve soil loss potential on the allotments where changes are proposed. Organic matter contributes to both the permeability of the soil and the soils' ability to hold moisture. Some soil compaction would occur where livestock congregate in small areas particularly around waters or supplement barrels. The proposed action would result in progressing toward achieving the Standards for Rangeland Health, particularly the Soils Standard.

No Action: If management of livestock does not change then the interactions between soils, vegetation, and animals as described would not improve through reduced spring grazing use.

D. Vegetation

Proposed Action: Vegetation would be affected by the proposed changes in season of use, rotational grazing, and allowable use levels. These changes would impact vegetative production, vigor of individual plants and would improve the overall community structure. The allowable use levels identified in the proposed action are designed to prevent use levels so high that they affect root development, carbohydrate storage, and root growth stoppage. When 50% leaf volume is removed from the perennial grass plant the result is a 2-4% root growth stoppage. At 40%, there is no impact to the roots (Dietz. 1989). According to the National Range and Pasture Handbook, clipping perennial grasses to 30% to simulate grazing resulted in continued root growth. Grazing at 50% averaged a 3% root growth stoppage for 14 days. The proposed allowable use level occurs between these figures as an average. This use level is low enough to prevent the individual plants from losing root mass. The reduced season of use allows sufficient time for the plants to regrow and store energy.

The proposed changes would make progress toward achieving the Standards for Rangeland Health and conformance to the Guidelines as established by the Mojave Southern Great Basin RAC.

No Action: Vegetative conditions would continue to be affected by grazing occurring well into the spring growing season, grazing at levels not conducive to root development.

E. Wildlife

Proposed Action: Wildlife would be affected by the change in season of use and allowable use levels. By removing livestock by February 28th, wildlife and livestock interactions and competition would decrease by 75 days. With improved vegetative conditions, there would be more grass, forb, and shrub seed available for seed caching and use by small wildlife species. The community of vegetation, small mammals, small reptiles, birds, large mammals, predators, etc., would be enhanced overall in the area. Habitat improvement through improved vegetation conditions would make progress toward achieving the Standard for Rangeland Health.

No Action: If no changes to livestock management are implemented, wildlife could be impacted through the probability of continued habitat degradation. Changes are necessary to improve habitat conditions.

F. Cultural Resources

Proposed Action: No impacts to the cultural resources will occur as long as monitoring and mandatory terms and conditions of the permit are met.

No Action: Same as the Proposed Action.

G. Cumulative Impacts

According to the 1994 BLM Handbook "Guidelines for Assessing and Documenting Cumulative Impacts" the analysis can be focused on those issues and resource values identified during scoping that are of major importance. The only issue raised during internal and external scoping was that the allotment rangeland conditions apparently were failing to meet the Standards for Rangeland Health as written by the Mojave Southern Great Basin RAC. The issue relates to most of the elements of the human environment because the relationship between vegetation conditions and soil/water/animal interactions and environmental health is affected by the amount, distribution, and composition of the vegetation as a community where they occur.

Cumulative impacts include not only those identified as pertaining to the proposed action and/or No Action alternative, but those actions planned or occurring in the environment of the project area which have impacts on the human environment. A general discussion of past, present, and reasonably foreseeable future actions follows as they pertain to the major issue of rangeland and habitat health.

1. Past Actions

In recent years, actions that have occurred in the project area include emergency stabilization efforts for the Hambly Fire (COZQ9) in 2006. The 22,214 acre fire burned sagebrush and salt desert shrub communities within the southern portions of the White River Allotment. The areas were re-seeded aeiraly and are currently closed to grazing. The Rocky Fire (CPT3) burned in June of 2006 within the Black Bluff and South Coal Valley Allotments. The fire burned approximately 4,031 acres of sagebrush habitat. The fire was seeded and is affected area is currently closed to livestock grazing. The Oreana Fire (C59Q) burned in September of 2006 and burned approximately 2,647 acres of sagebrush community within the Eastern portions of the South Coal Valley Allotment. The area was reseeded aerially and is currently closed to livestock grazing. All of the 2006 fires were seeded with a mixture of perennial grasses, forbs, shrubs and forage Bassia (*Bassia prostrata*) to prevent cheatgrass invasion and spread of noxious weeds and repair damaged wildlife habitat.

2. Present Actions

Current actions or projects occurring in the project area include the Silver State OHV Trail which is a congressionally designated OHV trail. Planning is currently underway for actions related to the trail. The trail transects the allotment west of the North Pahroc Range.

Current livestock grazing occurs within or often well-below permitted use levels on an annual basis on all four Allotments. The permittees licensed cattle at a reduced rate for several years due to circumstances beyond their control including drought and wildfire.

Allotment monitoring activities occur as needed but do not cause surface disturbance. All of the neighboring allotments are currently managed with livestock use. Other permit renewals for each allotment managed by the Ely and Caliente Field Offices are ongoing.

3. Reasonably Foreseeable Future Actions

Major projects are being planned and scoped for Dry Lake Valley to the east of White River valley including the Southwest Intertie Project (SWIP) (a major right of way for power transmission) and the Southern Nevada Water Authority (SNWA) (a major pipeline to transport water to Clark County from White Pine and Lincoln County). The Department of Energy is currently planning and studying the various possible routes for the Yucca Mountain Nuclear Waste Railroad. The railroad will be analyzed in an Environmental Impact Statement. The Caliente Corridor of the Yucca Mountain Rail crosses north Dry Lake Valley from the east to the west. All three projects are environmental impact statement (EIS) level NEPA analysis documents. None of these projects occur in or cross the Rattlesnake Allotment.

Future planning regarding the existing Silver State OHV Trail could include trail head facility development which could increase travel on the trail. More trails could be designated on existing roads and trails and some trails could be constructed to make for loop travel routes. Future planning would cover these actions due to Congressional requirements of the Lincoln County Conservation and Recreation Development Act.

The Ely Field Office is currently developing a new Resource Management Plan (RMP). This document when finalized would guide land management of BLM managed lands in White Pine and Lincoln County, and portions of Nye County, all in Nevada. The plan should be out for public review in 2007.

Linear type range improvements such pipelines and fence lines are planned and developed in the Ely District as the need arises on a case by case basis. No other range improvements are being planned in the Black Bluff, South Coal Valley, White River and Black Horse Allotments at this time.

Cumulative Impacts Summary:

The proposed action in conjunction with the past actions, present actions and reasonable foreseeable future actions would result in no noticeable overall changes to the affected environment. The proposed permit renewal would make progress toward meeting the

rangeland health standards. There would be little cumulative visual impairment to the area as a result of the term permit renewal/ There may be perceived increased conflicts between dispersed recreation and livestock grazing if recreation increases as a result of foreseeable future actions. The proposed action would improve grazing management. No cumulative impacts of major or minor concern are anticipated as a result of the proposed project.

VI. PROPOSED MITIGATING MEASURES

Appropriate mitigation has been included as part of the proposed action and no additional mitigation is proposed based on this environmental analysis. Terms and conditions identified in the proposed action would be included as part of the term grazing permit for the proper management of livestock on the public lands within the four allotments.

VII. SUGGESTED MONITORING

Rangeland monitoring data would continue to be gathered for the allotments to determine if livestock management practices are in conformance with the Guidelines and achieving the Standards for Rangeland Health as well as other multiple use objectives for the allotment.

Monitoring studies may include cover, key forage plant method for utilization, ecological condition, weed detection and identification, repeat photography, and professional observations. If a future monitoring assessment results in another determination that the Standards for Rangeland Health are not being achieved the grazing permit would be reissued subject to revised terms and conditions. Baseline data collection may be conducted associated with future watershed assessments.

Prior to authorizing annual grazing use, monitoring may be conducted to determine forage availability, grazing use areas and range readiness. Following the grazing period, monitoring may be conducted to determine overall utilization levels and grazing use patterns.

VIII. CONSULTATION AND COORDINATION

A. Intensity of Public Interest and Record of Contacts

There is general public interest in the proper grazing management of public lands. Varlin S. Higbee, Higbee Brothers and Nolan Shumway, the permittees, has keen interest in the renewal of the grazing permit.

The permit renewal proposals was presented at the Tribal coordination meeting at the Ely BLM Field Office on February 12, 2008. No concerns were identified during this meeting. There were no questions or concerns regarding the proposal from the Tribal participants.

February 27th, 2008, these permit renewal proposals were scoped internally by resource specialists on at the Ely BLM Field Office. It was identified that two allotments key areas are not meeting the Standards for Rangeland Health as written by the Mojave Southern Great Basin RAC. The project proposal was posted on the Ely Field Office web site, January 25, 2008, at http://www.nv.blm.gov/ely/nepa/ea_list.htm and no comments were received.

The Preliminary version of this EA was posted on the Ely external webpage for 15 days, inviting public comment. A hard copy of the EA was mailed to the permittee and those publics who specifically requested one and who expressed an interest in range management actions for the Black Bluff, South Coal Valley, White River and Black Horse Allotments.

Interested publics will be notified by mail or email when the Decision Record and Finding of No Significant Impact (DR/FONSI) is signed. Before including addresses, phone numbers, e-mail addresses, or other personal identifying information in comments, you should be aware that the entire comment – including personal identifying information may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. These documents will also be mailed to interested publics that request a hard copy. The signed DR/FONSI initiates a 15 day protest period and a 30 day appeal period.

The following individuals and organizations, who were sent the annual CCC letter in January, 2008, have requested additional information regarding rangeland related actions within the Black Bluff, South Coal Valley, White River and Black Horse Allotments:

To summarize, the following changes were made in the final EA in response to public review and comment: (1) Appendix VI was added to the document to review the comments received with responses. (2) Fixed table 6 to match table 5 on page 28. (3) The genus for Kochia has been changed to Bassia. (3) Sustainable Grazing Coalition has been added to interested publics list. (4) Checked causal factors box on page 47 to reflect other factors related to not meeting standard. And also changed conclusion to accurately reflect findings.

Varlin S. Higbee
Joe Higbee
Vaughn Higbee
Nolan Shumway
Steve Foree

Steve Carter
Brad Hardenbrook
Lincoln County Commissioners
Curt Leet
Betsy MacFarlan
Cindy MacDonald
John McLain
Nevada State Clearinghouse
Mike Scott
Katie Fite
Jerry Reynoldson
Rick Orr

C. Internal Ely District Review

Benjamin Noyes	Wild Horses and Burros
Bonnie Waggoner	Invasive, Non-Native & Noxious Species
Dave Jacobsen	Visual Resource Management, Recreation
Troy Grooms	Rangeland Management
Elvis Wall	Native American Religious Concerns, Tribal Coordination
Determinations	
Kari Harrison	Soil, Water, and Air, Floodplains, Riparian, and Wetlands
Lynn Wulf	Cultural and Historic Resources
Melanie Peterson	Wastes, Hazardous and Solid, Hazmat
Troy Grooms	EA Author, Rangeland Management Specialist
Rick Baxter	Wildlife, Migratory Birds, Special Status Animals and Plants, Areas of Critical Environmental Concern
Joe David	Planning and Environmental Coordinator

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USDI – BLM. 1979. Caliente Environmental Statement

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STANDARDS DETERMINATION DOCUMENT

Varlin S. Higbee, Higbee Brothers and Nolan Shumway Permits
South Coal Valley, Black Bluff and Black Horse and White River Allotments
EA NV-045-08-002

Standards and Guidelines Assessment

The Standards and Guidelines for Nevada's Mojave-Southern Great Basin Area were developed by the Mojave-Southern Great Basin Resource Advisory Council (RAC) and approved in 1997. Standards and guidelines are likened to objectives for healthy watersheds, healthy native plant communities, and healthy rangelands. Standards are expressions of physical and biological conditions required for sustaining rangelands for multiple uses. Guidelines point to management actions related to livestock grazing for achieving the standards.

This Standards Determination Document evaluates and assesses livestock grazing management achievement of the Standards and conformance with the Guidelines for the South Coal Valley, Black Bluff and Black Horse Allotments in the Ely BLM District. This document does not evaluate or assess achievement of the wild horse and burro or Off Highway Vehicle Standards or conformance to the respective Guidelines.
The standards were assessed for the South Coal Valley, Black Bluff and Black Horse Allotments by a BLM interdisciplinary team consisting of rangeland management specialists, wildlife biologist, weeds specialist, and watershed specialist. Documents and publications used in the assessment process include the Soil Survey of Lincoln County Nevada, Ecological Site Descriptions for Major Land Resource Area 29. Interpreting Indicators of Rangeland Health (USDI-BLM et al. 2000), Sampling Vegetation Attributes (USDI-BLM et al. 1996) and the National Range and Pasture Handbook (USDA-NRCS 1997). A complete list of references is included at the end of this document. All are available for public review in the Caliente BLM Field Station. The interdisciplinary team used rangeland monitoring data, professional observations, and photographs to assess achievement of the Standards and conformance with the Guidelines.

PART 1. STANDARD CONFORMANCE REVIEW

Evaluation and Determination of Rangeland Health Standards for the South Coal Valley Allotment.

Standard 1. Soils

"Watershed soils and stream banks should have adequate stability to resist accelerated erosion, maintain soil productivity, and sustain the hydrologic cycle."

Soil Indicators:

- Ground Cover (vegetation, litter, rock, bare ground).

- Surfaces (e.g., biological crust, pavement).
- Compaction/infiltration.

Riparian Soil Indicators:

- Stream bank stability.

Determination:

□ Meeting the Standard

X **Not Meeting the Standard, but making significant progress towards**

□ Not Meeting the Standard, not making significant progress toward standard

Causal Factors

□ Livestock are a contributing factor to not meeting the standard.

□ Livestock are not a contributing factor to not meeting the standard

X Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:

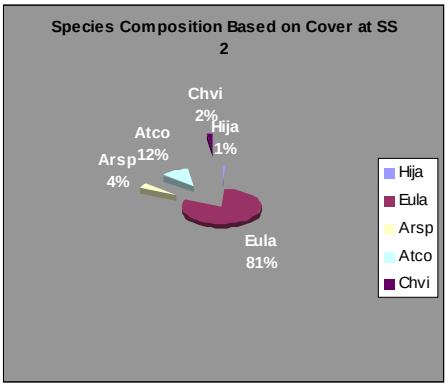
□ In conformance with the Guidelines

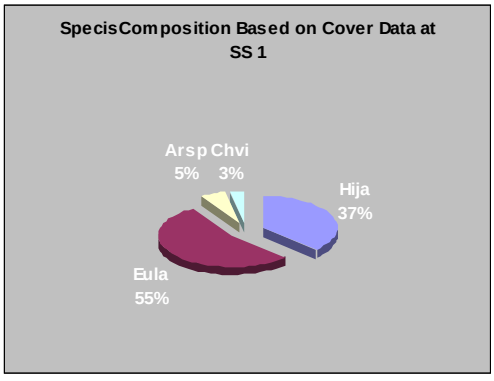
X **Not in conformance with the Guidelines**

Conclusion: Standard Not Achieved

Valley soils are generally salt and sodium affected in the upper profile. A seasonably high water table is generally present. Soils are occasionally flooded for brief periods in spring. The surface layer of clay solid will crust and bake upon drying, inhibiting water infiltration and seedling emergence. Due to the saline condition of soils, seed viability, germination, and water holding capacity is reduced. Slow runoff and ponding in depressional areas is common.

The soils on the valley terrace and benches are gravelly silts, gravelly sandy loams, sandy loams, gravelly loams, or loams. The NRCS is currently in the process of finalizing soil mapping for the Coal Valley area. UPLANDS: The ecological site for Key Area 1 and 2 is a Course Silty 5-8" P.Z. 029XY042NV – Winterfat/Indian Ricegrass community. The

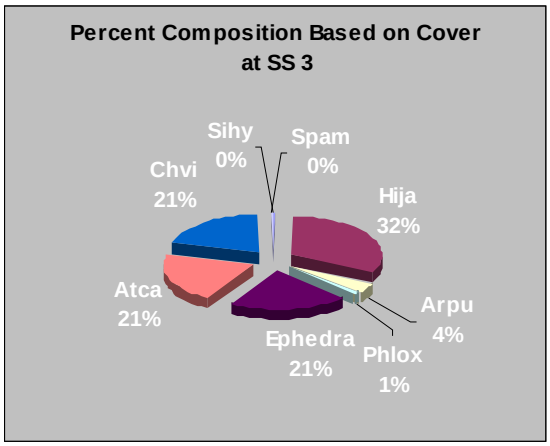




approximate potential ground cover (basal and

crown) according to the range site is 10-20%. Vegetative cover collected at Key Areas 1 is deficient compared to the Rangeland Ecological Site Description (NRCS).

The native cover at Key Area 1 was measured at 6%. One perennial native grass specie small galleta accounted for a total of 37% of the composition and represented 30% of the total cover measured while three perennial native shrubs accounted for 65% cover. Winterfat represented the majority of the vegetative cover.
At Key Area 2, there was 10.3% vegetative cover. Shrubs represent 99% of the cover and grasses represent 1% with no forbs contributing to cover measurements. Winterfat was again the major dominant species with 81% cover.



Cover was better at Key Area 3 which had 18.9% cover. The ecological site is a Course Silty 5-8" p.z. – 029XY017NV – Shadscale/Budsage/Ricegrass. Potential cover is 15-25%. Cover is very good for the potential of the site. The site is dominated by Shadscale which accounted for 21% of the cover.

Composition at Key Area 3 based on cover is represented as 63% shrubs with 36% herbaceous perennials with 1% forbs. Rabbitbrush, Shadscale and Ephedra all composed 21% of the composition while Small galleta composed 32% of the herbaceous component. Also present was purple three Awn and Bottlebrush Squirreltail. Phlox was 1% of the composition for the forb component also present by not within the monitoring plot was Globemallow.

Although soils in the uplands are stable and exhibit no outward signs of erosion, vegetative cover appropriate for the site is essential for maintaining proper soil surface stability, reducing compaction and improving overall water infiltration. These are all indicators for the standard.

Utilization data shows the allotment have generally been grazed within the light to moderate range (21%-60% current year's growth) or less for the recent past years. Fourwing saltbush plants exhibit proper growth forms. based on professional judgment and observations Winterfat plants show good vigor and minimal stature due to recent drought that took place during the late 1990's to early 2003. Since 2004

precipitation has been about average or above average resulting in increased stature and recruitment of new plants.

RIPARIAN: The only riparian area on the allotment is Seaman Spring. It has been fully developed.

The Standard only references stream bank stability. There are no streambanks present at this small spring to evaluate. The small amount of water at the source creates a minimal saturation zone for a short distance upstream. Livestock use has generally occurred away from the spring.

Monitoring Data Review

Line Intercept - 2008			Range Site
Key Area	**Total Cover**	**Desired Cover**	
KMA 1	**6.02%**	10-20%	029XY042NV
KMA 2	**10.30%**	10-20%	029XY042NV
KMA 3	**18.89%**	15-25%	029XB017NV
Line Intercept measures the amount of vegetative cover intercepted in 100 feet.			

Conclusion:

Standard Not Achieved.

Cover data indicates inadequate cover at key area one with adequate cover at key areas two and three. All three sites show little to no evidence of rill or gully formations. The soils appear stable and in place. Specie composition at key areas one and two showed a lack herbaceous diversity and frequency. The probability of soil movement is low due to the ability of deep rooted species to hold the soil in place.

Standard 2. Ecosystem Components

Watersheds should possess the necessary ecological components to achieve State water quality criteria, maintain ecological processes, and sustain appropriate uses.

Riparian and wetlands vegetation should have structural and species diversity characteristic of the stage of stream channel succession in order to provide forage and

cover, capture sediment, and capture, retain, and safely release water (watershed function).

Upland Indicators:

- Canopy and ground cover, including litter, live vegetation, biological crust, and rock appropriate to potential of the ecological site.
- Ecological processes are adequate for the vegetative communities.

Riparian Indicators:

- Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows.
- Elements indicating proper functioning condition such as avoiding acceleration erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:
    - Width/Depth ratio.
    - Channel roughness.
    - Sinuosity of stream channel.
    - Bank stability.
    - Vegetative cover (amount, spacing, life form).
    - Other covers (large woody debris, rock).
    - Natural springs, seeps and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plan species and cover appropriate to the site characteristics.

Water Quality Indicators:

- Chemical, physical and biological constituents do not exceed the State water quality Standards.

The above indicators shall be applied to the potential of the ecological site.

Determination:

□ Meeting the Standard

X **Not Meeting the Standard, but making significant progress towards**

□ Not Meeting the Standard, not making significant progress toward standard

Causal Factors

□ Livestock are a contributing factor to not meeting the standard.

X **Livestock are not a contributing factor to not meeting the standard**

□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:

□ In conformance with the Guidelines

X **not in conformance with the Guidelines**

Conclusion: *Standard Not Achieved*
Line Intercept Cover data collected at the key areas indicates the major plant communities have reduced composition of plant species such as Indian ricegrass, bottlebrush squirreltail, and ephedra (except at key area 3 which had 21% ephedra), and minor species listed in the range site description as other perennial grasses, and other shrubs.

Utilization data collected on the allotment during the evaluation period indicate use by livestock has been light to moderate along the winterfat bottoms with light to moderate use on the upper benches.

Data collected in the mid 1990's along with current professional observations and monitoring indicate that the sites have stayed stable over the last thirteen years in plant diversity. Overall, there has been little change in composition which reflects that plant communities are stable and thriving. The current grazing season of use is September 1st through May 15th. This type of use allows the allotment to rest every year during the growing season.

At key area one there are plant species that were present but not included within the study plot. These included Indian ricegrass and Bottle brush squirreltail. The percent composition of the plants is below the potential native community standard (PNC) but is within the ecological site description.

At key area two Indian ricegrass and Bottlebrush squirreltail were also present but not within the monitoring plot. As described above at key area one the percent composition of the herbaceous species within the plant communities is below what it could be but is within the ecological site description.

At key area three there is appropriate composition of plant diversity and vigor within the range site. The key species appear to have maintained since the last study completed in the mid 1990's.

lack of native grasses indicating a poor trend for desirable species and the beginning of a shift to less desirable species. Galleta, ricegrass, four-wing, and winterfat all decreased. Galleta, ricegrass, and winterfat decreased significantly.

There are no lotic systems within the South Coal Valley Allotment and one lentic system at Seamen Spring. The spring is a fully developed range improvement and therefore did not have PFC conducted.

Standard 3. Habitat and Biota:

As indicated by:

- Vegetation composition (relative abundance of species);
- Vegetation structure (life forms, cover, height, or age class);
- Vegetation distribution (patchiness, corridors);
- Vegetation productivity; and
- Vegetation nutritional value.

Determination:

□ Meeting the Standard

X Not Meeting the Standard, but making significant progress towards

□ Not Meeting the Standard, not making significant progress toward standard

Causal Factors

□ Livestock are a contributing factor to not meeting the standard.

X Livestock are not a contributing factor to not meeting the standard

□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:

X In conformance with the Guidelines

□ Not in conformance with the Guidelines

Conclusion: *Standard Not Achieved*

The dominant present vegetation within the South Coal Valley allotment based on baseline range studies (ecological condition, line intercept cover) and professional observation (including photographs) all indicate a diverse habitat that is distributed in a mosaic across the landscape for the size and location of the allotment. A variety of plant communities is present that shows the vegetation distribution indicator to be appropriate for the size and location of the allotment. Vegetation distribution is also enhanced by the mid and high elevation rolling, broken topography of the land area. Measured cover using line intercept cover method at all three key areas indicated cover is adequate at two of the three key areas.

The composition at key areas using the line intercept cover method indicates shrubs composition at 63 % and with a desirable herbaceous composition at 37 % at key area one and 99% shrubs and 1% desirable grasses with no forbs present at key area two. The ecological site descriptions indicate 40 percent shrubs, 55 percent grasses and 5 percent forbs should be present. At key area three it had 67% shrubs with a desirable herbaceous component of 32% with 1% forbs present. The ecological site description calls for 45% grasses, 50% shrubs and 5% forbs. The lack of forbs at the key areas could be attributed to the time of the year cover was read which was January.

Vegetation communities in the valley are dominated by salt desert species. The main valley floor shrub species generally include winterfat, fourwing saltbush, and spiny hopsage. The herbaceous species include squirreltail, Indian ricegrass, and small galleta.

Dominant species on the benches above the salt desert bottoms include Wyoming sagebrush, black sagebrush, Ephedra with galleta, squirreltail and Indian ricegrass in the understory.

The invasive annual cheatgrass occurs in varying levels throughout the allotment but is most dominant along roads and disturbed areas by both livestock and wildlife.

There are no major noxious weed species mapped within the South Coal Valley Allotment. Outside of the allotment along State Highway 318 there is knapweed species that has the potential to be introduced within the allotment along roads. The allotment will continue to be monitored for noxious weed species.

PART 2. ARE LIVESTOCK A CONTRIBUTING FACTOR TO NOT MEETING THE STANDARDS? SUMMARY REVIEW:

Standard #1: Soils

Conclusion: Standard Not Achieved. The majority of the South Coal Valley Allotment is meeting or making progress towards achieving the standard. The areas of concern mentioned above that are not meeting the standard should continue to be monitored. The primary reason for the reduced herbaceous component has been the drought years that took place during the late 90's and early 2000. In working with the BLM the permittees has been running substantially reduced Livestock grazing of both sheep and cattle within the allotment over the last six years. The reduction in use is a result of prolonged drought within the region during the late 1990's and early 2000's. Use on the allotment has been 10% to 70% percent of permitted use.

The allotment is maintaining a diverse functioning ecosystem. The presence of annual grasses should be maintained at a minimum to reduce the threat of wildfire within the allotment.

Standard #2: Ecosystem Components

Conclusion: Standard Not Achieved. Line Intercept Cover data collected at the key areas indicates the major plant communities are composed of major plant species to meet ecological diversity standards. At Key Area one and two there are plant species that were present but not included within the study plot. These included Indian ricegrass and Bottlebrush squirreltail. However the frequency of desirable native grasses to shrubs is lacking in substantial quantity though present in composition. Due to the lack of frequency of cool season grasses such as Indian ricegrass and Bottlebrush squirreltail it is therefore not in conformance with the guidelines.

There is one lentic spring on the South Coal Valley Allotment. It is fully developed with a pipeline and therefore will not have Proper Functioning Condition (PFC) conducted.

Standard #3: Habitat and Biota

Conclusion: Standard not met. Existing grazing management and levels of grazing use on the South Coal Valley Allotment are not significant causal factors in

failing to achieve the habitat standard. Utilization data shows the allotment has generally been grazed moderate or less for the recent past years and use on the allotment has been 10% to 70% percent of permitted use. The decline in frequency of major herbaceous species such as Indian ricegrass and Bottlebrush squirreltail are more attributed to historic grazing practices of the previous century. The current management practices such as rest rotation grazing, water hauling and winter use only are aiding the range to recover and make significant progress towards achieving standards and guidelines.

PART 3. GUIDELINE CONFORMANCE REVIEW AND SUMMARY

Current livestock grazing management practices do not conform with Guidelines 3.7

Where grazing practices alone are not likely to achieve habitat objectives. Land Management practices may be designed and implemented as appropriate. Construction of the allotment boundary fence will immensely aid in the South Coal Valley and the Murphy Gap Allotment in continuing or make significant progress toward achieving standards and guidelines.

PART 4. MANAGEMENT PRACTICES TO CONFORM TO GUIDELINES AND ACHIEVE STANDARDS

Discussion:

Several management practices are recommended to conform to the Guidelines in order to continue meeting or make significant progress towards meeting the Standards for Rangeland Health. In general, livestock need to continue to be managed in a way to encourage even distribution throughout the allotment as well as continue with a rest rotation system that is currently in place. Grazing within the allotment occurs from 9/1 to 5/15 predominantly during the winter months when plants are dormant. Grazing is not an issue that would prevent attainment of the stated objectives for soil stability. Grazing should continue to be used during the winter months in order to reduce the buildup of fine fuels and prevent a frequent fire cycle. Monitoring will continue to ensure proper species composition and diversity

Recommendations:

1. Maintain season of use as per the 1996 Final Multiple Use Decision (FMUD) for the Seaman Herd Management Area. Up to 14 days extension (in accordance with 4130.3-2) for grazing may be permitted on a case by case basis and requires the approval of the authorized officer prior to use. Active use AUMs may not be exceeded.

2. Salt and/or mineral supplements for livestock shall be located no closer than ¼ mile from water sources. Use of nutritional supplements (not forage) is encouraged to improve the ability of cattle to utilize forage in the winter months and to improve livestock distribution into areas previously slightly or occasionally grazed by livestock. Supplements are to be placed ½ mile from existing waters.

3. Maximum allowable use levels would be established as follows:

- Perennial grasses: 30% prior to 5/1 not to exceed 50% of current year's growth.

This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) contribute to litter cover, 3) develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase overall cover.

- Perennial shrubs and half-shrubs: 45% use on current year's growth.

This use level is necessary to allow desirable perennial key browse species to develop woody stature able to withstand the pressure of grazing use. Use will be read in March or prior to the spring regrowth.

4. Wildlife escape ramps will be installed and maintained by the permittee at each trough used on the allotment (permanent or temporary).

5. Construction of the Murphy Gap South Coal Valley Allotment boundary fence would aid in distribution of the livestock throughout the allotment while preventing drift to and from the Murphy Gap Allotment. The EA is in progress within the Ely district.

Evaluation and Determination of Rangeland Health Standards for the Black Bluff Allotment.

Standard 1. Soils

"Watershed soils and stream banks should have adequate stability to resist accelerated erosion, maintain soil productivity, and sustain the hydrologic cycle."

Soil Indicators:

- Ground Cover (vegetation, litter, rock, bare ground).
- Surfaces (e.g., biological crust, pavement).
- Compaction/infiltration.

Riparian Soil Indicators:

- Stream bank stability.

Determination:

□ Meeting the Standard

X **Not Meeting the Standard, but making significant progress towards standard**

□ Not Meeting the Standard, not making significant progress toward standard

Causal Factors

X **Livestock are a contributing factor to not meeting the standard.**

□ Livestock are not a contributing factor to not meeting the standard

□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:

□ In conformance with the Guidelines

X Not in conformance with the Guidelines

Conclusion: *Standard Not Achieved*

UPLANDS:
Vegetative cover collected at Study Site 1 is adequate when compared to the NRCS site description. The ecological site for this key area is a Loamy Upland 5-8" P.Z – 029XY016NV- Spiny Hopsage/Fourwing/Ephedra-Indian ricegrass site. The approximate potential ground cover (basal and crown) according to the range site is 20-30%. This site occurs on piedmont sloes, alluvial fans and alluvial plains of all exposures. Elevations range from 4200 to 6000 feet.

The native cover at Study Site 1 measured at 23.57%. There were no perennial grasses within the understory to account for any of the cover while three perennial native shrubs accounted for 100% cover. Spiny Menodora represented the majority of the vegetative cover. The loss of perennial grasses at this study is due continual livestock grazing during the critical growing.

Vegetative cover collected at Study Site 2 is deficient compared to the Rangeland Ecological Site Description (NRCS). The ecological site for this key area is a Silty 5-8" P.Z. – 029XY020NV - Winterfat/Ricegrass – Bottlebrush Squirreltail site. The approximate potential ground cover (basal and crown) according to the range site is 10-20%. This site occurs on alluvial plains, fans skirts, and inset fans on all exposures. Elevations range from 4000 to 6000 feet.

At Study Site 2, there is only 9% vegetative cover. Shrubs represent 100% of the cover and grasses represent 0% with no forbs contributing to cover measurements. Winterfat was the dominant brush within the measurements. The existing Winterfat and Fourwing saltbush plants showed signs of pedestalling due to wind erosion. The loss of perennial grasses at this study site is also due to continual livestock grazing during the critical growing season.

The site description discusses the loss of native grasses it states, "*Where management results in abusive grazing use by cattle and/or feral horses, bottlebrush squirreltail, winterfat and Indian ricegrass decrease. With further site degradation, halogeton, Russian thistle and annual mustards invade the interspace areas between shrubs. The soils of this site are highly erodable and with site degradation, gullies may form which interrupt and concentrate overland flow patterns.*

Although soils in the uplands at Study Site 1 are stable and exhibit no outward signs of erosion, vegetative cover appropriate for the site is essential for maintaining proper soil surface stability, reducing compaction and improving overall water infiltration therefore based on lack of desirable species composition the standard is not being met. Because the soils are stable and exhibit no signs of outward erosion progress is being made toward achieving the standard. The soils at Study Site 2 exhibit signs of erosion mainly due to wind and slight water rilling. There is an influx of non-native species within the area such as Russian thistle and Halogeton as well.

The data at Study Site 1 shows that cover is adequate but that the site lacks the desired herbaceous component. Study Site 2 line intercept cover data indicates that it is deficient in overall vegetative cover, and specie composition.

Standard #1: Soils (Standard Not Achieved)
The primary causal factor is the season of use. The permit allows use to begin in first of September and doesn't end until May 15. Late May is too late on the allotment as many plants are in the critical growing period at that time. Utilization of cool season plants, especially Indian ricegrass and winterfat, during the critical growing season has resulted in a significant decrease in these species in the primary grazing area.

RIPARIAN: There are no riparian areas within the Black Bluff Allotment; therefore it will not be analyzed any further within this document.

Standard 2. Ecosystem Components

Watersheds should possess the necessary ecological components to achieve State water quality criteria, maintain ecological processes, and sustain appropriate uses.

Riparian and wetlands vegetation should have structural and species diversity characteristic of the stage of stream channel succession in order to provide forage and cover, capture sediment, and capture, retain, and safely release water (watershed function).

Upland Indicators:

- Canopy and ground cover, including litter, live vegetation, biological crust, and rock appropriate to potential of the ecological site.
- Ecological processes are adequate for the vegetative communities.

Riparian Indicators:

- Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows.
- Elements indicating proper functioning condition such as avoiding acceleration erosion, capturing sediment, and providing for groundwater recharge and release

are determined by the following measurements as appropriate to the site characteristics:

- Width/Depth ratio.
- Channel roughness.
- Sinuosity of stream channel.
- Bank stability.
- Vegetative cover (amount, spacing, life form).
- Other covers (large woody debris, rock).
- Natural springs, seeps and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plan species and cover appropriate to the site characteristics.

Water Quality Indicators:

- Chemical, physical and biological constituents do not exceed the State water quality Standards.

The above indicators shall be applied to the potential of the ecological site.

Determination:

□ Achieving the Standard

X Not Achieving the Standard, but making significant progress towards

□ Not Achieving the Standard, and not making significant progress toward standard

Causal Factors

X Livestock are a contributing factor to not achieving the standard.

□ Livestock are not a contributing factor to not achieving the standard

X **Failure to meet the standard is related to other issues or conditions**

Guidelines Conformance:

X Not in conformance with the Guidelines

Conclusion: *Standard Not Achieved*

UPLANDS**:** Line Intercept Cover data collected at the key areas indicates the major plant communities are lacking major plant species such as Indian ricegrass, bottlebrush squirreltail, and ephedra (except at Study Site 1 which had 8.54% ephedra), and minor species listed in the range site description as other perennial grasses, and other shrubs. The key species appear to have decreased in the areas that are affected by normal grazing patterns.

Utilization data collected on the allotment during the evaluation period indicate use by livestock has been heavy along the winterfat bottoms with moderate to light use in the uplands.

Ecological data collected in the mid 1990's along with current professional observations today indicate several important key species have declined at Study Site 2 in the years

between 1995 and 2008. Overall, composition has changed at Study Site 2 based on the lack of native grasses indicating a poor trend for desirable species and the beginning of a shift to less desirable species. Galleta, ricegrass, four-wing, and winterfat all decreased. Galleta, ricegrass, and winterfat decreased significantly.

There were two fires within or partially within the Black Bluff Allotment recently. They were the Rocky fire and White River fire. Both fires were reseeded and are being monitored for success. According to the BLM precipitation data collected at the neighboring Mustang Allotment, annual rainfall in 2002 measured only 2.67". Whereas rainfall varied from 6-11 inches from 2000 to 2006. Cheatgrass can be found in the seed rows indicating a poor response by seeded species. Use by rabbits of new vegetation in the reseeded area has been high.

RIPARIAN: The Standard is not assessed for the Black Bluff Allotment.

Standard #2: Ecosystem Components

Conclusion: (Standard Not Achieved). Livestock grazing is one contributing factor to not achieving the Standard. Vegetative cover is inadequate for the sites where livestock grazing has occurred during the evaluation period. The magnification of "increaser species" and the decline of "decreaser species" are attributed to continued spring grazing by livestock. Although utilization limits were not exceeded, the almost yearly continued spring use has had an impact on the community, as reflected by the cover and frequency data.

Standard 3. Habitat and Biota:

As indicated by:

- Vegetation composition (relative abundance of species);
- Vegetation structure (life forms, cover, height, or age class);
- Vegetation distribution (patchiness, corridors);
- Vegetation productivity; and
- Vegetation nutritional value.

Determination:

□ Achieving the Standard

□ Not Achieving the Standard, but making significant progress towards

X Not Achieving the Standard, not making significant progress toward standard

Causal Factors:

X Livestock are a contributing factor to not achieving the standard.

□ Livestock are not a contributing factor to not achieving the standard

□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
X Not in conformance with the Guidelines

Conclusion: *Standard Not Achieved*

Study Site 1 is located on a Loamy Upland 5-8" P.Z – 029XY016NV- Spiny Hopsage/Fourwing/Ephedra-Indian ricegrass site. The approximate potential ground cover (basal and crown) according to the range site is 20-30%. This site occurs on piedmont sloes, alluvial fans and alluvial plains of all exposures. Elevations range from 4200 to 6000 feet. The native cover at Study Site 1 measured at 23.57% with three shrub species accounting for 100% of the composition. The complete lack of an herbaceous understory is due to continued spring use by livestock. Dominant species on the slopes adjacent to the Seaman Range include Wyoming sagebrush, black sagebrush with galleta, squirreltail and Indian ricegrass in the understory. The Seaman Range is extremely rocky desert range with a fair amount of vegetation and is practically inaccessible to livestock.

Vegetation communities in the valley are dominated by salt desert species. The main valley floor shrub species generally include winterfat, fourwing saltbush, and spiny hopsage. The herbaceous species include squirreltail, Indian ricegrass, and small galleta. Study Site 2 is located within is a Silty 5-8" P.Z. – 029XY020NV - Winterfat/Ricegrass – Bottlebrush Squirreltail site. The approximate potential ground cover (basal and crown) according to the range site is 10-20%. This site occurs on alluvial plains, fans skirts, and inset fans on all exposures. Elevations range from 4000 to 6000 feet. At Study Site 2, there is only 9% vegetative cover. Shrubs represent 100% of the cover and grasses represent 0% with no forbs contributing to cover measurements. The lack of a perennial herbaceous understory is due to livestock grazing during the critical growing season. Utilization data shows the allotment have generally been grazed within the moderate to heavy range (41-80% current year's growth) or less for the recent past years. But due to continuous grazing through the critical growing season for cool season plants, frequency, vigor, and community structure have been reduced which has degraded habitat in general terms, especially within the perimeter serviced by three main water sources.

Fourwing saltbush plants exhibit poor growth forms based on removal of primary branches. Winterfat plants show poor vigor and minimal stature. Shrubs are decreasing in general at study sites 1 and 2. This translates to reduced habitat quality due to less escape cover for small rodents, less perching and nesting opportunities for birds, and reduced forage opportunities for many wildlife species. Noxious and non-noxious weeds impact wildlife species through increased competition with desirable native plants and degradation of habitats. These plants offer little if any, nutritional value to wildlife and may even be toxic.

The invasive annual cheatgrass occurs in varying levels throughout the allotment but is most dominant wherever wildfire has occurred. Noxious weed species including Russian knapweed, have been mapped along State Highway 318 that borders the eastern boundary

of the allotment. The specie has the potential to degrade wildlife habitat for a variety of species. Noxious weeds are typically unpalatable or protected by chemicals or spines which prevent grazing or use from occurring. They out compete native species and can form monocultures where left untreated.

Wildlife habitat quality in the desert is based partly on proper vegetation community, appropriate structure (height/width/breadth) and age class. Corridors and edges based on appropriate disturbances provide microhabitats. Overall productivity of individual native plant species contributes to the basic habitat requirements of forage and cover for numerous wildlife species in the salt desert. The allotment should ultimately reflect the potential based on the Ecological Site Descriptions which is a Loamy Upland 5-8" P.Z. for Study Site 1 and a Silty 5-8" P.Z. for Study Site 2.

Standard #3: Habitat and Biota

Conclusion: (Standard Not Achieved). Livestock grazing is one contributing factor to not achieving the Standard. General observations and data analysis indicate habitat is in a degraded state due to diminishing vegetative cover and poor community structure in the primary grazing area. Important wildlife cover and forage species such as ricegrass, winterfat, and fourwing saltbush are decreasing in number and vigor. Plant vigor and stature of desirable native shrub species have been affected in part by livestock grazing, particularly in the critical growing season. Fourwing, spiny hopsage and winterfat plants show poor growth forms and reduced woody biomass.

PART 2. ARE LIVESTOCK A CONTRIBUTING FACTOR TO NOT MEETING THE STANDARDS? SUMMARY REVIEW:

The primary causal factor is the season of use. The permit allows livestock use to begin at the first of September and doesn't end until May 15. Late May is too late on the allotment as many plants are in the critical growing period at that time. Utilization of cool season plants, especially Indian ricegrass and winterfat, during the critical growing season has resulted in a significant decrease in these species in the primary grazing area. Due to continuous grazing through the critical growing season for cool season plants, frequency, vigor, and community structure have been reduced which has degraded habitat in general terms, especially within the perimeter serviced by three main water sources.

The reduction of key perennial species can have impacts on the overall protection of soils. Additionally, the vegetative cover which should be 20-30% at Study Site 1 and 10 to 20% at Study Site 2 is currently 23.5% and 9% respectively. The reduced cover can be due to a reduction and subsequent replacement of key perennial plants with undesirable species such as Halogeton or Russian thistle. The reduction of important grass, forb, and shrub species, some of which are highly favored by livestock, results in the reduced resilience of the community to resist (or recover from) disturbance. Large wildfires are becoming more commonplace in the salt desert due to the momentous increase of cheatgrass. Cheatgrass returns with robust vigor following fire thereby adding to the threat of habitat loss.

It should be noted that overall soils appear to be stable on the allotment as no outward signs of soil loss or soil movement was observed other than some pedestalling along the Winterfat bottoms that was noted during monitoring. The gentle slopes of the allotment help reduce or even prevent soil loss due to overland flow.

PART 3. GUIDELINE CONFORMANCE REVIEW AND SUMMARY

Current livestock management practices do not conform to Guideline 1.1 for Soils.

Upland management practices should maintain or promote adequate vegetative ground cover to achieve the standard. Grazing through the end of May is not in conformance with the guideline where it results in reduced cover, vigor, and reproduction of key perennial grasses or shrubs.

Current livestock grazing management practices do not conform with Guidelines 2.3, and 2.6.

Management practices should maintain or promote the physical and biological conditions necessary for achieving surface characteristics and desired natural plant community. At the key areas, the plant community has changed based on continual grazing throughout the critical growing season with no rest resulting in the significant decrease in key perennial species including galleta, ricegrass, and winterfat.

Current livestock grazing practices do not conform to Guideline 3.1.

Mosaics of plant and animal communities that foster diverse and productive ecosystems should be maintained or achieved. The reduction of key perennial native grass and shrub species which has been documented on the allotment is an impact from grazing through the late spring months. Additionally, livestock distribution and management results in livestock grazing the same areas yearly. This management impacts vegetation and degrades habitat.

PART 4. MANAGEMENT PRACTICES TO CONFORM WITH GUIDELINES AND ACHIEVE STANDARDS

Discussion:

Several management practices are recommended to conform to the Guidelines in order to make progress toward meeting the Standards for Rangeland Health. They are a change in the season of use and dividing the allotment into a two pasture system as presented under Recommendations below. This would improve those areas cited in this document where plants appear to suffer repeated grazing use. No reduction in the permitted active AUMs is proposed, nor is deemed necessary at this time. However, it should be stated that the AUMs for the entire allotment are being utilized on less than 2/3 of the allotment. The

area west of the Seaman Range should be evaluated for opportunities for fencing and water development to fully utilize the allotment.

Recommendations:

1.The allotment would be split into two pastures, the lower east pasture and the upper west pasture. The seaman range would act as a natural boundary for the pastures.

2. The grazing season of use would be changed from 3/1 to 5/15 and 9/1 to 2/28 to 9/01 to 2/28 on the lower east pasture to allow for reduced spring use of cool season perennial grasses and shrubs to ensure full development of annual growth and seed development and to encourage regeneration and improved current vegetative condition. Also starting with the 2008 grazing season the lower east pasture will be closed to livestock grazing for a period of not less than three full growing seasons. The season of use for the upper west pasture will remain 3/1 to 5/15 and 9/1 to 2/28. Up to 14 days extension (in accordance with 4130.3-2) may be permitted on a case by case basis and requires the approval of the authorized officer prior to use. Active use AUMs may not be exceeded.

3. Salt and/or mineral supplements for livestock shall be located no closer than ¼ mile from water sources. Use of nutritional supplements (not forage) is encouraged to improve the ability of cattle to utilize forage in the winter months and to improve livestock distribution into areas previously slightly or occasionally grazed by livestock. Supplements are to be placed ½ mile from existing waters.

4. Maximum allowable use levels would be established as follows:

- Perennial grasses: 30% current year's growth by 5/31 not to exceed 50% for yearlong. .

This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) contribute to litter cover, 3) develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase overall cover.

- Perennial shrubs and half-shrubs: 45% use on current year's growth.

This use level is necessary to allow desirable perennial key browse species to develop woody stature able to withstand the pressure of grazing use. Use will be read in March or prior to the spring regrowth.

5. Wildlife escape ramps will be installed and maintained by the permittee at each trough used on the allotment (permanent or temporary).

Evaluation and Determination of Rangeland Health Standards for the White River Allotment.

Standard 1. Soils

"Watershed soils and stream banks should have adequate stability to resist accelerated erosion, maintain soil productivity, and sustain the hydrologic cycle."

Soil Indicators:

- Ground Cover (vegetation, litter, rock, bare ground).
- Surfaces (e.g., biological crust, pavement).
- Compaction/infiltration.

Riparian Soil Indicators:

- Stream bank stability.

Determination:

□ Meeting the Standard

X **Not Meeting the Standard, but making significant progress towards**

□ Not Meeting the Standard, not making significant progress toward standard

Causal Factors

X **Livestock are a contributing factor to not meeting the standard.**

□ Livestock are not a contributing factor to not meeting the standard

□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:

□ In conformance with the Guidelines

X Not in conformance with the Guidelines

Conclusion: *Standard Not Achieved*

UPLANDS: Key Management Area (KMA) 1 is located in a Winterfat bottom that is described as Winterfat/Ricegrass – Bottlebrush Squirreltail site. The Ecological Site Description (NRCS) for the site is a Silty 5-8" P.Z. – 029XY020NV. The approximate potential ground cover (basal and crown) according to the range site is 10-20%.
The native cover at KMA 1 measured at 2.89%. There were no perennial grasses within the understory to account for any of the cover while three perennial native shrubs accounted for 100% cover. Winterfat represented the majority of the vegetative cover.

KMA 2 is located at an upland site that is a Spiny Hopsage/Fourwing/Ephedra-Indian ricegrass site. The ecological site for this key area is a Loamy Upland 5-8" P.Z – 029XY016NV. The approximate potential ground cover (basal and crown) according to the range site is 20-30%.
At KMA 2, there is 13.6% vegetative cover. Shrubs represent 97% of the cover and grasses represent 3% with no forbs contributing to cover measurements. Ephedra was the dominant brush within the measurements.

The data at KMA 1 shows that cover is inadequate and that the site lacks the desired herbaceous component. The soils at KMA 1 exhibit signs of erosion mainly due to wind and slight water rilling. There is an influx of non-native species within the area such as Russian thistle and Halogeton.

The site description for KMA 1 discusses the loss of native grasses it states, "*Where management results in abusive grazing use by cattle and/or feral horses, bottlebrush squirreltail, winterfat and Indian ricegrass decrease. With further site degradation, halogeton, Russian thistle and annual mustards invade the interspace areas between shrubs.*
The soils of this site are highly erodable and with site degradation, gullies may form which interrupt and concentrate overland flow patterns.

The line intercept cover data indicates KMA 2 is deficient in overall vegetative cover, Although soils in the uplands at KMA 2 are stable and exhibit no outward signs of erosion, vegetative cover appropriate for the site is essential for maintaining proper soil surface stability, reducing compaction and improving overall water infiltration. Litter and other natural debris were also present. There were crust formations present as well. These are all indicators for the standard.

RIPARIAN: There are no riparian areas within the White River Allotment; therefore it will not be analyzed any further within this document.

Standard 2. Ecosystem Components

Watersheds should possess the necessary ecological components to achieve State water quality criteria, maintain ecological processes, and sustain appropriate uses.

Riparian and wetlands vegetation should have structural and species diversity characteristic of the stage of stream channel succession in order to provide forage and cover, capture sediment, and capture, retain, and safely release water (watershed function).

Upland Indicators:

- Canopy and ground cover, including litter, live vegetation, biological crust, and rock appropriate to potential of the ecological site.
- Ecological processes are adequate for the vegetative communities.

Riparian Indicators:

- Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows.
- Elements indicating proper functioning condition such as avoiding acceleration erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:

- Width/Depth ratio.
- Channel roughness.
- Sinuosity of stream channel.
- Bank stability.
- Vegetative cover (amount, spacing, life form).
- Other covers (large woody debris, rock).
- Natural springs, seeps and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plan species and cover appropriate to the site characteristics.

Water Quality Indicators:

- Chemical, physical and biological constituents do not exceed the State water quality Standards.

The above indicators shall be applied to the potential of the ecological site.

Determination:

□ Achieving the Standard

□ Not Achieving the Standard, but making significant progress towards

X **Not Achieving the Standard, and <u>not</u> making significant progress toward standard**

Causal Factors

X Livestock are a contributing factor to not achieving the standard.

□ Livestock are not a contributing factor to not achieving the standard

X **Failure to meet the standard is related to other issues or conditions**

Guidelines Conformance:

X Not in conformance with the Guidelines

<u>Conclusion: *Standard Not Achieved*</u>

UPLANDS**:** Line Intercept Cover data collected at the key areas indicates the major plant communities are lacking major plant species such as Indian ricegrass (*Achnatherum hymenoides*), bottlebrush squirreltail (*Sitanion hystrix*), and ephedra (*Ephedra nevadensis*) (except at KMA 2 which had 7.7% ephedra), and minor species listed in the range site description as other perennial grasses, and other shrubs. The key species appear to have decreased away from the areas affected by normal grazing patterns.

Utilization data collected on the allotment during the evaluation period indicate use by livestock has been heavy along the winterfat bottoms with moderate to light use in the uplands.

Ecological data collected in 1995 and 1997 directly across state highway 318 but within the same ecological site description indicate several important key species have declined at KMA 1 in the years between 1995 and 2008. Overall, based on previous data and

professional observations trend is downward at KMA 1 based on the lack of native grasses indicating a poor trend for desirable species and the beginning of a shift to less desirable species. Galleta, ricegrass, four-wing, and winterfat all decreased. Galleta, ricegrass, and winterfat decreased significantly.

There have been no fires within the White River Allotment during recent history. According to the BLM precipitation data collected at the neighboring Mustang Allotment, annual rainfall in 2002 measured only 2.67". Whereas rainfall varied from 6-11 inches from 2000 to 2006.

RIPARIAN: The Standard is not assessed for the White River Allotment.

Standard 3. Habitat and Biota:

As indicated by:

- Vegetation composition (relative abundance of species);
- Vegetation structure (life forms, cover, height, or age class);
- Vegetation distribution (patchiness, corridors);
- Vegetation productivity; and
- Vegetation nutritional value.

Determination:

□ Achieving the Standard

□ Not Achieving the Standard, but making significant progress towards

X Not Achieving the Standard, <u>not</u> making significant progress toward standard

Causal Factors:

X Livestock are a contributing factor to not achieving the standard.

□ Livestock are not a contributing factor to not achieving the standard

□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:

X Not in conformance with the Guidelines

<u>Conclusion: *Standard Not Achieved*</u>

Vegetation communities in the valley are dominated by salt desert species. The main valley floor shrub species generally include winterfat, fourwing saltbush, and spiny hopsage. The herbaceous species include squirreltail, Indian ricegrass, and small galleta.

Dominant species on the slopes adjacent to the North Pahroc Range include Wyoming sagebrush, black sagebrush with galleta, squirreltail and Indian ricegrass in the understory. The North Pahroc Range is extremely rocky desert range with a fair amount of vegetation and is practically inaccessible to livestock.

Invasive annuals such as cheat grass occur within the allotment but is not a significant factor within the innerspaces and disturbed areas. Noxious weed species including Russian knapweed, have been mapped along State Highway 318 that borders the western boundary of the allotment. The specie has the potential to degrade wildlife habitat for a variety of species. Noxious weeds are typically unpalatable or protected by chemicals or spines which prevent grazing use from occurring. They out compete native species and can form monocultures where left untreated.

Utilization data shows the allotment have generally been grazed within the moderate to heavy range (41-80% current year's growth) or less for the recent past years. But due to continuous grazing through the critical growing season for cool season plants, frequency, vigor, and community structure have been reduced which has degraded habitat in general terms, especially within the perimeter serviced by the one main water source along the winterfat bottom.

Fourwing saltbush plants exhibit poor growth forms based on removal of primary branches. Winterfat plants show poor vigor and minimal stature. Shrubs are decreasing in general at key areas 1 and 2. This translates to reduced habitat quality due to less escape cover for small rodents, less perching and nesting opportunities for birds, and reduced forage opportunities for many wildlife species. Noxious and non-noxious weeds impact wildlife species through increased competition with desirable native plants and degradation of habitats. These plants offer little if any, nutritional value to wildlife and may even be toxic.

Wildlife habitat quality in the desert is based partly on proper vegetation community, appropriate structure (height/width/breadth) and age class. Corridors and edges based on appropriate disturbances provide microhabitats. Overall productivity of individual native plant species contributes to the basic habitat requirements of forage and cover for numerous wildlife species in the salt desert. The allotment should ultimately reflect the potential based on the Ecological Site Descriptions.

PART 2. ARE LIVESTOCK A CONTRIBUTING FACTOR TO NOT MEETING THE STANDARDS? SUMMARY REVIEW:

Standard #1: Soils

Conclusion: (*Standard Not Achieved).* Livestock grazing is one contributing factor to not achieving the Standard. The primary reason cited is inadequate soil protection through inappropriate vegetation community. The primary causal factor is the season of use and recent droughty conditions. The permit allows use to begin in first of September and doesn't end until May 15. Late May is too late on the allotment as many plants are in the critical growing period at that time. Utilization of cool season plants, especially Indian ricegrass and winterfat, during the critical growing season has resulted in a significant decrease in these species in the primary grazing area.

The reduction of key perennial species can have impacts on the overall protection of soils. Additionally, the vegetative cover which should be 20-30% at KMA 2 and 10 to 20% at KMA 1 is currently 13.62% and 2.9% respectively. The reduced cover can be due to a reduction and subsequent replacement of key perennial plants with undesirable species such as Halogeton or Russian thistle. The reduction of important grass, forb, and shrub species, some of which are highly favored by livestock, results in the reduced resilience of the community to resist (or recover from) disturbance.

It should be noted that overall soils appear to be stable in the allotment as no outward signs of soil loss or soil movement was observed other than some pedestalling along the Winterfat bottoms that was noted during monitoring. The gentle slopes of the allotment help reduce or even prevent soil loss due to overland flow.

Standard #2: Ecosystem Components

Conclusion: (*Standard Not Achieved).* Livestock grazing is one contributing factor to not achieving the Standard. Vegetative cover is inadequate for the sites where livestock grazing has occurred during the evaluation period. The magnification of "increaser species" and the decline of "decreaser species" are attributed to continued spring grazing by livestock. Although utilization limits were not exceeded, the almost yearly continued spring use has had an impact on the community, as reflected by the cover and frequency data.

Standard #3: Habitat and Biota

Conclusion: (*Standard Not Achieved).* Livestock grazing is one contributing factor to not achieving the Standard. General observations and data analysis indicate habitat is in a degraded state due to diminishing vegetative cover and poor community structure in the primary grazing area. Important wildlife cover and forage species such as ricegrass, winterfat, and fourwing saltbush are decreasing in number and vigor. Plant vigor and stature of desirable native shrub species have been affected in part by livestock grazing, particularly in the critical growing season. Fourwing, spiny hopsage and winterfat plants show poor growth forms and reduced woody biomass.

PART 3. GUIDELINE CONFORMANCE REVIEW AND SUMMARY

Current livestock management practices do not conform to Guideline 1.1 for Soils.

Upland management practices should maintain or promote adequate vegetative ground cover to achieve the standard. Grazing through late May is not in conformance with the guideline where it results in reduced cover, vigor, and reproduction of key perennial grasses or shrubs.

Current livestock grazing management practices do not conform with Guidelines 2.3, and 2.6.

Management practices should maintain or promote the physical and biological conditions necessary for achieving surface characteristics and desired natural plant community. At the key areas, the plant community has changed based on continual early season grazing resulting in the significant decrease in key perennial species including galleta, ricegrass, and winterfat.

Current livestock grazing practices do not conform to Guideline 3.1.

Mosaics of plant and animal communities that foster diverse and productive ecosystems should be maintained or achieved. The reduction of key perennial native grass and shrub species which has been documented on the allotment is an impact from grazing through the late spring months. Additionally, livestock distribution and management results in livestock grazing the same areas yearly. This management impacts vegetation and degrades habitat.

PART 4. MANAGEMENT PRACTICES TO CONFORM WITH GUIDELINES AND ACHIEVE STANDARDS

Discussion:

Several management practices are recommended to conform to the Guidelines in order to make progress toward meeting the Standards for Rangeland Health. They are a change in the season of use and dividing the allotment into a two pasture system as presented under Recommendations below. This would improve those areas cited in this document where plants appear to suffer repeated grazing use. No reduction in the permitted active AUMs is proposed, nor is deemed necessary at this time.

Recommendations:

1.The allotment would be split into two pastures, the lower west pasture and the upper east pasture. Water hauling would be used to keep livestock on the upper pastures and out of the Winterfat bottoms.

2. The grazing season of use would be changed from 3/1 - 5/15 and 9/1 - 2/28 to 9/1 - 2/28 on the lower east pasture to allow for no livestock spring use of cool season perennial grasses and shrubs to ensure full development of annual growth and seed development and to encourage regeneration and improved current vegetative condition. Also starting with the 2008 grazing season the lower west pasture will be closed to livestock grazing for a period of not less than three full growing seasons. The season of use for the upper east pasture will remain 3/1 to 5/15 and 9/1 to 2/28. Up to 14 days extension (in accordance with 4130.3-2) may be permitted on a case by case basis and requires the approval of the authorized officer prior to use. Active use AUMs may not be exceeded.

3. Salt and/or mineral supplements for livestock shall be located no closer than ¼ mile from water sources. Use of nutritional supplements (not forage) is encouraged to improve the ability of cattle to utilize forage in the winter months and to improve livestock distribution into areas previously slightly or occasionally grazed by livestock. Supplements are to be placed ½ mile from existing waters.

4. Maximum allowable use levels would be established as follows:

- Perennial grasses: 30% current year's growth by 5/31 not to exceed 50% for yearlong. .

This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) contribute to litter cover, 3) develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase overall cover.

- Perennial shrubs and half-shrubs: 45% use on current year's growth.

This use level is necessary to allow desirable perennial key browse species to develop woody stature able to withstand the pressure of grazing use. Use will be read in March or prior to the spring regrowth.

5. Wildlife escape ramps will be installed and maintained by the permittee at each trough used on the allotment (permanent or temporary).

Evaluation and Determination of Rangeland Health Standards for the Black Horse Allotment.

Standard 1. Soils

"Watershed soils and stream banks should have adequate stability to resist accelerated erosion, maintain soil productivity, and sustain the hydrologic cycle."

Soil Indicators:

- Ground Cover (vegetation, litter, rock, bare ground).
- Surfaces (e.g., biological crust, pavement).
- Compaction/infiltration.

Riparian Soil Indicators:

- Stream bank stability.

Determination:

X Meeting the Standard

□ Not Meeting the Standard, but making significant progress towards

□ Not Meeting the Standard, not making significant progress toward standard

Causal Factors

□ Livestock are a contributing factor to not meeting the standard.

□ Livestock are not a contributing factor to not meeting the standard

□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:

X In conformance with the Guidelines

□ Not in conformance with the Guidelines

Conclusion: Standard Achieved

UPLANDS: The native cover at KMA 1 measured at 15%. There are perennial grasses within the system that is under the shrub canopies. This is predominantly due to shading and hydraulic lift by the sagebrush plants which creates microhabitats that favor the grass species. Two perennial native shrubs accounted for 98% of the cover. Sagebrush represented the majority of the vegetative cover.
Vegetative cover collected at Key Management Area (KMA) 1 is deficient compared to the Rangeland Ecological Site Description (NRCS). The ecological site for this key area is an Upland Wash 8-12" P.Z. – 029XY009NV - Sagebrush – Indian ricegrass/Bottlebrush Squirreltail site. The approximate potential ground cover (basal and crown) according to the range site is 20-35%.

At KMA 2, there is 15.3% vegetative cover. Shrubs represent 69% of the cover and grasses represent 30% with 1% forbs contributing to cover measurements. Ephedra was the dominant brush within the measurements. Also present but not located within the transect was Cliffrose, Sagebrush as well as scatted Juniper trees. The ecological site for this area is a Loamy 8-10" P.Z – 029XY006NV- Sagebrush/ Indian ricegrass, galleta community. The approximate potential ground cover (basal and crown) according to the range site is 15-25%. The KMA is situated in a area affected by a fire that took place in 1984 which burned 16,500 acres. This has resulted in a state in transition that reflects more of a balance in the herbaceous component with the browse species.

At KMA 3 there is 14.8% vegetative cover. Shrubs represented 88% of the cover and grasses represented 10% with forbs accounting for 2%. Black sagebrush was the dominant brush within the measurements. This area was affected by the same fire as described above. The ecological site for this area is Shallow Calcarous Hill 8-140" P.Z-029XY015NV- Juniper, Cliffrose, Black sagebrush/ Indian ricegrass, galleta community. The approximate ground cover is 3-15%.

The line intercept cover data indicates KMA 1 is deficient in overall vegetative cover. The data at KMA 1 shows that cover is inadequate and that the site lacks the desired herbaceous component. The soils at this site are stable and exhibit no outward signs of erosion litter and other natural debris are in place to protect against other forms of erosion such as wind and splash. The lack of the desirable herbaceous component is more related to drought and wildlife use rather than livestock. This site has cryptogrammic crust formations present.

The cover data at KMA 2 is within the ecological site description (15-25%) and the herbaceous component is proper for the site. The soils are stable with proper litter for soil protection and water infiltration.

The line intercept cover data at KMA 3 is 14.8% cover, the ecological site description calls for 3-15% cover. The plant community at this site is healthy and diverse as called for within the site description. Soils are stable and healthy with cryptogrammic crust formations present.

RIPARIAN: There is one natural spring on the allotment that is a fully developed range improvement and therefore will not have PFC conducted on it.

Monitoring Data Review

Line Intercept - 2008			Range Site
Key Area	**Total Cover**	**Desired Cover**	
KMA 1	**14.95%**	20-35%	029XY009NV
KMA 2	**15.33%**	15-25%	029XY006NV
KMA 3	**14.82%**	3-15%	029XY015NV
Line Intercept measures the amount of vegetative cover intercepted in 100 feet.			

Conclusion:

Standard Achieved.

Cover data indicates adequate to above adequate cover for the sites. The sites show little to no evidence of rill or gully formations. The soils appear stable and in place. The probability of soil movement is low due to the ability of deep rooted species along with the presence of cryptograms to hold the soil in place. Grazing within the allotment occurs from 9/1 to 5/15 predominantly during the winter months when plants are dormant. Utilization levels on the allotment should be maintained at current levels to ensure continued adequate litter for soil protection and stability. Grazing is not an issue that would prevent attainment of the stated objectives for soil stability.

Standard 2. Ecosystem Components

Watersheds should possess the necessary ecological components to achieve State water quality criteria, maintain ecological processes, and sustain appropriate uses.

Riparian and wetlands vegetation should have structural and species diversity characteristic of the stage of stream channel succession in order to provide forage and cover, capture sediment, and capture, retain, and safely release water (watershed function).

Upland Indicators:

- Canopy and ground cover, including litter, live vegetation, biological crust, and rock appropriate to potential of the ecological site.
- Ecological processes are adequate for the vegetative communities.

Riparian Indicators:

- Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows.
- Elements indicating proper functioning condition such as avoiding acceleration erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:
    - Width/Depth ratio.
    - Channel roughness.
    - Sinuosity of stream channel.
    - Bank stability.
    - Vegetative cover (amount, spacing, life form).
    - Other covers (large woody debris, rock).
    - Natural springs, seeps and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plan species and cover appropriate to the site characteristics.

Water Quality Indicators:

- Chemical, physical and biological constituents do not exceed the State water quality Standards.

The above indicators shall be applied to the potential of the ecological site.

Determination:

X Meeting the Standard

□ Not Meeting the Standard, but making significant progress towards

□ Not Meeting the Standard, not making significant progress toward standard

Causal Factors

□ Livestock are a contributing factor to not meeting the standard.

□ Livestock are not a contributing factor to not meeting the standard

□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:

X In conformance with the Guidelines

□ not in conformance with the Guidelines

Conclusion: *Standard Achieved*

UPLANDS**:** Line Intercept Cover data collected at the key areas indicates the major plant communities are composed of major plant species to meet ecological diversity standards. At KMA 2 and KMA 3 there are plant species that were present but not included within the study plot. These included Fourwing saltbush, Cliffrose, Juniper and Flax. The frequency of the plants is below the potential native community standard (PNC) but is within the range site description. The Seaman fire that occurred in 1984 aided immensely in moving the allotment towards achieving standard by moving it out of a woody dominated site. The composition of desirable native grasses to shrub is well within standard and therefore is in conformance with guidelines.

At KMA 1 it was the same as mentioned above with the exception of a reduced herbaceous component but with increased desirable shrubs. Vegetative cover is appropriate and vigorous.

There are no lotic systems within the Black Horse Allotment and one lentic system, an unnamed spring. The spring is a fully developed range improvement and therefore will not have PFC conducted on it.

Standard 3. Habitat and Biota:

As indicated by:

- Vegetation composition (relative abundance of species);
- Vegetation structure (life forms, cover, height, or age class);
- Vegetation distribution (patchiness, corridors);
- Vegetation productivity; and

- Vegetation nutritional value.

Determination:

X Meeting the Standard

☐ Not Meeting the Standard, but making significant progress towards

☐ Not Meeting the Standard, not making significant progress toward standard

Causal Factors

☐ Livestock are a contributing factor to not meeting the standard.

☐ Livestock are not a contributing factor to not meeting the standard

☐ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:

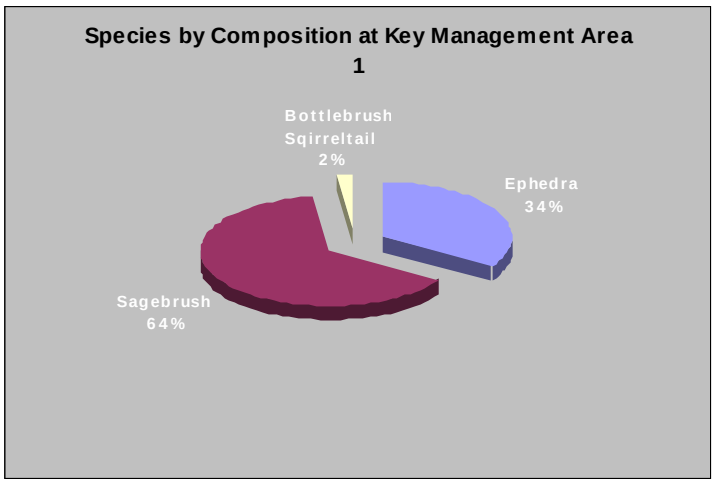
X In conformance with the Guidelines

☐ Not in conformance with the Guidelines

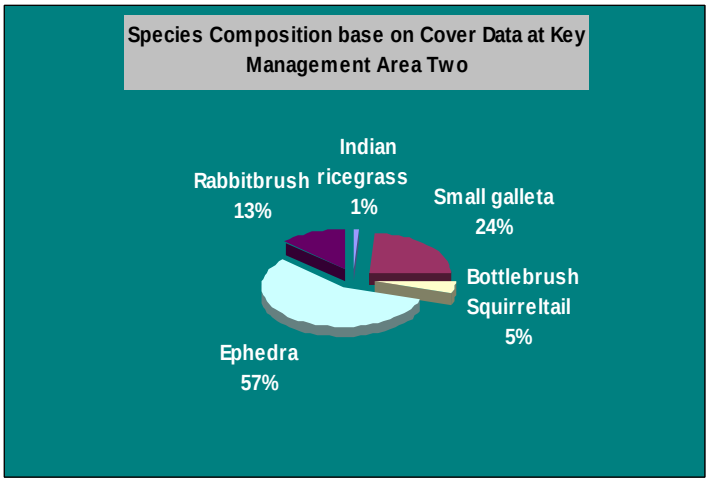
Findings: Current resource conditions related to the habitat standard.

Vegetation communities in the Black Horse Allotment are dominated by Sagerbrush obligate species. The main shrub species generally include Black sagebrush, fourwing saltbush, Cliffrose, Juniper and spiny hopsage. The herbaceous species include squirreltail, Indian ricegrass, and small galleta. Forbs are Globemallow, Phlox, Flax and Penstemon species.

Dominant species on the slopes adjacent to the White River and Golden Gate Range include Wyoming sagebrush, black sagebrush with galleta, squirreltail and Indian ricegrass in the understory. The Golden Gate Range is extremely rocky desert range with a minimum amount of vegetation and practically inaccessible to livestock.

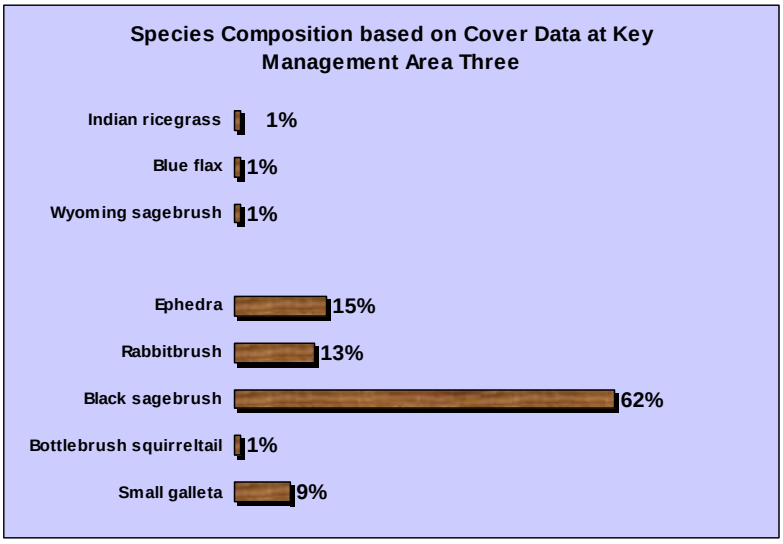


KMA 1 is 98% shrubs with 2% herbaceous component with a small component of forbs. The site description for the site calls for 75% shrubs, 25% grasses and Trace of forbs. KMA 1 was unaffected by the Seamen Fire that occurred in 1984.



Key Management Area 2 is 69% shrubs which include Ephedra, Rabbitbrush, Cliffrose and Fourwing Saltbush, the herbaceous component is about 30% of which small galleta is the main component. Forbs were 1% of the component within the study plot. Indian ricegrass and Sand dropseed were present but outside of the monitored area. Forbs were also present which included Phlox and flax species. The site description calls for 45% shrubs, 50% grasses and 5% forbs.

At KMA 3 the herbaceous component was about 10% of the overall component with the shrubs accounting for 88% and forbs about 2%. Forbs present were Blue flax and phlox as could be identified. The site description calls for 20% grasses and 75% shrubs with 5% forbs.



The invasive annual cheatgrass occurs in varying levels throughout the allotment but is most prominent along roads and disturbed areas by both livestock and wildlife.

There are no major noxious weed species mapped within the Black Horse Allotment. Outside of the allotment along State Highway 318 there is knapweed species that has the potential to be introduced within the allotment along roads. The allotment will continue to be monitored for noxious weed species.

Utilization data shows the allotment has generally been grazed within the light to moderate range (21%-60% current year's growth) or less for the recent past years. Fourwing saltbush plants exhibit proper growth forms based on recent and past compliance inspections. Herbaceous species show good vigor and proper stature due to the Seaman Fire that took place in 1984 that kept the state in transition of the allotment from moving into a woody dominated site as is the potential as described within the ecological site descriptions. Since 2004 precipitation has been about average or above average resulting in increased stature and recruitment of new plants.

Conclusion

Standard Achieved

In working with the BLM the permittees has been running substantially reduced Livestock within the allotment over the last six years. The reduction in use is a result of prolonged drought within the region during the late 1990's and early 2000's. Use on the allotment has been 10% to 70% percent of permitted use.
The allotment is maintaining a diverse functioning ecosystem. The presence of annual grasses should be maintained at a minimum to reduce the threat of wildfire within the allotment.

PART 2. ARE LIVESTOCK A CONTRIBUTING FACTOR TO NOT MEETING THE STANDARDS? SUMMARY REVIEW:

Standard #1: Soils
Conclusion: Standard met (achieved). The majority of the allotment is meeting or making progress towards achieving the standard. The areas of concern mentioned above that are not meeting the standard should continue to be monitored. The primary reason for the reduced herbaceous component has been the drought years that took place during the late 90's and early 2000. The reduced herbaceous component at KMA 1 is normal for the site and is not a factor related to livestock grazing. Grazing should continue to be used during the winter months in order to reduce the buildup of fine fuels and prevent a frequent fire cycle. Monitoring will continue to ensure proper species composition and diversity.

Standard #2: Ecosystem Components Standard met (achieved). Line Intercept Cover data collected at the key areas indicates the major plant communities are composed of major plant species to meet ecological diversity standards. At KMA 2 and KMA 3 there are plant species that were present but not included within the study plot. These included Fourwing saltbush, Cliffrose, Juniper and Flax. The frequency of the plants is below the potential native community standard (PNC) but is within the range site description. The Seaman fire that occurred in 1984 aided immensely in moving the allotment towards achieving standard by moving it out of a woody dominated site. The composition of desirable native grasses to shrub is well within standard and therefore is in conformance with guidelines.

There is one lentic spring on the Black Horse Allotment. It is fully developed with a pipeline and therefore will not have Proper Functioning Condition (PFC) conducted.

Standard #3: Habitat and Biota
Conclusion: Standard met (achieved). Existing grazing management and levels of grazing use on the Black Horse Allotment are insignificant factors within the allotment. The Seaman Fire that took place in 1984 burned 16,500 acres and caused a natural state in transition shift within the allotment that prevented the system from transitioning into a woody dominated site with a significantly reduced herbaceous

understory. Utilization data and personal observations shows the allotment has generally been grazed moderate or less for the recent past years. In these areas, the current grazing management system conforms to the guidelines.

PART 3. GUIDELINE CONFORMANCE REVIEW AND SUMMARY

The current grazing management system that is in place is in a good balance with the allotment objectives. The soils throughout the allotment reflect an adequate ability to resist accelerated erosion, maintain soil productivity and sustain the hydrologic cycle. The allotment possesses the components to maintain ecological processes and sustain appropriate uses. The upland indicators which include canopy and ground cover, including litter, live vegetation, and biological crusts are appropriate to the potential of the ecological sites. The allotments habitats sustain a level of biodiversity appropriate for the area and conducive to appropriate uses.

PART 4 MANAGEMENT PRACTICES TO CONFORM WITH GUIDELINES AND ACHIEVE STANDARDS

Discussion:

Several management practices are recommended to conform to the Guidelines in order to continue meeting or make significant progress towards meeting the Standards for Rangeland Health. In general, livestock need to continue to be managed in a way to encourage even distribution throughout the allotment as well as continue with a rest rotation system.

Recommendations:

1. Maintain season of use as per the 1996 Final Multiple Use Decision (FMUD) for the Seaman Herd Management Area. Up to 14 days extension (in accordance with 4130.3-2) for grazing may be permitted on a case by case basis and requires the approval of the authorized officer prior to use. Active use AUMs may not be exceeded.

2. Salt and/or mineral supplements for livestock shall be located no closer than ¼ mile from water sources. Use of nutritional supplements (not forage) is encouraged to improve the ability of cattle to utilize forage in the winter months and to improve livestock distribution into areas previously slightly or occasionally grazed by livestock. Supplements are to be placed ½ mile from existing waters.

3. Maximum allowable use levels would be established as follows:

- Perennial grasses: 40% prior to 5/1 not to exceed 50% of current year's growth.

This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) contribute to litter cover, 3) develop roots to

improve carbohydrate storage for vigor, reproduction, and improve/increase overall cover.

- Perennial shrubs and half-shrubs: 45% use on current year's growth.

This use level is necessary to allow desirable perennial key browse species to develop woody stature able to withstand the pressure of grazing use. Use will be read in March or prior to the spring regrowth.

4. Wildlife escape ramps will be installed and maintained by the permittee at each trough used on the allotment (permanent or temporary).

/s/ Bonnie Waggoner **8/5/2008**
Bonnie Waggoner, Date
Invasive, Non-Native Species

/s/ Kari Harrison **8/6/2008**
Kari Harrison Date
Soil, Water Quality, Air Quality, Flood Plains
Riparian/Wetlands

/s/ Lynn Wulf **8/5/2008**
Lynn Wulf Date
Cultural Resources

/s/ Ben Noyes **8/8/2008**
Ben Noyes Date
Wild Horse and Burros

/s/ Rick Baxter **8/13/2008**
Rick Baxter Date
Wildlife Biologist, Special Status Animals
Migratory Birds, Special Status Plants

/s/ Dave Jacobson **8/8/2008**
Dave Jacobson Date
Wilderness Values

/s/ Melanie Peterson **8/6/2008**
Melanie Peterson Date
Hazardous Materials

/s/ Elvis Wall **8/6/2008**
Elvis Wall Date
Native American Concerns/Tribal Coordination

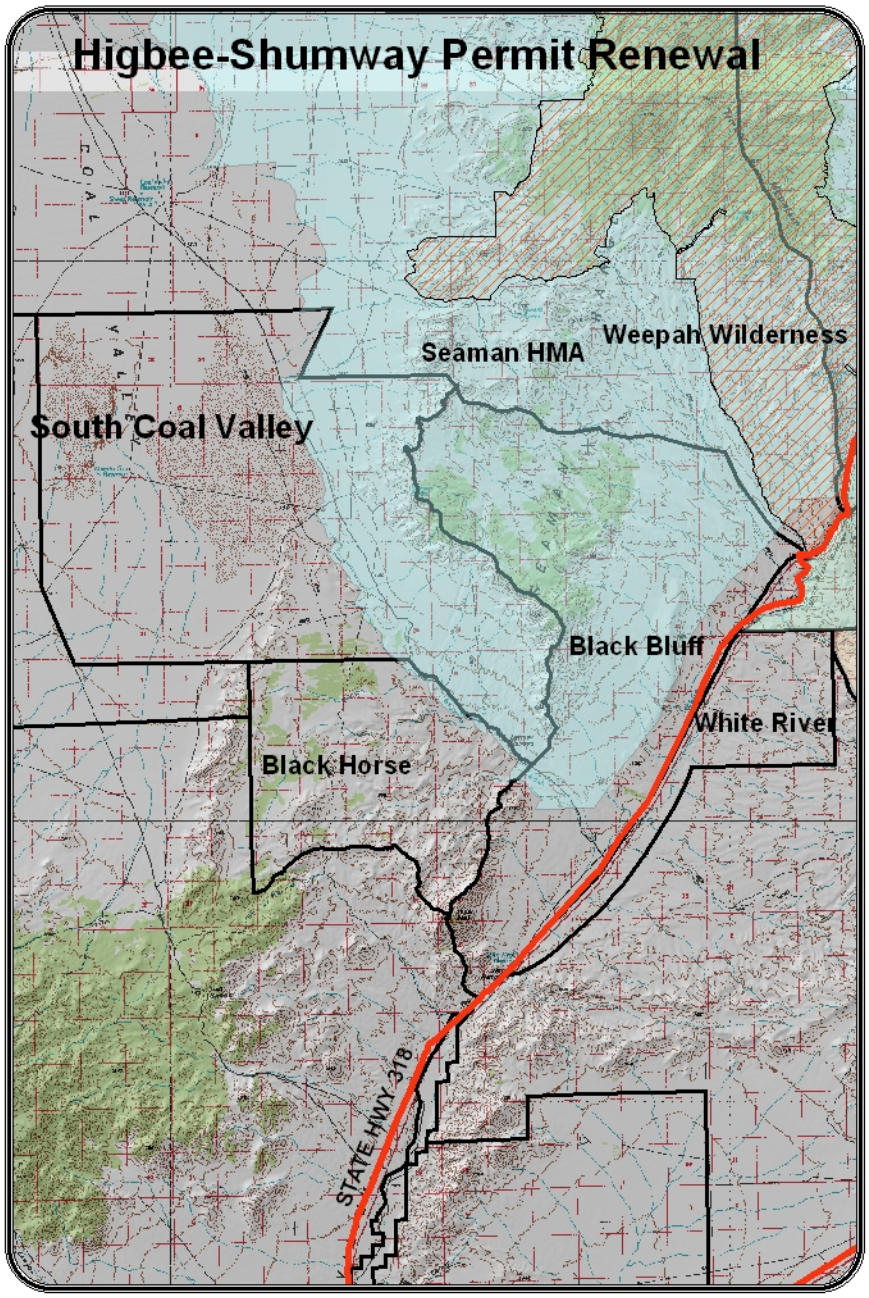
Reviewed by:

/s/ Chris Mayer **8/6/2008**
Chris Mayer Date
Supervisory Natural Resource Specialist

/s/ Troy Grooms **8/5/2008**
Prepared by: Date
Troy Grooms
Rangeland Management Specialist

I concur:

/s/ Ron Clementsen **8/14/2008**
Ron Clementsen Date
Caliente Field Office Manager


Higbee-Shumway Permit Renewal
Seaman HMA
Weepah Wilderness
South Coal Valley
Black Bluff
White River
Black Horse
STATE HWY 318

APPENDIX I

DATA ANALYSIS – SOUTH COAL VALLEY ALLOTMENT

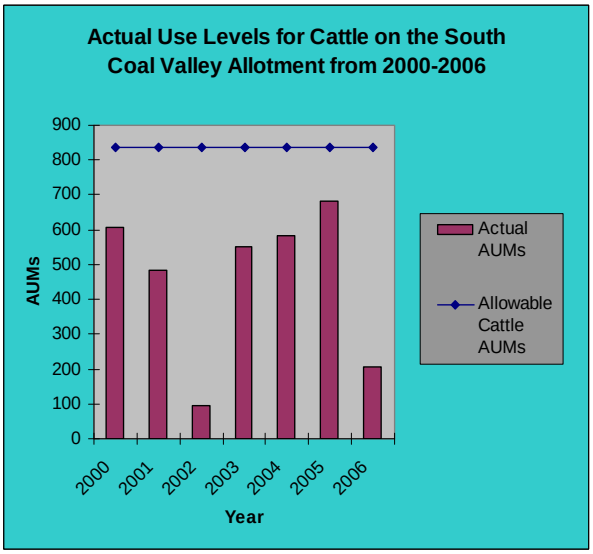
Grazing authorizations were examined for the permittee for grazing years 2000-2006. The licensed use ranged from 120 to 1,555 AUMs during the period. Reduced grazing use occurred due to both BLM and permittee initiative.

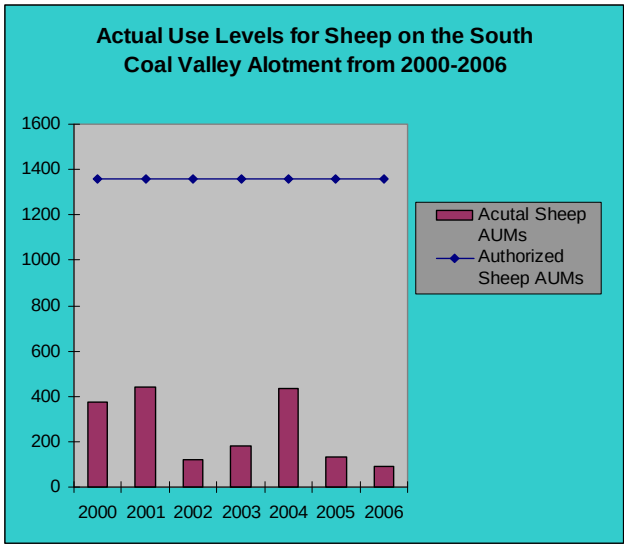
Permittee	Allotment	Year	Period of Use	Permitted Use (AUMs)	Actual Use	Non-Use (AUMs)
Higbee Bros.	South Coal Valley	2000	9/1-5/16	118	87	31
Varlin Higbee	South Coal Valley	2000	9/1-5/16	152	0	152
Nolan Shumway	South Coal Valley	2000	9/1-5/16	566	518	48
Higbee Bros.	South Coal Valley	2001	9/1-5/16	118	143	0
Varlin Higbee	South Coal Valley	2001	9/1-5/16	152	0	152
Nolan Shumway	South Coal Valley	2001	9/1-5/16	566	340	226
Higbee Bros.	South Coal Valley	2002	9/1-5/16	118	0	118
Varlin Higbee	South Coal Valley	2002	9/1-5/16	152	0	152

Nolan Shumway	South Coal Valley	2002	9/1-5/16	566	97	469
Higbee Bros.	South Coal Valley	2003	9/1-5/16	118	212	0
Varlin Higbee	South Coal Valley	2003	9/1-5/16	152	234	0
Nolan Shumway	South Coal Valley	2003	9/1-5/16	566	105	461
Higbee Bros.	South Coal Valley	2004	9/1-5/16	118	110	8
Varlin Higbee	South Coal Valley	2004	9/1-5/16	152	149	3
Nolan Shumway	South Coal Valley	2004	9/1-5/16	566	325	241
Higbee Bros.	South Coal Valley	2005	9/1-5/16	118	120	0
Varlin Higbee	South Coal Valley	2005	9/1-5/16	152	181	0
Nolan Shumway	South Coal Valley	2005	9/1-5/16	566	380	186
Higbee Bros.	South Coal Valley	2006	9/1-5/16	118	0	118
Varlin Higbee	South Coal Valley	2006	9/1-5/16	152	0	152
Nolan Shumway	South Coal Valley	2006	9/1-5/16	566	207	359

Gracian Uhalde	South Coal Valley	2000	9/1-5/16	1,357 Sheep AUMs	374	983
Gracian Uhalde	South Coal Valley	2001	9/1-5/16	1,357 Sheep AUMs	443	914

Gracian Uhalde	South Coal Valley	2002	9/1-5/16	1,357 Sheep AUMs	119	1,238
Gracian Uhalde	South Coal Valley	2003	9/1-5/16	1,357 Sheep AUMs	183	1,174
Gracian Uhalde	South Coal Valley	2004	9/1-5/16	1,357 Sheep AUMs	436	921
Gracian Uhalde	South Coal Valley	2005	9/1-5/16	1,357 Sheep AUMs	380	977
Gracian Uhalde	South Coal Valley	2006	9/1-5/16	1,357 Sheep AUMs	91	1,266





Line Intercept Cover

Cover data was collected in 2008 at the key areas.

Current resource conditions related to the upland sites standard.

LINE INTERCEPT COVER DATA ANALYSIS*

KEY AREA INFORMATION	SPECIES	COMPOSITION BY SPECIES BASED % COVER
KEY AREA 1	Winterfat	55%
Range site: 029XY042NV	Galleta	37%
Desirable Cover For Site:10%-20%	Bud Sage	5%

Percent Cover Measured 2007: **6.02%**		Rabbit Brush	3%
		Forbs	Present
COVER BY GROUPS			
SHRUBS	63		
GRASSES	37		
FORBS	0		
KEY AREA 2			
Range site: 029XY042NV		Winterfat	81%
Desirable Cover For Site: 10%-20%		Shadscale	12%
Percent Cover Measured 2007: **10.3%**		Budsage	4%
Data collected outside of the burned area.		Galleta	1%
		Forbs	Present
COVER BY GROUPS			
SHRUBS	96		
GRASSES	1		
FORBS	Trace		
KEY AREA INFORMATION		SPECIES	COMPOSITION BY SPECIES BASED % COVER
KEY AREA 3		Shadscale	21%
Range site: 029XY008NV		Ephedra	21%
Desirable Cover For Site: 20%-30%		Galleta	32%
Percent Cover Measured 2007: **18.89%**		Rabbitbrush	21%
		Purple Three Awn	4%
		Bottlebrush Squirrel Tail	Trace
		Phlox	1%
		Globe mallow	Trace
COVER BY GROUPS			
SHRUBS	63		
GRASSES	36		
FORBS	1		

Key Area	**Percent Cover**	**Species Composition Based on Cover**		
		Shrubs	**Grasses**	**Forbs**
KMA-1	6.02%	63%	37%	T%
KMA-2	10.3%	96%	1%	T%
KMA-3	18.89%	63%	36%	1%

Utilization January 2008

Key Area	Key Forage Plant/% Utilized	Key Forage Plant/% Utilized	Key Forage Plant/% Utilized
1	Winterfat/9%	Bud Sage/7%	Small Galleta/15%
2	Small Galleta/5%	Winterfat/4%	
3	Winterfat/ 7%	Shadscale/ 4%	Bud Sage/3%

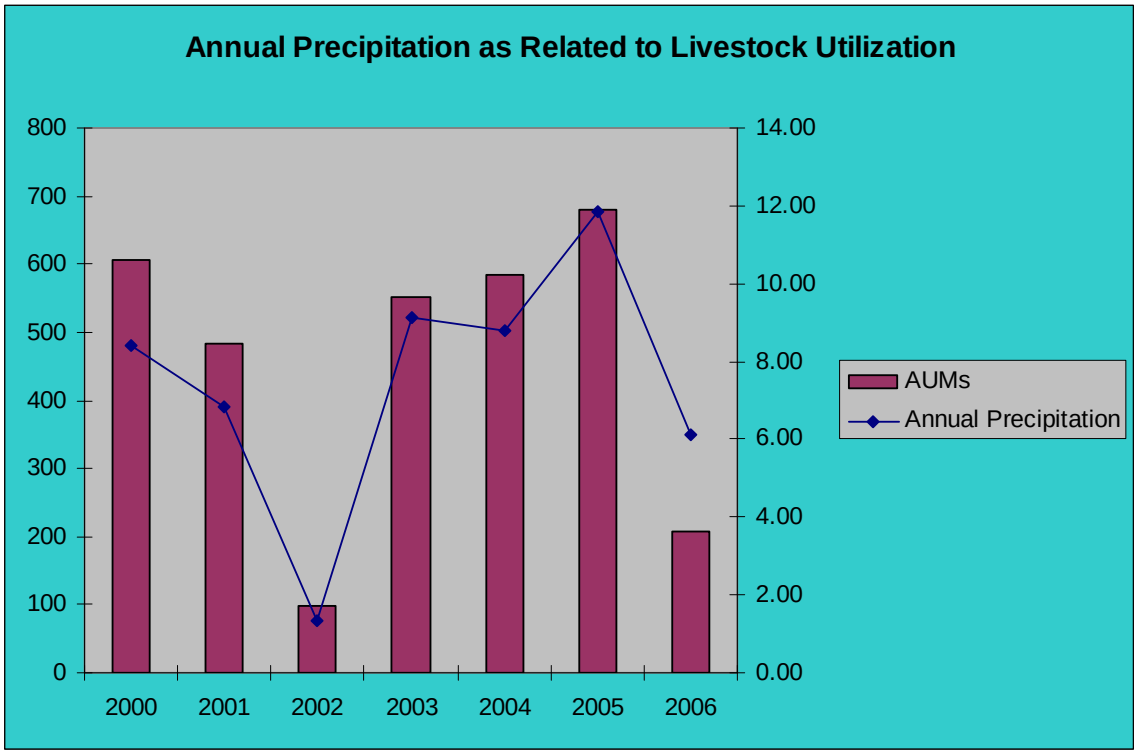
Utilization was last measured using the key forage plant method in January of 2008 during which time the allotment was being actively grazed by livestock since October of the previous year. Overall use levels for the vast majority of the allotment that has been measured over the previous years shows light to moderate utilization across the allotment. The majority of the use takes place along the east/west benches off of the sodic bottoms which is where the key areas are located.

Rapid Riparian Assessment

There are no lotic systems within the South Coal Valley Allotment and one lentic system at Seamen Spring. The spring is a fully developed range improvement and therefore will not have PFC conducted on it.

Precipitation Data

The precipitation data comes from the raincan on the Sand Springs Allotment (directly south of the South Coal Valley Allotment). Data is collected monthly (whenever possible) by the staff of the Caliente BLM Field Station.



Frequency Trend

Three key areas are established on the South Coal Valley Allotment. These sites were read in the mid 1990's and re-read in 1997 and 2008.

Trend for Key Area #1 is static
Trend for the South Coal Valley Allotment is typically static or upward for the lowlands and bench areas.

Trend for Key Area #2 shows to be upward, but is probably actually static. Precipitation data for 2002 indicates very little rain was received during the growing season until July. This would have resulted in very little growth, which would have made it difficult to identify grass plants and could result in data not showing what is actually going on.

Trend for Key Area #3 is showing a static trend. The key species for this key area is Small galleta, fourwing saltbush and Winterfat,

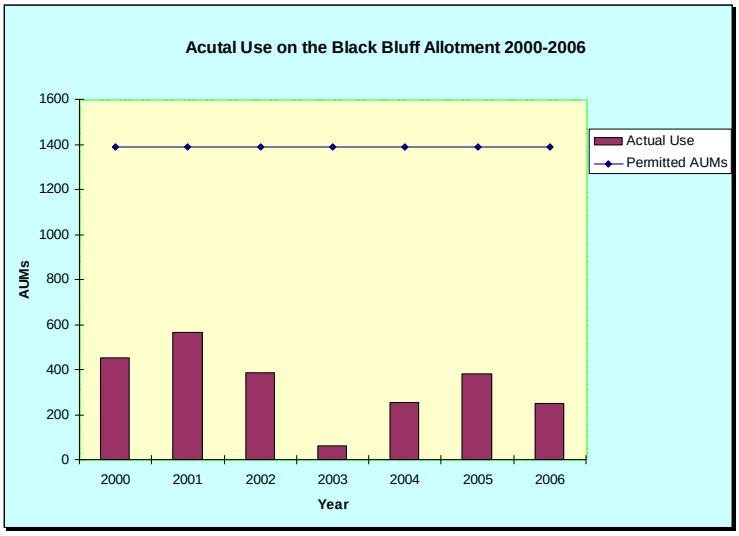
APPENDIX II

DATA ANALYSIS – BLACK BLUFF ALLOTMENT

Grazing authorizations were examined for the permittee for grazing years 2000-2006.

Permittee	Allotment	Year	Period of Use	Permitted Use (AUMs)	Actual Use	Non-Use (AUMs)
Higbee Bros.	Black Bluff	2000	9/1-5/16	101	95	6
Varlin Higbee	Black Bluff	2000	9/1-5/16	744	0	744
Nolan Shumway	Black Bluff	2000	9/1-5/16	85	85	0
Charles Wadsworth	Black Bluff	2000	9/1-5/16	456	271	185
Higbee Bros.	Black Bluff	2001	9/1-5/16	101	41	60
Varlin Higbee	Black Bluff	2001	9/1-5/16	744	0	744
Nolan Shumway	Black Bluff	2001	9/1-5/16	85	85	0
Charles Wadsworth	Black Bluff	2001	9/1-5/16	456	441	15
Higbee Bros.	Black Bluff	2002	9/1-5/16	101	65	36
Varlin Higbee	Black Bluff	2002	9/1-5/16	744	187	557
Nolan Shumway	Black Bluff	2002	9/1-5/16	85	0	85
Charles Wadsworth	Black Bluff	2002	9/1-5/16	456	135	321
Higbee Bros.	Black Bluff	2003	9/1-5/16	101	0	101

Varlin Higbee	Black Bluff	2003	9/1-5/16	744	59	685
Nolan Shumway	Black Bluff	2003	9/1-5/16	85	0	85
Charles Wadsworth	Black Bluff	2003	9/1-5/16	456	0	456
Higbee Bros.	Black Bluff	2004	9/1-5/16	101	50	51
Varlin Higbee	Black Bluff	2004	9/1-5/16	744	206	538
Nolan Shumway	Black Bluff	2004	9/1-5/16	85	0	85
Charles Wadsworth	Black Bluff	2004	9/1-5/16	456	0	456
Higbee Bros.	Black Bluff	2005	9/1-5/16	101	0	101
Varlin Higbee	Black Bluff	2005	9/1-5/16	744	379	365
Nolan Shumway	Black Bluff	2005	9/1-5/16	85	0	85
Charles Wadsworth	Black Bluff	2005	9/1-5/16	456	0	456
Higbee Bros.	Black Bluff	2006	9/1-5/16	101	0	101
Varlin Higbee	Black Bluff	2006	9/1-5/16	744	250	494
Nolan Shumway	Black Bluff	2006	9/1-5/16	85	0	85
Charles Wadsworth	Black Bluff	2006	9/1-5/16	456	0	456



Line Intercept Cover

Cover data was collected in 2008 at the key areas.

Current resource conditions related to the upland sites standard.

LINE INTERCEPT COVER DATA ANALYSIS*

KEY AREA INFORMATION		SPECIES	COMPOSITION BY SPECIES BASED ON % COVER
STUDY SITE 1		Spiny menodora	39%
Range site: 029XY016NV		Ephedra	36%
Desirable Cover For Site:20%-30%		Rabbit Brush	25%
Percent Cover Measured 2008: **23.6%**			
		Forbs	Present
COVER BY GROUPS			
SHRUBS	100		
GRASSES	0		
FORBS	0		
STUDY SITE 2			
Range site: 029XY020NV		Winterfat	85%
Desirable Cover For Site: 10%-20%		Fourwing	15%
Percent Cover Measured 2008: **9%**		Budsage	1%
		Forbs	Present
COVER BY GROUPS			

SHRUBS	100		
GRASSES			
FORBS	Trace		

Key Area	Percent Cover	Species Composition Based on Cover		
		Shrubs	Grasses	Forbs
Study Site 1	23.6%	100%	0%	T%
Study Site 2	9%	100%	0%	T%

Utilization January 2008

Study Site 1	Key Forage Plant/% Utilized	Key Forage Plant/% Utilized	Key Forage Plant/% Utilized
1	Spiney Menadora/9%	Ephedra/22%	
2	Fourwing Saltbush/55%	Winterfat/40%	Budsage/15%

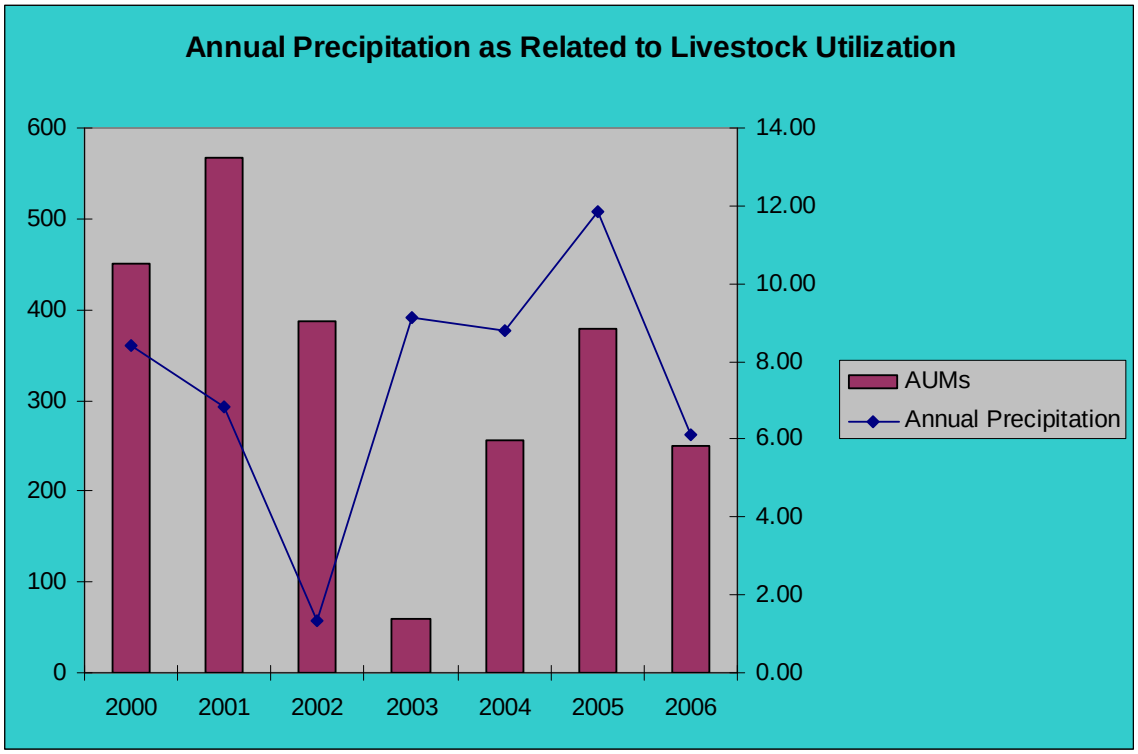
Utilization was last measured using the key forage plant method in January of 2008. The livestock had been or where in the process of being removed by the permittees as the monitoring was taking place. Overall use levels for the vast majority of the allotment that has been measured over the previous years shows light to moderate utilization across the upper benches of the allotment with little to no use along the west side of the seamen range. The majority of the use takes place along the Winterfat bottoms where utilization has been heavy with no rest during the critical growing season.

Rapid Riparian Assessment

There are no lotic or lentic systems within the Black Bluff Allotment.

Precipitation Data

The precipitation data comes from the raincan on the Sand Springs Allotment (directly south of the South Coal Valley Allotment). Data is collected monthly (whenever possible) by the staff of the Caliente BLM Field Station.



Frequency Trend

Trend for Study Site 1 shows to be downward; this is partially due to constant grazing during the critical growing season with no rest rotation on the allotment. Also, livestock use was quiet high during 2001 and 2002 which was years of drought for that area.

Trend for Key Area #2 is showing a downward trend. This is also partially due to livestock grazing. Grazing during the critical growing season is detrimental to Winterfat and other cool season species where there is no rest rotation system in place.

APPENDIX III

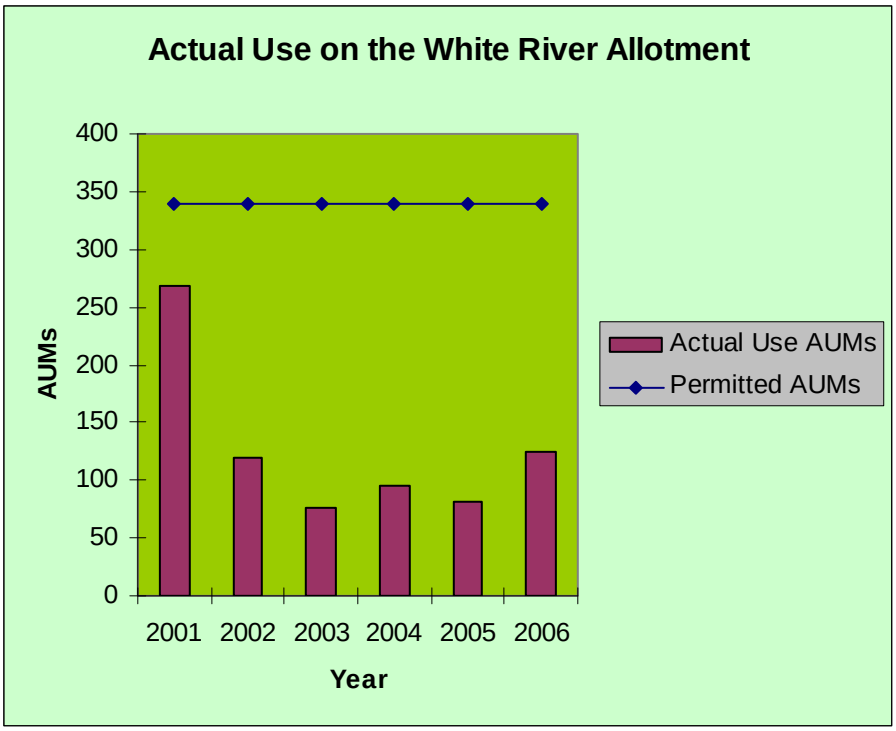
DATA ANALYSIS – WHITE RIVER ALLOTMENT

Grazing authorizations were examined for the permittee for grazing years 2001-2006.

White River Actual Use

Permittee	Allotment	Year	Period of Use	Permitted Use (AUMs)	Actual Use	Non-Use (AUMs)

Higbee Brothers	White River	2001	10/1-5/15	340	269	71
Higbee Brothers	White River	2002	10/1-5/15	340	120	220
Higbee Brothers	White River	2003	10/1-5/15	340	77	263
Higbee Brothers	White River	2004	10/1-5/15	340	95	245
Higbee Brothers	White River	2005	10/1-5/15	340	82	258
Higbee Brothers	White River	2006	10/1-5/15	340	125	215



Line Intercept Cover

Cover data was collected in 2008 at the key areas.

Current resource conditions related to the upland sites standard.

LINE INTERCEPT COVER DATA ANALYSIS*

KEY AREA INFORMATION		SPECIES	COMPOSITION BY SPECIES BASED ON % COVER
KMA 1		Winterfat	98%
Range site: 029XY020NV		Bud Sage	T
Desirable Cover For Site:10%-20%		Fourwing	1%
Percent Cover Measured 2008: **2.89%**			
		Forbs	Present
COVER BY GROUPS			
SHRUBS	100		
GRASSES	0		
FORBS	0		
STUDY SITE 2			
Range site: 029XY016NV		Spiny menodora	8%
Desirable Cover For Site: 20%-30%		Ephedra	57%

Percent Cover Measured 2008: **13.62%**		Spiny Hopsage	6%
		Fourwing	9%
		Sagebrush	18%
COVER BY GROUPS		Squirrel Tail	3%
SHRUBS	97%		
GRASSES	3%		
FORBS	Trace		

Key Area	Percent Cover	Species Composition Based on Cover		
		Shrubs	Grasses	Forbs
KMA 1	2.89%	100%	0%	T%
KMA 2	13.62%	97%	3%	T%

Utilization

KMA 1	Key Forage Plant/% Utilized	Key Forage Plant/% Utilized	Key Forage Plant/% Utilized
1	Winterfat/12%		
2	Fourwing Saltbush/32%	Ephedra/22%	Squirreltail/18%

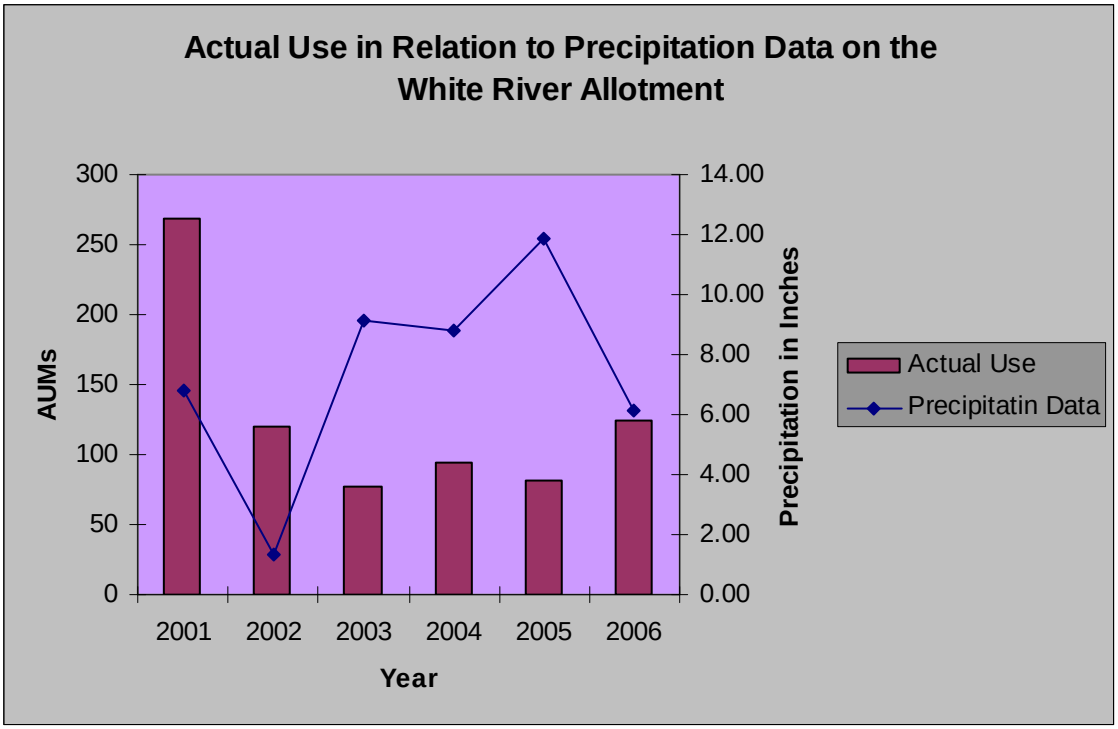
Utilization was last measured using the key forage plant method in January of 2008. Utilization on Winterfat at KMA 1 was minimal due to reduced livestock use the previous year. Most of the livestock concentration was in the upper west pasture. Wildlife use on the allotment is evident all over. Overall use levels for the vast majority of the allotment that has been measured over the previous years shows light to moderate utilization across the upper benches of the allotment. The majority of the use takes place along the Winterfat bottoms where utilization has been heavy with no rest during the critical growing season.

Rapid Riparian Assessment

There are no lotic or lentic systems within the White River Allotment.

Precipitation Data

The precipitation data comes from the raincan on the Sand Springs Allotment (directly south of the South Coal Valley Allotment). Data is collected monthly (whenever possible) by the staff of the Caliente BLM Field Station.



Frequency Trend

Based on professional observations and previous monitoring data the trend for Key Area 1 shows to be downward; this is due to constant grazing during the critical growing season with no rest rotation on the allotment combined with drought conditions. Also, livestock use was quiet high during 2001 and 2002 which was years of drought for that area.

Trend for Key Area #2 is showing a downward trend. This is also partially due to livestock grazing combined with drought conditions. Grazing during the critical growing season is detrimental to Indian ricegrass and other cool season species where there is no rest rotation system in place.

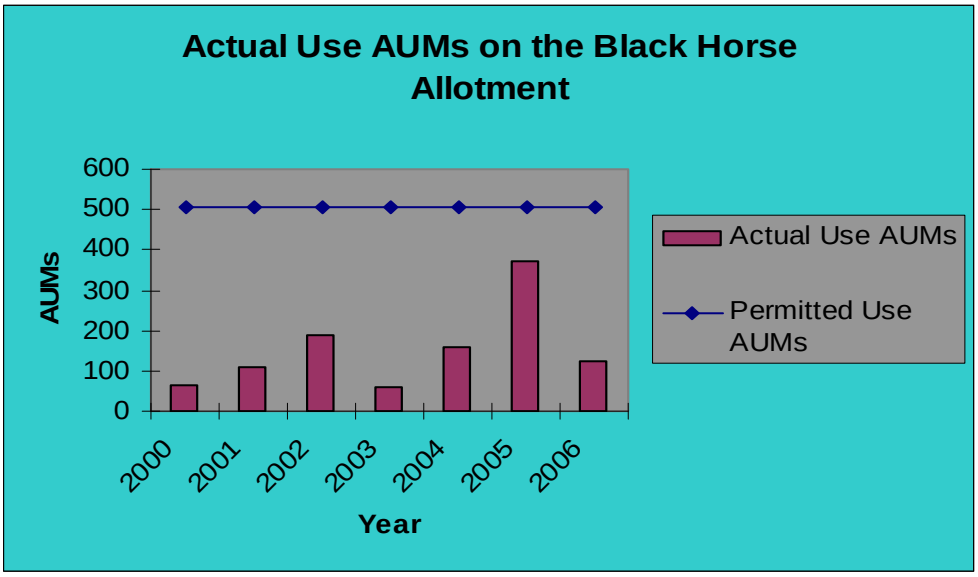
APPENDIX IV

DATA ANALYSIS – BLACK HORSE ALLOTMENT

Grazing authorizations were examined for the permittee for grazing years 2000-2006. The licensed use ranged from 120 to 1,555 AUMs during the period. Reduced grazing use occurred due to both BLM and permittee initiative.

Permittee	Allotment	Year	Period of Use	Permitted Use (AUMs)	Actual Use	Non-Use (AUMs)
Higbee Bros.	Black Horse	2000	10/1-5/15	264	65	199
Varlin Higbee	Black Horse	2000	3/1-2/28	240	0	240
Higbee Bros.	Black Horse	2001	10/1-5/15	264	79	185
Varlin Higbee	Black Horse	2001	3/1-2/28	240	31	209
Higbee Bros.	Black Horse	2002	10/1-5/15	264	65	199
Varlin Higbee	Black Horse	2002	3/1-2/28	240	121	119
Higbee Bros.	Black Horse	2003	10/1-5/15	264	31	233
Varlin Higbee	Black Horse	2003	3/1-2/28	240	27	213
Higbee Bros.	Black Horse	2004	10/1-5/15	264	36	228
Varlin Higbee	Black Horse	2004	3/1-2/28	240	122	118
Higbee Bros.	Black Horse	2005	10/1-5/15	264	187	77

Varlin Higbee	Black Horse	2005	3/1-2/28	240	183	57
Higbee Bros.	Black Horse	2006	10/1-5/15	264	0	264
Varlin Higbee	Black Horse	2006	3/1-2/28	240	125	115



Line Intercept Cover

Cover data was collected in 2008 at the key areas.

Current resource conditions related to the upland sites standard.

LINE INTERCEPT COVER DATA ANALYSIS*

KEY AREA INFORMATION		SPECIES	COMPOSITION BY SPECIES BASED ON % COVER
KEY AREA 1		Ephedra	34%
Range site: 029XY009NV		Wyoming sagebrush	64%
Desirable Cover For Site:15-25%		Bottle Squirreltail	2%
Percent Cover Measured 2008: **14.95%**			
COVER BY GROUPS			
SHRUBS	98		

GRASSES	2		
FORBS	T		
KEY AREA 2			
Range site: 029XY006NV		Ephedra	56%
Desirable Cover For Site: 15%-25%		Indian ricegrass	1%
Percent Cover Measured 2008: **15.33%**		Bottle Squirreltail	5%
		Small galleta	24%
		Rabbitbrush	13%
COVER BY GROUPS		Forbs	Present
SHRUBS	69	Cliffrose	Present
GRASSES	30	Wyoming sagebrush	Present
FORBS	1		
KEY AREA INFORMATION		SPECIES	COMPOSITION BY SPECIES BASED ON % COVER
KEY AREA 3		Black sagebrush	62%
Range site: 029XY015NV		Rabbitbrush	13%
Desirable Cover For Site: 3%-15%		Ephedra	15%
Percent Cover Measured 2008: **14.82%**		Bottlebrush squirreltail	1%
		Small galleta	9%
		Indian ricegrass	Trace
		Wyoming sagebrush	Trace
		Blue flax	Trace
COVER BY GROUPS			
SHRUBS	88		
GRASSES	10		
FORBS	2		

Key Area	**Percent Cover**	**Species Composition Based on Cover**		
		Shrubs	**Grasses**	**Forbs**
KMA-1	14.95%	98%	2%	T%
KMA-2	15.33%	69%	30%	1%
KMA-3	14.82%	88%	10%	2%

Utilization February 2008

KMA 1	Key Forage Plant/% Utilized	Key Forage Plant/% Utilized	Key Forage Plant/% Utilized
1	Squirreltail/7%		
2	Indian ricegrass/32%	Ephedra/18%	Squirreltail/26%

Utilization was last measured using the key forage plant method in March of 2008. Livestock were actively grazing during the time the monitoring took place. Overall use levels for the vast majority of the allotment that has been measured over the past years shows light to moderate utilization across the allotment. The majority of the use takes place along the east/west benches off of the sodic bottoms within the neighboring Black Bluff and South Coal Valley Allotments.

Ecological Condition

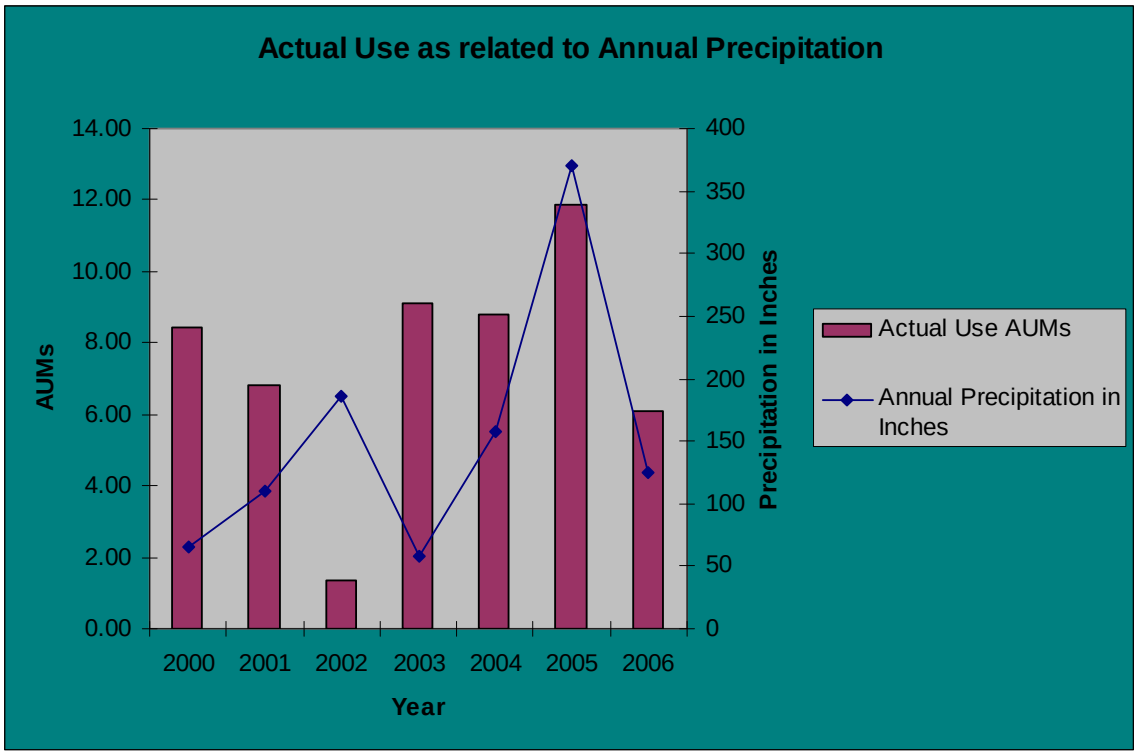
Ecological condition has not been done on the Black Horse Allotment.

Rapid Riparian Assessment

There are no lotic systems within the Black Horse Allotment and one lentic system at an un-named spring. The spring is a fully developed range improvement and therefore will not have PFC conducted on it.

Precipitation Data

The precipitation data comes from the raincan on the Sand Springs Allotment (directly south of the Black Horse Allotment). Data is collected monthly by the staff of the Caliente BLM Field Station.



Frequency Trend

No frequency or Trend data exists for the Black Horse Allotment. This allotment did not come into existence until the sighing of the Seaman Final Multiple Use Decision in 1998. Prior to the FMUD the area was part of the Seaman use area.

APPENDIX V

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Term Grazing Permit Renewal for Higbee Brothers and Nolan Shumway
For the
South Coal Valley, Black Bluff, White River & Black Horse Allotments
Lincoln County, Nevada

On February 21st, 2008 a Noxious & Invasive Weed Risk Assessment was completed for the term grazing permit renewal for Higbee Brothers on the South Coal Valley, Black Bluff, White River, and Black Horse allotments in Lincoln County, NV. The proposal is to fully process the renewal of the grazing permit for Higbee Brothers on the South Coal Valley Allotment (10120), Black Bluff (10122), White River (11009) and Black Horse Allotments (10123). The permit licenses Higbee Brothers to graze up to 14 cows from 03/01-5/15 and 9/1-2/28 for a total of 118 active animal unit months (AUM) of use on the South Coal Valley Allotment. The Black Bluff Allotment has a use period of 3/1-5/15 and 9/1-2/28 for 12 cattle for a total active AUMs of 101. The Black Horse Allotment has a use period of 3/1-2/28 for 22 cattle for a total active use of 264 AUMs. The White River Allotment has a use period of 3/1-5/15 and 10/1-2/28 for 67 cattle for a total active use of 500AUMs. The issuance of the term permit would be for a period of 10 years. The allotments are located 45 miles west of Caliente, Nevada in White River and Coal Valley. The South Coal Valley Allotment encompasses 46,702 acres the Black Bluff Allotment encompasses 33,176 acres, the White River Allotment encompasses 7,607 acres and Black Horse Allotment encompasses 15,399 acres of BLM managed lands.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. There are currently known documented weed infestations within the South Coal Valley or Black Horse allotments. The following species are found within the boundaries of the White River and Black Bluff allotments:

Tamarix spp.	Salt cedar
Centaurea stoebe	Spotted knapweed

The following species are found along roads and drainages leading to the allotments:

Acroptilon repens	Russian knapweed
Cirsium vulgare	Bull thistle
Centaurea stoebe	Spotted knapweed
Lepidium draba	Hoary cress

Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

All of the allotments were last inventoried for noxious weeds in 2007. While not officially documented the following non-native invasive weeds probably occur in or around the allotment: cheatgrass (*Bromus tectorum*), red brome (Bromus rubens), halogeton (*Halogeton glomerus*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the factor rates as Low (3) at the present time. The proposed action could aid in the introduction of weeds from surrounding areas. However, given the species of weeds in the area and the distance of the infestations the likelihood of new infestations is low. Within the allotment, watering and salt block sites are of particular concern of new weed infestations due to the concentration of livestock around those sites and the amount of ground disturbance associated with that.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as High (8) at the present time. If new weed infestations establish within the allotment this could have an adverse impact those native plant communities since the allotment is currently considered to be mostly weed-free. Also, any increase of cheatgrass could alter the fire regime in the area.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of

	introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (24). This indicates that the project can proceed as planned as long as the following measures are followed:

- Prior to entering public lands, the BLM will provide information regarding noxious weed management and identification to the permit holders affiliated with the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.
- The range specialist for the allotments will include weed detection into project compliance inspection activities. If the spread of noxious weeds is noted, appropriated weed control procedures will be determined in consultation with BLM personnel and will be in compliance with the appropriate BLM handbook sections and applicable laws and regulations.
- To eliminate the introduction of noxious weed seeds, roots, or rhizomes all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for feed or bedding will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely Field Office.
- Grazing will be conducted in compliance with the Ely District BLM noxious weed schedules. The scheduled procedures can significantly and effectively reduce noxious weed spread or introduction into the project area.
- Any newly established populations of noxious/invasive weeds discovered will be communicated to the Ely District Noxious and Invasive Weeds Coordinator for treatment.

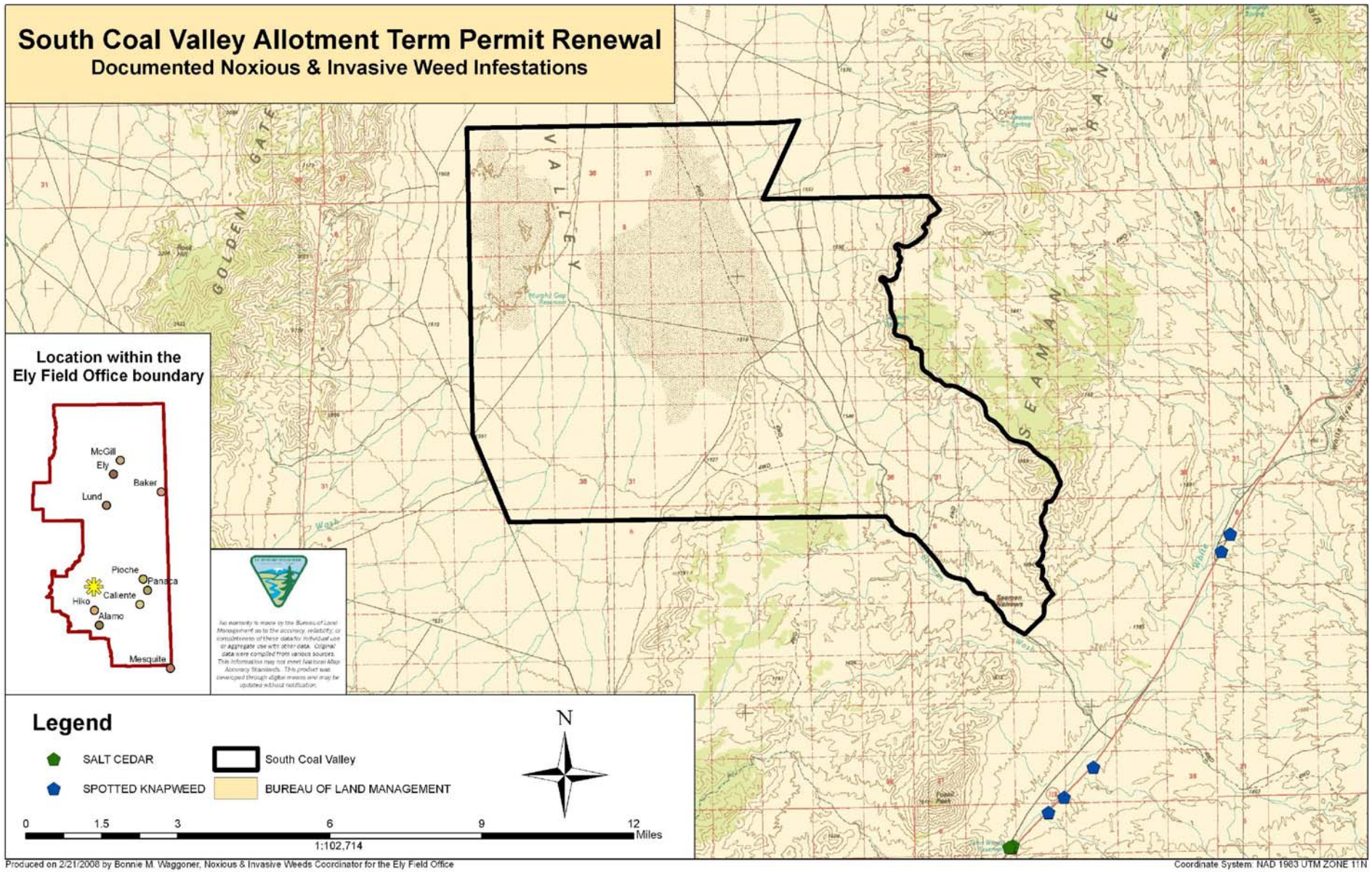
Reviewed by: _____ 2/21/2008

Bonnie Waggoner — Date

Ely District Noxious & Invasive Weeds Coordinator

South Coal Valley Allotment Term Permit Renewal

Documented Noxious & Invasive Weed Infestations



Produced on 2/21/2008 by Bonnie M. Waggoner, Noxious & Invasive Weeds Coordinator for the Ely Field Office

Coordinate System: NAD 1983 UTM ZONE 11N

Appendix VI

Detailed Summary of Public Comments Received in Response to Review of the Preliminary EA and How BLM Use Those Comments in Finalizing the EA.

As discussed in the EA (page 43), written comments were received from two individuals. The table below also summarizes how BLM used these comment in preparing the final environmental assessment.

No.	Commenter Name	Comment	BLM Response
1.	Katie Fite	Many of these areas are suffering serious invasive species spread - due to wildfire, grazing disturbance, Ely BLM¹s vegetation treatment disturbances, and combinations of the above.	Appendix V of the environmental analysis contains a noxious weed analysis for the allotments. Weed monitoring is ongoing for the allotments.
2	Katie Fite	A series of EIS¹s must be prepared here to fully address the direct, indirect, and cumulative effects of livestock grazing and livestock facilities on the soils, microbiotic crusts, native vegetation, risk of invasive species proliferation with continued disturbance,	We have already prepared EISs and the purpose of this document is to address new information and circumstances that have come about since the RODs were signed. There are several alternatives analyzed in the EISs.
3	Katie Fite	It**(BLM)** has been ignoring evaluation of a full range of alternatives, including alternatives with a range of significant reductions in livestock use and disturbance, and alternatives that protect important and sensitive species habitats.	We have already prepared EISs and the purpose of this document is to address new information and circumstances that have come about since the RODs were signed. There are several alternatives analyzed in the EISs.
4	Katie Fite	Please conduct a study of the current ³productivity²/forage production, carrying capacity, stocking	Flexibility and deviations in livestock numbers, areas of use and periods of use may

		rate and grazing suitability and of these lands - including during drought years. Please identify conflicts with Wilderness values, sensitive species, and other important uses of the pubic lands and develop alternatives to minimize or remove these conflicts caused by livestock.	be determined on a seasonal basis where such deviations are warranted. Authorization of deviation would not prevent attainment of shared goals, the multiple-use vegetative objectives and the standards for grazing administration. Wilderness valus, sensitive species, as well as other impacts to public lands are addressed within the EA.
5	Katie Fite	Please consider the full range of existing, proposed or foreseeable mining, wind, oil and gas, geothermal, utility corridor, water export/mining, agency vegetation ³treatment²	Past, current and future projects within the allotments for the term permit renewal are analyzed and discussed within the EA.
6	Katie Fite	Please consider cessation of domestic sheep grazing in any of the 40 lands where conflicts with bighorns exist or could be foreseeable. Please analyze reintroduction of bighorns to areas where habitat is unoccupied. Are any sheep permits here held by SNWA?	Domestic sheep grazing within Desert Bighorn habitat does not take place due to the threat of spread of disease. The allotments are not located within Desert Bighorn habitat.
7	Katie Fite	How many of these allotment permits and/or base properties are owned by SNWA, Whittemore or other developers/parties who seek to mine or export water?	None of the allotments are owned by the mentioned permittees
8	Katie Fite	In addition, please consider the full range of climate change/global warming processes and effects in this area, as described below.	Outside scope of this document.
9	Katie Fite	Streams are becoming increasingly intermittent due to chronic iivestock-caused degradation and desertification, as well as	There are no lotic systems within the allotments being discussed in this document.

		climate change.	
10	Sustainable Grazing Coalition	Page 8 through 11 – Tables 1 through 6; The information presented is good but the layout of the tables makes it very hard to compare current to proposed seasons of use and number of head. Maybe a side by side comparison would work better.	Due to information printed to present the changes to the permit. I feel that there is not enough page space to adequately present the material.
11	Sustainable Grazing Coalition	Page 10 – Table 5 – South Coal Valley livestock #; The figure of "67" does not match the figure of "14" cattle shown in Table 6. I am assuming this was a typo in Table 6 as the total of the season of use times 14 head does not total 566 AUMs.	Made adjustment to table 6 to accurately reflect permitted livestock numbers.
12	Sustainable Grazing Coalition	Page 15 - Noxious Weeds; Though I do not question the potential for occasional spread of weeds from grazing, recreational activities are known to be a far more efficient vector for weed spread than are animals.	It is agreed that invasive weed spread can be accelerated especially in a linear fashion due to recreation events. This document analyzes the effects of grazing. All coordinated recreation events are analyzed and weeds are mitigated in the permitting process.
13	Sustainable Grazing Coalition	Page 19 – Last paragraph; Kochia has now been changed to Bassia as per the USDA Plants Data Base http://plants.usda.gov .	Replaced Kochia with Bassia
14	Sustainable Grazing Coalition	Page 27 – The Sustainable Grazing Coalition is on the Ely District's list of interested parties for any actions effecting all grazing allotments in the Ely District. We are not included in the interested party list in this document. Contact information for us is attached.	I placed the coalition on the list of interested publics

15	Sustainable Grazing Coalition	Page 30 - Causal Factors; You indicated that standards were not met but there is no check as to whether livestock are or are not a causal factor. We would expect this to be unchecked if Standards were met. Which one of these two check options is in error, as the conclusion statement says standards are Achieved?	Checked other factors and made the statement uniform to read standards are not achieved but making significance progress towards meeting standards.