United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Egan Field Office
HC33 Box 33500 (702 N. Industrial Way)
Ely, Nevada 89301-9408
http://www.blm.gov/nv/st/en/fo/ely_field_office.html

SEP 30 2008

In Reply Refer to:
4130 (NV-043)

Dear Interested Public:

The Bureau of Land Management (BLM) Egan Field Office has completed a preliminary Environmental Assessment (EA NV-040-08-010) for Grazing Term Permit Renewals for Aaron Kesler (2703103), Herbert Stathes (2704455), and Sterling Wines (2704562) for the Cherry Creek Allotment (00403) and the Big Rock Seeding Allotment (00428); and for Turner & Irlbeck Ranch (2704541) for the Cherry Creek Allotment**.** The preliminary Environmental Assessment (EA) is being sent to you for solicitation of your comments and input. The preliminary EA is or will be posted on the Ely District Office web page at http://www.blm.gov/nv/st/en/fo/ely_field_office.html for a 15 day public comment period.

The preliminary EA addresses the impacts to the environment and public land resource values from a proposal to fully process the renewal of the term grazing permits for Aaron Kesler, Herbert Stathes, Sterling Wines, and Turner & Irlbeck Ranch authorize grazing for the Cherry Creek Allotment and/or the Big Rock Seeding Allotment. Next year, three additional term permit renewals will be addressed for the remaining permittees that are permitted on these allotments.

The Cherry Creek Allotment and the Big Rock Seeding Allotment encompasses approximately 153,107 public land acres and 1,862 public land acres, respectively. These allotments are common use allotments located approximately 40 miles north of Ely, Nevada within White Pine County. The Cherry Creek Allotment borders with Elko County, and the town of Cherry Creek is located within this allotment. The Cherry Creek Allotment has six permittees, and the Big Rock Seeding Allotment has four permittees.

The permit for Aaron Kesler expires February 28, 2009. The permits for Herbert Stathes and Turner & Irlbeck Ranch expire February 28, 2012. The permit for Sterling Wines expires February 28, 2010. The renewal of the term grazing permits for Aaron Kesler, Herbert Stathes, and Turner & Irlbeck Ranch would be for a period of ten years. The renewal of the term grazing permit for Sterling Wines would be for a period of two years due to the length of the permittee's lease that expires on February 28, 2010. Upon transfer or renewal of the lease, the subsequent term permit would be issued for the remaining eight years of the ten year term permit period.

The current term permit for Aaron Kesler authorizes 3,475 Animal Unit Months (AUMs) for Cherry Creek Allotment and 340 AUMs for the Big Rock Seeding Allotment. For the Cherry Creek Allotment, 2,276 AUMs are active, 565 are voluntary nonuse and 634

AUMs are suspended nonuse, with the current term permit authorizing approximately 227 head of cattle with a season of use from 05/01 to 02/28. For the Big Rock Seeding Allotment, 340 AUMs are active and 0 AUMs are suspended nonuse, with the current term permit authorizing approximately 136 head of cattle with a season of use from 05/01 to 07/15 on even numbered years, and approximately 57 head of cattle with a season of use from 09/01 to 2/28 on odd numbered years.

The current term permit for Herbert Stathes authorizes 1,325 Animal Unit Months (AUMs) for Cherry Creek Allotment and 77 AUMs for the Big Rock Seeding Allotment. For the Cherry Creek Allotment, 567 AUMs are active, 172 are voluntary nonuse, and 586 AUMs are suspended nonuse with the current term permit authorizing approximately 56 head of cattle with a season of use from 05/01 to 02/28. For the Big Rock Seeding Allotment, 77 AUMs are active and 0 AUMs are suspended nonuse, with the current term permit authorizing approximately 31 head of cattle with a season of use from 05/01 to 07/15 on even numbered years, and approximately 13 head of cattle with a season of use from 09/01 to 2/28 on odd numbered years.

The current term permit for Sterling Wines authorizes 1,140 Animal Unit Months (AUMs) for Cherry Creek Allotment and 62 AUMs for the Big Rock Seeding Allotment. For the Cherry Creek Allotment, 354 AUMs are active, 145 AUMs are voluntary nonuse, and 496 AUMs are suspended nonuse with the current term permit authorizing approximately 49 head of cattle with a season of use from 05/01 to 02/28. For the Big Rock Seeding Allotment, 62 AUMs are active and 0 AUMs are suspended nonuse, with the current term permit authorizing approximately 25 head of cattle with a season of use from 05/01 to 07/15 on even numbered years, and approximately 10 head of cattle from 09/01 to 2/28 on odd numbered years.

The current term permit for Turner & Irlbeck Ranch authorizes 1,600 Animal Unit Months (AUMs) for Cherry Creek Allotment. For the Cherry Creek Allotment, 1,177 AUMs are active, 423 are voluntary nonuse and 0 AUMs are suspended nonuse, with the current term permit authorizing approximately 160 head of cattle with a season of use from 05/01 to 02/28.

The proposed action is to renew the grazing permits without any fundamental changes to the current permits. Please review the preliminary EA and provide written comments or concerns **by October 14, 2008.**

Please address all comments to:
Mindy Seal, Rangeland Management Specialist (SCEP)
Bureau of Land Management
HC 33 Box 33500
Ely, Nevada 89301
Mindy_Seal@blm.gov

Please note, before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire

comment - including your 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.

Thank you for your cooperation. If you have any questions about this preliminary EA, please contact Mindy Seal, Rangeland Management Specialist (SCEP) on the Egan Field Office staff, at 775-289-1944.

Sincerely,

/s/Chris Mayer

for Jeffrey A. Weeks
Field Manager
Egan Field Office

1 Enclosure – Preliminary EA with appendices

cc: Interested Publics Mailing List

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

Preliminary Environmental Assessment NV-043-08-012
September 29, 2008

Term Grazing Permit Renewals for Aaron Kesler (2703103), Herbert Stathes (2704455), and Sterling Wines (2704562) for the Cherry Creek Allotment (00403) and the Big Rock Seeding Allotment (00428) and for Turner & Irlbeck Ranch (2704541) for the Cherry Creek(00403) Allotment

Location: Ely, Nevada
Project Lead: Mindy Seal

U.S. Department of the Interior
Bureau of Land Management
Ely District Office
Egan Field Office
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I. INTRODUCTION

A. Background

This environmental assessment (EA) addresses the impacts to Bureau of Land Management (BLM) administered public land resources through the renewal of the term grazing permits for Aaron Kesler (2703103), Herbert Stathes (2704455), and Sterling Wines (2704562) for the Cherry Creek Allotment (00403) and the Big Rock Seeding Allotment (00428); and for Turner & Irlbeck Ranch (2704541) for the Cherry Creek Allotment**.** It is tiered to and incorporates by reference the Ely District Record of Decision and Approved Resource Management Plan signed on August 20, 2008., which disclosed the cumulative impacts of grazing actions on the Ely District. The proposed is in conformance with the Ely District Record of Decision and Approved Resource Management Plan. The proposed action implements livestock management decision LG-5 (p.87 ROD). 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.

The Cherry Creek Allotment has six permittees, and the Big Rock Seeding Allotment has four permittees. This EA addresses the impacts to BLM administered public land resources through the renewal of the term grazing permits for Aaron Kesler, Herbert Stathes, and Sterling Wines for the Cherry Creek Allotment and the Big Rock Seeding Allotment; and for Turner & Irlbeck Ranch for the Cherry Creek Allotment**.** Next year, three additional term permit renewals will be addressed for the remaining permittees that are permitted on these allotments. These would be considered following the completion of standards determination documents for additional allotments that are part of these three remaining permittees' grazing permits.

A Final Multiple Use Decision (FMUD) was issued for the Cherry Creek Allotment on July 20, 2001, as well as for two neighboring allotments, the Goshute Basin Allotment and the Indian Creek Allotment. This decision carried forth the management actions and adjustments to permitted use identified in the livestock grazing agreements on these allotments. The Final Multiple Use Decision was based upon the evaluation of monitoring data, recommendations from district staff, and input received through consultation, coordination, and cooperation from the permittee and public interest groups to determine progress in meeting management objectives for each allotment. Based on these decisions, range management actions were implemented to meet the land use plan objectives as stipulated in the Egan Resource Area Record of Decision. Also as a result of the FMUD, five of the six permittees signed agreements to take voluntary nonuse on the native portion of Cherry Creek Allotment to help progress in meeting management objectives. The remaining permittee agreed to take voluntary non use following a "Stipulation to Modify Decision (FMUD) and to Dismiss Appeal". In addition, this stipulation resulted in an exchange agreement of AUMs located in native and the South Egan Seeding between two of the permittees. A five year evaluation as follow up to the FMUD was also completed. All of these documents were reviewed and taken in to consideration along with the analysis of current data.

A Management Action Selection Report (MASR) was completed for Big Rock Seeding Allotment on December 20, 1990. Based on analysis of monitoring studies for this allotment, all of the land use plan objectives identified had been met with current management practices. Based on this data, no grazing adjustments were necessary at that time, so no decision was required. A Third Year Re-evaluation Summary was also complete for this allotment in 1993. Both of these documents were reviewed and taken in to consideration along with the analysis of present data.

The term grazing permit renewals under consideration authorize cattle use for the Cherry Creek Allotment and the Big Rock Seeding Allotment (see Figures I and II, general location maps). The Cherry Creek Allotment is a common use cattle allotment with a grazing permitted use of 8,578 Animal Unit Months (AUMs). Of these 5,293 AUMs are active, 1,569 AUMs are voluntary nonuse, and 1,716 are suspended nonuse. The Big Rock Seeding Allotment is also a common use cattle allotment with a grazing permitted use of 621 Animal Unit Months (AUMs). Of these 612 AUMs are active and 0 AUMs are suspended nonuse. The permit for Aaron Kesler expires February 28, 2009. The permits for Herbert Stathes and Turner & Irlbeck Ranch expire February 28, 2012. The permit for Sterling Wines expires February 28, 2010.

Standards and Guidelines for Grazing Administration were developed by the Northeastern Great Basin Resource Advisory Council (RAC) and approved by the Secretary of the Interior on February 12, 1997.

Monitoring data was reviewed and assessments of the rangeland health of each allotment were completed during the permit renewal process through the Standards Determination Document for Cherry Creek Allotment and Big Rock Seeding Allotment (Appendix I).

Conclusions of the Standards Determination Document:

Cherry Creek Allotment

Standard 1. Upland Sites are not achieving the Standard, but making significant progress towards. Livestock are not a contributing factor to not achieving the Standard, failure to meet the standard is related to other issues or conditions.

Rangeland monitoring and professional observation indicates that overall soil condition is currently being maintained. Soils are stable and productive and the topsoil is holding in place. Most key areas are meeting the vegetative cover appropriate to the corresponding ecological site with four key areas having increased cover over the last ten years to meet the appropriate amount cover for their ecological sites. Two key areas have decreased cover over the last ten years and are not meeting the appropriate amount of cover for their ecological site. Current cattle grazing is not attributed to the declining cover. Both sites had appropriate cover in 1998, so lower precipitation may be a factor in the decline of vegetative cover. Halogeton (*Halogeton glomeratus*) has also increased at both sites. Data collected for the remaining key areas demonstrates that cover is appropriate to the corresponding ecological site (Appendix II, Table 3-1).

Standard 2. Riparian and Wetland Sites are not achieving the Standard, but making significant progress towards. Livestock are a contributing factor to not achieving the Standard, failure to meet the standard is also related to other issues or conditions.

Cherry Creek has a variety of riparian areas. There are both lotic (stream) and lentic (spring/seep) riparian systems within the allotment. The three lotic systems that have been monitored in the allotment include Duck Creek, Egan Creek, and Goshute Creek. The lowland riparian area is commonly referred to as "the slough" and consists mainly of wet meadow, saline bottom, and saline meadow range sites. There are many springs and seeps in the allotment both in the lowlands and the uplands.

Riparian Areas Improving: The upper portion of Goshute Creek was found to be in proper functioning condition in 2005, while the lower portion was found to be non-functional with an incised, gravelly, fairly straight channel with a high velocity flow, similar to a ditch and lacking riparian characteristics. Egan Creek was found to be in proper functioning condition in August 2005. In 2005, three springs analyzed in the Goshute Seeding had improved from functional at risk to proper functioning condition. A cluster of small springs/seeps located south of the Green Ranch were also analyzed. Four were rated proper functioning condition in 1995. Data for the remaining springs demonstrated that the springs were functional at risk to nonfunctional in 1995. In 2005, two of these springs showed improvement with a rating of proper functioning condition.

Riparian Areas Not Improving: In 1998, Duck Creek flowed north of the Schellbourne Road for 0.75 miles. At that time, 5.5 miles of creek riparian were found to be in proper functioning condition. Livestock use was found to be light throughout the Duck Creek lowland riparian areas. The survey in 1998 was conducted during a very wet year. This led to extended stream flow and better than normal livestock distribution on wetland areas. In 2005, Duck Creek and associated wetlands were found to be in proper functioning condition for the first four miles, beginning at the southern allotment boundary and flowing north. This was the distance water occurred in the stream channel. Water was not flowing in the creek channel for approximately the next two miles, to Schellbourne Road. This two mile portion of the creek was found to be functioning at risk with some undercutting and bare banks observed and local heavy livestock utilization noted. Both 2005 and 1998 received about the same amount of precipitation, however lack of precipitation may also be a factor since the amount of precipitation received over the period of time between the two studies has declined (see Appendix II, Chart 7-1).

Standard 3. Habitat is not achieving the Standard, but making significant progress towards. Livestock are not a contributing factor to not achieving the Standard, failure to meet the standard is related to other issues or conditions.

Rangeland monitoring shows habitat conditions throughout a large portion of the allotment exhibit a healthy, and productive, plant community that is progressing toward providing suitable habitat for wildlife and maintaining ecological processes. Key areas located in the slough, including those in saline meadow and the wet clay basin, indicate that plant diversity is good to excellent and that these areas are improving. The Overland

Burn located in the Cherry Creek Range also has good plant diversity with a variety of upland shrubs and grasses including serviceberry (*Amelanchier* Medik.), elderberry (*Sambucus* L.), and basin wild rye (*Leymus cinereus)*.

Rangeland monitoring does indicate that several areas on the allotment are not exhibiting a healthy, and productive, plant community and are not progressing toward providing suitable habitat for wildlife and maintaining ecological processes. Three upland key areas have had increasing shrub densities over the past ten years. During this same ten year period upland key area CC-04 has had shrub densities decrease with primarily halogeton invading the area. In all of these areas the herbaceous understory is declining. Utilization by cattle at these key areas has been mostly light to moderate except for CC-14 which had heavy utilization in 2003 (see Appendix II, Table . Also, CC-08 showed heavy utilization, which was attributed to wild horses, not cattle. Precipitation data since 1981 shows an overall decline in precipitation, but whether this is a factor in why these areas are seeing increases in shrub densities has not been determined. It has been determined that the increase in shrub densities is not attributed to current livestock grazing, since utilization levels range primarily from slight to moderate.

Big Rock Seeding Allotment

Standard 1. Upland Sites standard is achieved.

Rangeland monitoring and professional observation indicates that overall soil condition is currently being maintained. Soils are stable and productive and the topsoil is holding in place. Line intercept cover studies have been conducted at the five key areas within the allotment. Appendix III, Table 3-1 summarizes data collected at these five key areas. A well dispersed accumulation of litter is present at each key area from past years' growth with cover being very adequate to support functioning soil conditions.

Standard 2. Riparian and Wetland Sites standard was not accessed.

There are five natural springs and one developed spring on the Big Rock Seeding Allotment on public land. All six of these springs are located above 6, 800 feet in steeper terrain dominated by pinion juniper woodlands. Due to these factors, none of these springs are accessed by cattle. Proper functioning condition to evaluate riparian health and functionality has not yet been determined for these springs. The one developed spring has water piped to a trough at a lower elevation to water livestock.

Standard 3. Habitat standard is achieved.

Rangeland monitoring show habitat conditions overall exhibit a healthy, and productive, plant community that is progressing toward providing suitable habitat for wildlife and maintaining ecological processes over the majority of the allotment. Vegetative structure and distribution is appropriate for this crested wheatgrass seeding. Although shrub densities are increasing, the crested wheatgrass is maintaining good vigor and this grass species is able to handle the grazing pressure, especially during the critical growing season.

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 permits for Aaron Kesler, Herbert Stathes, and Sterling Wines for the Cherry Creek Allotment and the Big Rock Seeding Allotment; and for Turner & Irlbeck for the Cherry Creek Allotment with terms and conditions for grazing use that conform to Guidelines and achieve the Standards for Nevada's Northeastern Great Basin Area in accordance with all applicable laws, regulations, and policies and in accordance with Title 43 of the Code of Federal Regulations (CFR) at 4130.2(a) effective March 24, 1995, 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."

C. Relationship to Planning

The proposed action is consistent with Federal, State, and local plans to the maximum extent possible. The proposed is in conformance with the Ely District Record of Decision and Approved Resource Management Plan dated August 2008 and signed August 20, 2008. The proposed action implements livestock management decision LG-5 (p.87 ROD). The proposed action has been analyzed within the scope of other relevant plans and is in compliance with statues, regulations, and executive orders listed below:

- State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada State Historic Preservation Office (1999)
- Northeastern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (February 12, 1997).
- White Pine County Elk Management Plan approved March 1999
- White Pine County Public Lands Policy Plan (2007)
- 1973 Endangered Species Act
- 1964 Wilderness Act
- Pam White Wilderness Act of 2006
- Migratory Bird Treaty Act (1918 as amended) and Executive Order 13186 (1/11/01).

D. Relationship to Bureau Guidance

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

- BLM Manual H-4180-1, Land Health Standards
- 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

Complies with Washington Office Instruction Memorandum No. 2008-050 (Policy on Migratory Birds).

E. Identification of Issues

The permit renewal proposal was scoped internally by resource specialists on April 9, 2008 at the Ely BLM District Office. No issues were identified at that time. The Standard Determination Document revealed that the Standards for the Cherry Creek Allotment were not achieved and the Standards for the Big Rock Seeding Allotment were achieved. The public will be afforded the opportunity to provide comments on this preliminary EA.

II. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

The BLM would fully process and issue term grazing permits for Aaron Kesler, Herbert Stathes, and Sterling Wines for the Cherry Creek Allotment and the Big Rock Seeding Allotment; and for Turner & Irlbeck Ranch for the Cherry Creek Allotment**.** Management actions identified and implemented through agreement with the permittees in 2002 will continue. These include continuing the voluntary nonuse of 1,569 AUMS, deferring grazing during the critical spring growing period from March 1 to April 30, and continuing to implement the rest rotation system for the two Goshute Seeding pastures. This is necessary for the Cherry Creek Allotment to continue to progress toward achieving the three Standards. The current permitted grazing schedule for each of the four permittees is shown in Tables 1 - 4. The proposal is to have these grazing schedules remain the same as they are currently being implemented under the current agreements. The agreements that initially implemented these management actions will expire in 2011 and are included in the current grazing permits. As part of the proposed action these implemented management actions would be carried forward as part of the renewed grazing permits. The renewal of the term grazing permits for Aaron Kesler, Herbert Stathes, and Turner & Irlbeck Ranch would be for a period of ten years. The renewal of the term grazing permit for Sterling Wines would be for a period of two years due to the length of the permittee's lease that expires on February 28, 2010. Upon transfer or renewal of the lease, the subsequent term permit would be issued for the remaining eight years of the ten year term permit period. However, to comply with the stipulations of the agreements, an evaluation will be completed in 2011, at which time these term permits may or may not be issued with changes, based on the need for new terms and conditions.

For the Cherry Creek Allotment the seasons of use are recommended to remain May 1 to February 28 with the Active AUMs remaining at 5,293 Active AUMs and 1,569 AUMS remaining in voluntary nonuse. It is recommended for the Big Rock Seeding Allotment to continue with the spring/fall rotation grazing system with seasons of use recommended to remain May 1 to July 15 on even numbered years and September 1 to February 28 on odd numbered years. The Active AUMs are recommended to remain at 621 AUMS.

Table 1. Current Term Permit for Aaron Kesler (#2703103)

Allotment Name and Number	Pasture Name	Livestock Number/ Kind	Grazing Period Begin - End	% Public Land*	Type Use	AUMs **
Cherry Creek (00403)	Native	170 Cattle	05/01-02/28	100	Active	1,702
	North Egan Seeding	41 Cattle	05/01-02/28	100	Active	400
	West Goshute Seeding	10 Cattle	05/01-02/28	100	Active	108
	East Goshute Seeding	43 Cattle	05/01-06-15 (odd years)	100	Active	65
		11 Cattle	09/01-02/28 (even years)			65
Big Rock Seeding (00428)		136 Cattle	05/01-07/15 (even years)	100	Active	340
		57 Cattle	09/01-02/28 (odd years)			339

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

Allotment AUMs Summary

Allotment and Pasture	Active AUMs	Voluntary Nonuse AUMs	Suspended AUMs	Total AUMs
Total for Cherry Creek	**2,276**	**565**	**634**	**3,475**
Native Range	1,702	565	634	2,901
North Egan Seeding	400	0	0	400
West Goshute Seeding	108	0	0	108
East Goshute Seeding	66	0	0	0
Total for Big Rock Seeding	**340**		**0**	**340**

Table 2. Current Term Permit for Herbert Stathes (2704455)

Allotment Name and Number	Pasture Name	Livestock Number/Kind	Grazing Period Begin - End	% Public Land*	Type Use	AUMs**
Cherry Creek	Native	8 Cattle	05/01-02/28	100	Active	80

(00403)	South Egan Seeding	48 Cattle	05/01-02/28	100	Active	480
Big Rock Seeding (00428)		31 Cattle	05/01-07/15 (even years)	100	Active	74
		13 Cattle	09/01-02/28 (odd years)			71
*% Public Land is the percent of public land for billing purposes. **AUMs may differ from Active Permitted Use due to a rounding difference with the number of livestock and the period of use.						
Allotment AUMs Summary						

Allotment and Pasture	Active AUMs	Voluntary Nonuse AUMs	Suspended AUMs	Total AUMs
Total for Cherry Creek	**567**	**172**	**586**	**1,325**
Native Range	80	172	586	838
South Egan Seeding	487	0	0	487
Total for Big Rock Seeding	**77**		**0**	**77**

Table 3. Current Term Permit for Sterling Wines (2704562)

Allotment Name and Number	Pasture Name	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
Cherry Creek (00403)	Native	35 Cattle	05/01-02/28	100	Active	350
	South Egan Seeding	14 Cattle	05/01-02/28	100	Active	140
Big Rock Seeding (00428)		25 Cattle	05/01-07/15 (even years)	100	Active	62
		10 Cattle	09/01-02/28 (odd years)			60
*% Public Land is the percent of public land for billing purposes. **AUMs may differ from Active Permitted Use due to a rounding difference with the number of livestock and the period of use.						
Allotment AUMs Summary						

Allotment and Pasture	Active AUMs	Voluntary Nonuse AUMs	Suspended AUMs	Total AUMs
Total for Cherry Creek	**499**	**145**	**496**	**1,140**
Native Range	352	145	496	993
South Egan Seeding	147	0	0	147
Total for Big Rock Seeding	**62**		**0**	**62**

Table 4. Current Term Permit for Turner & Irlbeck Ranch (2704541)

Allotment Name and Number	Pasture Name	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
Cherry Creek (00403)	Native	102 Cattle	05/01-02/28	100	Active	1,019
	West Goshute Seeding	9 Cattle	05/01-02/28	100	Active	90
	East Goshute Seeding	37 Cattle	05/01-06-15 (odd years)	100	Active	56
		9 Cattle	09/01-02/28 (even years)			54

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

Allotment AUMs Summary

Allotment and Pasture	Active AUMs	Voluntary Nonuse AUMs	Suspended AUMs	Total AUMs
Total for Cherry Creek	**1,177**	**423**	**0**	**1,600**
Native Range	1,027	423	0	1,450
West Goshute Seeding	93	0	0	93
East Goshute Seeding	57	0	0	**57**

Terms and Conditions:

Cherry Creek Allotment

1. Establish utilization levels as follows:

- Perennial grasses: 50% total 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 and half-shrubs: 50% use on current annual production.

  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.

- Crested wheatgrass: 65% use on current annual production.

Big Rock Seeding Allotment

1. Establish utilization levels as follows:

- Crested wheatgrass: 65% use on current annual production.

A full description of the proposed terms and conditions for the revised term permits are located in Appendix V.

Monitoring: Rangeland monitoring data would continue to be collected for the Cherry Creek Allotment and the Big Rock Seeding Allotment to determine if the livestock management practices are meeting each allotments objectives, and progressing towards or achieving the Standards for Rangeland Health as provided by the Northeastern 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 permits would be reissued subject to revised terms and conditions.

B. No Action Alternative

Under the No Action Alternative, the permits would be renewed without changes to grazing management. The proposed action and the "No Action Alternative" are in and the same, thus the "No Action Alternative" will not be further addressed. The new term permits would include terms and conditions for grazing use that achieve, or make significant progress towards achieving the Standards and Guidelines for Grazing Administration and the other pertinent land use objectives for livestock use.

C. Other Alternatives

Since the alternative of no livestock grazing was fully described and analyzed in the Ely Resource Management Plan Final Environmental Impact Statement, the effects of not renewing the term grazing permits are not analyzed in this document. The decision in the RMP was that livestock grazing would be maintained until the allotments that have not been evaluated are evaluated, in which case under 43 CFR 4130.2(a) and 4130.2(e)(3), requires the issuance of grazing permits to qualified applicants that accept the proposed terms and conditions of the permit or lease.

III. DESCRIPTION OF THE AFFECTED ENVIRONMENT

The Cherry Creek Allotment and the Big Rock Seeding Allotment encompasses approximately 153,107 public land acres and 1,862 public land acres, respectively. Both

of these allotments are common use allotments located approximately 40 miles north of Ely, Nevada within White Pine County. The Cherry Creek Allotment borders with Elko County, and the town of Cherry Creek is located within this allotment. The permit area occurs within both the Steptoe B Watershed (040) and the Egan Basin Watershed (040). Portions of the Triple B Complex and the Antelope Wild Horse Herd Management Area occur within the permit area. The permit area is located within the Butte and Antelope sage grouse population units. The permit area occurs within the Nevada Department of Wildlife hunting management areas #11 and #12. Although no wilderness occurs within the Big Rock Seeding Allotment, there are portions of the Goshute Canyon Wilderness and the Becky Peak Wilderness located within the Cherry Creek Allotment.

A. Mandatory Elements of the Human Environment

According to the guidance provided in the BLM NEPA Handbook H-1790-1 (2008), "The affected environment section of an EA succinctly describes the existing condition and trend of issue related elements of the human environment that may be affected by implementing the proposed action or an alternative (p.53)." The following elements of the human environment are presented because consideration is mandatory. These elements of the human environment are listed in Table 5. 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 5, but will not be considered further in this document.

Table 5. Mandatory Elements of the Human Environment

Mandatory Element	Not Present or Negligible Impact	Present and Not Affected	Present and Affected	Rationale
Air Quality		X		Minor dust is associated with normal livestock trailing to/from water locations. Any increase in dust would be transitory and quickly dissipate.
Areas of Critical Environmental Concern (ACEC)	X			No ACECs occur in the proposed project area.

Cultural Resources		X		Historic resource values (mining, ranching and Pony Express Route) would not be affected by the proposed action. No rock art or other prehistoric type features have been recorded or are known to exist. The primary prehistoric site type consists of lithic scatters. The Cultural Needs Assessment for these allotments indicated the Proposed Action would not have an impact on these resources.
Environmental Justice	X			No minority or low-income groups would be affected by disproportionately high and adverse health or environmental effects identified in the Proposed Action Area.
Farmlands (Prime or Unique)	X			Prime farmland soils do not occur in the allotments.
Floodplains	X			No floodplains occur in the proposed project area.
Migratory Birds	X			Several species of migratory birds are known to have a distribution that overlaps with the proposed action area. The nesting season for these species, such as the Brewer's sparrow, sage sparrow and sage thrasher, is approximately April 15 through July 15. However, 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 Concerns		X		A Native American Coordination Meeting was held in the Ely BLM District Office on March 12, 2008. No concerns were identified.
Noxious Weeds and Non-Native, Invasive Species			X	Surface disturbance may increase the risk of non-native, invasive species establishment.

Threatened & Endangered Species		X		There are no known species afforded protections under the Endangered Species Act (ESA) that occur in the proposed project area.
Wastes (Hazardous and Solid	X			No hazardous or solid wastes exist in the allotments nor would be introduced by the proposed action.
Water Quality (surface and ground)		X		Ground water located in a deep aquifer would not be impacted. No surface water within the Proposed Action area is used for domestic drinking water.
Wetlands/Riparian			X	There are no wetlands in the Proposed Action area. There are several riparian areas throughout the Cherry Creek Allotment that could be impacted by the proposed action with changes to the management of livestock to progress toward achieving the Standard for Riparian Areas.
Wild and Scenic Rivers	X			There are no wild and scenic rivers within the allotment.
Wilderness			X	Portions of the Cherry Creek Allotment occur within the Goshute Canyon Wilderness and the Becky Peak Wilderness. Trammeling activities could occur in the form of removal of vegetation through livestock grazing.

B. Consideration of Other Resources and Uses

In addition to the above 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 that may be affected are listed in Table 6, along with a brief rationale for either considering or not considering the item. The resources and uses that are considered in the EA are described in the Affected Environment and are analyzed in the Environmental Consequences section. Those resources or uses that are not present or would not be affected are also listed in Table 6, but will not be considered further in this document.

Table 6. Other Resources and/or Issues in the Allotment

Resource or Issue	**Not Present or Negligible Impact**	**Present and Not Affected**	**Present and Affected**	**Rationale**
Livestock Grazing/Range/Standards and Guidelines			X	The proposed action establishes maximum allowable use on key forage plant species and implements changes to the management of livestock to progress toward achieving the Standards for Rangeland Health. This would affect the livestock operations.
Recreation		X		Recreation activities include hiking, wildlife viewing, hunting, OHV riding, rock hounding, bird watching, cultural tourism, camping, picnicking, wilderness recreation and other dispersed recreation activities. Grazing activities would have no adverse effects to recreation within the allotments.
Special Status Species (animals)			X	The greater sage grouse, Bonneville cutthroat trout and relict dace have known habitat within the allotments. Although state or BLM listed sensitive species may be present within the allotments, it is unlikely that individuals would be impacted by the livestock grazing as proposed in this EA due to the relative low density of livestock within the allotment(s). In addition, the current livestock management practices may allow the improvement of habitat for these species. Furthermore, the species' populations would not be expected to be negatively

				impacted by the proposed livestock grazing.
Special Status Species (plants)	X			Resource is not present.
Soils			X	Soils and objectives for soil quality are addressed in the Ely District RMP. There could be positive or negative impacts to soils as a result of the proposed action or the change in season of use alternative.
Vegetation			X	The proposed action would ensure grazing occurs within acceptable utilization levels and that grazing occurs in conformance with the Guidelines pertinent to the Standards for Rangeland Health.
Wild Horses and Burros			X	Portions of the Cherry Creek Allotment occur within the Antelope Herd Management Area (HMA) and the Triple B Complex. Grazing management changes may affect wild horse habitat through improved management.
Wildlife			X	Grazing management changes may affect wildlife habitat through improved management.
Visual Resources		X		Grazing activities would not affect the Class I, II, III and IV VRM classified landscapes identified in the allotment.

C. Potentially Affected Elements of the Human Environment
Those resources/concerns that have concluded to be not present or have negligible impact require no further analysis.

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/Range/Standards and Guidelines

Noxious Weeds and Invasive Non-Native Species
Soils
Special Status Species (animals)
Vegetation
Wetlands/Riparian
Wild Horses and Burros
Wilderness
Wildlife

Livestock Grazing/Range/Standards and Guidelines

Although historically livestock grazing occurred by both cattle and sheep in the Cherry Creek Allotment, currently cattle are the permitted livestock authorized to graze the allotment. Sheep may be authorized to trail through on occasion. Cattle graze most portions of the native range in the valley bottom and benches. There are three fenced crested wheatgrass seedings also grazed by cattle: the South Egan, North Egan, and Goshute Seedings. The higher elevations, characterized by pinyon/juniper woodlands, are not grazed due to remote, rugged topography, thick trees, and lack of water and forage availability. The Cherry Creek Allotment is a common use allotment shared by six permitted cattle operators. Permitted grazing in the Cherry Creek Allotment has been authorized in accordance with the Final Multiple Use Decision of July, 2001, which reduced permitted AUMs of use, established a deferred grazing system that allows for annual spring rest during the critical growing period, established new seasons of use and livestock rotations in the Goshute Seedings, and set other terms and conditions for improved livestock management including water hauling to distribute cattle use. Range improvements include a boundary fence between Cherry Creek Allotment and Schellbourne Allotment that was implemented to improve grazing management.

The Big Rock Seeding was established in 1968, and historically was administered as a pasture of the Cherry Creek Allotment. Although Big Rock Seeding was not recognized as a separate allotment in the Egan RMP/EIS, it was listed as a separate allotment in the Egan Rangeland Program Summary. In order to simplify administration, permitted use for the Big Rock Seeding Allotment became administered separately from Cherry Creek Allotment in 1990 through the Management Action Selection Report. Four permitted cattle operators have common use of the Big Rock Seeding Allotment. Currently cattle graze primarily in the portion of the allotment that is crested wheatgrass. There is native vegetation on the bench portion of the allotment available for grazing, however, this area has not been grazed by cattle in recent years due to an increase in pinyon/juniper trees.

The current permits for cattle use for both allotments are described in the proposed action. Both allotments have experienced a lack of precipitation in the recent past, resulting in poor vegetative production and decreased forage availability. The permittees have responded proactively to these conditions by reducing use.

Noxious Weeds and Invasive, Non-Native Species

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. Musk thistle (*Carduus nutans)* is found within the

boundaries of the Big Rock Seeding Allotment. Russian knapweed *(Acroptilon repens),* musk thistle, squarrose knapweed *(Centaurea virgata),* Canada thistle *(Cirsium arvense),* bull thistle *(Cirsium vulgare),* hoary cress *(Lepidium draba),* Scotch thistle *(Onopordum acanthium),* and salt cedar *(Tamarix spp.)* are found within the boundaries of the Cherry Creek Allotment. Russian knapweed, musk thistle, spotted knapweed *(Centaurea stoebe),* squarrose knapweed, water hemlock *(Cicuta maculate),* Canada thistle , bull thistle, black henbane (*Hyoscyamus niger),* hoary cress, Scotch thistle, and salt cedar are found along roads and drainages leading to the both allotments

Both allotments were last inventoried for noxious weeds in 2005. While not officially documented the following non-native invasive weeds probably occur in or around the allotments: cheatgrass (*Bromus tectorum*), halogeton (*Halogeton glomeratus*), horehound (*Marrubium vulgare*), bur buttercup (*Ranunculus testiculatus*), and Russian thistle (*Salsola kali*).

Soils

There are many different soil types with several kinds of parent materials throughout the Cherry Creek Allotment. The soils have developed primarily from alluviums, mixed alluviums, colluviums, and residuums derived from limestone and dolomite, sandstone, andesite, quartzite, and conglomerate. Minor areas have developed on alluvium derived from volcanic rock or alluvium derived from limestone influenced by loess high in ash content. Soil types vary from basin clay in the meadow portions to sodic or gravelly loam on the terraces. Slope is also varied throughout the allotment. Soils within the Big Rock Seeding Allotment are gravelly loam to very gravelly sandy loam with slight sloping.

Special Status Species (Animals)

Nevada BLM Sensitive Species list are species designated by the State Director, in cooperation with the State of Nevada Department of Conservation and Natural Resources, that are not already included as BLM Special Status Species under (1) Federally listed, proposed, or candidate species; or (2) State of Nevada listed species. Species which were eliminated from the U. S. Fish and Wildlife Service's Category II candidate list in 1995 were maintained by BLM as per Instruction Memorandum No. NV-98-013. Nevada BLM policy is to provide these species with the same level of protection as is provided for candidate species in BLM Manual 6840.06 C. The Policy (BLM Manual section 6840.06 C) states in pertinent part "BLM shall carry out management, consistent with the principles of multiple use, for the conservation of candidate species and their habitats and shall ensure that actions authorized, funded, or carried out do not contribute to the need to list any of these species as threatened or endangered."

Nevada Sensitive Species identified Ground-nesting birds listed as Sensitive Species under BLM policy known to occur in the Proposed Action area may be affected. The greater sage grouse has known habitat within the allotments. They may be affected by the Proposed Action. The relict dace is found in the Cherry Creek allotment, in an unnamed spring on private land. The greater sage grouse has known breeding and nesting habitat within the allotments. The allotments have seven known leks or

strutting/mating grounds. The Bonneville cutthroat trout is found in Goshute Creek. Goshute Creek has exclosures on it to exclude cattle. Wintering and breeding raptors, such as ferruginous hawks and bald eagles may occupy and forage in the area and pursue locally abundant prey species such as various small mammals and reptiles.

Vegetation

The vegetative plant communities of the Cherry Creek Allotment have developed on many different soil types, at a variety of elevations and precipitation zones. The primary vegetation includes meadows in the valley bottom (often referred to as the "slough"), winterfat (*Krascheninnikovia lanata*) sites in the valley bottom and on the terraces, black sagebrush(*Artemisia nova*), Wyoming big sagebrush(*Artemisia tridentate ssp. Wyomingensis*) or big sagebrush(*Artemisia tridentate*) range sites on the benches, and pinion (*Pinus monophylla*) and juniper(*Juniperus osteosperma*) woodlands, mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*), and mountain mahogany(*Cercocarpus* Kunth) areas at the higher elevations.

The primary native perennial grasses associated with the valley bottom sites include alkali bluegrass(*Poa leptocoma*), alkali cordgrass (*Spartina gracilis),* sedge (*Carex* L.), rush (*Juncus* L.), alkali sacaton (*Sporobolus airoides*), Muhlenberg's centaury (*Centaurium muehlenbergii),* basin wildrye (*Leymus cinereus*), and inland saltgrass (*Distichlis spicata).* The primary native perennial grasses associated with the bench areas, sagebrush sites, and woodland sites include Indian ricegrass (*Achnatherum hymenoides*), bluebunch wheatgrass (*Pseudoroegneria spicata*), needle and thread(*Hesperostipa comata*), bottlebrush squirreltail (*Elymus elymoides*), Thurber's needlegrass (*Achnatherum thurberianum*), muttongrass (*Poa fendleriana*), basin wildrye, and bluegrasses(*Poa*). The primary native forbs include arrowleaf balsamroot (*Balsamorhiza sagittata),* tapertip hawksbeard (*Crepis acuminate),* aster (*Eucephalus),* and globemallow (*Sphaeralcea* A).

The Cherry Creek Wildland Urban Interface (WUI) vegetation project was implemented in recent years to reduce the threat of catastrophic wildfire to the town of Cherry Creek and the Cherry Creek Historic Mining District. The project is located south and west of the town of Cherry Creek, in the sagebrush and pinyon/juniper woodland plant communities. Heavy fuels were reduced through prescribed burning and mowing. The treated areas created fuel breaks to prevent large catastrophic fires. Three significant fires have also occurred during recent years within the Cherry Creek Allotment and altered the vegetation. These are the Cherry Fire, the Butte Fire, and the Cherry Creek Fire.

Big Rock Seeding Allotment vegetation compromises primarily crested wheatgrass (*Agropyron cristatum*). Other vegetation that occurs within this allotment includes Wyoming big sagebrush and desert shrub mixed vegetation. Native grasses present include Indian ricegrass, bluebunch wheatgrass, needle and thread, and bottlebrush squirreltail.

Wetlands/Riparian

There are both lotic (stream) and lentic (spring/seep) riparian systems within the Cherry Creek Allotment. The three lotic systems that have been monitored in this allotment include Duck Creek, Egan Creek, and Goshute Creek. These creeks generally flow year round, however the flow distance of Duck Creek within the allotment can vary annually from 2 to 14 miles. The Duck Creek lowland riparian is an area of up to several thousand acres surrounding Duck Creek. This area is also commonly referred to as "the slough" and consists mainly of wet meadow, saline bottom, and saline meadow. The acres of wetland vegetation within these sites may vary year by year due to variations in precipitation and climate. Springs and seeps occur throughout the allotment. Several springs occur at the upper elevations, but the majority of seeps and springs occur within the lowland riparian area. Several riparian areas have had enclosure fences built to protect riparian values including the upper portions of Goshute Creek and some unnamed springs within the slough area. The Cherry Creek Riparian Exclosure Fence and Spring Development Project is currently being implemented to protect two unnamed springs located at T25N, R64E, S. 19 SESE and T25N, R64E, S.29 NWNE.

Big Rock Seeding Allotment has five natural springs and one developed spring on public land. All six of these springs are located above 6,800 feet in steeper terrain dominated by pinyon/juniper woodlands.

Wild Horses and Burros

The term permit renewal area occurs within portions of the Antelope Herd Management Area (HMA) and Triple B Complex (Cherry Creek, and Butte HMAs). An appropriate management level (AML) for the Antelope HMA west of hwy 93 is 0 and Triple B Complex Cherry Creek HMA is 0 and Butte HMA is 95. Based on aerial census flown in October of 2007, the populations estimate of 13 wild horses within the Cherry Creek HMA. Also, the population estimate following a census flight in July 2008 is 123 within the Butte HMA.

Wilderness

The Becky Peak Wilderness lies in the Schell Range in eastern Nevada. The Wilderness is 18,200 acres and encompasses elevations from6,500 to 9,859 feet. The Goshute Canyon Wilderness lies within the Egan and Cherry Creek Ranges in eastern Nevada. This Wilderness is 42,543 acres and encompasses elevations from 6,000 to 10,410 feet.

Wilderness characteristics are described under five categories as listed in the Wilderness Act of 1964: untrammeled, (Untrammeled is defined as unlimited, unrestricted, or unrestrained) naturalness and primeval character, undeveloped, outstanding opportunities for solitude or a primitive unconfined form of recreation and other features of scientific, educational, scenic or historical value.

Untrammeled. These wildernesses have few trammeling activities. Trammeling activities include the removal of vegetation through livestock grazing.

Naturalness and primeval character. The naturalness and primeval character of both wildernesses is mostly preserved. Some changes to the native vegetation composition have occurred, including the introduction of the non-native annual cheatgrass over small areas of the wildernesses.

Undeveloped. The Becky Peak Wilderness and the Goshute Canyon Wilderness are substantially undeveloped; however, there are three existing range developments within the Goshute Canyon Wilderness within the Cherry Creek. These include a portion of the Steptoe Valley drift fence, the Goshute Creek enclosures, and the Log Cabin Spring pipeline. These developments are accessible by routes. There are 13 known user created two track routes of various condition within the wilderness boundaries. None of these routes are associated with the management of grazing in these wildernesses.

Outstanding opportunities for solitude or a primitive form of recreation. Visitors can enjoy outstanding opportunities for solitude and primitive, unconfined recreation in the Becky Peak Wilderness and the Goshute Wilderness. The steep rocky ridgelines in particular provide excellent opportunities for solitude. Outstanding recreation opportunities for hiking, hunting, exploration and camping are present throughout both areas. Only the 14-day stay limit for camping in these areas confines primitive recreational opportunities.

Wildlife

The allotments provide habitat for game animals such as mule deer (year round, winter range and migration corridors), pronghorn antelope (year round) and elk (year round). Antelope are the primary big game species found on the allotments.
The allotments provide habitat for a natural biological diversity including numbers and species of microbes, invertebrates, reptiles, birds and mammals.

IV. ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION AND THE NO ACTION ALTERNATIVE

As discussed under the No Action Alternative on page 10, the permit would be renewed without changes to grazing management and without new terms and conditions, therefore the Proposed Action and the No Action Alternative are the same and a No Action analysis is not needed.

Livestock Grazing/Range/Standards and Guidelines

Proposed Action: This action would affect the overall management of livestock on the Cherry Creek Allotment based on continued voluntary nonuse of AUMS, the continuation of grazing deferment during the critical spring growing season from March 1st to April 30th, and the continued rest rotation system of the Goshute Seeding pastures. This allotment would continue to require water hauling to improve livestock distribution. Water hauling could add an additional cost to the livestock permittees. Continuing to implement this proposed action could improve the vegetative conditions within the Cherry Creek Allotment and help to meet the Standard and Guidelines. The only proposed change to both allotments would be to set the utilization level for perennial

grasses, perennial shrubs, and crested wheatgrass. This change could improve the vegetative conditions within the allotments.

Noxious Weeds and Invasive, Non-Native Species

Proposed Action: The proposed action could increase the populations of the noxious and invasive weeds already within the allotments and could aid in the introduction of weeds from surrounding areas. Within the allotments, watering and salt/mineral supplement 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. If new weed infestations establish within the allotments this could have an adverse impact on native plant communities, especially the Big Rock Seeding allotment which is currently considered to be mostly weed-free. Also, any increase of cheatgrass could alter the fire regime in the area.

A Noxious and Invasive Weed Risk Assessment was completed for this project and can be found in Appendix VI. 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.

Soils

Proposed Action: The impacts to soils are expected to be minimal from implementing the proposed action for both allotments. Areas near waters would continue to receive minor impacts of hoof action on surface soils; these impacts should be relatively minor. Some temporary reduction in soil protection could occur as a result of forage consumption. Generally, grazing would not be concentrated in any one location, but would be dispersed and distributed throughout the native pasture and crested wheatgrass

seedings. Maintenance of vegetation production and appropriate vegetation canopy and ground cover would tend to maintain good soil/water relations. Soils would maintain structure, water holding capacity, and percolation characteristics. Wind or water erosion would be expected to be minimal. Not grazing during the critical growing period would help to continue to minimize soil disturbance and compaction to the soils in both allotments.

For the Cherry Creek Allotment the proposed action would continue to implement changes in livestock management that have demonstrated a benefit to soils by having increased vegetative cover over the past ten years to meet the appropriate amount of cover for their ecological site. Since current cattle grazing is not attributed to the declining cover at two of the key areas within the Cherry Creek Allotment (see Appendix I) these sites will probably not improve with the implementation of the proposed action.

Special Status Animal and Plant Species (Federally Listed, Proposed or Candidate Threatened or Endangered Species and State Sensitive Species)

Proposed Action: Sage grouse may be affected by grazing on the leks during the mating season or by altering their characteristics, causing them to become unsuitable for use. No effects are expected on Bonneville cutthroat trout due to cattle being excluded from Goshute Creek. The proposed action would have no known impacts on raptors, or any other of the BLM Sensitive Species, as described in this document. The project, as proposed, should continue to provide the current level of habitat for the species presently known to occur there.

Vegetation

Proposed Action: For both allotments, there would be a change to vegetation through the establishment of allowable use levels on forage plants by livestock. These levels would allow desirable key herbaceous species to develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover.

For the Cherry Creek Allotment, the proposed action would serve to enhance the vegetative community and help the allotment to continue progressing toward achievement of Standard 3. The proposed action would continue to implement changes in livestock management that have demonstrated a benefit to vegetation over the past ten years in the slough and in the Overland Burn. Monitoring data indicates that plant diversity is good to excellent and that these areas are improving through these implemented management practices.

Although these management practices would improve vegetation within most of the Cherry Creek Allotment, rangeland monitoring does indicate that several areas on the allotment are not exhibiting healthy and productive plant communities. In these areas the herbaceous understory is declining, with shrub densities increasing or invasive species, such as halogeton, increasing. Utilization of key forage species in these areas has been mostly light to moderate (see Appendix II, Table 5-1) and it was determined in the SDD

that cattle are not a causal factor for these declining vegetative communities. Since current cattle grazing is not attributed to the declining vegetative condition of these areas within the Cherry Creek Allotment these sites will probably not improve with the implementation of the proposed action. These areas may require further analysis to determine an appropriate action.

Wetlands/Riparian

Proposed Action: Riparian and wetland areas are not accessed by cattle in the Big Rock Seeding Allotment (see) so the proposed action has no affect.

For the Cherry Creek Allotment the proposed action would carry forward livestock management actions and adjustments implemented over the past ten years to permitted cattle use to continue to improve riparian areas to properly functioning condition. Voluntary non use of AUMS, deferred grazing system during the critical spring growing period from March 1 to April 30, and a rest rotation system for the two Goshute Seeding pastures would allow for continued improvement to many riparian areas throughout the allotment even with decreasing precipitation. The proposed action would also help to maintain those riparian areas that are currently rated proper functioning condition. While the proposed action may improve most riparian areas in the allotment, not all riparian areas are improving through these changes in livestock management. Some riparian areas are not improving and this lack of improvement is attributed to livestock grazing in some cases as well as declining precipitation. Enclosure fences may be required to restore these areas where grazing and trampling by livestock is preventing achievement of a healthy riparian area. These would be considered on case by case bases and are outside the scope of this EA.

Wild Horses and Burros

Proposed Action: Implementing the proposed action would have minimal impacts upon wild horses in the Antelope HMA and Triple B Complex (Cherry Creek, and Butte HMAs) that the Cherry Creek allotment covers. Wild horses would benefit from an appropriate forage resource resulting from sound grazing management practices.

Wilderness

Proposed Action: The Becky Peak Wilderness is located at a high elevation on the Cherry Creek Allotment and no livestock grazing currently occurs in this area. Grazing does occur within the Goshute Canyon Wilderness. Under the proposed action, trammeling activities would continue in the form of removal of vegetation through livestock grazing. There are no anticipated impacts to naturalness and primeval character from the proposed action. Under the proposed action, the undeveloped character of the Becky Peak Wilderness and the Goshute Canyon Wilderness would not be affected. There are no anticipated impacts to solitude or primitive forms of recreation from the proposed action.

Wildlife

Proposed Action: Grazing at appropriate levels should provide sufficient forage for big game species such as elk, deer and antelope. Other wildlife such as small mammals, reptiles and insects may be affected if grazing causes changes in habitat characteristics.

Cumulative Impacts

According to the 1994 BLM Publication "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 Northeastern Great Basin Resource Advisory Council. 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

Both allotments have primarily been used for livestock grazing. Off-highway vehicle (OHV) use has become popular and occurs on the roads and two-tracks on both allotments. Hunting, trapping, wildlife viewing, and other recreational activities have occurred on both allotments year round. Fire suppression activities have occurred on the allotments and/or in the vicinity of the allotments. Crested wheatgrass was seeded on both allotments during the 1960's. A vegetation improvement project was implement during the past ten years in the South Egan Seeding on the Cherry Creek Allotment to restore the crested wheatgrass.

Other past actions on the Cherry Creek Allotment:
Mining activities within the allotment have occurred over the past 100 years. The Northern Nevada Railroad track also runs throughout the allotment and was used as transportation route prior to the 1970s. Several range fires have occurred within this allotment. The Cherry Creek Wildland Urban Interface (WUI) vegetation project was implemented in recent years to reduce the threat of catastrophic wildfire to the town of Cherry Creek and the Cherry Creek Historic Mining District. The project is located south and west of the town of Cherry Creek, in the sagebrush and pinyon/juniper woodland plant communities. Heavy fuels were reduced through prescribed burning and mowing. Several range improvements have occurred on the allotment to improve grazing management including the allotment boundary fence between Cherry Creek Allotment and the Schellbourne allotment and enclosure

fences around several riparian areas. A variety of realty actions have occurred within the allotment including the road right-of-ways and data collection for proposed energy projects. The congressional designation of the Goshute Canyon Wilderness and the Becky Peak Wilderness occurred in 2006 and had minimal impacts to grazing. Wild horse gathers have also occurred in recent years to reduce numbers of wild horses and stay within the AML set for each HMA.

2. Present Actions

Both allotments are currently being used for livestock grazing. OHV use occurs on the roads and two-tracks on both allotments. Hunting, trapping, wildlife viewing, and other recreational activities occur on both allotments year round. Fire suppression activities continue to occur on the allotments and in the vicinity of the allotments.

Other present actions on the Cherry Creek Allotment:
Mining exploration and some mining activities are occurring within the allotment. An enclosure fence and spring development to protect riparian values for the two unnamed springs within the allotment is being implemented.

3. Reasonably Foreseeable Future Actions

It is expected that both allotments would continue to be grazed by livestock. Rangeland monitoring would be expected to continue. OHV would use occurs on the roads and two-tracks on both allotments. Hunting, trapping, wildlife viewing, and other recreational activities occur on both allotments year round. Fire suppression activities would continue to occur on the allotments and/or in the vicinity of the allotments.

Other reasonably foreseeable future actions on the Cherry Creek Allotment:
Mining exploration and some mining activities are expected to continue within the allotment. Wild horse census and gathers to achieve AML are expected to continue. Currently two coal fire power plants are proposed that could impact the allotment. A wind generating farm is also being studied for an area in the Egan Mountain Range. Portions of these energy projects are proposed within the Cherry Creek Allotment including the alternative site for one of the power plants, corridors for water pipelines and power lines, and upgrading the rail line. Additional power lines are proposed that cross the Cherry Creek Allotment within the Southwest Intertie Project (SWIP) corridor. If there is an increase in population for this area due to these proposed projects, recreation use could be expected to increase for the area. Impacts from these projects will be further analyzed through the appropriate NEPA document.

Cumulative Impacts Summary: The proposed renewal of grazing permits for Aaron Kesler (2703103), Herbert Stathes (2704455), and Sterling Wines (2704562) for the Cherry Creek Allotment (00403) and the Big Rock Seeding Allotment (00428) and for Turner &Irlbeck Ranch (2704541) for the Cherry Creek Allotment would improve rangeland health and watershed conditions by continuing to implement sound grazing

management practices. No cumulative impacts of concern are anticipated as a result of the proposed actions in combination with any other existing or planned activity.

V. 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.

VI. SUGGESTED MONITORING

Rangeland monitoring data will continue to be collected for the Cherry Creek Allotment and the Big Rock Seeding Allotment to determine if the changes livestock management practices aid in meeting Standards for Rangeland Health and other multiple use objectives for the allotments.

Monitoring studies may include use pattern mapping, key forage plant method utilization transects (KFPM), cover studies, ecological condition studies, frequency trend studies, observed apparent trend studies, weed detection, professional observations, and photographs. Rapid riparian assessment (proper functioning condition studies) will be conducted on an as needed basis. Baseline monitoring (ecological condition, cover, utilization, and trend) may be conducted associated with watershed assessment.

If a future monitoring assessment results in a determination that additional changes in grazing management practices are necessary for compliance with the Standards for Rangeland Health, the grazing permits would be reissued subject to revised terms and conditions.

VII. CONSULTATION AND COORDINATION

A. Intensity of Public Interest and Record of Contacts

There is a general public interest in the proper grazing management of public lands. Aaron Kesler, Herbert Stathes, Sterling Wines and Turner & Irlbeck Ranch have a strong interest in these term permit renewals. A scoping letter was mailed to each grazing permittee regarding the permit renewal action on March 21, 2008, requesting comments by April 14, 2008. No comments were received.

On March 12, 2008, these term permit renewals were presented at a Tribal coordination meeting at the Ely BLM District Office. No concerns were identified during this meeting. There were no questions or comments regarding the proposal from the Tribal participants.

On April 4, 2008, the project was presented to the Ely BLM internal scoping team and no issues were identified. The project proposal was posted on the Ely District Office web site on or about April 24, 2008, http://www.blm.gov/nv/st/en/fo/ely_field_office.html and no comments were received.

On June 19, 2008, a Notice of Proposed Action on Lands in Wilderness was mailed to individuals and organizations that have expressed an interest in wilderness related actions requesting comments by July 18, 2008. Comments were received from Western Watersheds Project on July 17, 2008. These comments were reviewed and taken into consideration with regard to this environmental assessment.

The Ely District Office mails an annual Consultation, Cooperation, and Coordination (CCC) Letter to individuals and organizations that have expressed an interest in rangeland management related actions. Those receiving the annual CCC Letter have the opportunity to request from the Field Office more information regarding specific actions. Those requesting notification of range actions are requested to respond if they want to receive a copy of the final EA and signed Decision Record/Finding of No Significant Impact. The following individuals and organizations, who were sent the annual CCC letter in February 2008, have requested additional information regarding rangeland related actions or programs within the Cherry Creek Allotment and the Big Rock Seeding Allotment:

Nevada Cattlemen's Association
Sustainable Grazing Coalition
Steve Foree, Nevada Division of Wildlife
Cindy MacDonald
Laurel Marshall
Resource Concepts, Inc.
Nevada State Clearinghouse
Western Watersheds Project
Steven Carter
Gordon V Foppiano
Kay & Mary K. Lear
Rob Mrowka

Record of Personal Consultation and Coordination
On March 21, 2008, Aaron Kesler, Herbert Stathes, Sterling Wines and Turner & Irlbeck Ranch were consulted regarding the renewal of their term permits for the Cherry Creek Allotment and/or the Big Rock Seeding Allotment.

B. Internal District Review

Gina Jones	Ecologist/NEPA Coordination
Sheri Wysong	NEPA Coordination
Kathleen McConnell	Cultural Resources
Bonnie Million	Noxious and Invasive, Non-native Species

Marian Lichtler	Wildlife, Special Status Species, Migratory Birds
Kalem Lenard	Recreation and Visual Resources
Doris Metcalf	Lands
Mindy Seal	Rangeland Resources, Vegetation, Soil, Water, Air, Wetlands and Riparian
Bill Wilson	Geology and Mineral Resources
Ruth Thompson	Wild Horse and Burro Resources
Melanie Peterson	Hazardous and Solid Waste
Elvis Wall	American Native Concerns
Chris Mayer	Rangeland Resources, Vegetation, Soil, Water, Air, Wetlands and Riparian
Dave Jacobsen	Wilderness and ACEC

REFERENCES:

Executive Order 13186 (1/11/2001). Concerning migratory birds.

Federal Land Policy and Management Act (FLPMA) 1976. Public Law 94-190.

Grazing Guidelines (House report no. 101 – 405 Appendix B).

Migratory Bird Treaty Act of 1918.

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USDA Forest Service, USDA NRCS, DOI BLM, Cooperative Extension Service. 1996. Sampling Vegetation Attributes.

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USDA-NRCS. Revised 2003. National Range and Pasture Handbook.

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USDI-BLM. 1997. Standards and Guidelines for Rangeland Health (Northeastern Great Basin Area). As amended December 2000, September 2003, March 2004.

APPENDIX I - STANDARDS DETERMINATION DOCUMENT

Cherry Creek Allotment **(00403)** and Big Rock Seeding Allotment **(00428)**

Standards and Guidelines Assessment

The Standards and Guidelines for Nevada's Northeastern Great Basin Area were developed by the Northeastern Great Basin Area 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 Cherry Creek Allotment and the Big Rock Seeding Allotment in the Ely BLM District. This document does not evaluate or assess achievement of the wild horse and burro or the off highway vehicle Standards or conformance to their respective Guidelines.

The Standards were assessed for the Cherry Creek Allotment and the Big Rock Seeding Allotment 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 Western White Pine Area, Nevada, Parts of White Pine and Eureka Counties, Ecological Site Descriptions for Major Land Resource Area 28B, 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 District Office. The interdisciplinary team used rangeland monitoring data, professional observations, and photographs to assess achievement of the Standards and conformance with the Guidelines.

The Cherry Creek Allotment and the Big Rock Seeding Allotment encompasses approximately 153,107 public land acres and 1,862 public land acres, respectively. Both of these allotments are common use allotments located approximately 40 miles north of Ely, Nevada within White Pine County. The Cherry Creek Allotment borders with Elko County, and the town of Cherry Creek is located within this allotment. The permit area occurs within both the Steptoe B Watershed (040) and the Egan Basin Watershed (040). Portions of the Butte, Cherry Creek and Antelope Wild Horse Herd Management Areas occur within the permit area. The permit area is located within the Butte and Antelope sage grouse population units. The permit area occurs within the Nevada Department of Wildlife hunting management areas #11 and #12. Although no wilderness occurs within the Big Rock Seeding Allotment, there are portions of the Goshute Canyon Wilderness and the Becky Peak Wilderness located within the Cherry Creek Allotment.

The Cherry Creek Allotment has six permittees, and the Big Rock Seeding Allotment has four permittees. This Standards Determination Document evaluates and assesses

livestock grazing management achievement of the Standards and conformance with the Guidelines for Aaron Kesler (#2703103); Dan Hoots (#2703222); Herbert Stathes (#2704455); Turner & Irlbeck Ranch (#2704541); Kay and Mary Lear (#2704539); and Sterling Wines (#2704562) for the Cherry Creek Allotment. It also evaluates and assesses livestock grazing management achievement of the Standards and conformance with the Guidelines for Aaron Kesler; Herbert Stathes; Sterling Wines; and James A. and Carleen J. West (#2703115) for the Big Rock Seeding Allotment. Based on this document four new term grazing permits could be issued this year for a period up to ten years to Aaron Kesler, Herbert Stathes, Sterling Wines**,** and Turner & Irlbeck Ranch**.** Next year, three additional term permit renewals will be considered for the remaining permittees that are permitted on these allotments. These would be done following the completion of standards determination documents for additional allotments that are part of these three remaining permittees' grazing permits.

A Final Multiple Use Decision (FMUD) was issued for the Cherry Creek Allotment on July 20, 2001, as well as for two neighboring allotments, the Goshute Basin Allotment and the Indian Creek Allotment. This decision carried forth the management actions and adjustments to permitted use identified in the livestock grazing agreements on these allotments. The Final Multiple Use Decision was based upon the evaluation of monitoring data, recommendations from district staff, and input received through consultation, coordination, and cooperation from the permittee and public interest groups to determine progress in meeting management objectives for each allotment. Based on these decisions, range management actions were implemented to meet the land use plan objectives as stipulated in the Egan Resource Area Record of Decision. Also as a result of the FMUD, five of the six permittees signed agreements to take voluntary nonuse on the native portion of Cherry Creek Allotment to help progress in meeting management objectives. The remaining permittee agreed to take voluntary non use following a "Stipulation to Modify Decision (FMUD) and to Dismiss Appeal". In addition, this stipulation resulted in an exchange agreement of AUMs located in native and the South Egan Seeding between two of the permittees. A five year evaluation as follow up to the FMUD was also completed. All of these documents were reviewed and taken in to consideration along with the analysis of current data.

Table 1. Current Permitted Use (AUMs) for Cherry Creek Allotment with Permittee Agreements

Permittee	Native Range	Goshute Seedings	South Egan Seeding	North Egan Seeding	Total Active	Voluntary Nonuse	Suspended Nonuse	Total AUMs
Dan Hoots	434	135			569	179	611	1,359
Kay & Mary Lear	205				205	85	0	290
Aaron Kesler	1,702	174		400	2,276	565	634	3,475
Herb Stathes	80		487		567	172	586	1,325

Turner & Irlbeck Ranch	1,027	150			1,177	423	0	1,600
Sterling Wines	352		147		499	145	496	1,140
Totals	3,800	459	634	400	5,293	1,569	2,327	9,189

A Management Action Selection Report (MASR) was completed for Big Rock Seeding Allotment on December 20, 1990. Based on analysis of monitoring studies for this allotment, all of the land use plan objectives identified had been met with current management practices. Based on this data, no grazing adjustments were necessary at that time, so no decision was required. A Third Year Re-evaluation Summary was also complete for this allotment in 1993. Both of these documents were reviewed and taken in to consideration along with the analysis of present data.

Thirty-one key areas have been established on the Cherry Creek Allotment and five key areas have been established for the Big Rock Seeding Allotment. The establishment of key areas is based on accessibility and general use by livestock, vegetation, and ecological range sites. Key areas for the Cherry Creek Allotment and the Big Rock Seeding Allotment were monitored and data collected over the past several years was analyzed in this assessment. Native key forage species vary throughout the Cherry Creek Allotment and include Indian ricegrass, needle and thread, bluebunch wheatgrass, basin wildrye, alkali bluegrass, alkali sacaton, and winter fat. There are also four crested wheatgrass seedings within this allotment that provide additional forage. Key areas for the Big Rock Seeding Allotment were established to collect utilization data of the crested wheatgrass, which is the key forage for this allotment. A summary of monitoring data for Cherry Creek Allotment is located in Appendix II and for Big Rock Seeding Allotment in Appendix III of this document.

PART 1. STANDARD CONFORMANCE REVIEW

Cherry Creek Allotment Standards Review

Standard 1. Upland Sites

Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and land form.

As indicated by:

- Indicators are canopy and ground cover, including litter, live vegetation and rock, appropriate to potential of the site.

Determination:

□ Achieving the Standard

X Not Achieving the Standard, but making significant progress towards achieving

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

Causal Factors
□ Livestock are a contributing factor to not achieving the standard.
X 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 In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Not achieving the Standard, but making significant progress towards. Livestock are not a contributing factor to not achieving the Standard, failure to meet the standard is related to other issues or conditions.

UPLANDS Sites: Rangeland monitoring and professional observation indicates that overall soil condition is currently being maintained. Soils are stable and productive and the topsoil is holding in place. The vegetative plant communities of the Cherry Creek Allotment have developed on many different soil types with several kinds of parent materials. The soils have developed primarily from alluviums, mixed alluviums, colluviums, and residuums derived from limestone and dolomite, sandstone, andesite, quartzite, and conglomerate. Minor areas have developed on alluvium derived from volcanic rock or alluvium derived from limestone influenced by loess high in ash content. The primary range sites within the allotment include several types of meadow range sites in the valley bottom (often referred to as the "slough"), sodic or gravelly loam range sites on the terraces, winterfat (*Krascheninnikovia lanata*) sites in the valley bottom or on the terraces, black sagebrush(*Artemisia nova*), Wyoming big sagebrush(*Artemisia tridentate ssp. Wyomingensis*) or big sagebrush(*Artemisia tridentate*) range sites on the piedmont fans (benches), and pinion (*Pinus monophylla*) and juniper (*Juniperus osteosperma*) woodlands, mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*), and mountain mahogany(*Cercocarpus Kunth*) range sites at the higher elevations.

Most key areas are meeting the cover appropriate to the site. Four key areas (CC-02, 04, 11, 14) have increased cover over the last ten years to meet the appropriate amount cover for their ecological site. Two key (CC-001, 08) have decreased cover over the last ten years and are not meeting the appropriate amount of cover for their ecological site. Data collected for the remaining key areas demonstrate that cover is appropriate to the associated ecological site. Current cattle grazing is not attributed to the declining cover at CC-001 and CC-08. CC-001 has been grazed in the light to moderate range since 2002. Heavy utilization was document in 2008 at Key Area CC-08 in the Woodcamp Pasture. This is attributed to wild horses that were observed in the area, since cattle did not graze this pasture during that time. Since both sites had appropriate cover in 1998, lower precipitation may be a factor in the decline of vegetative cover. Halogeton has also increased at both sites.

Standard 2. Riparian and Wetland Sites
Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria.

As indicated by:

- 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 accelerating 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); and other cover (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 plant species and cover appropriate to the site characteristics.
    - Chemical, physical and biological water constituents are not exceeding the state water quality standards.

The above indicators shall be applied to the potential of the 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 In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Not achieving the Standard, but making significant progress towards. Livestock are a contributing factor to not achieving the Standard, failure to meet the standard is related to other issues or conditions.

Riparian: Standard not met (not achieved). Cherry Creek has a variety of riparian areas. There are both lotic (stream) and lentic (spring/seep) riparian systems within the allotment. The three lotic systems that have been monitored in the allotment include Duck Creek, Egan Creek, and Goshute Creek. These creeks generally flow year round, however the flow distance of Duck Creek within the allotment can vary annually from 2 to 14 miles. Goshute Creek is currently classified as a fishery. Duck Creek and Egan Creek are not currently fisheries. The lowland riparian area is commonly referred to as "the slough" and consists mainly of wet meadow, saline bottom, and saline meadow

range sites. The acres of wetland vegetation within these sites may vary year by year due to variations in precipitation and climate. There are many springs and seeps in the allotment both in the lowlands and the uplands.

The Final Multiple Use Decision for Cherry Creek carried forth management actions and adjustments to permitted use to improve riparian areas to properly functioning condition. Changes implemented in 2002 included voluntary non use of AUMS, deferred grazing system during the critical spring growing period from March 1 to April 30, and a rest rotation system for the two Goshute Seeding pastures. Implementation of these management actions have helped to improve several riparian areas throughout the allotment even with decreasing precipitation. While several riparian areas have improved there are still riparian areas that are not improving toward proper functioning condition. This lack of improvement is attributed to livestock grazing in some cases as well as declining precipitation. Enclosure fences are proposed to restore some springs where grazing and trampling by livestock is preventing achievement of a healthy riparian area.

Riparian Areas Improving: The upper portion of Goshute Creek was also found to be in proper functioning condition in 2005, while the lower portion was found to be non-functional with an incised, gravelly, fairly straight channel with a high velocity flow, similar to a ditch and lacking riparian characteristics. Egan Creek was found to be in proper functioning condition in August 2005. In 2005, three springs analyzed in the Goshute Seeding had improved from functional at risk to proper functioning condition. A cluster of small springs/seeps located south of the Green Ranch were also analyzed. Four were rated proper functioning condition in 1995. Data for the remaining springs demonstrated that the springs were functional at risk to nonfunctional in 1995. Two springs in 1995 rated functional at risk and nonfunctional. In 2005, both springs showed improvement with a rating of proper functioning condition.

Riparian Areas Not Improving: In 1998, Duck creek flowed north of the Schellbourne Road for 0.75 miles. At that time, 5.5 miles of creek riparian were found to be in proper functioning condition. Livestock use was found to be light throughout the Duck Creek lowland riparian areas. The survey in 1998 was conducted during a very wet year. This led to extended stream flow and better than normal livestock distribution on wetland areas. In 2005, Duck Creek and associated wetlands were found to be in proper functioning condition for the first four miles, beginning at the southern allotment boundary and flowing north. This was the distance water occurred in the stream channel. Water was not flowing in the creek channel for approximately the next two miles, to Schellbourne Road. This two mile portion of the creek was found to be functioning at risk with some undercutting and bare banks observed and local heavy livestock utilization noted. Both 2005 and 1998 received about the same amount of precipitation, however lack of precipitation may also be a factor since the amount of precipitation received over the period of time between the two studies has declined (see Appendix II, Chart 7-1).

Standard 3. Habitat:
Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water,

cover and living space for animal species and maintain ecological processes. Habitat conditions meet the life cycle requirements of threatened and endangered species.

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

Causal Factors
□ Livestock are a contributing factor to not achieving the standard.
X 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 In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Not achieving the Standard, but making significant progress towards. Livestock are not a contributing factor to not achieving the Standard, failure to meet the standard is related to other issues or conditions.

Rangeland monitoring (including professional observations, ecological condition, line intercept studies, and key forage plant utilization) show habitat conditions throughout a large portion of the allotment exhibit a healthy, and productive, plant community that is progressing toward providing suitable habitat for wildlife and maintaining ecological processes. Key areas located in the slough, including those in saline meadow and the wet clay basin, indicate that plant diversity is good to excellent and that these areas are improving. The Overland Burn located in the Cherry Creek Range also has good plant diversity with a variety of upland shrubs and grasses including serviceberry (*Amelanchier* Medik.), elderberry (*Sambucus* L.), and basin wild rye (*Leymus cinereus)*.

Rangeland monitoring does indicate that several areas on the allotment are not exhibiting a healthy, and productive, plant community and are not progressing toward providing suitable habitat for wildlife and maintaining ecological processes. Three upland key areas (CC-08, 11, 14) have had increasing shrub densities over the past ten years. During this same ten year period upland key area CC-04 has had shrub densities decrease with primarily halogeton invading the area. In all of these areas the herbaceous understory is declining. Utilization by cattle at these key areas has been mostly light to moderate except for CC-14 which had heavy utilization in 2003. CC-08 also showed heavy

utilization as stated previously which was attributed to wild horses, not cattle. Precipitation data since 1981 does show an overall decline in precipitation, but whether this is a factor in why these areas are seeing increases in shrub densities has not been determined. It has been determined that the increase in shrub densities is not attributed to current livestock grazing, since utilization levels range primarily from slight to moderate.

Although the majority of the allotment exhibits a healthy diverse mix of plant communities, the monitoring data does indicate in some areas that desirable plant species are lacking and ecological processes are not being maintained. These areas are losing resiliency as the favorable understory of grasses, forbs, shrubs, and small trees declines under a spreading pinyon/juniper canopy, or declines as Wyoming big sagebrush range transitions to a monoculture of woody species dominance. A discussion of these problems by dominant vegetation areas follows.

Black sagebrush range sites
Professional observation and photographs indicate inappropriate cover, composition, and production in significant portions of the black sagebrush range sites. Small trees, shrubs, grasses, and forbs are declining beneath a thick spreading canopy of juniper and pinyon trees. Understory decadence and mortality are common. Pinyon and juniper trees are estimated to compose up to a disproportionate 60% of total ground cover on these range sites.

Pinyon/juniper woodland community
The pinyon/juniper woodland range sites within the western portions of the Egan Basin in the Cherry Creek Allotment exhibit a spreading, dense overstory tree canopy and an impoverished (sparse to absent) understory of small trees, shrubs, grasses and forbs as indicated by range site potential information, professional observation, and photographs. These woodland plant communities are considered to be over-mature due to the lack of natural wildfire disturbance. Competition, shading, and spreading root systems are all factors leading to a declining understory. Several walks through these areas have revealed common understory decadence and mortality of shrubs and the herbaceous species. Black sagebrush, mountain mahogany, serviceberry, bluebunch wheatgrass (*Pseudoroegneria spicata*), Indian ricegrass (*Achnatherum hymenoides*), Thurber's needlegrass (*Achnatherum thurberianum*), and other species are lacking or absent in major portions of the woodland sites. Thus there is an inappropriate cover, composition, and production in these areas. Competition, shading, and spreading root systems are all factors leading to a declining understory. Understory vegetative composition should be about 35% grasses, 15% forbs, and 50% shrubs and young trees when the average overstory canopy is medium (20 to 35%).

Wyoming big sagebrush range sites
Portions of the Wyoming big sagebrush range within the Cherry Creek Allotment have passed a threshold, transitioning to dominance of woody Wyoming big sagebrush while losing herbaceous native grass and forb production. Range data from the 2000 evaluation, photographs, and professional observation support the conclusion that woody Wyoming sagebrush is becoming over-dominant in these areas. The different types of

Wyoming big sagebrush range sites on the allotment should consist of anywhere from 40 to 55% perennial grass composition by weight according to the range site descriptions. Indian ricegrass and needle and thread are two key native grasses that are lacking in the sagebrush understory.

These sagebrush areas have been affected historical grazing, by drought, and lack of wildfire. The value of these areas for watershed and as habitat for wildlife and livestock is declining. Again, these areas should continue to be monitored and vegetation treatments that restore range resiliency and health should be considered for these areas.

Big Rock Seeding Allotment Standards Review

Standard 1. Upland Sites

Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and land form.

As indicated by:

- Indicators are canopy and ground cover, including litter, live vegetation and rock, appropriate to potential of the site.

Determination:

X Achieving the Standard

□ Not Achieving the Standard, but making significant progress towards achieving

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

Causal Factors

□ 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 In conformance with the Guidelines

□ Not in conformance with the Guidelines

Conclusion: Standard Achieved

UPLANDS Sites: Rangeland monitoring and professional observation indicates that overall soil condition is currently being maintained on the native range. Soils are stable and productive and the topsoil is holding in place.

All five key areas occur in gravelly loam to very gravelly sandy loam with slight sloping. No rill or sheet erosion was observed. Line intercept cover studies conducted at the five key areas within the allotment showed a cover of 25 to 58 percent. A well dispersed accumulation of litter is also present at each key area from past years' growth with cover providing very adequate support to functioning soil conditions.

Standard 2. Riparian and Wetland Sites – Standard Not Accessed
Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria.

As indicated by:

- 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 accelerating 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); and other cover (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 plant species and cover appropriate to the site characteristics.
    - Chemical, physical and biological water constituents are not exceeding the state water quality standards.

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

Determination:
□ Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards
□ Not Achieving the Standard, and not making significant progress toward standard

Causal Factors
□ 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:
□ In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Standard Not Accessed
Riparian: There are five natural springs and one developed spring on the Big Rock Seeding Allotment on public land. All six of these springs are located above 6, 800 feet in steeper terrain dominated by pinion juniper woodlands. Due to these factors, none of these springs are accessed by cattle. Proper functioning condition (PFC) to evaluate riparian health and functionality has not yet been determined for these springs. The one developed spring has water piped to a trough at a lower elevation to water livestock. See Appendix IV, Figure VII for a map of water sources for this allotment.

Standard 3. Habitat:
Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water, cover and living space for animal species and maintain ecological processes. Habitat conditions meet the life cycle requirements of threatened and endangered species.

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

Causal Factors
□ 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 In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Standard Achieved.

Rangeland monitoring (including professional observations and key forage plant utilization) show habitat conditions overall exhibit a healthy, and productive, plant community that is providing suitable habitat for wildlife and maintaining ecological processes over the majority of the allotment. Vegetative structure and distribution is appropriate for this crested wheatgrass seeding allotment as determined by monitoring data, range observations and professional judgment. The level area within this allotment is a crested wheatgrass seeding with the plant community dynamics altered. The steeper terrain of this allotment has not been altered and is covered by native vegetation, predominately pinion juniper woodland vegetation.

Line intercept cover studies conducted at the five key areas indicate that the vegetative composition is predominately crested wheatgrass *(Agropyron desertorum)* with Wyoming big sagebrush *(Artemisia tridentate wyomingensis)* and Sandberg bluegrass (*Poa secunda*) reestablishing in portions of the allotment. Trace amounts of halogeton *(Halogeton glomeratus)* are also present. Although shrub densities are increasing, the crested wheatgrass is maintaining good vigor and this grass species is able to handle the grazing pressure, especially during the critical growing season.

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

Cherry Creek Allotment Standards Summary Review

Standard #1: Upland Sites
Not achieving the Standard, but making significant progress towards. Livestock are not a contributing factor to not achieving the Standard, failure to meet the standard is related to other issues or conditions.

Standard #2: Riparian and Wetlands
Not achieving the Standard, but making significant progress towards. Livestock are a contributing factor to not achieving the Standard, failure to meet the standard is also related to other issues or conditions.

Standard #3: Habitat
Not achieving the Standard, but making significant progress towards. Livestock are not a contributing factor to not achieving the Standard, failure to meet the standard is related to other issues or conditions.

Big Rock Seeding Allotment Standards Summary Review

Standard #1: Upland Sites
The Standard is being achieved.

Standard #2: Riparian and Wetlands
The Standard is not assessed.

Standard #3: Habitat
The Standard is being achieved.

PART 3. GUIDELINE CONFORMANCE REVIEW AND SUMMARY

Cherry Creek Allotment Guideline Conformance Review and Summary

Grazing is in conformance with all applicable Guidelines as provided in the Northeastern Great Basin Standards and Guidelines. Based on a review of the monitoring data presented in this determination, current livestock grazing management practices in the Cherry Creek Allotment are largely in conformance with the Guidelines for Livestock Grazing Management. Grazing systems are in place according to the grazing decision of 2001 and livestock grazing agreements reached as a result of the 2001 decision. The reduction in AUMS and grazing systems have distributed livestock use and result in moderate or less utilization of key forage plant species resulting in appropriate production and cover. Range improvement projects including a fence splitting the Goshute Seeding into separate pastures has improved springs within the east pasture. Additional range

improvement projects including riparian protection fencing are being planned for the springs/seeps to help continue progressing toward achieving Standard 2.

Big Rock Seeding Allotment Guideline Conformance Review and Summary
Grazing is in conformance with all applicable Guidelines as provided in the Northeastern Great Basin Standards and Guidelines.

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

Discussion:
Current management practices implemented since the Final Multiple Use Decision for Cherry Creek and the agreements with permittees are helping this allotment to progress toward achieving the three standards. Current management practices for Big Rock Seeding Allotment have helped this allotment to achieve the two standards assessed.

Recommendations:
The Terms and Conditions established in the Final Multiple Use Decision for Cherry Creek Allotment dated July 20, 2001 and in accordance with the permittee agreements will continue to be included in the term permits for all authorized permittees on the Cherry Creek Allotment. See Appendix V for the terms and conditions for each permittee. Continue all desirable livestock management practices currently being implemented for both allotments. Establish utilization levels for both allotments on key forage species. Continue rangeland monitoring of these allotments for livestock in compliance with proper allowable use levels for these allotments. For the Cherry Creek Allotment continue to evaluate riparian areas and determine if additional management actions such as enclosure fences are needed.

Cherry Creek Allotment

1. Establish utilization levels as follows:

- Perennial grasses: 50% total 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 and half-shrubs: 50% use on current annual production.

  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.

- Crested wheatgrass: 65% use on current annual production.

Big Rock Seeding Allotment

1. Establish utilization levels as follows:

- Crested wheatgrass: 65% use on current annual production.

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APPENDIX II - DATA ANALYSIS FOR CHERRY CREEK ALLOTMENT

1. Review of Final Multiple Use Decision/Management Action Selection Report
A Final Multiple Use Decision was issued for the Cherry Creek Allotment on July 20, 2001. This document was reviewed during the analysis along with current data.

2. Key Areas and Location
A key area is a relatively small portion of a unit selected as a point for monitoring change in vegetation or soil and the impacts of management. Key areas, if properly located, reflect the current management over similar important areas in the unit. Key areas represent range conditions, trends, seasonal degrees of use, and resource production and values. Table 2-1 depicts key areas and their location within this allotment as well as the year established. Although not included in this table, there are an additional eleven key areas located in the seeding pastures and the native slough area of the allotment used to monitor utilization only.

Table 2-1. Cherry Creek Allotment Key Areas

Key Area	Year Established	Location
CC-001	1983	T25N, R63E, sec. 13 NESE
CC-01	1993	T22N,R63E SEC 1 SENW
CC-02	1993	T23N,R63E, SEC 1
CC-03	1993	T26N,R64E SEC 22 SE
CC-04	1995	T23N,R63E, SEC 8
CC-05	1995	T24N,R63E, SEC 10 NESW
CC-06	1995	T24N,R64E,SEC 19 NE
CC-07	1995	T24N,R64E, SEC 16 SW
CC-08	1995	T24N,R65E, SEC 6
CC-8b	1998	T25N,R65E, SEC 32 W1/2
CC-09	1996	T24N,R64E, SEC 9 NE
CC-10	1996	T26N,R64E, SEC 27
CC-11	1996	T25N, R64E, SEC 6 SESW
CC-12	1996	T23N,R62E
CC-14	1997	T23N,R63E, SEC 8 SESW
CC-15	1997	T25N,R65E, SEC 29 SENE
CC-16	1997	T24N,R63E, SEC 21 SW
CC-17	1997	T22N,R63E SEC 12
CC-18	1998	T25N,R64E, SEC 9 NW
CC-19	1998	T24N,R63E, SEC 22 SE

3. Vegetative Cover and Composition
Ecological Sites are interpretive units into which landscapes of native vegetation are separated for study, evaluation, and management. An ecological site, as defined for rangeland, is a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of

vegetation (NRCS 1997). The ecological site of a key area is determined based on several factors including soil mapping unit, topography, and plant community.

The Line Intercept Cover Study is a commonly used method of estimating the relative percent live foliar cover of a range site by plant class (tree, shrub, grass, forb, or annual). The method also estimates the percent live foliar cover by plant species. The results are then compared to the appropriate cover for each range site as indicated by the Natural Resources Conservation Service (NRCS) range site guides. Results are also compared to what is known about healthy rangelands in general.

Listed below in Table 3-1 are descriptions of the ecological sites within the Cherry Creek Allotment where key areas have been established and monitored using the line intercept cover study. Included in this list are the associated soil description, precipitation zone, and the plant community composition and cover. Data collected for each key area regarding vegetative cover and vegetative composition is summarized within each table.

Most key areas are meeting the cover appropriate to the site. Four key areas (CC-02, 04, 11, 14) have increased cover over the last ten years to meet the appropriate amount cover for their ecological site. Two key (CC-001, 08) have decreased cover over the last ten years and are not meeting the appropriate amount of cover for their ecological site. Data collected for the remaining key areas demonstrated that cover is appropriate in association with the ecological site. Current cattle grazing is not attributed to the declining cover at CC-001 and CC-08. CC-001 has been grazed in the light to moderate range since 2002 (see Table 6-1). Heavy utilization was document in 2008 at Key Area CC-08 in the Woodcamp Pasture. This is attributed to wild horses that were observed in the area, since cattle did not graze this pasture during that time. Since both sites had appropriate cover in 1998, lower precipitation may be a factor in the decline of vegetative cover. Both sites are also seeing an increase in halogeton.

Key areas located in the slough include those in saline meadow CC-01, 06, 07, 09, 10, 17, 18 and the wet clay basin CC-02. Although the ratio of grasses, forbs and shrubs varies from the potential vegetative composition, professional observations (data notes) at these sites indicate that plant diversity is good to excellent and that these areas are improving. Key area CC-12 is an upland site located in the Overland Burn and professional observations here also indicate good plant diversity including serviceberry, elderberry, and basin wild rye.

Several key areas are not meeting the potential vegetative composition for their ecological site. Upland key areas CC-08, 11, and 14 have undergone increasing shrub densities over the past ten years. During this same ten year period upland key area CC-04 has had shrub densities decrease with primarily halogeton invading the area. Utilization by cattle at these key areas has been mostly light to moderate except for CC-14 which had heavy utilization in 2003 (see Table 6-1). CC-08 also showed heavy utilization as stated previously. Precipitation data since 1981 does show an overall decline in precipitation, but whether this is a factor in why these areas are seeing increases in shrub densities has not been determined. It has been determined that the

increase in shrub densities is not attributed to current livestock grazing since utilization levels are primarily in the slight to moderate range.

Table 3-1. Ecological Sites Descriptions, Associated Key Areas, Vegetative Cover and Composition Data

028BY002NV. Saline Meadow 6 - 10" P.Z. Plant community dominated by alkali sacaton. Alkali cordgrass, alkali bluegrass, and sedges are important associated species. Potential veg composition is about 85% grasses and grass-likes, 10% forbs, and 5% shrubs. Approximate ground cover (basal and crown) is about 15 – 25 percent.				
Key Areas	Date Monitored	*Cover (%)*	*Composition (%)	Data Notes
CC-01	6/25/1998	6% See notes	Grasses 33% Forbs 34% Shrubs 33%	Single stem grasses common in the transect, but not included are juncus and spartina. Cover appropriate to site. Soil has high salt content, production is low.
CC-06	6/29/1998	10% See notes	Grasses 70% Forbs 30% Shrubs 0%	No soil compaction or trampling. Good species diversity, fair production.
CC-07	7/8/1998	8% See notes	Grasses 88% Forbs 12% Shrubs 0%	About 60-65% of ground surface is covered with vegetation. No soil compaction or trampling. Young greasewood shrubs are sprouting in a couple of places.
CC-09	7/7/1998	14% See notes	Grasses 57% Forbs 43% Shrubs 0%	Single stem grasses common in the transect but not counted. Cover appropriate to site. Soil has mildly salt content, no compaction or trampling observed.
CC-10	7/7/1998	2% See notes	Grasses 74% Forbs 26% Shrubs 0%	Single stem grasses common in the transect but not counted. Cover appropriate to site. Some trampling of soil observed, no compaction of soil observed.
CC-17	7/8/1998	See notes	See notes	Cover and composition not collected at this site because 100% ground coverage by foliar cover. Good grass and forb diversity present. Soils not trampled or compacted.
CC-18	7/31/2007	22%	Grasses 67% Forbs 4% Shrubs 29%	A good ecological site with excellent native plant diversity. Soils are stable with no excess compaction.

028BY011NV. Shallow calcareous loam 8 - 10" P.Z. Plant community dominated by black sagebrush, Indian ricegrass and needleand thread. Potential veg composition is about 50% grasses, 10% forbs, and 45% shrubs. Approximate ground cover (basal and crown) is 15 - 20 percent.				
Key Areas	Date Monitored	*Cover (%)*	*Composition (%)	Data Notes
CC-001	8/1/2007	13%	Grasses 33% Forbs 0% Shrubs 67%	Soils - biotic crust are common in the shrub interspaces, no excess trampling or compaction. Stable gravely soil. Very minor cheatgrass present.
	6/16/1998	21%	Grasses 19% Forbs trace Shrubs 81%	Soils no excess trampling or compaction. Cheatgrass is abundant.
CC-08	8/2/2007	14%	Grasses 8% Forbs 0% Shrubs 92%	Halogeton invading winterfat patches. Soils no excessive trampling or compaction, cryptomatic crust present. Sign of wild horse and sheep observed at key area. Not grazed by cattle.
	6/25/1998	22%	Grasses 18% Forbs 0% Shrubs 82%	Soil is stable.
CC-08b	6/25/1998	26%	Grasses 23% Forbs trace Shrubs 77%	Soils no excessive trampling or compaction, some light pedestalling, and cryptomatic crust present.
CC-16	6/16/1998	18%	Grasses 27% Forbs 16% Shrubs 57%	Soils no excess trampling or compaction. Cheatgrass is abundant.
028BY052NV. Droughty Loam 8-10" P.Z. The plant community is dominated by Wyoming big sagebrush, spiny hopsage, Indian ricegrass and needleandthread. Potential vegetative composition is about 45% grasses, 5% forbs and 50% shrubs. Approximate ground cover (basal and crown) is 20 to 35 percent.				
Key Areas	Date Monitored	*Cover (%)*	*Composition (%)	Data Notes
CC-05	8/1/2007	35%	Grasses 11% Forbs 0% Shrubs 89%	Biotic crust is present, but infrequent in shrub interspaces. Utilization is light or less. Cheatgrass is present, but infrequent. No excess trampling or compaction

028BY075NV. Coarse Gravelly Loam 6 – 8" P.Z.
Plant community dominated by Indian ricegrass and shadscale. Bud sagebrush and winterfat are important associated plants. Potential veg composition is about 50% grasses, 5% forbs, and 45% shrubs. Approximate ground cover (basal and crown) is about 15 - 25 percent.

Key Areas	Date Monitored	*Cover (%)*	*Composition (%)	Data Notes
CC-04	8/2/2007	24%	Grasses 7% Invasive (Halogeton) 82% Shrubs 11%	Shadscale is dying off, some young plants are vigorous. Halogeton and cheatgrass are invading the area. Soils are untrampled, biotic crust is common in shrub interspaces.
	6/18/1998	6%	Grasses 17% Forbs 0% Shrubs 83%	Cheatgrass abundant, but not counted in transect. Utilization slight or less. Native plants are vigorous.
CC-11	7/31/2008	35%	Grasses 17% Forbs 0% Shrubs 83%	Stable gravely loam or loam soil. Biotic crusts present and common in shrub interspaces. Halogeton and cheatgrass present in pockets. Horse use evident with use on Indian ricegrass slight or less.
	6/29/1998	14%	Grasses 21% Forbs 0% Shrubs 79%	Some pedestalling of plants observed, but no compaction or trampling of soils present. Cheatgrass is abundant.
CC-14	8/2/2007	36%	Grasses 21% Forbs 0% Shrubs 79%	Indian ricegrass is vigorous and lightly grazed. Cattle sign present from last year and rabbit sign present. Soils are stable and untrampled, biotic crust present in shrub interspaces. Cheat grass is present.
	6/18/1998	10%	Grasses 66% Forbs 0% Shrubs 44%	Native grasses have good vigor. Soils are stable and untrampled, biotic crust present in shrub interspaces. Cheat grass is abundant.

028BY094NV. Calcareous Loam 10-14" P.Z.
The plant community is dominated by bluebunch wheatgrass, Indian ricegrass, and big sagebrush. Potential vegetative composition is about 60% grasses, 5% forbs and 35% shrubs and trees. Approximate ground cover (basal and crown) is 20 to 30 percent.

Key Areas	Date Monitored	*Cover (%)*	*Composition (%)	Data Notes

CC-12	8/1/2007	25%	Grasses 10% Forbs 22% Shrubs 68%	Very good plant diversity and good cover. Plants present but not in transect serviceberry, elderberry, and basin wild rye. Soils are stable, no excess trampling. Located in Overland burn, burn is several years old.
028BY098NV. Wet Clay Basin The plant community is dominated by inland saltgrass, bluegrasses, rushes and sedges. Povertyweed and cinquefoil are important species associated with this site. Potential vegetative composition is about 60% grasses and 40% forbs. Approximate ground cover (basal and crown) is 0 to 80 percent.				
Key Areas	Date Monitored	*Cover (%)*	*Composition (%)	Data Notes
CC-02	7/31/2007	15.27%	Grasses 14% Forbs 86% Shrub 0%	Rushes are present Stable soil with good vegetation cover. No excess trampling or compaction of soils. Old trail along road is filling in with grasses, site is improving.
	7/8/1998	6%	Grasses 33% Forbs 67% Shrub 0%	

4. Similarity Index of Ecological Site Inventory
The Integrated Vegetation Management Handbook H-1740-2 describes the similarity index of Ecological Site Inventory to assess vegetation condition. The similarity index is a calculation based on a comparison of the plant species composition of a presently existing plant community to the plant species composition of a reference condition (potential natural community or climax). When the similarity index is computed, a successional status category is derived that signals how far away or how close the presently existing plant community is successionally to the historic climax plant community or the potential natural community for that ecological site. A similarity index of 0 to 25% represents an early seral plant community. A similarity index of 26 to 50% represents a mid-seral plant community. A similarity index of 51 to 75% represents a late seral plant community. A similarity index of 76 to 100% represents the potential natural community.

It should be understood that vegetation objectives that are developed using successional status (seral status) categories are not always focused on achieving the reference condition(s). Another way of saying this is that the potential natural community or the historic climax plant community is not always the target endpoint of vegetation management. The reference indicators are the range in production (pounds per acre) of each plant species' annual aboveground production (air-dry weight), or less frequently, cover, for the potential natural community or the historic climax plant community. Sometimes the range in production or range in cover is also converted to a range in

percent of plant species composition. Existing plant species composition is compared against the reference indicators to estimate successional or seral status.

It should also be noted that BLM no longer links the seral status categories of potential natural community, late seral, mid-seral, and early seral, to range condition categories of excellent, good, fair, and poor. The range condition categories of excellent, good, fair, and poor were developed to connote forage condition of the rangeland for livestock types (for example cattle and sheep). Instead this technique in conjunction with other data ascertains livestock forage condition, assesses the relative value of vegetation communities for wildlife and their habitat, and ascertains the achievement of health standards in relation to vegetation.

The National Range and Pasture Handbook defines trend as a rating of the direction of change that may be occurring on a site. The plant community and the associated components of the ecosystem may be either moving toward (improving) or away (declining) from the desired plant community. At times, it can be difficult to determine the direction of change and trend may be determined as not apparent.

The following table describes the potential natural plant community and plant community dynamics for each ecological range site identified. It also summarizes ecological status and trend for data collected at several key areas for the Cherry Creek Allotment. Most key areas are in the mid to late seral stages. Trend is not apparent for most key areas. Trend is declining or moving away from the desired plant community for key areas CC-01, CC-11, CC-14, and CC-02. Trend is improving or moving toward the desired plant community at key area CC-17.

Table 4-1. Ecological Status/Seral Stages and Trend of Cherry Creek Allotment Key Areas

Range Site: 028BY002NV

The potential natural vegetative community for this ecological range site should be dominated by alkali sacaton. Alkali cordgrass, alkali bluegrass and sedges are important associated plant species. As ecological condition declines, inland saltgrass and Baltic rush increase, as alkali sacaton and alkali bluegrass decrease. Where severe stream entrenchment occurs, the potential for this site is lost due to change in soil moisture balance. Typically, this site is succeeded by the plant community characterized in the Saline Bottom (028BY004NV) site description following severe stream down cutting that is dominated by basin wildrye and alkali sacaton.

Key Area	Date	Ecological Status	Trend
CC-01	6/29/1998	Mid Seral	declining
CC-06	6/29/1998	Mid Seral	not apparent
CC-07	7/8/1998	Late Seral	not apparent
CC-09	7/7/1998	Mid Seral	not apparent
CC-10	7/7/1998	Mid Seral	not apparent
CC-17	7/8/1998	Late Seral	improving

Range Site: 028BY011NV

The potential natural vegetative community for this ecological range site should be dominated by black sagebrush, Indian ricegrass and needleandthread. As ecological condition declines, black sagebrush, rabbitbrush and shadscale increase, while perennial grass, palatable shrubs and forbs decrease. Cheatgrass and halogeton are species likely to invade on this site.

Key Area	Date	Ecological Status	Trend
CC-001	6/16/1998	Mid Seral	not apparent
CC-08	6/25/1998	Mid Seral	not apparent
CC-08b	6/25/1998	Mid Seral	not apparent
CC-16	6/16/1998	Mid Seral	not apparent

Range Site: 028BY075NV

The potential natural vegetative community for this ecological range site should be dominated by Indian ricegrass and shadscale. Bud sagebrush and winterfat are important associated plants. As ecological condition declines, shadscale and Douglas' rabbitbrush will increase in density, while Indian ricegrass composition will be reduced. With further degradation, shadscale may become dominant to the extent of a nearly pure stand. After a major disturbance such as a fire, Douglas' rabbitbrush may become dominant on this site. Cheatgrass, halogeton and mustards are the likely species to invade this site.

Key Area	Date	Ecological Status	Trend
CC-04	6/18/1998	Mid Seral	not apparent
CC-11	7/31/2007	Early Seral	not apparent
	7/7/1998	Mid Seral	declining
CC-14	8/2/2007	Mid Seral	declining
	6/18/1998	Mid Seral	not apparent

Range Site: 028BY098NV

The potential natural vegetative community for this ecological range site should be dominated by inland saltgrass, bluegrasses, rushes and sedges. Povertyweed and cinquefoil are important species associated with this site. This is not a stable plant community. This plant community may be completely water covered during the growing season, or it can be a very productive site, often dominated by annual forbs, in drier years.

Key Area	Date	Ecological Status	Trend
CC-02	7/8/1998	Mid Seral	declining

Range Site: 028BY052NV

The potential natural vegetative community for this ecological range site should be dominated by Wyoming big sagebrush, spiny hopsage, Indian ricegrass and needleandthread. As ecological condition declines, Wyoming big sagebrush, spiny hopsage, horsebrush and other shrubs increase in density as Indian ricegrass and needleandthread decrease.

Key Area	Date	Ecological Status	Trend

CC-05	8/1/2007	Mid Seral	not apparent

5. Licensed Livestock Use

Since the implementation of the FMUD in 2002, livestock licensed actual use on the Cherry Creek Allotment has varied dependent on growing conditions, available forage, and management objectives of the permittees and the BLM. Table 3-1 includes licensed actual use and percentage of licensed actual use compared to total active AUMs permitted by allotment and pasture from 2002 to 2007. The total number of active AUMs for the Cherry Creek Allotment is 5,293. The break down by pasture for this total amount is:

Native Range	3,800 Active AUMs
Goshute Seeding East	174 Active AUMs
Goshute Seeding West	285 Active AUMs
North Egan Seeding	400 Active AUMs
South Egan Seeding	634 Active AUMs

Table 5-1. Cherry Creek Allotment Licensed Actual Use

Grazing Year	Pasture Name	Licensed Actual Use (AUMs)	% Licensed Actual Use of Total Permitted Use
2002	Native Range	3258	86%
	Goshute Seeding East	108	62%
	Goshute Seeding West	174	61%
	North Egan Seeding	183	46%
	South Egan Seeding	310	49%
2002 Total		4033	76%
2003	Native Range	2873	76%
	Goshute Seeding East	146	84%
	Goshute Seeding West	95	33%
	North Egan Seeding	348	87%
	South Egan Seeding	275	43%
2003 Total		3737	71%
2004	Native Range	1924	51%
	Goshute Seeding East	23	13%
	Goshute Seeding West	25	9%
	North Egan Seeding	146	37%
	South Egan Seeding	633	100%
2004 Total		2751	52%
2005	Native Range	2866	75%
	Goshute Seeding East	42	24%
	Goshute Seeding West	149	52%
	North Egan Seeding	247	62%
	South Egan Seeding	549	87%

2005 Total		3853	73%
2006	Native Range	2221	58%
	Goshute Seeding East	180	103%
	Goshute Seeding West	255	89%
	South Egan Seeding	541	85%
2006 Total		3197	60%
2007	Native Range	3474	91%
	Goshute Seeding East	159	91%
	Goshute Seeding West	74	26%
	South Egan Seeding	445	70%
2007 Total		4152	78%

6. Utilization

The following is a summary of the livestock utilization data collected on the Cherry Creek Allotment. The Final Multiple Use Decision for Cherry Creek Allotment did not set maximum utilization on key forage species, however 50% utilization on perennial native grasses allows desirable key herbaceous species to develop above ground biomass for protection of soils, to contribute to litter cover, and to develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover. Utilization on crested wheatgrass is recommended at approximately 65% since this grass species is able to handle heavier grazing pressure, especially during the critical growing season.

The general utilization objective for all allotments in the former Egan Resource Area of the Ely District Office Area according to the Egan Resources Management Plan and Final Environmental Impact Statement (RMP/FEIS – September, 1984) and Record of Decision (ROD – February, 1987) is to "Establish utilization limits to maintain watershed cover, plant vigor and soil fertility in consideration of plant phenology, physiology, terrain, water availability, wildlife needs, grazing systems and aesthetic values." (Egan ROD, p. 44). The Nevada Rangeland Monitoring Handbook gives recommendations as to the proper use levels by plant category (grass, forbs, shrubs) and by grazing season (spring, summer, fall, winter, yearlong). Proper use levels for all allotments are also implied by the Standards and Guidelines for Rangeland Health and Grazing Administration (February 1997).

Key forage plant utilization method (KFPM) was used to collect utilization data at the key areas. Several key areas have been established throughout the Cherry Creek Allotment in native range and crested wheatgrass seeding pastures to measure utilization. Utilization for each grazing year by key area is summarized in Table 4-1. Utilization primarily ranged from the slight to moderate range. Heavy utilization was documented at three key areas in 2003 and one key area in 2007. Some of the heavier utilization may be attributed to lower precipitation affecting forage production and poor livestock distribution in these areas. Heavy utilization on winterfat in 2008 at Key Area CC-08 in

the Woodcamp Pasture is attributed to wild horses that were observed in the area, since cattle did not graze this pasture during that time. Key area GS-1 is in a crested wheatgrass seeding and the heavy (62%) utilization at this area was within an acceptable range for this plant specie.

Table 6-1. Cherry Creek Allotment Utilization Summary

Grazing Year	Key Area	Key Species	Percent Utilization	Utilization Range
2001	CC-01	*combined slough veg.	32%	light
	CC-02	combined slough veg.	36%	light
	CC-03	combined slough veg.	44%	moderate
	CC-04	Indian ricegrass	52%	moderate
	CC-06	combined slough veg.	20%	slight
	CC-07	Alkali bluegrass	20%	slight
		basin wildrye	10%	slight
	CC-09	combined slough veg.	12%	slight
	CC-10	combined slough veg.	44%	moderate
	CC-14	Indian ricegrass	58%	moderate
	CC-16	Indian ricegrass	38%	light
	CC-17	combined slough veg.	44%	moderate
	CC-19	alkali sacaton	18%	slight
2002	CC-001	Indian ricegrass	44%	moderate
	CC-01	combined slough veg.	20%	slight
	CC-02	combined slough veg.	26%	light
	CC-03	combined slough veg.	38%	light
	CC-04	Indian ricegrass	52%	moderate
	CC-05	Indian ricegrass	14%	slight
	CC-06	combined slough veg.	14%	slight
	CC-08	Indian ricegrass	42%	moderate
		winterfat	14%	slight
	CC-10	combined slough veg.	40%	light
	CC-11	bottlebrush squirreltail	54%	moderate
	CC-14	Indian ricegrass	52%	moderate
	CC-15	winterfat	24%	light
	CC-16	Indian ricegrass	44%	moderate
	CC-17	combined slough veg.	56%	moderate
	CC-19	alkali sacaton	12%	slight
	CC-20	combined slough veg.	40%	light
	CC-21	combined slough veg.	10%	slight
	CC-22	inland saltgrass	18%	slight
	CC-23	combined slough veg.	10%	slight
	CC-24	combined slough veg.	10%	slight

	NES-1	crested wheatgrass	28%	light
	NES-2	crested wheatgrass	58%	moderate
2003	CC-001	Indian ricegrass	34%	light
	CC-01	combined slough veg.	10%	slight
	CC-02	combined slough veg.	22%	light
	CC-03	combined slough veg.	42%	moderate
	CC-04	Indian ricegrass	60%	moderate
	CC-05	Indian ricegrass	10%	slight
	CC-06	combined slough veg.	18%	slight
	CC-07	basin wildrye	24%	light
		Inland saltgrass	20%	slight
	CC-08	Sandberg's bluegrass	50%	moderate
		winterfat	78%	heavy
	CC-09	combined slough veg.	10%	slight
	CC-10	combined slough veg.	46%	moderate
	CC-11	bottlebrush squirreltail	58%	moderate
	CC-14	Indian ricegrass	66%	heavy
	CC-15	Sandberg's bluegrass	46%	moderate
		winterfat	60%	moderate
	CC-16	Indian ricegrass	32%	light
		Needlegrass	32%	light
		Sandberg's bluegrass	16%	slight
	CC-17	combined slough veg.	46%	moderate
	CC-19	alkali sacaton	20%	slight
	CC-20	combined slough veg.	50%	moderate
	CC-21	combined slough veg.	10%	slight
	CC-22	inland saltgrass	14%	slight
	CC-23	combined slough veg.	12%	slight
	CC-24	combined slough veg.	34%	light
	GS-1	crested wheatgrass	62%	heavy
	NES-1	crested wheatgrass	28%	light
	NES-2	crested wheatgrass	46%	moderate
	SES-1	crested wheatgrass	32%	light
	SES-2	crested wheatgrass	32%	light
	SES-3	crested wheatgrass	44%	moderate
	SES-4	crested wheatgrass	36%	light
2005	CC-001	Indian ricegrass	30%	light
	CC-01	combined slough veg.	36%	light
	CC-02	combined slough veg.	22%	light
	CC-03	combined slough veg.	34%	light
	CC-04	Indian ricegrass	10%	slight

	CC-05	Indian ricegrass	22%	light
	CC-06	combined slough veg.	10%	slight
	CC-07	basin wildrye	14%	slight
		Inland saltgrass	18%	slight
	CC-08	Sandberg's bluegrass	10%	slight
		winterfat	10%	slight
	CC-09	combined slough veg.	16%	slight
	CC-10	combined slough veg.	48%	moderate
	CC-11	bottlebrush squirreltail	10%	slight
	CC-14	Indian ricegrass	24%	light
	CC-15	Sandberg's bluegrass	10%	slight
		winterfat	10%	slight
	CC-16	Indian ricegrass	38%	light
		Needlegrass	32%	light
	CC-17	combined slough veg.	34%	light
	CC-19	alkali sacaton	10%	slight
	CC-20	combined slough veg.	46%	moderate
	CC-21	combined slough veg.	10%	slight
	CC-22	inland saltgrass	30%	light
	CC-23	combined slough veg.	10%	slight
	CC-24	combined slough veg.	26%	light
	GS-1	crested wheatgrass	22%	light
	NES-1	crested wheatgrass	16%	slight
	NES-2	crested wheatgrass	32%	light
2007	CC-001	bottlebrush squirreltail	43%	moderate
	CC-11	bottlebrush squirreltail	48%	moderate
	CC-18	basin wildrye	72%	heavy
		combined slough veg.	48%	moderate

*Combined slough veg. is comprised primarily of alkali cordgrass, inland saltgrass, and rushes.

7. Precipitation data

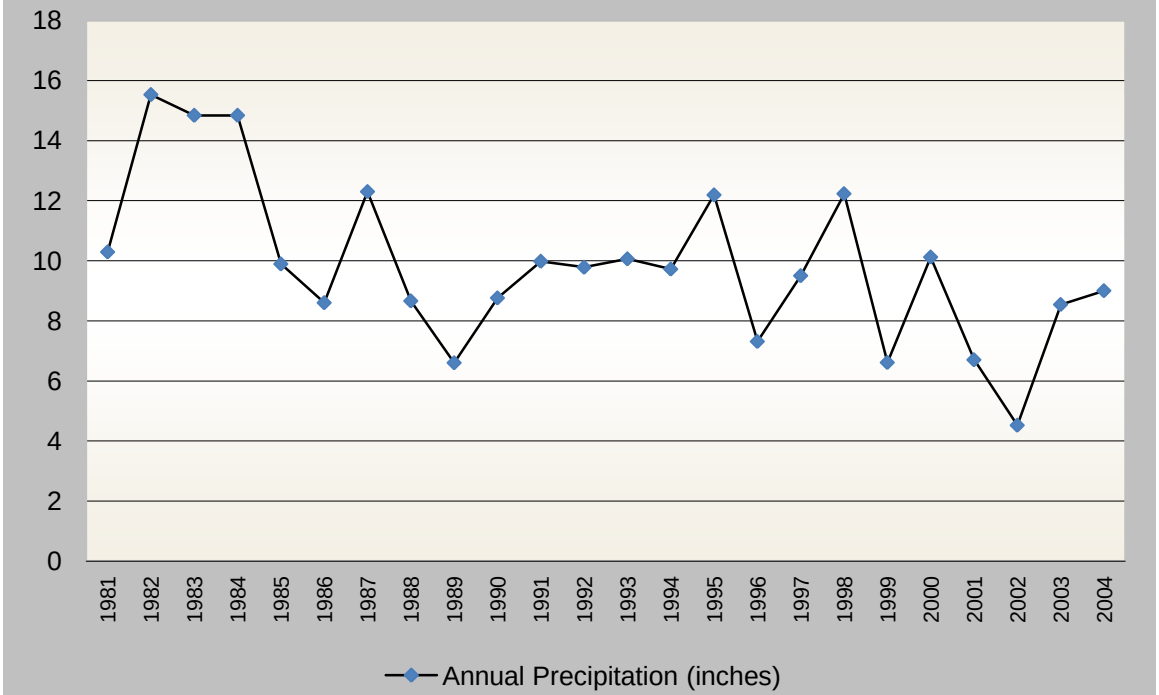
Historical climate data from the Western Regional Climate Center in Ely, Nevada is being used for this assessment. The table below includes data annual precipitation data collected since 1981. Chart 7-1 demonstrates the declining trend of precipitation since 1981.

Table 7-1. Annual Precipitation for Ely, Nevada

YEAR	ANNUAL PRECIPITATION	YEAR	ANNUAL PRECIPITATION	YEAR	ANNUAL PRECIPITATION
1981	10.29	1991	9.98	2001	6.7
1982	15.53	1992	9.78	2002	4.52

1983	14.84	1993	10.06	2003	8.54
1984	14.84	1994	9.72	2004	9
1985	9.89	1995	12.19	2005	12.99
1986	8.6	1996	7.31	2006	9.2
1987	12.3	1997	9.5	2007	6.76
1988	8.66	1998	12.23		
1989	6.6	1999	6.61		
1990	8.76	2000	10.12		

Chart 7-1. Annual Precipitation Graphed From 1981 to 2004



8. Analysis of Riparian Areas

The following is a summary of the monitoring data collected for riparian areas of the Cherry Creek Allotment from 1994 through 2005. Data was collected for both lentic (spring) and lotic (stream) riparian areas.

Lotic (Stream) Riparian Areas

There are three creeks (lotic riparian areas) that generally flow year round within the Cherry Creek Allotment. The creeks are Duck Creek, Egan Creek, and Goshute Creek. Lime Kiln Spring is also a lotic system with intermittent flow.

Duck Creek

The Duck Creek wetlands, also referred to in this evaluation as lowland riparian, is an area of up to several thousand acres surrounding Duck Creek. This area is also commonly referred to as "the slough" and consists mainly of wet meadow, saline bottom,

and saline meadow range sites. The acres of wetland vegetation within these sites may vary year by year due to variations in precipitation and climate. The water flow in Duck Creek also varies year by year for the same reasons.

On August 31, 2005, Duck Creek and associated wetlands were found to be in proper functioning condition for the first four miles, beginning at the southern allotment boundary and flowing north. This was the distance water occurred in the stream channel. Water was not flowing in the creek channel for approximately the next two miles, to Schellbourne Road. This two mile portion of the creek was found to be functioning at risk. Vegetation attributes and creek channel characteristics were good for the first 4 miles in the allotment. Stream sinuosity and bank cover were good. Vegetative cover was appropriate to the range site characteristics. For the next 2 miles, some undercutting and bare banks were observed, the channel was considered too deep (indicating downcutting of the channel), and local heavy livestock utilization was noted.

In August, 1998, Duck creek flowed north of the Schellbourne Road for 0.75 miles. At that time, 5.5 miles of creek riparian were found to be in proper functioning condition. Also, approximately 3,000 acres of associated lowland riparian were found to be in proper functioning condition. In August 1998, livestock use was found to be light throughout the Duck Creek lowland riparian areas. The survey in 1998 was conducted during a very wet year. This led to extended stream flow and better than normal livestock distribution on wetland areas. Estimates of acreage of wetlands can vary between wet and dry years

Egan Creek

Egan Creek was found to be in proper functioning condition in August, 2005 for about 1 mile of stream riparian habitat, from the quarry east to the mouth of the canyon. One of the three points of origin of the water sources for the creek was flowing. The other two sources were dry. These sources are on private ground west of the flagstone quarry. Upper Egan Creek (originating from Telegraph Creek) was flowing northerly clear to the confluence of Egan Creek near the private creek sources. This upper flow has not been seen in many years, and is unusual.

Although the road restricts sinuosity and the creek channel occurs in a narrow canyon, Egan Creek is in proper functioning condition with vegetation appropriate to range site potential. Some invasive plants occur near the creek including stinging nettle, poverty weed, cheatgrass, and thistle. Channel roughness and bank stability are excellent. Vegetation is very thick along the channel; more than adequate to dissipate energy during high flows. A good diversity of streamside vegetation was present including aspen, willow, rose, and chokecherry.

Goshute Creek

Approximately 1.25 miles of Goshute Creek was found to be in proper functioning condition on September 1, 2005. This stream section, from the fish ladder east to the east end of the third exclosure, has been protected by fencing since about 1975. Vegetative attributes were all good, including vegetation cover and composition appropriate to range

site potential. From the end of the third exclosure east to the county road, Goshute Creek was found to be nonfunctional. This portion of the creek has little value for riparian vegetation or fish habitat because of periodic flooding and alterations for irrigation water flow made by the local rancher that holds water rights for this stream. It is now an incised, gravelly, fairly straight channel with a high velocity flow, similar to a ditch.

Lime Kiln Spring (686)
This is a lotic (stream) system that flows from April to first of June in normal years and to end of July in wet years. Rated proper functioning condition in 1995, no bare banks or cattle degradation was present.

Lentic (Spring) Riparian Areas
Spring Sources No. 634-641
A cluster of eight small springs/seeps were identified in the Cherry Creek Allotment in December of 1980. The springs/seeps are located on public land south of the Cordano Ranch in T. 25N., R. 64E., Section 5, SE 1/4. They are on level terrain amidst salt desert shrub range. Nevada Water Resource Inventory forms were completed for all eight of the springs, numbered 634 - 641. The inventory forms indicated the largest spring had a flow estimated at 1/4 to 1/2 gallon per minute (gpm) with other springs having less than 1/4 gpm flow or no flow at all. Two springs were classified as perennial while four were intermittent.

In July of 1995 lentic (spring) proper functioning condition studies were completed by a riparian team for five of the eight sources, numbers 635, 637, 638, 639, and 640. Additional proper functioning condition studies were completed in 2005 for 634, 635, 636, and 637. Source number 638 was rated proper functioning condition. Data for the remaining springs demonstrated that the springs were functional at risk to nonfunctional. Sources 635 and 637 rated in 1995 and again in 2005. Both springs were rated as functional at risk in 1995, and showed no improvement with a rating of functional at risk for 635 and nonfunctional for 637. Heavy use by livestock and invasive species were identified as factors for this declining condition. A summary of the results of these studies is in Table 8-1. See Appendix IV, Figures III through V for maps with the location of these springs.

Spring Sources No. 644 - 649
A second cluster of ten small springs/seeps was also identified in the Cherry Creek Allotment in December of 1980 and June of 1982. These springs are located in the Goshute Seeding in T. 25N., R. 64E., Section 17, NE 1/4. They are on level terrain amidst the crested wheatgrass of the seeding. The springs/seeps are an important cattle watering source for cattle authorized to graze the seeding. Inventory forms indicated spring/seep flows were estimated from less than 1/2 to 2 gpm. Flows were unmeasureable because of seep like conditions.

In July of 1995 lentic (spring) proper functioning condition studies were completed by a riparian team for water sources 644, 644A, 645, 646, 647, 648, and 649. Additional proper functioning condition studies were completed in 2005 for 644, 645, 646, 647, 648,

and 649. All springs rated in the Goshute Seeding had improved to proper functioning condition. Plant species and cover were appropriate to site characteristics. These spring sources are located in a completely fenced seeding and spring livestock grazing use is differed every other year. A summary of the results of these studies is in Table 8-1. See Appendix IV, Figures III through V for maps with the location of these springs.

Spring Sources No. 650 – 654, 671, and 672

A third cluster of small springs/seeps was also identified in the Cherry Creek Allotment in June of 1982. These springs are located south of the Green Ranch in an area of public land that has been fenced on two sides. They are on level terrain amidst salt desert shrub range. Inventory forms indicated spring/seep flows were measured or estimated from no visible flow to 2 gpm.

In July of 1995 lentic (spring) proper functioning condition studies were completed by a riparian team for six springs/seeps in the area identified above for sources numbered 650R, 651, 652R, 653, 654, 671, and 672.. One new spring/seep numbered 652-1R was also identified and studied. Additional proper functioning condition studies were completed in 2005 for 650, 652, 653, and 654. Sources 650R, 651, 652R, 652R-1R were rated proper functioning condition in 1995. Data for the remaining springs demonstrated that the springs were functional at risk to nonfunctional in 1995. Factors identified for these declining conditions include hummocking and lack of visible flow of water. Sources 653 and 654 were rated in 1995 and again in 2005. In 1995, spring 653 was rated as functional at risk and spring 654 was rated nonfunctional. In 2005, both springs showed improvement with a rating of proper functioning condition.

Spring Sources No. 712-715

A fourth cluster of small springs/seeps was identified in the Cherry Creek Allotment in July of 1983. These springs are located northeast of the Cordano Ranch on level terrain in a saline bottom area of the floodplain.

In July of 1995 lentic (spring) proper functioning condition studies were completed by a riparian team for 712, 713, 714, and 715. Two of the springs were rated proper functioning condition. The remaining two springs were rated functional at risk with trend not apparent. Factors identified for the functional at risk rating include hummocking and riparian zone not enlarging. A summary of the results of these studies is in Table 8-1. See Appendix IV, Figures III through V for maps with the location of these springs.

Other Spring Sources Rated

Halloway Spring (669) is located at the east facing base of the Cherry Creek Range and was rated proper functioning condition in 1995.

Unnamed spring (685) located in the Cherry Creek Range. Rated functional at risk with trend not apparent in 1995, this seep is located within an existing road and subject to routing from passing vehicles.

Log Canyon Spring (687) is located in the Cherry Creek Range. Rated proper functioning condition in 1995, this is a developed spring with a 500 gallon tank..

Spring sources 678, 679, 680, 711R,716A, and 716B have been accessed for proper functioning condition, but a review of these springs locations found them to be located on private land. Therefore they were dropped from this analysis.

Table 8-1. Lentic (spring) Analysis Summary for Cherry Creek Allotment

Name Source Number Pasture Location	Dates Analyzed Function Remarks
unnamed spring 634 North Slough T. 25N., R. 64E., Sec. 5, SE1/4	09/2005 Nonfunctional Canadian thistle abundant. Majority of riparian vegetation is lost. Sediment/feces in water. Uplands in poor condition.
unnamed spring 635 North Slough T. 25N., R. 64E., Sec. 5, SE 1/4	07/1995 Functional at risk with trend not apparent to downward. The riparian - wetland zone is shrinking and disturbance due to hoof action is present. Severe hummocking is present with hummocks up to one foot high. Overgrazing is present.
	09/2005 Functional at risk with downward trend Hoof action, hummocking. Heavy to severe use.
unnamed spring 636 North Slough T. 25N., R. 64E., Sec. 5, SE1/4	09/2005 Nonfunctional Severe use, severe hummocking. Riparian area is shrinking. Hoof action, mud, lack of diversity
unnamed spring 637 North Slough T. 25N., R. 64E., Sec. 5, SE 1/4	07/1995 Functional at risk with a downward trend The riparian - wetland zone is shrinking and disturbance due to hoof action is present. Some hummocking is present, heavy cattle use is noted, and riparian plant species exhibit poor to moderate vigor with plants thinning out.
	09/2005 Nonfunctional Heavily infested with thistle & other invasives. Severe hummocking, severe use. Riparian area shrinking.
unnamed spring 638 T. 25N., R.64E., Sec. 5, SE 1/4	07/1995 Proper functioning condition The riparian - wetland zone is stable and good vegetative cover is present on the banks. The overall condition of the site is good with some trampling noted. Moderate grazing has occurred on grasses, rushes, and sedge.

unnamed spring 639 T. 25N., R. 64E., Sec. 5, SE 1/4	07/1995 Functional at risk with a downward trend The riparian - wetland zone is shrinking and plant species that indicate maintenance of riparian - wetland soil moisture characteristics are declining. The overall condition of the site is poor and utilization is heavy. Purple thistle and hummocks are present.
unnamed spring 640 T. 25N., R. 64E., Sec. 5, SE 1/4	07/1995 Nonfunctional The riparian - wetland zone is shrinking, hoof action is noted, and the overall condition is poor. The area is dry and the riparian habitat is not present.
unnamed spring 644 Goshute Seeding T. 25N., R. 64E., Sec. 17, NE1/4	07/1995 Functional at risk with a downward trend Wetland plants exhibit fair vigor. Water is degraded and stagnated, with excess algae at the source. Heavy trampling is noted. Severe hummocking present at source. Current year utilization is 30% on sedge, rush, and bluegrass. Good condition at source then degrades to poor away from the source.
	09/2005 Proper functioning condition 0.25 acre spring/seep Clover present. Spring enclosed.
unnamed enclosed spring 644 A T. 25N., R. 64E., Sec. 17, NE1/4	07/1995 A proper functioning condition study was not done for this enclosed spring. The tiny spring source was dry amidst thick vegetation. It was noted on the survey form that the spring was not responding to being enclosed.
unnamed spring 645 Goshute Seeding T. 25N., R. 64E., Sec. 17, NE1/4	07/1995 Functional at risk with a downward trend Hummocking is present around the source. Bare bank is present around the source due to trampling and overgrazing. Mustard and poverty weed are present around the source. Overall condition of site noted as good.
	09/2005 Proper functioning condition Saltgrass protecting perimeter. Invasive species nearby.
unnamed spring 646 Goshute Seeding T. 25N., R. 64E., Sec. 17, NE1/4	07/1995 Proper functioning condition Severe hummocking is present around the sources (2). Overall condition of the site noted as fair to good. Some stagnation is present.
	09/2005 Proper functioning condition 0.25 acre spring/seep. Good riparian species Diversity. Recovered well from early season grazing.
unnamed spring 647 Goshute Seeding T. 25N., R. 64E.,	07/1995 Proper functioning condition Minor trampling is present around the source. Overall condition of the site noted as good. Some hummocking and bare banks around the source.

Sec. 17, NE1/4	09/2005 Proper functioning condition Kentucky bluegrass, dock present.
unnamed spring 648 Goshute Seeding T. 25N., R. 64E., Sec. 17, NE1/4	07/1995 Functional at risk with a downward trend Water quality is not sufficient to support riparian-wetland plants. Flow patterns are altered by disturbance. Severe hummocking is present at the source. Overall condition of the site is poor.
	09/2005 Proper functioning condition Rose seedlings establishing. Poverty weed near end of flow.
unnamed spring 649 Goshute Seeding T. 25N., R. 64E., Sec. 17, NE1/4	07/1995 Functional at risk with a downward trend This site is composed of two riparian areas approximately 40 ft. apart from each other. Hummocking present and shoreline exhibits hoof action.
	09/2005 Proper functioning condition Same good condition as other springs.
unnamed spring 650 Native T. 25N., R. 64E., Sec. 19, SE1/4	9/2005 Functional at risk with a downward trend Hoof action, hummocking. Cement drinker present at spring. An enclosure fence with water piped out and troughed for livestock and wild horses is proposed. This spring is not in a herd management area (HMA) but is located near the Triple B HMA and wild horse have been observed in the area.
unnamed spring 650R Native T. 25N., R. 64E., Section 19, SE 1/4	07/1995 Proper functioning condition Some trampling and evidence of erosion present at the riparian/upland boundary. Overall condition of the site is fair to good.
unnamed spring 651 T. 25N., R. 64E., Section 20, SW 1/4	07/1995 Proper functioning condition Overall condition of the site is good. Trampling is minimal and wildflowers are present.
unnamed spring 652 Native T. 25N., R. 64E., Sec. 20, SW1/4	09/2005 Functional at risk with a downward trend Riparian is decreasing. Heavy use by cattle.
unnamed spring 652R T. 25N., R. 64E., Section 20, SW 1/4	07/1995 Proper functioning condition Some trampling around the banks. Spring has a concrete collection box.

unnamed spring 652-1R (New) T. 25N., R. 64E., Section 20, SW 1/4	07/1995 Proper functioning condition Overall condition of the site is fair. Some trampling and minimal stagnation noted. No visible flow.
unnamed spring 653 Native T. 25N., R. 64E., Sec. 20, SW1/4	07/1995 Functional at risk with a downward trend Hummocks are present and there is no visible flow. The site fails to retain water and salt is leaching to the surface.
	09/2005 Proper functioning condition Moderate use. A little hummocking present.
654 Native T. 25N., R. 64E., Sec. 20, SW1/4	07/1995 Nonfunctional The size has declined significantly. The seep has dried up and the remaining riparian vegetation has receded.
	09/2005 Proper functioning condition Hummocks well vegetated. Good herbaceous component in the uplands.
Halloway spring 669 T. 24N., R 63E., Section 16, NE 1/4	07/1995 Proper functioning condition Riparian area is very small. Very little vegetation present. No apparent flow. A few thistle plants present. Deer use noted. Not generally used by cattle.
unnamed spring 671 T. 25N., R. 64E., Section 20, SW 1/4	07/1995 Functional at risk with a downward trend Approximately one half of the site has been lost to hummocking. The site has been affected severely from trampling.
unnamed spring 672 T. 25N., R. 64E., Section 20, SW 1/4	07/1995 Functional at risk with a downward trend Approximately 1/3 of the riparian site is lost due to hummocking and/or less flow from the source. Sediment is being deposited on the spring source from upland erosion.
Unnamed spring 685 T25N., R63E, Sec. 8 SW1/4	08/1995 Functional at risk with trend not apparent. Small seep located in road. Road erosion and hoof action noted. Seep is subject to rutting by passing vehicles.
Log canyon spring 687 T. 25N., R. 63E., Section 32, SW 1/4	07/1995 Proper functioning condition Overall in good condition with some trampling. Slight grazing on current year's growth. This is a developed spring with a tank holding 500 gallons of water.
unnamed spring 712 T. 26N., R. 64E., Section 27 NW 1/4	07/1995 Functional at risk with trend not apparent. Hummocking and severe trampling are present at south spring head. Banks sloughing.

unnamed spring 713 T. 26N., R. 64E., Section 27 SW 1/4	07/1995 Functional at risk with trend not apparent Spring head shrinking. Banks are trampled by cattle. Bare banks are present. Hummocks present. Riparian-wetland zone is not enlarging.
unnamed spring 714 T. 26N., R. 64E., Section 27 NW 1/4	07/1995 Proper functioning condition Small hummocks present. Slight bank impact with compaction from cattle. North source is altered by disturbance and bermed.
unnamed spring 715 T. 26N., R. 64E., Section 27 SW 1/4	07/1995 Proper functioning condition Overall condition of riparian area good. Moderate trampling.

APPENDIX III - DATA ANALYSIS BIG ROCK SEEDING ALLOTMENT

1. Review of Management Action Selection Report
A Management Action Selection Report was issued on December 20, 1990 for the Big Rock Seeding Allotment. A Third Year Re-evaluation Summary was also complete for this allotment in 1993. Both of these documents were reviewed and taken in to consideration along with the analysis of current data.

2. Key Areas and Soil Mapping Units
Table 2-1 depicts key areas and their locations within this allotment as well as the soil associated with each key area.

Table 2-1. Big Rock Seeding Allotment Key Areas and Soil Type

Key Area	Location	Soil Mapping Unit	Soil Type and Description
BR-1	T22N, R63E, sec 9, NE1/4,NW1/4	361	Belmill-Cowgil-Selti association is predominantly gravelly loam to very gravelly sandy loam occurring at a 2 to 8 percent slope. Runoff is slow to moderate and the potential for sheet and rill erosion varies with slope gradient. No rill or sheet erosion was observed at this site.
BR-2	T23N, R63E, sec 33, SW1/4,SE1/4	421	Wintermute is gravelly sandy loam occurring at a 0 to 4 percent slope. Runoff is medium and the potential for sheet and rill erosion is slight to moderate depending on slope and the surface texture. No rill or sheet erosion was observed at this site.
BR-3	T23N, R63E, sec 29, SE1/4,SE1/4	361	Belmill-Cowgil-Selti association is predominantly gravelly loam to very gravelly sandy loam occurring at a 2 to 8 percent slope. Runoff is slow to moderate and the potential for sheet and rill erosion varies with slope gradient. No rill or sheet erosion was observed at this site.
BR-4	T23N, R63E, sec 29, NW1/4,NW1/4	181	Pyrat-Cowgil-Broyles association is predominantly gravelly sandy loam to very gravelly sandy loam occurring at a 2 to 8 percent slope. Runoff is medium. The potential for sheet and rill erosion is moderate to high depending on slope. No rill or sheet erosion was observed at this site.
BR-5	T22N, R63E, sec 9, SE1/4,SE1/4	282	Palinor is very gravelly loam occurring at a 2 to 15 percent slope. The available water holding capacity is very low to low, water intake rates are slow to moderate and runoff is slow to medium. No rill or sheet erosion was observed at this site.

3. Line Intercept Cover and Composition Studies

The Line Intercept Cover Study is a commonly used method of estimating the relative percent live foliar cover of a range site by plant class (tree, shrub, grass, forb, or annual). The method also estimates the percent live foliar cover by plant species. The results are then compared to the appropriate cover and composition for each range site as indicated by the Natural Resources Conservation Service (NRCS) range site guides. Since this allotment is a crested wheatgrass seeding, the range site guides do not apply, instead results were compared to what is known about healthy rangelands in general.

Line intercept cover studies have been conducted at the five key areas within the allotment. The Table 3-1 summarizes data collected at these five key areas. A well dispersed accumulation of litter is present at each key area from past years' growth with cover being very adequate to support functioning soil conditions. Composition is predominately crested wheatgrass *(Agropyron desertorum)* with Wyoming big sagebrush *(Artemisia tridentate wyomingensis)* and Sandberg bluegrass (*Poa secunda)* reestablishing in portions of the allotment. Trace amounts of halogeton *(Halogeton glomeratus)* are also present.

Table 3-1. Big Rock Seeding Allotment Cover and Composition Data

Date	Key Area	Cover (%)	Composition (%)
6/18/2008	BR-1	58%	crested wheatgrass - 100% Sandberg bluegrass - trace
6/19/2008	BR-2	40%	crested wheatgrass - 57% halogeton - 2% Wyoming big sagebrush - 41%
6/19/2008	BR-3	25%	crested wheatgrass - 30% Wyoming big sagebrush - 70%
6/19/2008	BR-4	30%	crested wheatgrass - 3% Wyoming big sagebrush - 97%
6/18/2008	BR-5	58%	crested wheatgrass - 61% Sandberg bluegrass - 38% halogeton - 1%

4. Licensed Livestock Use

Over the last nine grazing seasons from 1999 to 2007, livestock licensed actual use on the Big Rock Seeding Allotment has varied with a high of 572 AUMS in 2000, and a low of 13 AUMs in 2007. Livestock use has varied dependent on growing conditions, available forage, and management objectives of the permittees and the BLM. Table 4-1 includes licensed actual use and percentage of licensed actual use compared to total active AUMs permitted for this allotment. Active AUMs permitted for the Big Rock Seeding Allotment are 621AUMs.

Table 4-1. Big Rock Seeding Allotment Licensed Actual Use

Grazing Year	Licensed Actual Use (AUMs)	Licensed Actual Use Compared to Total Permitted Use (%)
1999	280	45%
2000	572	92%
2001	278	45%
2002	312	50%
2003	344	55%
2004	370	60%
2005	201	32%
2006	77	12%
2007	13	2%

5. Utilization

The following is a summary of the livestock utilization data collected on the Big Rock Seeding Allotment. Allowable use levels have not been formally established for this allotment. The general utilization objective for all allotments in the former Egan Resource Area of the Ely Field Office Area according to the Egan Resources Management Plan and Final Environmental Impact Statement (RMP/FEIS – September, 1984) and Record of Decision (ROD – February, 1987) is to "Establish utilization limits to maintain watershed cover, plant vigor and soil fertility in consideration of plant phenology, physiology, terrain, water availability, wildlife needs, grazing systems and aesthetic values." (Egan ROD, p. 44). The Nevada Rangeland Monitoring Handbook gives recommendations as to the proper use levels by plant category (grass, forbs, shrubs) and by grazing season (spring, summer, fall, winter, yearlong). Proper use levels for all allotments are also implied by the Standards and Guidelines for Rangeland Health and Grazing Administration (February 1997).

Key forage plant utilization method (KFPM) was used to collect utilization data at the key areas. There are five key areas established on the Big Rock Seeding Allotment. Utilization for each of these areas is summarized in Table 5-1. Since this allotment is a crested wheatgrass seeding with higher resiliency, 65% utilization is acceptable. This allotment also has a spring/fall rest rotation grazing system. Utilization on the allotment has varied dependent on precipitation and number of livestock grazed. In 2008, utilization was moderate. However, in 2000 and 2001, utilization was heavy to severe at some of the key areas. Although there was heavier utilization during these years, the rest rotation grazing system is allowing the crested wheatgrass to recover. Use pattern mapping was also completed for the primary areas used by cattle of the Big Rock Seeding Allotment in 1996. These areas use ranged from light to moderate.

Table 5-1. Big Rock Seeding Allotment Utilization

Key Species	Grazing Year	Key Area	Utilization

Table 5-1. Big Rock Seeding Allotment Utilization

Key Species	Grazing Year	Key Area	Utilization
crested wheatgrass	1995	BR-1	15%
		BR-2	48%
		BR-3	50%
		BR-4	12%
	1996	BR-1	38%
		BR-2	58%
		BR-3	48%
		BR-4	20%
	1997	BR-1	24%
		BR-2	48%
		BR-3	54%
		BR-4	28%
		BR-5	50%
	1998	BR-1	64%
		BR-2	46%
		BR-3	40%
		BR-4	46%
		BR-5	42%
	2000	BR-1	38%
		BR-2	78%
		BR-3	84%
		BR-4	76%
		BR-5	46%
	2001	BR-1	22%
		BR-2	80%
		BR-3	90%
		BR-4	50%
		BR-5	40%
	2008	BR-1	27%
		BR-2	48%
		BR-3	42%
		BR-4	32%
		BR-5	43%

6. Analysis of Riparian Areas

There are five springs and one developed spring on the Big Rock Seeding Allotment on public land. All six of these springs are located above 6, 800 feet in steeper terrain dominated by pinion juniper woodlands (see Appendix IV, Figure VII). Due to these factors, none of these springs are accessed by cattle. Proper functioning condition to evaluate riparian health and functionality has not yet been determined for these springs.

One of these springs is developed and the water is piped to a trough at a lower elevation to water livestock. See Appendix IV, Figure VII for a map of water sources for this allotment.

APPENDIX IV - MAPS

Figure I.

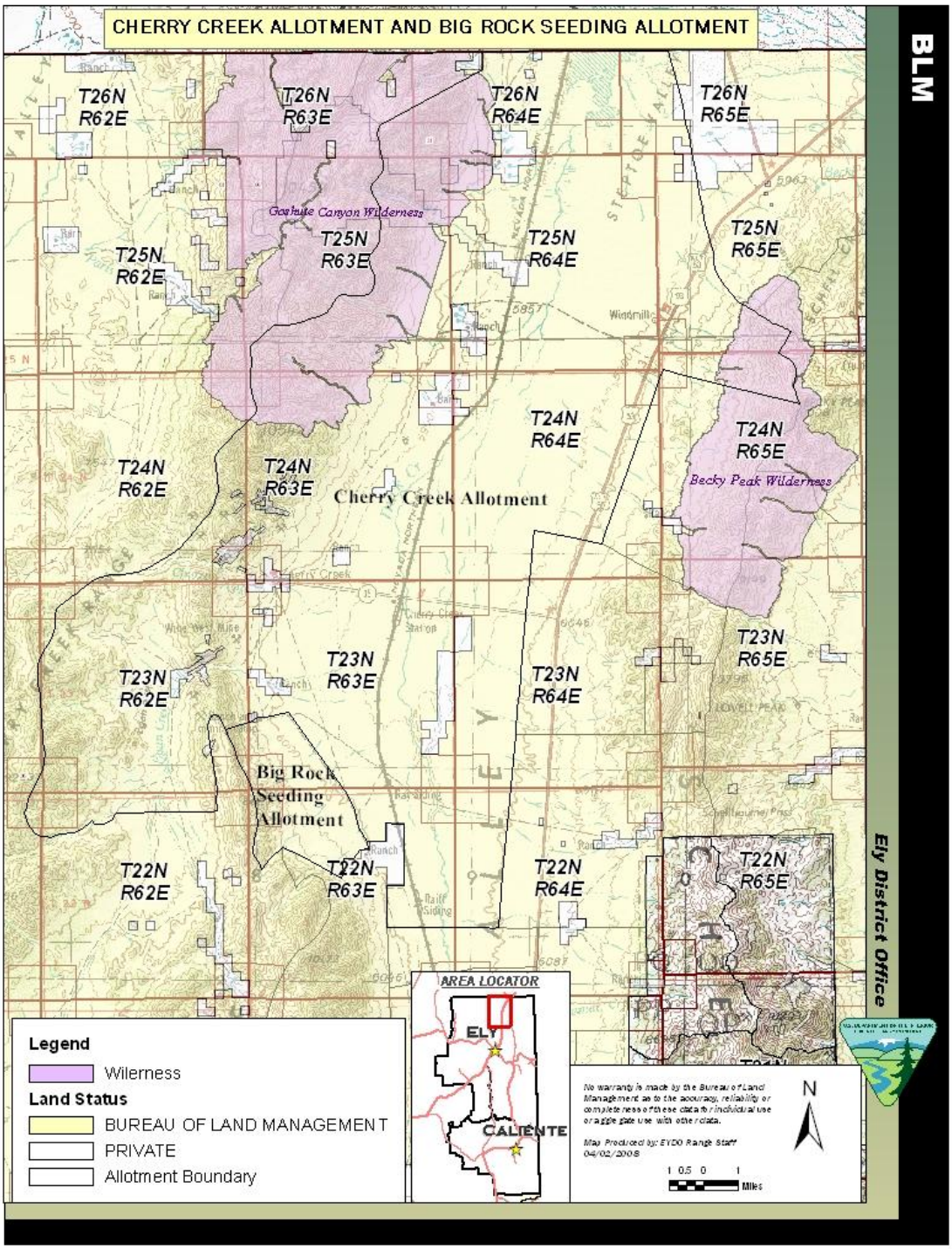


Figure II.

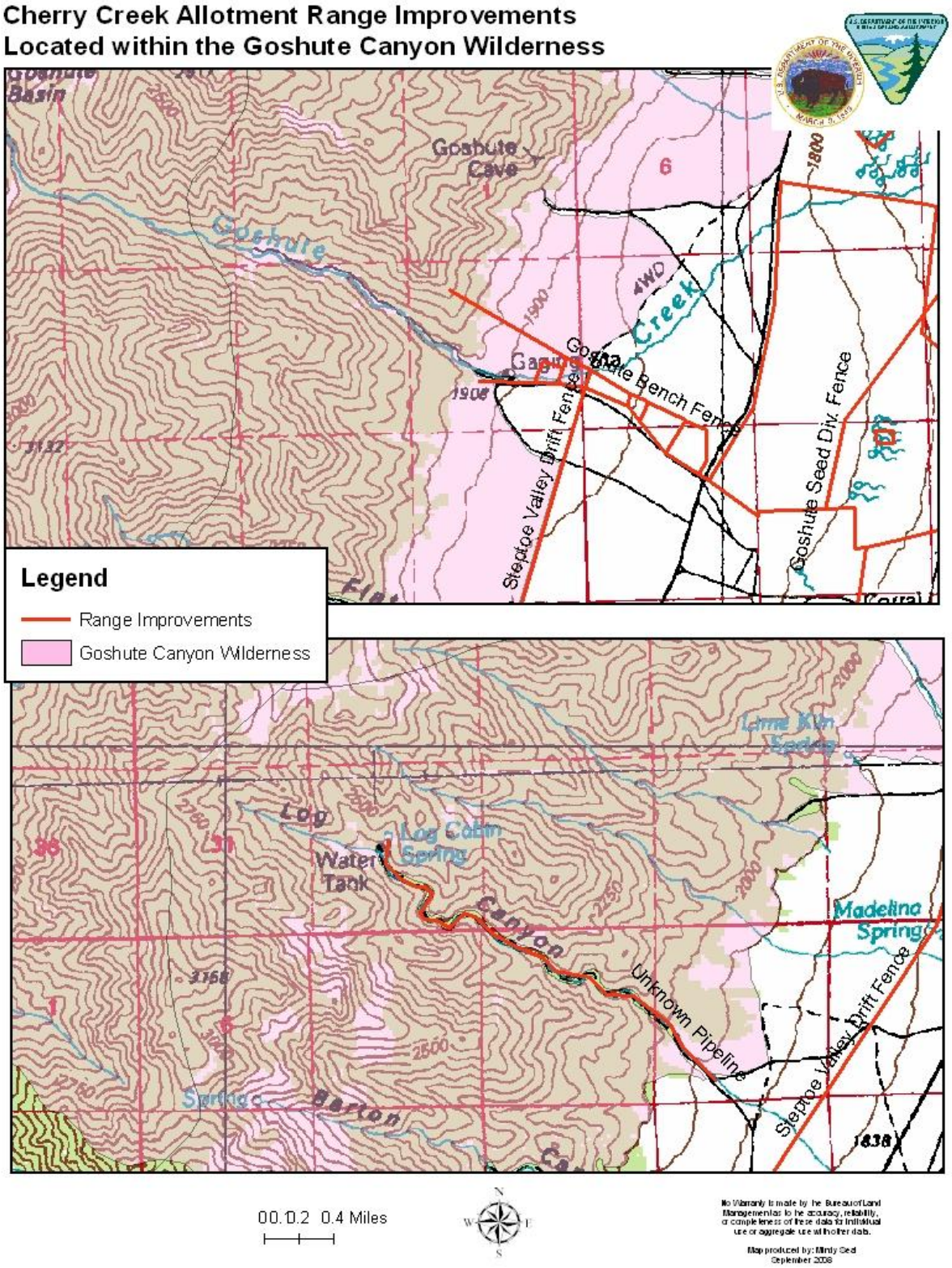

Cherry Creek Allotment Range Improvements
Located within the Goshute Canyon Wilderness
Goshute Cave
Goshute
Creek
4WD
Goshute Bench Fence
Steptoe Valley Drift Fence
Goshute Seed Div. Fence
Legend
Range Improvements
Goshute Canyon Wilderness
Lime Kiln Spring
Log Cabin Spring
Water Tank
Canyon
Madelina Spring
Unknown Pipeline
Steptoe Valley Drift Fence
Spring
Barton
0 0.2 0.4 Miles
N
W
E
S
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.
Map produced by: Mindy Seid
September 2008

Figure III.

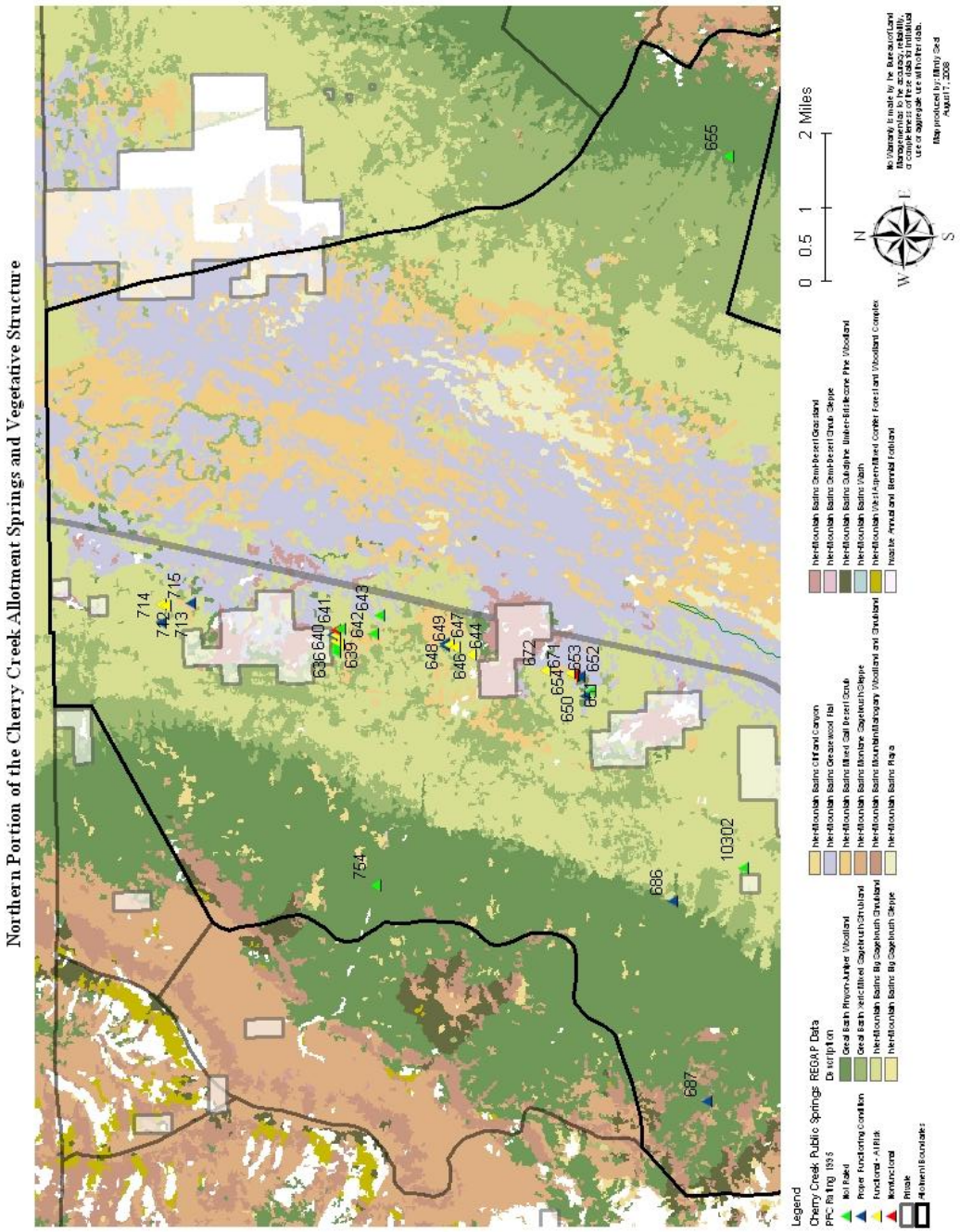

Northern Portion of the Cherry Creek Allotment Springs and Vegetative Structure
0 0.5 1 2 Miles
N
S
E
W
Legend
Cherry Creek Public Springs REGAP Data
PFC Rating 1995
Description
Not Rated
Proper Functioning Condition
Functional - At Risk
Nonfunctional
Private
Allotment Boundaries
Great Basin Mixed Xeric Shrubland
Great Basin Xeric Mixed Sagebrush Shrubland
Great Basin Pinyon-Juniper Woodland
Intermountain Basins Big Sagebrush Shrubland
Intermountain Basins Big Sagebrush Steppe
Intermountain Basins Cliff and Canyon
Intermountain Basins Greasewood Flat
Intermountain Basins Mixed Salt Desert Scrub
Intermountain Basins Montane Sagebrush Steppe
Intermountain Basins Mountain Mahogany Woodland and Shrubland
Intermountain Basins Playa
Intermountain Basins Semi-Desert Grassland
Intermountain Basins Semi-Desert Shrub Steppe
Intermountain Basins Subalpine Limber-Bristlecone Pine Woodland
Intermountain Basins Wash
Intermountain West Aspen-Mixed Conifer Forest and Woodland Complex
Inactive Annual and Biennial Forbland
714
715
713
636
640
641
639
642
643
648
649
646
647
644
672
654
671
650
653
652
655
754
686
10302
687

Figure IV.

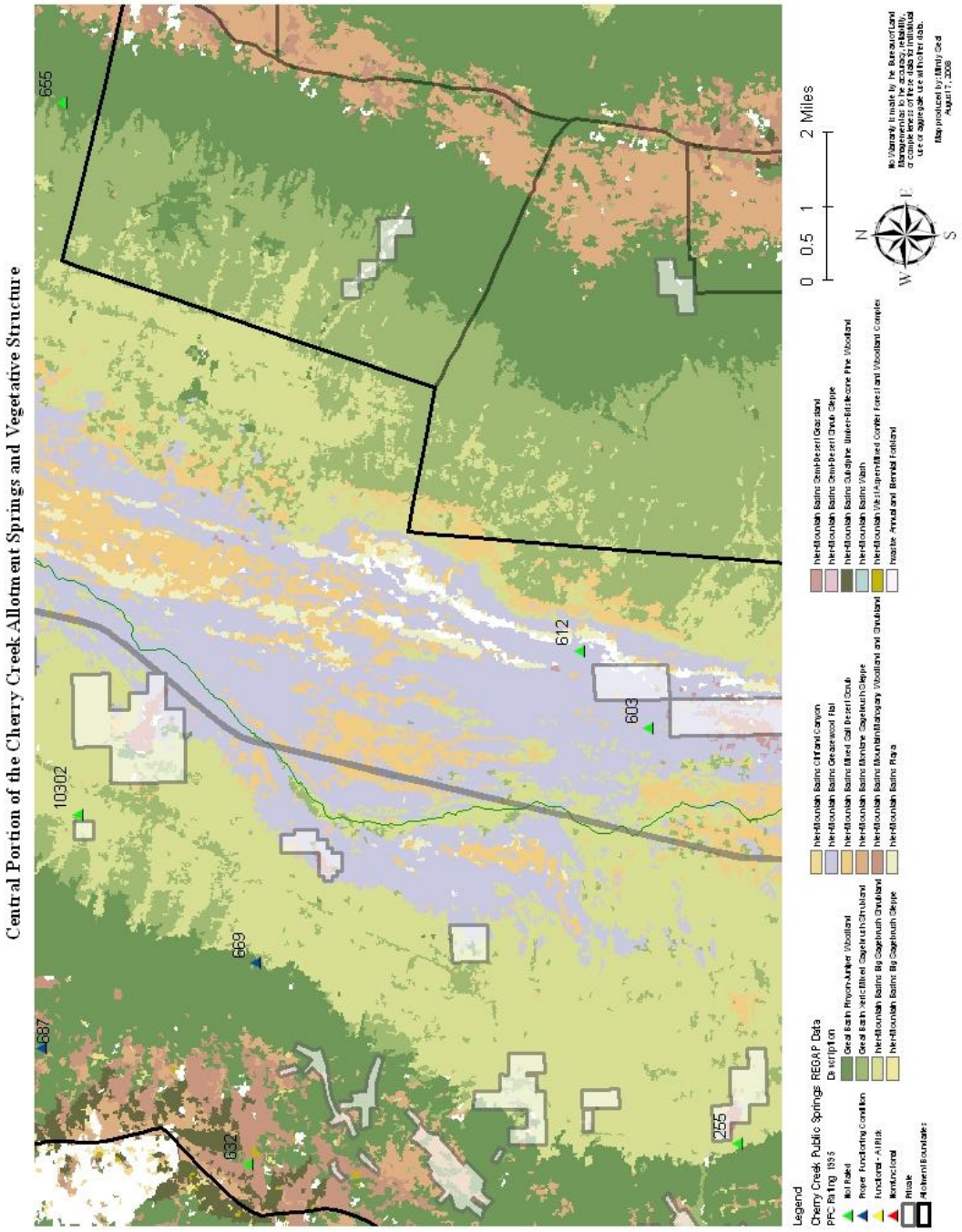

Central Portion of the Cherry Creek Allotment Springs and Vegetative Structure
655
612
603
10302
669
687
632
255
0 0.5 1 2 Miles
N
W
E
S
Legend
Cherry Creek Public Springs REGAP Data
PFC Rating 1993
Description
Not Rated
Proper Functioning Condition
Functional - At Risk
Nonfunctional
Private
Allotment Boundaries
Great Basin Pinyon-Juniper Woodland
Great Basin Xeric Mixed Sagebrush Shrubland
Inter-Mountain Basins Big Sagebrush Shrubland
Inter-Mountain Basins Big Sagebrush Steppe
Inter-Mountain Basins Cliff and Canyon
Inter-Mountain Basins Greasewood Flat
Inter-Mountain Basins Mixed Salt Desert Scrub
Inter-Mountain Basins Montane Sagebrush Steppe
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland
Inter-Mountain Basins Playa
Inter-Mountain Basins Semi-Desert Grassland
Inter-Mountain Basins Semi-Desert Shrub Steppe
Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland
Inter-Mountain Basins Wash
Inter-Mountain Basins Mixed Aspen-Mixed Conifer Forest and Woodland Complex
Rocky Mountain Aspen Forest and Woodland
Map produced by: Mindy Seid
August 7, 2008

Figure V.

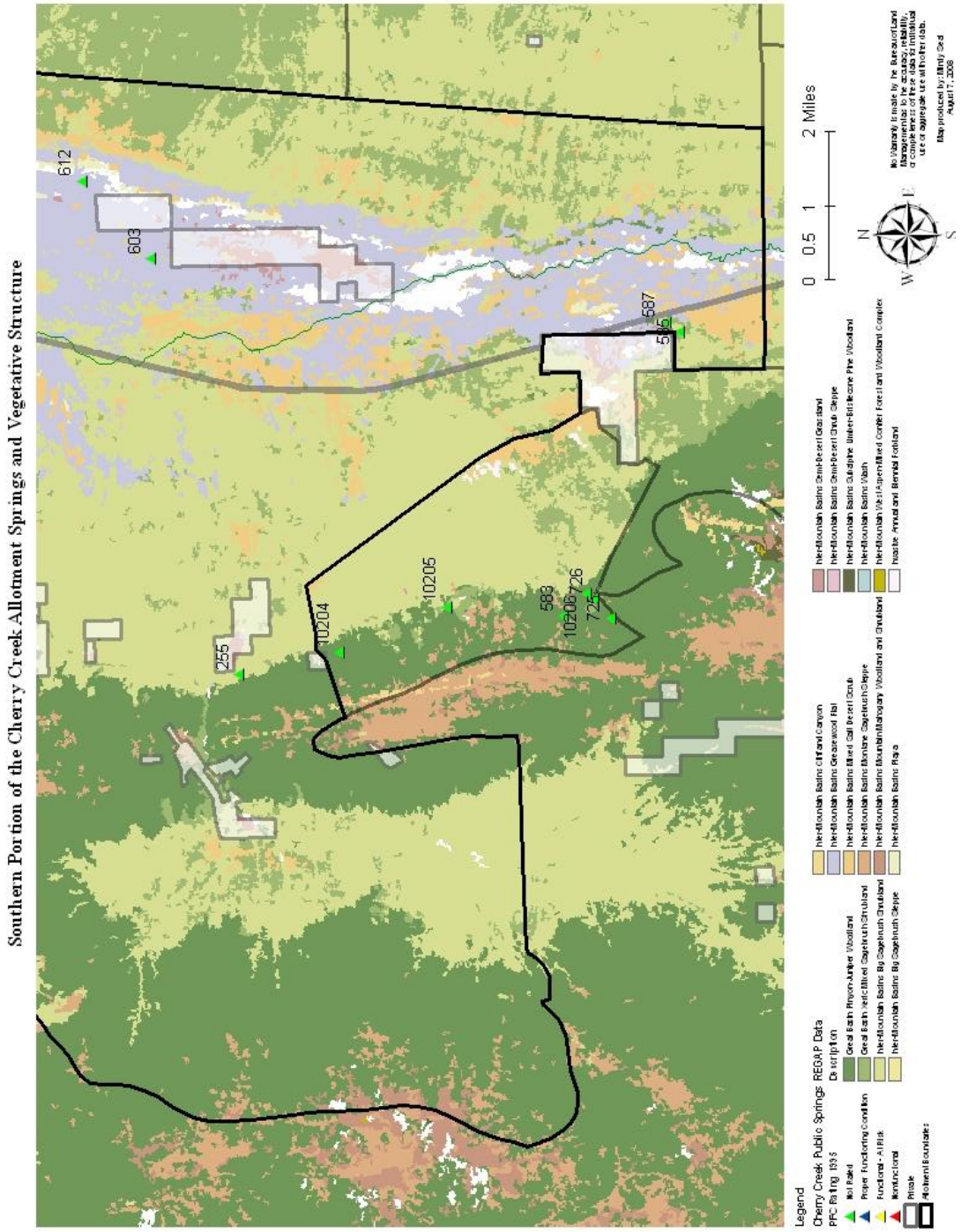

Southern Portion of the Cherry Creek Allotment Springs and Vegetative Structure
612
603
587
586
10205
10204
255
583
10206
726
725
0 0.5 1 2 Miles
N
W
E
S
Legend
Cherry Creek Public Springs
PFC Rating 1995
Not Rated
Proper Functioning Condition
Functional - At Risk
Nonfunctional
Riparian
Allotment Boundaries
REGAP Data
Description
Great Basin Pinyon-Juniper Woodland
Great Basin Xeric Mixed Sagebrush Shrubland
Inter-Mountain Basins Big Sagebrush Shrubland
Inter-Mountain Basins Big Sagebrush Steppe
Inter-Mountain Basins Cliff and Canyon
Inter-Mountain Basins Greasewood Flat
Inter-Mountain Basins Mixed Salt Desert Scrub
Inter-Mountain Basins Montane Sagebrush Steppe
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland
Inter-Mountain Basins Playa
Inter-Mountain Basins Semi-Desert Grassland
Inter-Mountain Basins Semi-Desert Shrub Steppe
Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland
Inter-Mountain Basins Wash
Inter-Mountain Wash Aspen-Mixed Conifer Forest and Woodland Complex
Inactive Annual and Biennial Forbland
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data or individual use or aggregate use with other data.
Map produced by: Mindy Seal
August 7, 2008

Figure VI.

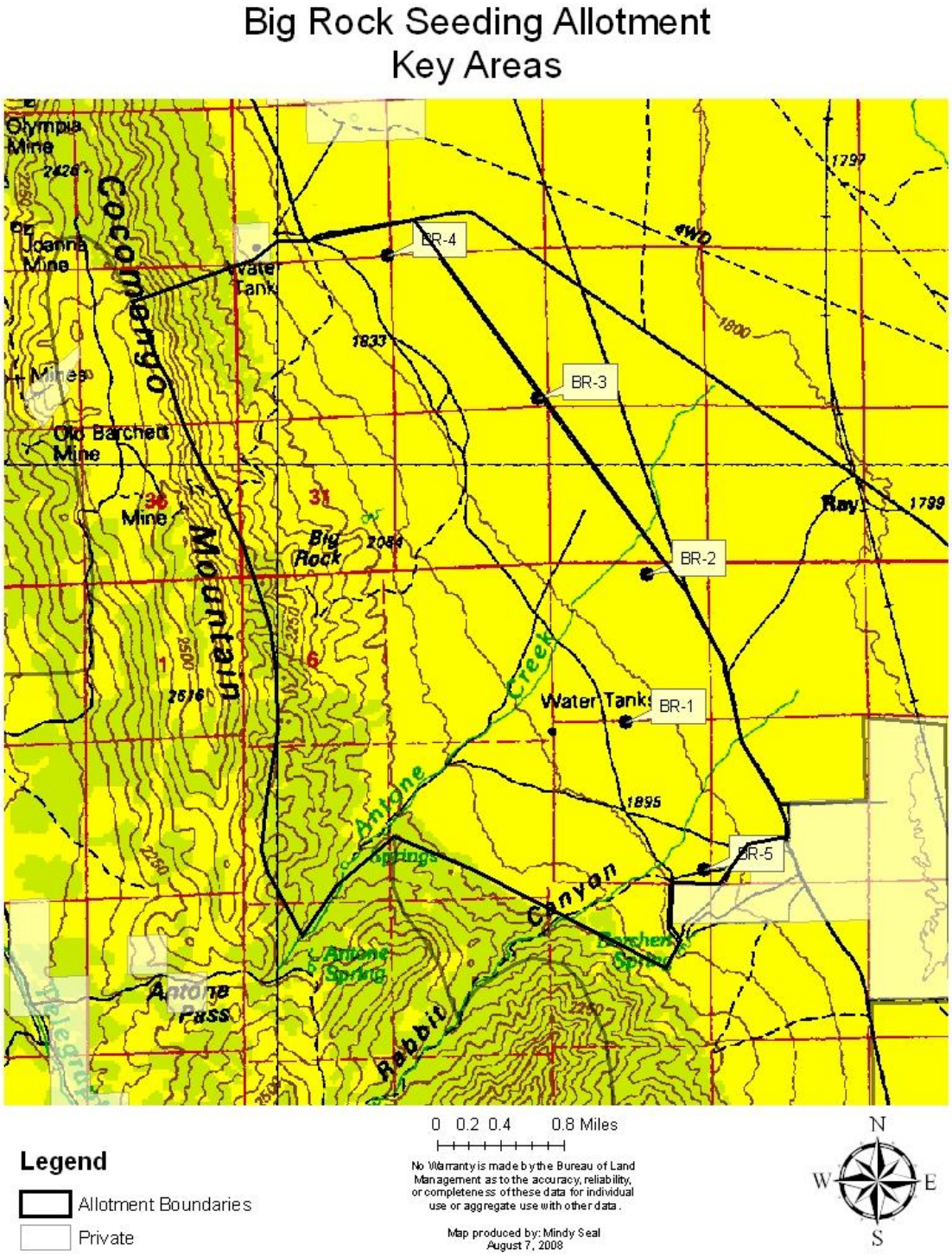
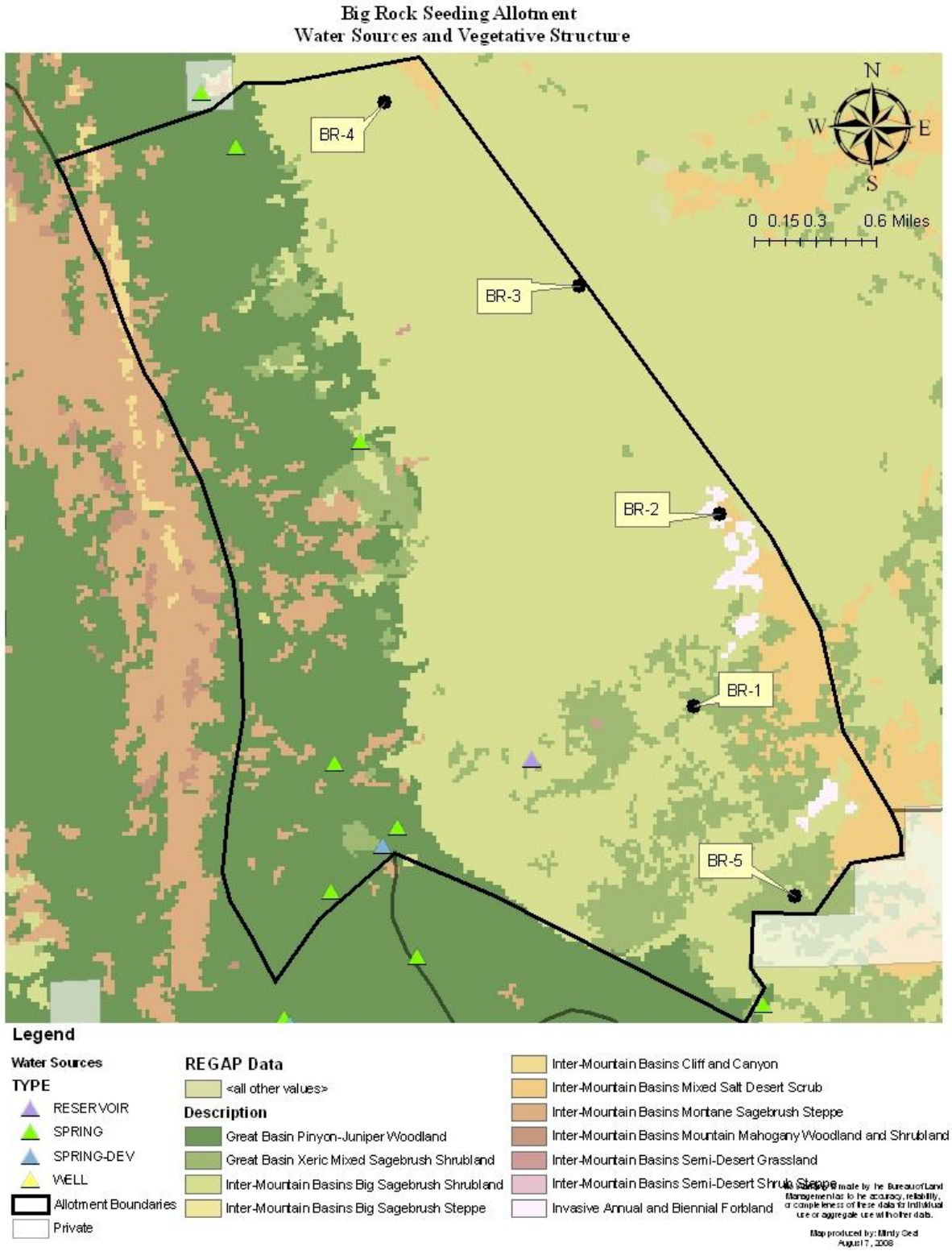

Big Rock Seeding Allotment
Key Areas
Olympia Mine
Joanna Mine
Cocomungo Mountain
Old Barchetti Mine
36 Mine
31
Big Rock
BR-4
BR-3
BR-2
BR-1
BR-5
Water Tank
Antone Creek
Antone Springs
Antone Spring
Antone Pass
Barchetti Spring
Rabbit Canyon
Ray
4WD
1797
1800
1833
1799
1895
2084
2516
0 0.2 0.4 0.8 Miles
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.
Map produced by: Mindy Seal
August 7, 2008
N
W
E
S
Legend
Allotment Boundaries
Private

Figure VII.


Big Rock Seeding Allotment
Water Sources and Vegetative Structure
N
W
E
S
0 0.15 0.3 0.6 Miles
BR-4
BR-3
BR-2
BR-1
BR-5
Legend
Water Sources
TYPE
RESERVOIR
SPRING
SPRING-DEV
WELL
Allotment Boundaries
Private
REGAP Data
<all other values>
Description
Great Basin Pinyon-Juniper Woodland
Great Basin Xeric Mixed Sagebrush Shrubland
Inter-Mountain Basins Big Sagebrush Shrubland
Inter-Mountain Basins Big Sagebrush Steppe
Inter-Mountain Basins Cliff and Canyon
Inter-Mountain Basins Mixed Salt Desert Scrub
Inter-Mountain Basins Montane Sagebrush Steppe
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland
Inter-Mountain Basins Semi-Desert Grassland
Inter-Mountain Basins Semi-Desert Shrub Steppe
Invasive Annual and Biennial Forbland
Map produced by: Mindy Seid
August 7, 2008

APPENDIX V – TERMS AND CONDITIONS

Grazing Permit Terms and Conditions for Aaron Kesler, Herbert Stathes, and Sterling Wines for the Cherry Creek Allotment and the Big Rock Seeding Allotment; and for Turner & Irlbeck Ranch for the Cherry Creek Allotment

Livestock Management Practices - Terms and Conditions

In accordance with 43 CFR §4130.3 and §4130.3-2 the following terms and conditions shall be included in the term grazing permit for Aaron Kesler, Herbert Stathes, and Sterling Wines for the Cherry Creek Allotment and the Big Rock Seeding Allotment and for Turner & Irlbeck Ranch for the Cherry Creek Allotment**:**

Terms and Conditions specific to each permittee on the Cherry Creek Allotment:

Aaron Kesler

1. In accordance with the "Stipulation to Modify Decision and to Dismiss Appeal" signed in November 2003, a total of 565 AUMs from the 1,199 suspended AUMs from the Cherry Creek Allotment native range would be placed in voluntary nonuse until March 1, 2010.
2. Permitted use licensed would not exceed 10% of the total permitted use on the Cherry Creek Allotment native ranch between May 1 and May 15, therefore, a maximum of 170 can be licensed between May 1 and May 15 on the native range.
3. Goshute Seeding: The Goshute Seeding is divided into two pastures, the East Pasture and the West Pasture.

- A spring/fall rest rotation season of use would be established for the East Pasture of the Goshute Seeding. Spring use would be authorized from May 1 to June 15. Fall use would be authorized from September 1 to February 28.
- The season of use for the West Pasture of the Goshute Seeding would be May 1 to February 28. Water hauling would be required in the West Pasture to achieve proper livestock distribution.

4. North Egan Seeding: Water hauling may be required in the seeding to achieve proper livestock distribution.
5. In accordance with the exchange agreement dated January 2004 between Kitt Lear and Herbert Stathes, this permit exchanged 335 AUMs of active use permitted in the South Egan Seeding for 335 AUMs of active use permitted in the native range. Therefore this permit no longer has grazing preference in the South Egan Seeding; instead it has an additional 335 AUMs in the native range for a total of 1,702 AUMs in the native range.

Herbert Stathes

1. Herbert Stathes agrees to place 172 AUMs of his current permitted use on native range of 587 AUMs on the Cherry Creek Allotment into voluntary nonuse for conservation purposes for a period of ten years beginning March 1, 2001. Cherry Creek Allotment cattle grazing privileges of 172 AUMs would remain on the Term Grazing Permit in voluntary nonuse.
2. Permitted use licensed would not exceed 10% of the total permitted use on the Cherry Creek Allotment native ranch between May 1 and May 15, therefore, a maximum of 8 can be licensed between May 1 and May 15 on the native range.
3. South Egan Seeding: Water hauling would be required in the seeding to achieve proper livestock distribution. When rangeland monitoring studies indicate sufficient additional forage is available and objectives are being met, temporary non-renewable (TNR) grazing

may be issued. TNR grazing authorization issue in the South Egan Seeding would be initially offered to the permittees with adjudicated AUMS in the seeding. If any or all of the three permittees are unable to make TNR use, the other Cherry Creek Allotment permittees would be encouraged to make application for TNR use in the South Egan Seeding.

4. In accordance with the exchange agreement dated January 2004 between Kitt Lear and Herbert Stathes, this permit exchanged 335 AUMs of active use permitted in the native range for 335 AUMs of active use permitted in the South Egan Seeding. Therefore this permit now has 80 AUMs of grazing preference in the native range and 335 AUMs in the South Egan Seeding.

Sterling Wines

1. Sterling Wines agrees to place 145 AUMs of his current permitted use on native range of 497 AUMs on the Cherry Creek Allotment native range into voluntary nonuse for conservation purposes for a period of ten years beginning March 1, 2001. Cherry Creek Allotment cattle grazing privileges of 145 AUMs would remain on the Term Grazing Permit in voluntary nonuse.
2. Permitted use licensed would not exceed 10% of the total permitted use on the Cherry Creek Allotment native ranch between May 1 and May 15, therefore, a maximum of 35 can be licensed between May 1 and May 15 on the native range.
3. South Egan Seeding: Water hauling would be required in the seeding to achieve proper livestock distribution. When rangeland monitoring studies indicate sufficient additional forage is available and objectives are being met, temporary non-renewable (TNR) grazing may be issued. TNR grazing authorization issue in the South Egan Seeding would be initially offered to the permittees with adjudicated AUMS in the seeding. If any or all of the three permittees are unable to make TNR use, the other Cherry Creek Allotment permittees would be encouraged to make application for TNR use in the South Egan Seeding.

Turner & Irlbeck Ranch

1. Turner & Irlbeck Ranch agrees to place 423 AUMs of their current permitted use on native range of 1,450 AUMs on the Cherry Creek Allotment native range into voluntary nonuse for conservation purposes for a period of ten years beginning March 1, 2001. Cherry Creek Allotment cattle grazing privileges of 423 AUMs would remain on the Term Grazing Permit in voluntary nonuse.
2. Permitted use licensed would not exceed 10% of the total permitted use on the Cherry Creek Allotment native ranch between May 1 and May 15, therefore, a maximum of 103 can be licensed between May 1 and May 15 on the native range.
3. Goshute Seeding: The Goshute Seeding is divided into two pastures, the East Pasture and the West Pasture.

- A spring/fall rest rotation season of use would be established for the East Pasture of the Goshute Seeding. Spring use would be authorized from May 1 to June 15. Fall use would be authorized from September 1 to February 28.
- The season of use for the West Pasture of the Goshute Seeding would be May 1 to February 28. Water hauling would be required in the West Pasture to achieve proper livestock distribution.

Terms and Conditions specific to each allotment and common to all permittees within that allotment:

Cherry Creek Allotment

1. Livestock numbers are flexible as long as permitted use is not exceeded during the authorized season of use.
2. The Cherry Creek Allotment is a common use allotment. The permittees have utilized historical grazing areas; however, the native range portion of the allotment has no specific designated use areas reserved for any individual permitted operator on the Cherry Creek Allotment. Therefore, the entire native range portion of the allotment would be open to all permittees authorized on the Cherry Creek Allotment.
3. Water hauling would be determined by the authorized officer in cooperation with the livestock permittees on an annual basis. Water hauling maybe required to the following locations:
    - The sagebrush plant communities on the east facing benches of the Cherry Creek Range generally west of the Salvi Ranch.
    - Slough Well No. 3 (about 4 miles north of Cherry Creek, Nevada) would be maintained and pumped and troughs filled to distribute cattle use. Water hauling to this area would be required if well will not work.
    - The northeast portion of the allotment.
    - The Woodcamp Pasture east of Highway 93.
4. No livestock grazing would be authorized within the Goshute Creek exclosures, in order to protect riparian vegetation and the habitat of the BLM Nevada Sensitive Specie Bonneville Cutthroat Trout.
5. Salt and/or mineral supplements for livestock would be located no closer than ¼ mile from water sources. Supplements are to be placed ½ mile from existing waters.
6. Establish utilization levels as follows:
    - Perennial grasses: 50% total 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 and half-shrubs: 50% use on current annual production.
        - *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.*
    - Crested wheatgrass: 65% use on current annual production.

Big Rock Seeding Allotment

1. Salt and/or mineral supplements for livestock shall be located no closer than ¼ mile from water sources. Supplements are to be placed ½ mile from existing waters.
2. Establish utilization levels as follows:

- Crested wheatgrass: 65% use on current annual production.

Additional Stipulations Common to All Grazing Allotments:
1. "Livestock numbers identified in the Term Grazing Permit are a function of seasons of use and permitted use. 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 CFR 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 use in White Pine County will be in accordance with the Northeastern Great Basin Area Standards and Guidelines for Grazing Administration. The Standards and Guidelines have been developed by the respective 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.

8. The permittee must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of any hazardous or solid wastes as defined in 40 CFR Part 261.

9. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.

APPENDIX VI – RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Term Grazing Permit Renewal for Four Permittees
Cherry Creek & Big Rock Seeding Allotment
White Pine County, Nevada

On April 9th, 2008 a Noxious & Invasive Weed Risk Assessment was completed for the term grazing permit renewal for Aaron Kesler, Herbert Stathes, Sterling Wines, and Turner & Irlbeck Ranch on the Cherry Creek and Big Rock Seeding allotments in White Pine County, NV. Both of these allotments are common use allotments located approximately 40 miles north of Ely, NV. The Cherry Creek allotment encompasses 153,107 acres of BLM administered public lands. The Big Rock Seeding allotment encompasses 1,862 acres of BLM administered public lands.
No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. The following species are found within the boundaries of the Big Rock Seeding allotment:

Carduus nutans	Musk thistle

The following species are found within the boundaries of the Cherry Creek allotment:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea virgata	Squarrose knapweed
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Lepidium draba	Hoary cress
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

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

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
Centaurea virgata	Squarrose knapweed
Cicuta maculata	Water hemlock
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Hyoscyamus niger	Black henbane
Lepidium draba	Hoary cress
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

Both allotments were last inventoried for noxious weeds in 2005. While not officially documented the following non-native invasive weeds probably occur in or around the allotment: cheatgrass (*Bromus tectorum*), halogeton (*Halogeton glomeratus*), horehound (*Marrubium vulgare*), bur buttercup (*Ranunculus testiculatus*), 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 Moderate (5) at the present time. The proposed action could increase the populations of the noxious and invasive weeds already within the allotments and could aid in the introduction of weeds from surrounding areas. Within the allotments, watering and salt/mineral supplement 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 allotments this could have an adverse impact those native plant communities, especially the Big Rock Seeding allotment which 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 (40). 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.

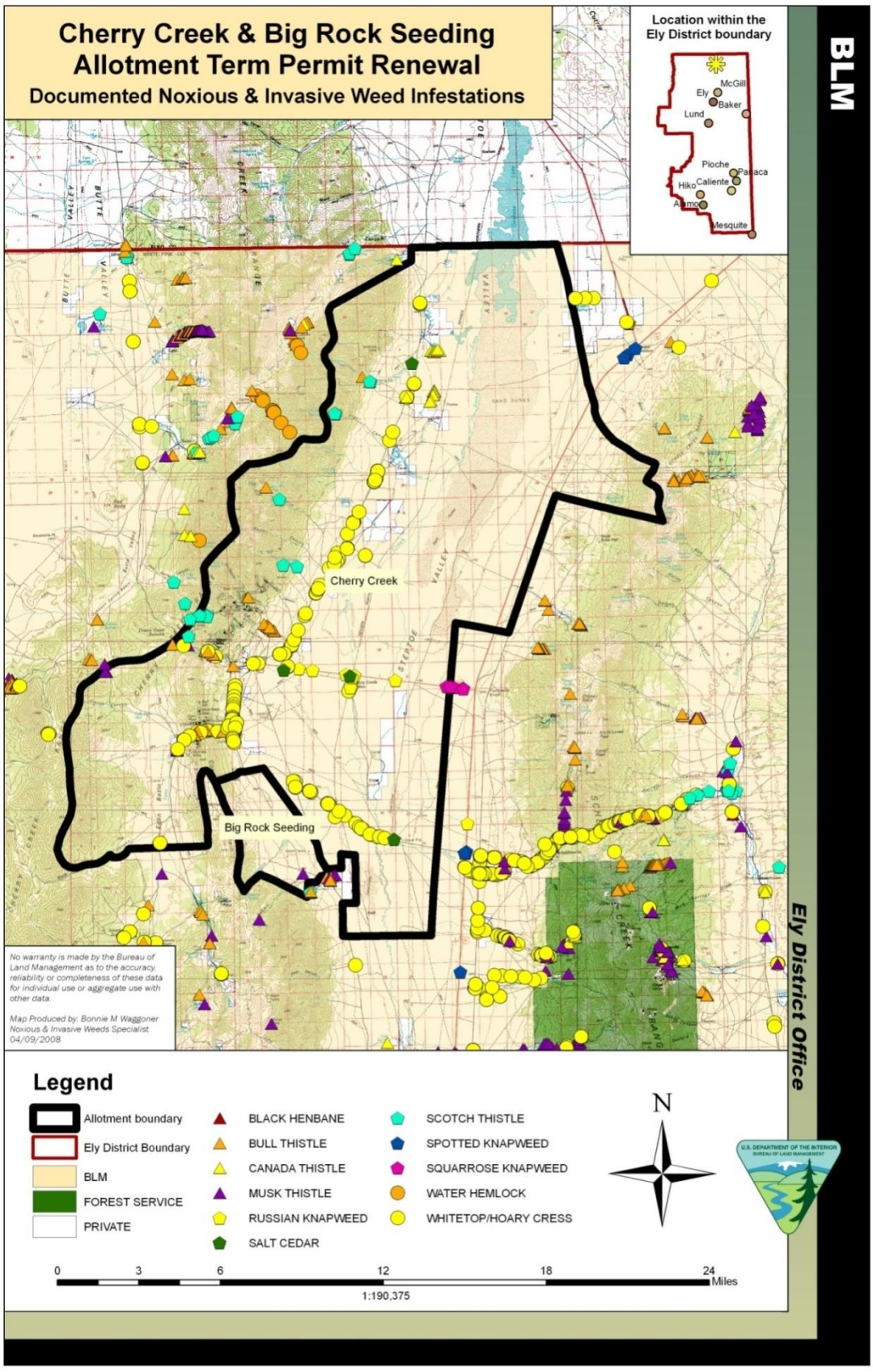
Grazing will be conducted in compliance with the Ely District BLM noxious weed schedules. The scheduled procedures can significantly and effectively reduce noxious weed spread or introduction into the project area.

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: _____ 4/9/2008

Bonnie Waggoner — Date

Ely District Noxious & Invasive Weeds Coordinator


Cherry Creek & Big Rock Seeding
Allotment Term Permit Renewal
Documented Noxious & Invasive Weed Infestations
Location within the Ely District boundary
McGill
Ely
Baker
Lund
Pioche
Panaca
Hiko
Caliente
Alamo
Mesquite
Cherry Creek
Big Rock Seeding
No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.
Map Produced by: Bonnie M Waggoner
Noxious & Invasive Weeds Specialist
04/09/2008
Legend
Allotment boundary
Ely District Boundary
BLM
FOREST SERVICE
PRIVATE
BLACK HENBANE
BULL THISTLE
CANADA THISTLE
MUSK THISTLE
RUSSIAN KNAPWEED
SALT CEDAR
SCOTCH THISTLE
SPOTTED KNAPWEED
SQUARROSE KNAPWEED
WATER HEMLOCK
WHITETOP/HOARY CRESS
N
0 3 6 12 18 24 Miles
1:190,375
BLM
Ely District Office