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

In Reply Refer to:
4130 (NVL0100)

March 10, 2009

Dear Interested Public:

The Bureau of Land Management (BLM) Egan Field Office has completed a Preliminary Environmental Assessment (EA) for Dan Hoots (#2703222) term grazing permit renewal on the Cherry Creek Allotment (00403), Goshute Basin Allotment, and Indian Creek Allotment; and Kay and Mary K. Lear (#2704539) term grazing permit renewal on the Cherry Creek Allotment and Indian Creek Allotment. The Standards Determination Document (SDD) for Indian Creek and Goshute Basin is also ready for public review and is attached to the EA. This EA and SDD are being sent to you for solicitation of your comments and input.

The Cherry Creek Allotment SDD was reviewed by a BLM interdisciplinary team and sent to interested public for preliminary review in 2008. No comments were received from the public specific to this document. Following the scoping of the Cherry Creek Allotment SDD, the Authorized Officer concurred with this determination on October 7, 2008. The Cherry Creek SDD is provided with this EA for reference purposes only.

The EA with the SDD is being posted on the Ely BLM District web page at **http://www.blm.gov/nv/st/en/fo/ely_field_office.html** for a 15 day public comment period.

You are receiving this letter because you expressed interest in grazing management actions on one or more of these allotments in your reply to the Ely BLM District 2009 Annual Consultation, Cooperation, and Coordination letter.

The proposed action of the EA is to fully process and renew the grazing permits for Dan Hoots (#2703222) and authorize grazing on the Cherry Creek Allotment (00403), Goshute Basin Allotment, and Indian Creek Allotment; and for Kay and Mary K. Lear (#2704539) and authorize grazing on the Cherry Creek Allotment and Indian Creek Allotment. Changes to the permits are recommended to achieve the Standards and Guidelines for Nevada's Northeastern Great Basin Area on these allotments. **These changes are highlighted in bold in the EA under 2.1.2 Proposed term permit.**

Monitoring data was reviewed and assessments of the rangeland health of each allotment were completed in 2008-2009 during the term permit renewal process through Standards Determination Documents. The SDD evaluates and assesses livestock grazing management's achievement of the Standards and conformance with the Guidelines. The issuance of new permits could be for a period up to ten years.

The Cherry Creek Allotment, Goshute Basin Allotment and the Indian Creek Allotment encompass approximately 153,107 public land acres, 9,397 public land acres and 3,167 public land acres, respectively. All of these allotments are common use allotments located approximately 40 miles north of Ely, Nevada within White Pine County.

Please review the EA and Indian Creek and Goshute Basin Allotments SDD and provide written comments **by March 27, 2009.** Please address all comments to:

Mindy Seal, Natural Resource Specialist (SCEP)
Bureau of Land Management
HC 33, Box 33500
Ely, Nevada 89301

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 project, please contact Mindy Seal, Natural Resource Specialist (SCEP) at (775) 289-1944.

Sincerely,

/s/ Jeffrey A. Weeks

Jeffrey A. Weeks
Field Manager
Egan Field Office

Enclosures (2):
Preliminary EA and SDD
Cherry Creek SDD (for reference only)

cc: Interested Publics Mailing List (Name Only)
Nevada Department of Wildlife, Steve Foree
Eureka County Department of Natural Resources
Western Watersheds Project, Katie Fite
Steven Carter
Sustainable Grazing Coalition, Richard Orr
Eastern Nevada Landscape Coalition, Betsy Macfarlan
Joe McGloin
F.B. Anpu

Gordon V. Foppiano
Wade West
Carl Slaqowski
Karen Rajala
Craig C. Downer
Thelora Kemp
Sterling Wines
Herbert Stathes
Turner and Irlbeck Ranches
Aaron Kesler
Nevada State Clearinghouse (electronic copy only)
Kay and Mary K. Lear
Dan Hoots

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

DOI-BLM-NV-L010-2009-0002-EA
March 9, 2009

Preliminary Environmental Assessment
Term Grazing Permit Renewals
for Dan Hoots (#2703222) for Cherry Creek
Allotment (00403), Goshute Basin Allotment (00402),
and Indian Creek Allotment (00401);
and for Kay and Mary K. Lear (#2704539)
for Cherry Creek Allotment (00403) and
Indian Creek Allotment (00401)

Location: White Pine County, NV

U.S. Department of the Interior
Bureau of Land Management
Ely District Office
Phone: (775) 289-4505
Fax: (775) 289-1910

1.0 Introduction: Need for Action

This document identifies issues, analyzes alternatives, and discloses the potential environmental impacts associated with the proposed grazing term permit renewals of Dan Hoots (#2703222) for Cherry Creek Allotment (00403), Goshute Basin Allotment (00402), and Indian Creek Allotment (00401); and for Kay and Mary K. Lear (#2704539) for Cherry Creek Allotment (00403) and Indian Creek Allotment (00401). The aforementioned allotments are approximately 40 miles north of Ely, Nevada and are found entirely in White Pine County (see Figure 1).

The legal descriptions of the allotments are as follows:

Cherry Creek Allotment

T. 26N., R. 63E., portions of two sections
T. 26N., R. 64E., several sections
T. 26N., R. 65E., several sections
T. 25N., R. 63E., several sections
T. 25N., R. 64E., all sections
T. 25N., R. 65E., several sections
T. 24N., R. 62E., several sections
T. 23N., R. 64E., several sections
T. 22N., R. 61E., portion of one section
T. 22N., R. 62E., portions of six sections
T. 24N., R. 62E., several sections
T. 24N., R. 63E., all sections
T. 24N., R. 64E., several sections
T. 24N., R. 65E., portions of three sections
T. 23N., R. 61E., portion of one section
T. 23N., R. 62E., several sections
T. 23N., R. 63E., several sections
T. 22N., R. 63E., several sections
T. 22N., R. 64E., several sections

Goshute Basin Allotment

T25N R63E, various sections
T26N R63E, various sections

Indian Creek Allotment

T26N R64E, various sections
T26N R63E, various sections

1.0.1 Background

Current grazing management practices have been implemented since the Final Multiple Use Decision (FMUD) was issued for the Goshute Basin, Indian Creek and Cherry Creek Allotments on July 20, 2001.

This decision carried forth the management actions and adjustments to permitted use identified in the livestock grazing agreements on these allotments. The permittees for the Cherry Creek Allotment, Goshute Basin Allotment and Indian Creek Allotment signed agreements to take voluntary nonuse to help progress in meeting management objectives. For the Cherry Creek Allotment permittees also deferred grazing during the critical spring growing period from March 1 to April 30, and implemented a rest rotation system for the two Goshute Seeding pastures.

1.1 Introduction of the Proposed Action.

The Bureau of Land Management (BLM) Egan Field Office proposes to issue and fully process term grazing permits for Dan Hoots (#2703222) and authorize grazing on the Cherry Creek Allotment (00403), Goshute Basin Allotment, and Indian Creek Allotment; and for Kay and Mary K. Lear (#2704539) and authorize grazing on the Cherry Creek Allotment and Indian

Creek Allotment. Changes to the existing permits are recommended to achieve the Standards and Guidelines for Nevada's Northeastern Great Basin Area as established by the Nevada Northeastern Great Basin Resource Advisory Council (RAC), approved 1997.

Cherry Creek Allotment is a common use allotment with six term grazing permits currently authorized. In the fall of 2008, the Finding of No Significant Impact, EA (No. NV-043-08-012), and Standard Determination Document (SDD) for Cherry Creek and Big Rock Seeding Allotments were completed; and a Final Decision was issued on March 2, 2009 for the following term grazing permits: 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. At that time the term permits for Hoots and Lear were not included because these two permits include additional allotments that still needed to be evaluated. It was noted in the above referenced EA and Final Decision that the renewal of term grazing permits for Hoots and Lear would be considered and fully processed in a separate decision. The proposed action in this preliminary EA (DOI-BLM-NV-L010-2009-0002-EA) includes those two additional allotments (Goshute Basin Allotment and Indian Creek Allotment), along with the Cherry Creek Allotment.

Monitoring data was reviewed and assessments of the rangeland health of each allotment were completed in 2008-2009 during the term permit renewal process through Standards Determination Documents. The Indian Creek and Goshute Basin SDD (see Appendix I) is included with this preliminary EA for review and comment.

The Cherry Creek Allotment SDD was reviewed by a BLM interdisciplinary team and sent to interested public for preliminary review in 2008. No comments were received from the public specific to this document. Following the scoping of the Cherry Creek Allotment SDD, the Authorized Officer concurred with this determination on October 7, 2008. The Cherry Creek SDD is provided with this EA for reference purposes only.

The following is a summary of the SDD by allotment for achievement of the standards.

Table 1.1-1 Summarized Standard Determination For Each Allotment.

ALLOTMENT	STANDARD 1 Upland Sites	STANDARD 2 Riparian and Wetland Sites	STANDARD 3 Habitat
Indian Creek (00401)	**Standard achieved**	**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 achieved**

ALLOTMENT	STANDARD 1 Upland Sites	STANDARD 2 Riparian and Wetland Sites	STANDARD 3 Habitat
Goshute Basin (00402)	**Standard achieved**	**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 achieved**
Cherry Creek (00403)	**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.	**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.	**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.

1.2 Need for the Proposed Action.

The need for the proposal is to provide for legitimate multiple uses of the public lands by renewing the term grazing permits for Dan Hoots, and for Kay and Mary K. Lear with new terms and conditions for grazing use that conform to guidelines and achieve standards for Nevada's Northeastern Great Basin Area in accordance with all applicable laws, regulations, and policies and in accordance with Title 43 CFR 4130.2(a) which states, "Grazing permits or leases authorize use on the public lands and other BLM-administered lands that are designated in land use plans as available for livestock grazing."

1.3 Objectives for the Proposed Action.

1.3.1. To renew the grazing term permits for Dan Hoots, and for Kay and Mary K. Lear and authorize grazing in accordance with applicable laws, regulations, and land use plans (LUP) on approximately 165,671 acres of public land.

1.3.2. To improve vegetative health and growth conditions on the allotments and continue to make progress towards achieving the Standards and Guidelines for rangeland health as approved and published by Nevada's Northeastern Great Basin RAC (1997).

1.4 Relationship to Planning

The proposed action is in conformance with the Ely District Record of Decision and Approved Resource Management Plan signed August 20, 2008, which states, "Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health." In addition, "To allow livestock grazing to occur in a

manner and at levels consistent with multiple use, sustained yield, and the standards for rangeland health (p 85-86)."

Management Action LG-1 states, "Make approximately 11,246,900 acres and 545,267 animal unit months available for livestock grazing on a long-term basis."

Management Action LG-5 states, "Maintain the current grazing preference, season-of-use, and kind of livestock until the allotments that have not been evaluated for meeting or making progress toward meeting the standards or are in conformance with the policies are evaluated. Depending on the results of the standards assessment, maintain or modify grazing preference, seasons-of-use, kind of livestock and grazing management practices to achieve the standards for rangeland health. Changes, such as improved livestock management, new range improvement projects, and changes in the amount and kinds of forage permanently available for livestock use, can lead to changes in preference, authorized season-of-use, or kind of livestock. Ensure changes continue to meet the RMP goals and objectives, including the standards for rangeland health."

1.4.1 Relationship to Other Plans

The proposed action is consistent with the following Federal, State, and local plans to the maximum extent possible.

- White Pine County Portion (Lincoln/White Pine Planning Area) Sage Grouse Conservation Plan (2004).
- State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada Historic Preservation Office (1999).
- Northeastern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (February 12, 1997).
- White Pine County Land Use Plan (2007).
- White Pine County Elk Management Plan (2007 revision)

1.4.2 Tiering

This document is tiered to the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007).

1.6 Relevant Issues and Internal Scoping/Public Scoping.

The term permit renewal proposal was initiated on November 17, 2008, with a presentation to the internal resource specialist team to identify any relevant issues. Preliminary issues identified were effects of the proposed action on cultural resources, Bonneville cutthroat trout, a land acquisition in Wilderness, and noxious and invasive weeds**.**

A Grazing Permit Renewal Summary for these permits was published on the Ely District website on January 26, 2009. No comments were received.

A letter was mailed to each grazing permittee regarding the permit renewal action on January 15, 2009, requesting comments by February 6, 2009. No comments were received.

On November 19, 2008, a letter was sent to local tribes requesting comments by December 22, 2008. No comments were received regarding these permit renewals.

On December 2, 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 January 23, 2009. No Comments received from the Wilderness mailing list.

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. The following individuals and organizations, who were sent the annual CCC letter in December 2009, have requested additional information regarding rangeland related actions or programs within the Indian Creek, Goshute Basin and Cherry Creek Allotments:

Nevada Department of Wildlife, Steve Foree
Eureka County Department of Natural Resources
Western Watersheds Project, Katie Fite
Steven Carter
Sustainable Grazing Coalition, Richard Orr
Eastern Nevada Landscape Coalition, Betsy Macfarlan
Joe McGloin
F.B. Anpu
Gordon V. Foppiano
Wade West
Carl Slaqowski
Karen Rajala
Craig C. Downer
Thelora Kemp
Sterling Wines
Herbert Stathes
Turner and Irlbeck Ranches
Aaron Kesler
Nevada State Clearinghouse (electronic copy only)

All of these entities will be mailed a copy of the preliminary EA and draft Indian Creek Allotment and Goshute Creek Allotment SDD for review and comment. A copy of the Cherry Creek Allotment SDD will be provided for reference purposes.

2.0 Alternatives Including the Proposed Action

2.1 Proposed Action

The BLM proposes to issue and fully process a new term grazing permit for Dan Hoots (#2703222) and authorize grazing on the Cherry Creek Allotment, Goshute Basin Allotment, and Indian Creek Allotment; and a new term grazing permit for Kay and Mary K. Lear (#2704539) and authorize grazing on the Cherry Creek Allotment and Indian Creek Allotment (Figure 1).

Changes to the permits are recommended to achieve the Standards and Guidelines for Nevada's Northeastern Great Basin Area on these allotments.

For the Cherry Creek Allotment, management actions identified and implemented through agreements with the permittees in 2002 will continue. These include continuing the voluntary nonuse of AUMS, deferring grazing during the critical spring growing period, and continuing to implement the rest rotation system for the two Goshute Seeding pastures. To comply with the stipulations of the Cherry Creek 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. The current reduction in AUMS and implementation of grazing systems have distributed livestock use, resulting in moderate or less utilization of key forage plant species. This has helped vegetation to improve with appropriate production and cover. Range improvement projects such as the construction of a fence in 1999 to split the Goshute Seeding, in the Cherry Creek Allotment, into an east and west pasture have improved springs within the east pasture of the Goshute Seeding. The changes implemented through the current grazing agreements, including the voluntary reduction of AUMs and resting the native range during the critical spring period from March 1 to May 1 are helping many of the riparian areas throughout the Cherry Creek Allotment to gradually improve.

For the Indian Creek Allotment, the proposed action would continue with the terms and conditions previously implemented through agreements for both permittees. These agreements have expired. The previous terms and conditions of these agreements are included in this proposed action and would continue the annual rest/rotation schedule with grazing authorized every other year; the season of use would remain 07/01-08/31 with cattle gathered and removed from the allotment by 08/15 and all stragglers removed by 08/31; and maintaining the active AUMs at 45 for Dan Hoots's permit and 30 for Kay and Mary K. Lear's permit with the remaining AUMs held in voluntary nonuse.

The Goshute Basin Allotment has two permittees, Dan Hoots (#2703222); and Double U Livestock LLC (#2700045). The Standards Determination Document evaluated and assessed livestock grazing management achievement of the Standards and conformance with the Guidelines for the Goshute Basin Allotment for both permittees. However, the Double U Livestock LLC permit for sheep grazing in the Goshute Basin Allotment has been fully processed, along with their other northern allotments, and is not due for renewal until 2014. Currently Double U Livestock LLC is required to herd sheep away from riparian areas and has implemented an annual rest/rotation schedule with sheep grazed every other year.

For Goshute Basin Allotment, the proposed action would only modify the terms and conditions for Dan Hoots permit. The changes include alternating cattle grazing annually with cattle grazing permitted on odd years. The season of use would be 07/01-08/31 for cattle with cattle gathered and removed from the allotment by 08/15 and all stragglers removed by 08/31. The season of use for cattle is the same as the Indian Creek Allotment so the permittee can manage his livestock in conjunction with his permitted use on the Indian Creek Allotment. Active AUMs for cattle would be 99 with the remaining AUMs held in voluntary nonuse. Daily herding of livestock (sheep and cattle) away from riparian areas would be required. This would reduce

impacts to riparian areas that are not fenced on the Goshute Basin Allotment and help to progress toward achieving Standard 2.

This proposed action also establishes utilization levels on all three allotments for upland and riparian vegetation at 50% total current year's growth for perennial grasses and 50% use on current annual production for perennial shrubs and half-shrubs. This use level would allow these plants to develop above ground biomass for protection of soils; contribute to litter cover; and develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover. This use level also would also allow for additional habitat cover for wildlife.

The current permits are shown in Tables 2 and 3. Proposed changes are in Tables 4 and 5. The same kind of livestock is grazed and the active use previously authorized is not exceeded. Proposed changes to the permit terms and conditions would affect the overall management of livestock.

2.1.1 Current permit

Table 2. Current Term Permit for Dan Hoots (#2703222)

Allotment Name and Number	Pasture Name	Livestock Number/ Kind	Grazing Period Begin - End	% Public Land*	Type Use	AUMs **
Cherry Creek (00403)	Native	43 Cattle	05/01-02/28	100	Active	430
	West Goshute Seeding	10 Cattle	05/01-02/28	100	Active	84
	East Goshute Seeding	43 Cattle	05/01-06-15 (odd years)	100	Active	25
		11 Cattle	09/01-02/28 (even years)			26
Indian Creek (00401)		51 Cattle	07/01 - 09/01	100	Active	106
Goshute Basin (00402)		48 Cattle	07/01 - 09/01	100	Active	99

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Permitted Use due to a formula calculation 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	**569**	**179**	**611**	**1,359**
Native Range	434	179	611	1,224
West Goshute Seeding	84	0	0	84
East Goshute Seeding	51	0	0	51
Total for Indian Creek	**106**	**0**	**87**	**193**
Total for Goshute Basin	**99**	**On even years 99 AUMs**	**81**	**180**

Table 3. Current Term Permit for Kay and Mary K. Lear.

Allotment Name and Number	Pasture Name	Livestock Number/ Kind	Grazing Period Begin - End	% Public Land*	Type Use	AUMs **
Cherry Creek (00403)	Native	29 Cattle	05/01-02/28	100	Active	290
Indian Creek (00401)		35 Cattle	07/01 - 09/01	100	Active	72

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Permitted Use due to a formula calculation 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	**205**	**85**	**0**	**290**
Native Range	205	85	0	290
Total for Indian Creek	**30**	**41**	**0**	**71**

2.1.2 Proposed term permit

The renewal of the term grazing permits would be for a period of up to 10 years. If base property is transferred during this ten year period with no changes to the terms and conditions the new term permit would be issued for the remaining term of this term permit. If this term permit is renewed during this ten year period with no changes to the terms and conditions the new term permit would be issued for the remaining term of this term permit.

The **proposed term** permits for Dan Hoots and Kay and Mary K. Lear and terms and conditions are as follows:

Table 4. Proposed Term Permit for Dan Hoots (#2703222)

Allotment Name and Number	Pasture Name	Livestock Number/ Kind	Grazing Period Begin - End	% Public Land*	Type Use	AUMs **
Cherry Creek (00403)	Native	43 Cattle	05/01-02/28	100	Active	430
	West Goshute Seeding	10 Cattle	05/01-02/28	100	Active	84
	East Goshute Seeding	43 Cattle	05/01-06-15 (odd years)	100	Active	25
		11 Cattle	09/01-02/28 (even years)			26
Indian Creek (00401)		**51 Cattle**	**07/01 - 08/31 (rest rotation system, grazing authorized every other year)**	**100**	**Active**	**106**
Goshute Basin (00402)		**48 Cattle**	**07/01 - 08/31 (rest rotation system, grazing only on odd years)**	**100**	**Active**	**99**

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Permitted Use due to a formula calculation 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	**569**	**179**	**611**	**1,359**
Native Range	434	179	611	1,224
West Goshute Seeding	84	0	0	84
East Goshute Seeding	51	0	0	51
Total for Indian Creek	**106**	**0**	**87**	**193**
Total for Goshute Basin	**99**	**On even years 99 AUMs**	**81**	**180**

Table 5. Proposed Term Permit for Kay and Mary K. Lear (#2704539).

Allotment Name and Number	Pasture Name	Livestock Number/ Kind	Grazing Period Begin - End	% Public Land*	Type Use	AUMs **

Cherry Creek (00403)	Native	29 Cattle	05/01-02/28	100	Active	290
Indian Creek (00401)		**35 Cattle**	**07/01 - 08/31 (rest rotation system, grazing authorized every other year)**	**100**	**Active**	**72**

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Permitted Use due to a formula calculation 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	**205**	**85**	**0**	**290**
Native Range	205	85	0	290
Total for Indian Creek	**30**	**41**	**0**	**71**

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

Dan Hoots

1. Permittee agrees to continue to place 179 AUMs of his current permitted use on native range of 613 AUMs for 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 179 AUMs will remain on the Term Grazing Permit in voluntary nonuse.
2. Active use will not exceed 10% of the total active use for the Cherry Creek Allotment native range between May 1 and May 15, therefore, a maximum of 43 AUMs 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 will be established for the East Pasture of the Goshute Seeding. Spring use will be authorized from May 1 to June 15. Fall use will be authorized from September 1 to February 28.
- The season of use for the West Pasture of the Goshute Seeding will be May 1 to February 28. Water hauling will be required in the West Pasture to achieve proper livestock distribution.

Kay and Mary K. Lear

1. Permittee agrees to continue to place 85 AUMs of their current permitted use on native range of 290 AUMs for 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 85 AUMs will remain on the Term Grazing Permit in voluntary nonuse.
2. Active use will not exceed 10% of the total active use on the Cherry Creek Allotment native range between May 1 and May 15, therefore, a maximum of 21 can be licensed between May 1 and May 15 on the native range.

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 will be open to all permittees authorized on the Cherry Creek Allotment.
3. Water hauling will 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) will be maintained and pumped and troughs filled to distribute cattle use. Water hauling to this area will be required if well will not work.
    - The northeast portion of the allotment.
    - The Woodcamp Pasture east of Highway 93.
4. No livestock grazing will 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 will be located no closer than ¼ mile from water sources. Supplements are to be placed ½ mile from existing waters.
6. **Establish utilization levels for uplands and riparian vegetation 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 perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use.***
    - **Crested wheatgrass: 65% use on current annual production**.
    - **Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.**
    - **Permittee will follow Congressional Grazing Guidelines when performing maintenance and repairs to facilities in wilderness**

Goshute Basin Allotment

1. Livestock numbers are flexible as long as permitted use is not exceeded during the authorized season of use.
2. **Daily herding of livestock (sheep and cattle) away from riparian areas would be required.**
3. Salt and/or mineral supplements for livestock will be located no closer than ¼ mile from water sources. Supplements are to be placed ½ mile from existing waters.
4. **Establish utilization levels as follows:**

- **Riparian vegetation including grasses, forbs and shrubs: 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 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 perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use.***
- **Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.**
- **Permittee will follow Congressional Grazing Guidelines when performing maintenance and repairs to facilities in wilderness**

Indian Creek Allotment

1. Livestock numbers are flexible as long as permitted use is not exceeded during the authorized season of use.
2. Cattle will be gathered and removed for the Indian Creek Allotment by August 15. Due to the rugged condition of the area, all stragglers will be removed by 8/31.
3. Rest rotation system: grazing would be authorized every other year and coincide with the cattle rest rotation system for Goshute Basin Allotment.
4. Salt and/or mineral supplements for livestock will be located no closer than ¼ mile from water sources. Supplements are to be placed ½ mile from existing waters.
5. **Establish utilization levels as follows:**

- **Riparian vegetation including grasses, forbs and shrubs: 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 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 perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use.***
- **Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.**
- **Permittee will follow Congressional Grazing Guidelines when performing maintenance and repairs to facilities in wilderness.**

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.

2.1.4 Invasive, Non-Native Species and Noxious Weeds

A Weed Risk Assessment (See Appendix IV) was completed on November 6, 2008. The stipulations listed in the Weed Risk Assessment will be followed when grazing occurs on the allotments.

- 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, appropriate 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.

2.1.5 Migratory Birds

Interim Management Guidance, WO IM No. 2008-050 (December, 2007) states, "Best Management Practices to avoid or minimize the possibility of the unintentional take of migratory birds should be applied to all projects."

2.1.6 Cultural Resources

A cultural resources review of known eligible sites or properties is currently being conducted by BLM staff associated with the Dan Hoots, and Kay and Mary K. Lear term permit renewals.

2.1.7 Monitoring

The Ely District Approved Resource Management Plan (August 2008) identifies monitoring to include, "Monitoring to assess rangeland health standards will include records of actual livestock use, measurements of forage utilization, ecological site inventory data, cover data, soil mapping, and allotment evaluations or rangeland health assessments. Conditions and trends of resources affected by livestock management actions, will contribute to the selection of prescribed burn treatments or other types of treatments based on attainment of resource objectives. (p.88)"

2.2 No Action Alternative

The No Action Alternative represents the status quo – the permit would be renewed without changes to grazing management, modifications to the permit terms and conditions, and without implementation of a rest rotation grazing system on the Goshute Basin Allotment.

2.3 Alternatives Considered but Eliminated from Further Analysis

One alternative considered, but eliminated from further analysis was to continue with the agreements implemented for Goshute Basin Allotment and Indian Creek Allotment. The agreements for Goshute Basin Allotment and the Indian Creek Allotment expired in 2003 and 2004. All actions implemented in these agreements are carried forward in the proposed decision except the one to offset the loss of AUMs in the Goshute Basin Allotment. Under the past agreements, both permittees had the option to use additional AUMs in other allotments they were permitted for. For the Double U Livestock LLC permit (sheep) these additional AUMs would be authorized in the Medicine Butte Allotment and for the Dan Hoots permit (cattle) these additional AUMs would be authorized in the Cherry Creek Allotment. Although both permittees had this option, neither permittee exercised this option. **Given that these agreements have expired, this option is no longer being considered. Also, based on the Standard Determination Document completed for the Cherry Creek Allotment in 2008, no additional active AUMs were determined to be available in the Cherry Creek Allotment at that time.**

No other alternatives are needed to address unresolved conflicts concerning alternative uses of available resources.

The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November, 2007) analyzes five alternatives of livestock grazing (p.4.16-1 to 4.16-15.), including a no-grazing alternative (D). No further analysis is necessary in this document.

- The Proposed RMP
- Alternative A, The Continuation of Current Existing (No Action alternative)
- Alternative B, the maintenance and restoration of healthy ecological systems
- Alternative C, commodity production
- Alternative D, conservation alternative (no-grazing alternative)

3.0 Description of the Affected Environment and Associated Environmental Consequences.

3.1 Allotment Information

The Cherry Creek Allotment, Goshute Basin Allotment and the Indian Creek Allotment encompass approximately 153,107 public land acres, 9,397 public land acres and 3,167 public land acres, respectively (Figure 1). All of these allotments are common use allotments located approximately 40 miles north of Ely, Nevada within White Pine County. The Cherry Creek Allotment and the Indian Creek Allotment border with Elko County; and the town of Cherry Creek is located within the Cherry Creek Allotment. The permit area occurs within both the Steptoe B Watershed and the Egan Basin Watershed. Portions of the Triple B Herd Management Area (HMA) and the Antelope HMA occur within the permit area.

The permit area is located within the Butte and Antelope sage grouse population units. There are six known sage grouse leks in the Cherry Creek allotment, two are active and four are of unknown status. There is summer habitat in all three allotments and nesting habitat in Cherry Creek allotment. There are seven known raptor nest sites in Cherry Creek allotment. The permit area occurs within the Nevada Department of Wildlife hunting management areas #11 and #12. Cherry Creek allotment contains year round pronghorn habitat. All three allotments contain year round elk and mule deer habitat, and deer migration corridors. Goshute Basin Allotment has several riparian areas and Bonneville cutthroat Trout (an introduced refugium population) occurs in Goshute Creek. Most of the Goshute Basin Allotment and the Indian Creek Allotment are within the Goshute Canyon Wilderness; and a portion of the Goshute Canyon Wilderness and the Becky Peak Wilderness are located within the Cherry Creek Allotment.

The Cherry Creek Allotment includes several types of meadow range sites in the valley bottom (often referred to as the "slough"), 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 singleleaf piñion pine (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*) woodlands, mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*), and curlleaf mountain-mahogany (*Cercocarpus ledifolius*) range sites at the higher elevations.

Indian Creek Allotment and Goshute Basin Allotment are dominated by montane sagebrush steppe with Alpine/Montane plant communities occurring at the higher elevations. These communities include bunch grasses, alpine forbs, and low sage (*Artemisia bigelovii* A. Gray.). Although Montane meadow and riparian woodland communities make up only a very small portion of these allotments, they are important plant communities both in terms of forage production and wildlife habitat. The montane meadows are made up of various high elevation grasses and the montane riparian woodlands include aspen (*Populus tremuloides* Michx.) stands, along with a variety of shrubs and grasses.

3.2 Resources/Concerns Considered for Analysis

The following items have been evaluated for the potential for significant impacts to occur, either directly, indirectly or cumulatively, due to implementation of the proposed action. Consideration of some of these items is to ensure compliance with laws, statutes or Executive Orders that

impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general, and to the Ely BLM in particular.

Resource/Concern Considered	**Issue(s) Analyzed ? (Y/N)**	**Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis**
Air Quality	No	Air quality in the affected area is unknown. The proposed action would contribute to ambient dust in the air due to trailing, but no impacts are anticipated. Detailed analysis is not required.
Cultural Resources	No	Impacts from livestock grazing on Cultural Resources are analyzed on page 4.9-4 of the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007). The Cherry Creek Allotment encompasses the historic Cherry Creek Mining District and as such contains many historical associated features and sites that are potentially eligible to the National Register of Historic Places. The district as a whole has not been adequately inventoried and recorded. All eligible historic resources need to be continuously monitored for impacts. Mitigation and treatment will be applied as concerns are identified.
Forest Health	No	High elevation aspen stands are found within the Cherry Creek, Indian Creek and Goshute Basin allotments. Young aspen stems can be preferred forage of all grazers, including cattle and sheep. However, given the location of the aspen stands in generally inaccessible locations and the lack of regeneration in the aspen stands due to unrelated reasons, the impact of grazing on these aspen stands is directly, indirectly and cumulatively negligible.
Rangeland Standards and Health	No	Impacts from livestock grazing on Rangeland Standards and Health are analyzed on pages 4.16-3 through 4.16-4 of the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007). Beneficial impacts to rangeland standards and health are consistent with the need and objectives for the proposed action. An assessment and evaluation of livestock grazing managements achievement of the standards and conformance to the guidelines was completed in conjunction with this project (SDDs, Appendix II and III). No further analysis is needed.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Migratory Birds	No	A list of birds has been identified for the project area and included in Appendix VI. There is potential of livestock trampling migratory bird nests, however the likelihood of this happening is minimal because of the acreage of the grazing allotments and reduction in permitted number of livestock over the past years and the current proposed action. No impacts to migratory bird populations as a whole would occur.
Native American Religious Concerns and other concerns	No	No concerns were identified through coordination letters sent on November 19, 2008. Direct impacts and cumulative impacts would not occur because there were no identified concerns through coordination.
FWS Listed or proposed for listing Threatened or Endangered Species or critical habitat.*	No	Threatened, Endangered, or Proposed species are not known to be present in the project area.
Wastes, Hazardous or Solid	No	No hazardous or solid wastes exist in the allotments nor would be introduced by the proposed action.
Water Quality, Drinking/Ground	No	Impacts from livestock grazing on Water Resources were analyzed on page 4.3-5 in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). The proposed action does not pose any impact to ground water in the project area. No surface water in the project area is used as human drinking water sources and no impaired water of the State are present in the project area.
Wilderness	No	Portions of the Cherry Creek Allotment occur within the Becky Peak Wilderness. Portions of the Cherry Creek, Goshute Basin, and Indian Creek Allotments occur within the Goshute Canyon Wilderness. Trammeling activities will occur in the form of removal of vegetation through livestock grazing, but would not impair wilderness characteristics.
Environmental Justice	No	No environmental justice issues are present at or near the project area. No minority or low income populations would be unduly affected by the proposed action
Floodplains	No	No floodplains have been identified by HUD or FEMA within the allotment. Floodplains as defined in Executive Order 11988 may exist in the area, but would not be affected by the proposed action.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Watershed Management	No	Impacts from livestock grazing on Watershed Management are analyzed on page 4.19-8 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). Further changes to livestock management may be recommended by the watershed analysis process, however no concerns have been identified at this time.
Wetlands/Riparian Zones	No	There are no Wetlands in the proposed term permit renewal area. Impacts from livestock grazing on riparian areas are analyzed on pp 4.5-9 of the Ely Proposed Resource management Plan/Final Environmental Impact Statement (November 2007). There are no anticipated impacts other than those described in the proposed action as a result of changing the permit terms.
Wild and Scenic Rivers	No	There are no wild and scenic rivers within the allotments.
Noxious and Invasive Weed Management	Yes	Changes in the grazing system to the permit will result in changes in the impacts to noxious and invasive weeds.
Special Status Animal Species, other than those listed or proposed by the FWS as Threatened or Endangered	No	Impacts from livestock grazing on Special Status Species are analyzed on page 4.7-28 through page 4.7-30 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). The greater sage grouse, pygmy rabbit, Bonneville cutthroat trout and relict dace have known habitat within the allotments. There are six leks and sage grouse summer and nesting habitat. Although state or BLM listed sensitive species are 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 allotments. In addition, the current and proposed livestock management practices may allow the improvement of habitat for these species.
Special Status Plant Species, other than those listed or proposed by the FWS as Threatened or Endangered	No	The Natchlinger catchfly is known to occur in the Goshute Basin Allotment. The relatively low numbers of cattle on the allotment will minimize effects on this specie. Also, since this specie mostly grows on rocky outcrops these will not be accessible to cattle.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Wild Horses	No	Portions of the Cherry Creek Allotment occur within the Antelope Herd Management Area (HMA) and the Triple B HMA. Portions of the Indian Creek Allotment and the Goshute Basin Allotment occur within the Triple B HMA. Impacts from livestock grazing on Wild Horses are analyzed on page 4.8-6 of the Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). Site specific examination of the allotments did not reveal any concerns above those addressed in the EIS.
Fish and Wildlife	No	Impacts from livestock grazing on Fish and Wildlife are analyzed on pages 4.6-10 through 4.6-11 in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). There is a migration corridor for mule deer through the allotments. Site specific examination of the allotments did not reveal any concerns above those addressed in the EIS.
Soil Resources	No	Impacts from livestock grazing on Soil Resources were analyzed in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) (page 4.4-4). Soils were analyzed in the SDDs and no anticipated impacts other than those described in the proposed action as a result of changing the permit terms.
Farmlands (Prime or Unique)	No	Prime farmland soils do not occur in the allotments.
Special Designations other than Designated Wilderness	No	No Special Designations occur within these allotments.
VRM	No	The proposed action is consistent with the VRM classification 3 and 4 for the area therefore no direct or cumulative impacts to visual resources would occur.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Grazing Uses	No	The proposed action establishes maximum allowable use on key forage plant species and continues the current grazing agreements for the Cherry Creek Allotment to progress toward achieving the Standards for Rangeland Health. Changes to the Indian Creek Allotment season of use and active AUMs are the same as what had been implemented under past agreements. Most changes to the Goshute Basin Allotment season of use and active AUMs are the same as what had been implemented under past agreements. However, under the proposed action the rest rotation system for cattle does not allow remaining AUMs to be used on Cherry Creek Allotment and daily herding away from riparian areas would be required. The proposed action is consistent with the need for the action, no further analysis is necessary.
Land Uses	No	There would be no modifications to land use authorizations through the proposed action therefore no impacts would occur. No direct or cumulative impacts would occur to access and land use.
Recreation Uses	No	Design features identified in the proposed action would result in negligible impacts to recreational activities.
Paleontological Resources	No	No identified paleontological resources are present in the proposed term permit renewal area.
Water Resources	No	Potential impacts to water quality are discussed above. There would be no changes from current uses of water from the proposed action.
Mineral Resources	No	There would be no modifications to mineral resources through the proposed action, therefore no direct or cumulative impacts would occur to minerals.
Vegetative Resources	No	Impacts from livestock grazing on Vegetation (including Riparian) Resources were analyzed in the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007) (page 4.5-9). Vegetation was analyzed in the SDDs. Beneficial impacts to vegetative resources are consistent with the need and objectives for the proposed action. No further analysis is needed.

*Consultation required unless a "not present" or "no effect" finding is made

The resources/concerns that are not present in the proposed action allotments or are affected negligibly by the proposed action and do not require a detailed analysis include air quality, forest health, migratory birds, native American religious concerns, FWS listed or proposed for listing threatened or endangered species or critical habitat, wastes, hazardous or solid, wilderness, environmental justice, floodplains, special status plant species, special designations other than designated wilderness, VRM, grazing uses, land uses, recreation uses, paleontological resources, and mineral resources.

The resources that have impacts from livestock grazing are disclosed in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) and include Water Resources (page 4.3-5), Soil Resources (page 4.4-4), Vegetation (including Riparian) Resources (page 4.5-9), Fish and Wildlife (pages 4.6-10 through 4.6-11), Wild Horses (page 4.8-6), Cultural Resources (page 4.9-5), Rangeland Standards and Health (pages 4.16-3 through 4.16-4), Watershed Management (page 4.19-8), Special Status Species (page 4.7-28 through 4.7-30), and Noxious and Invasive Weed Management (page 4.21-5). These resources do not require a further detailed analysis.

3.2.1 Noxious and Non-native, Invasive Weeds
Affected Environment

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 Cherry Creek Allotment:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
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 within the boundaries of the Goshute Basin Allotment:

Carduus nutans	Musk thistle
Cicuta maculata	Water hemlock
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle

The following species are found within the boundaries of the Indian Creek Allotment:

Cirsium arvense	Canada thistle
Onopordum acanthium	Scotch thistle

The following species are found along roads and drainages leading to all three 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
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

These areas were last inventoried for noxious weeds in 2003 and 2006. It should be noted that two of these allotments border the BLM Elko District and no weed inventory data for this District is currently available. While not officially documented the following non-native invasive weeds probably occur in or around both allotments: cheatgrass (*Bromus tectorum*), field bindweed (*Convolvulus arvensis*), Russian olive (*Elaeagnus angustifolia*), halogeton (*Halogeton glomeratus*), horehound (*Marrubium vulgare*), bur buttercup (*Ranunculus testiculatus*)and Russian thistle (*Salsola kali*).

Environmental Consequences

A Noxious and Invasive Weed Risk Assessment was completed for this project and can be found in Appendix IV of the attached Standards and Determination Document. 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 block sites are of particular concern of new weed infestations due to the concentration of livestock around those sites and the amount of ground disturbance associated with that. If new weed infestations establish within the allotments this could have an adverse impact those native plant communities however, since there are many weed infestations currently within the allotments, those impacts would be limited. Also, any increase of cheatgrass could alter the fire regime in the area. These impacts would be less than the No-Action Alternative decision due to the rest rotation system proposed for Indian Creek Allotment. This change would allow for more vigorous native plant communities which could better compete against noxious and non-native invasive plant invasion.

3.3 Resources/Concerns Considered for Analysis - No Action Alternative

Impacts to resources/concerns from renewing the permit under the no action alternative are described as follows:

Impacts to air quality, cultural resources, forest resources, migratory birds, Native American Religious concerns, Threatened and Endangered species, hazardous/solid waste, water quality, wilderness, environmental justice, floodplains, watersheds, special status plant species, wild horses, soil resources, special designations, Visual Resource Management (VRM), land uses, recreation uses, paleontological resources, water resources, grazing uses, and mineral resources have the same effects as those described under the proposed action.

Impacts to rangeland standards and health would progress at a reduced rate. Impacts to wetlands/riparian zones would continue to be unacceptable. Impacts to special status animal species, including sage grouse and fish/wildlife resources, would not improve as described under the proposed action. Impacts to vegetative resources would not improve as described under the proposed action.

4.0 Cumulative Impacts

According to page 36 of the 1994 BLM publication, *Guidelines for Assessing and Documenting Cumulative Impacts*, the cumulative analysis should be focused on those issues and resource values where the incremental impact of the Proposed Action results in a meaningful change in the cumulative effect from other past, present and reasonably foreseeable future actions within the Cumulative Effects Study Area (CESA). The CESA is defined as the Steptoe B and Egan Basin watersheds. The project area is within these watersheds.

Additionally, the guidance provided in The National BLM NEPA Handbook H-1790-1 (2008), for analyzing cumulative effects issues states, "determine which of the issues identified for analysis may involve a cumulative effect with other past, present, or reasonably foreseeable future actions. If the proposed action and alternatives would have no direct or indirect effects on a resource, you do not need a cumulative effects analysis on that resource (p.57). "

A comprehensive cumulative impacts analysis can be found on pages 4.28-1 through 4.36-1 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007).

Most past and all present and reasonably foreseeable future actions have noxious and invasive weed prevention stipulations and required weed treatment requirements associated with each project. This in combination with the active BLM Ely District Weed Management Program will minimize the spread of weeds throughout the watersheds.

5.0 Proposed Mitigation and Monitoring

5.1 Proposed Mitigation

Outlined design features incorporated into the proposed action are sufficient. No additional mitigation is proposed based on the analysis of environmental consequences.

5.2 Proposed Monitoring

Appropriate monitoring has been included as part of the Proposed Action. No additional monitoring is proposed as a result of the impact analysis.

6.0 Consultation and Coordination

6.1 List of Preparers - BLM Egan Field Office Resource Specialists

Mindy Seal	Rangeland Resources/Project Lead
Gina Jones	Ecology
Sheri Wysong	Planning and Environmental Coordinator

Bonnie Million	Noxious and Invasive, Non-native Species
Marian Lichtler	Wildlife, Special Status Species, Migratory Birds
Kalem Lenard	Recreation, Visual Resources
Dave Jacobsen	Wilderness
Lisa Gilbert	Cultural Resources
Doris Metcalf	Lands
Mark D'Aversa	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	Native American Concerns
Chris Mayer	Supervisory Rangeland Management Specialist

6.2 Persons, Groups or Agencies Consulted

The following persons, groups, and agencies were contacted during the preparation of this document.

●Permittees

- •Dan Hoots
- •Kay and Mary Lear

●Nevada Department of Wildlife

- •Steve Foree

●Tribal Consultation

- • Tribal Coordination Letters were sent November 22, 2008. No concerns were identified through coordination.

Public Notice of Availability

The preliminary EA and SDD for Goshute Basin Allotment and Indian Creek Allotment will be sent to interested persons and organizations on the Ely District Rangeland Management Interested Public List.

References

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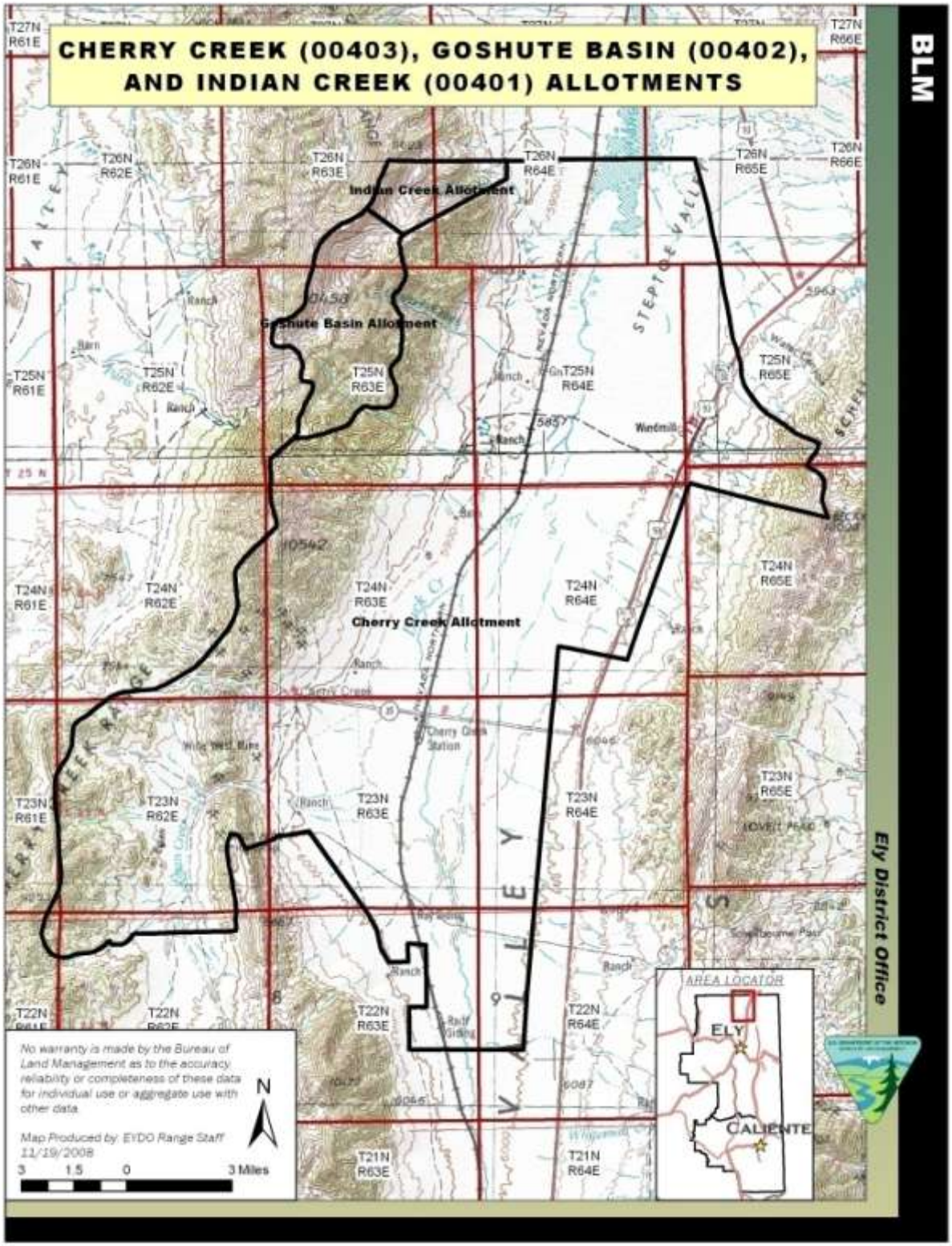
USDI - BLM. 1997. Standards and Guidelines for Nevada's Northeastern Great Basin Area.

White Pine County Portion (Lincoln/White Pine Planning Area) Sage Grouse Conservation Plan. 2004.

Figure 1. General Location Map



Appendix I SDD

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

Standard Determination Document
November 25, 2008

Goshute Basin Allotment and Indian Creek Allotment

Location: Ely, Nevada
Project Lead: Mindy Seal

U.S. Department of the Interior
Bureau of Land Management
Ely District Office
Egan Field Office
Phone: (775) 289-1800
Fax: (775) 289-1910

Appendix I STANDARDS DETERMINATION DOCUMENT

Goshute Basin Allotment **(00403)** and Indian Creek 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 Goshute Basin Allotment (#00402) and the Indian Creek Allotment (#00401) 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 Goshute Basin Allotment and the Indian Creek Allotment by a BLM interdisciplinary team consisting of rangeland management specialists, wildlife biologist, weeds specialist, ecologist, and a hydrologist. 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 Goshute Basin Allotment and the Indian Creek Allotment encompasses approximately 9,397 public land acres and 3,167 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 Indian Creek Allotment borders with Elko County. The permit area occurs within the Steptoe B Watershed (040). Portions of the Triple B Herd Management Area occur within these allotments. Both allotments are located within the Butte sage grouse population unit. The permit area occurs within the Nevada Department of Wildlife hunting management area #12. Goshute Basin Allotment has several riparian areas and Bonneville Cutthroat Trout occurs in Goshute Creek. Most of the Goshute Basin Allotment and the Indian Creek Allotment are within the Goshute Canyon Wilderness (Appendix III, Figure I. General Map).

The Goshute Basin Allotment has two permittees, and the Indian Creek Allotment has two permittees. This Standards Determination Document evaluates and assesses

livestock grazing management achievement of the Standards and conformance with the Guidelines for Dan Hoots (#2703222); and Double U Livestock LLC (#2700045) for the Goshute Basin Allotment. It also evaluates and assesses livestock grazing management achievement of the Standards and conformance with the Guidelines for Dan Hoots, and Kay and Mary K. Lear (#2704539) for the Indian Creek Allotment. Based on this document and the Standards Determination Document previously completed for the Cherry Creek Allotment in 2008 new term grazing permits could be issued this year to Dan Hoots, and Kay and Mary K. Lear for a period up to ten years. Double U Livestock LLC permit for their north grazing allotments, including Goshute Basin Allotment, has been fully processed and is not due for renewal until 2014. Future term permit renewals for Goshute Basin Allotment and Indian Creek Allotment could be considered based on this determination along with future monitoring data.

A Final Multiple Use Decision (FMUD) was issued for the Goshute Basin, Indian Creek and Cherry Creek Allotments on July 20, 2001. 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. The permittees for the Goshute Basin Allotment and Indian Creek Allotment signed agreements to take voluntary nonuse to help progress in meeting management objectives.

Changes implemented through agreements in 2000 for the Goshute Basin Allotment included voluntary nonuse of AUMs with sheep AUMs reduced to 350 AUMs and cattle AUMs reduced to 0 AUMs for a period of four years (see Table 1). During this time the season of use for sheep was 07/01-10/15. For Indian Creek Allotment the agreements reduced the active AUMs to 45 AUMs for Dan Hoots's permit and 30 AUMs for Kay and Mary K. Lear's permit with the remaining AUMs held in voluntary nonuse (see Table 2). The season of use was adjusted to 07/01-08/31 with cattle gathered and removed from the allotment by 08/15 and all stragglers removed by 08/31. Even though these agreements ended in 2003 and 2004, the permittees have continued to be proactive in implementing these changes.

All of these documents were reviewed and taken in to consideration along with the analysis of current data. Most of the terms and conditions of these agreements are still pertinent based on this determination and are included in Part 4. Recommendations. While it is recommended to retain most of these terms and conditions with no adjustments, there are recommended changes regarding cattle grazing the Goshute Basin Allotment, and alternating annually cattle and sheep grazing in this allotment (see Part 4). Utilization objectives have also been recommended for both allotments. These changes are based on the findings of this determination.

Table 1. Permitted Use (AUMs) for Goshute Basin Allotment

Permittee Livestock Kind	Prior to the Agreements and After the Agreements Expired				During the Agreements				
	Total Active	Voluntary Nonuse	Suspended Nonuse	Total AUMs	Total Active	Voluntary Nonuse	Suspended Nonuse	Total AUMs	Period of Agreement
Dan Hoots Cattle	99	0	81	180	0	99	81	180	3/1/2000 to 2/28/2003
Double U Livestock LLC Sheep	528	0	257	785	350	178	257	785	3/1/2000 to 2/28/2004
Total:	627	0	338	965	350	277	338	965	

Table 2. Permitted Use (AUMs) for Indian Creek Allotment

Permittee Livestock Kind	Prior to the Agreements and After the Agreements Expired				During the Agreements				
	Total Active	Voluntary Nonuse	Suspended Nonuse	Total AUMs	Total Active	Voluntary Nonuse	Suspended Nonuse	Total AUMs	Period of Agreement
Dan Hoots Cattle	106	0	87	193	45	61	87	193	3/1/2001 to 2/28/2004
Kay and Mary K. Lear Cattle	71	0	0	71	30	41	0	71	3/1/2001 to 2/28/2004
Total:	177	0	87	264	75	102	87	264	

Three key areas have been established on the Goshute Basin Allotment and three key areas have been established for the Indian Creek Allotment. The establishment of key areas is based on accessibility and general use by livestock, vegetation, and ecological range sites. Key areas for the Goshute Basin Allotment and the Indian Creek Allotment were monitored and the data collected over the past several years. This was analyzed in this assessment. Four of these key areas were last monitored in 2008 (Appendix III, Figure II. ReGap Data and Key Areas Map). Native vegetation varies throughout the Goshute Basin Allotment and the Indian Creek Allotment and includes bluebunch wheatgrass, needlegrass, Thurber's needlegrass, Sandberg's bluegrass, muttongrass, bottlebrush squirreltail, Canby's bluegrass, mountain big sagebrush, Utah serviceberry, snowberry, sedge, rush, Woods' rose, mat muhly, Indian ricegrass, needle and thread, basin wildrye, aspen, fir, singleleaf pinyon, lupine, Utah juniper and antelope bitterbrush.

Also Goshute Basin Allotment has twenty four springs and Indian Creek Allotment has three springs (Appendix III, Figure III and IV. allotment riparian area maps). A summary of monitoring data for Goshute Basin Allotment and the Indian Creek Allotment is located in Appendix II.

PART 1. STANDARD CONFORMANCE REVIEW

Goshute Basin 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. Soils are stable and productive and the topsoil is holding in place.

Two of the key areas occur in soils that are a clay pan with a high percentage of gravels. No rill or sheet erosion has been observed. Line intercept cover studies conducted at key area GB-01 and GB-02 demonstrate that ground cover is within or greater than the appropriate range for the ecological site. Line intercept cover study at key area GB-03, which occurs in loamy soil, was 30% (Appendix II, Table 3-1). The ecological site description recommends a cover of 35% to 50%. Although cover is not appropriate to the potential of the site, this is a loamy soil with infiltration and permeability rates appropriate to the slope and high precipitation of this site. Runoff is slow due to the

loamy deep soils and professional observations revealed that no sheet or rill erosion has been detected at this area.

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). No lotic (stream) riparian areas were accessed. Goshute Creek and Paris Creek experience runoff from Goshute Basin, but

these stream systems are surveyed and located outside of the Goshute Basin Allotment. There are twenty-four springs within the allotment. Twenty-one of the twenty-four springs were assessed in 2008. These riparian assessments were compared to past riparian assessments to analyze if these springs and associated riparian areas are at proper functioning condition. A comparison of past and present data revealed which areas were improving, declining or maintaining. Due to the number of springs and their locations for the purpose of this document the springs were broke into clusters (see Appendix III, Figure II. Goshute Basin Riparian Area Map).

The Final Multiple Use Decision for Goshute Basin carried forth management actions and adjustments to permitted use to improve riparian areas to properly functioning condition. Implementation of these management actions has helped to improve several riparian areas throughout the allotment. 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 as well as impacts from wildlife, mainly elk. Enclosure fences have also helped the riparian areas to progress toward achievement of the standard. A summary of the results of these studies is in Appendix II, Table 4-1.

For Cluster 1, five of the six springs access in 2008, were determined to be proper functioning condition. Two of these springs rated were accessed in 1995 as functional at risk. Both of these springs have shown improvement. One spring source 711 has shown a decline from proper functioning condition in 1995 to functional at risk in 2008. This decline is attributed to hoof action causing head cutting and erosion; and heavy trampling is allowing weeds and upland shrubs to move into the riparian area.

For Cluster 2, only one of the four springs assessed in 2008 was determined to be proper functioning condition. One of the springs, 681, was rated functional at risk in both 1995 and 2008 showing no improvement. The two remaining springs, 677 and 684, demonstrated a decline since they were both rated proper functioning condition in 1995, but were rated functional at risk in 2008. Heavy trampling and grazing by elk are attributed to the decline in these riparian areas.

For Cluster 3, all seven spring sources were assessed in 2008 as proper functioning condition. Although there are signs of sheep and elk use at two of the springs, these springs are not heavily trampled and diverse riparian vegetation is present. Enclosures around four of the springs and steep topography are attributed to these springs maintaining proper function.

For Cluster 4, all four springs were assessed in 1995 and again in 2008. One spring, 697, showed improvement from functional at risk in 1995 to proper functioning condition in 2008. One other spring, 696, demonstrated some improvement from nonfunctional in 1995 to functional at risk in 2008. Two of the springs, 694 and 695, showed no improvement with a functional at risk rating in 1995 and also in 2008. This lack of improvement is attributed to heavy grazing by sheep, elk and mule deer. This excessive grazing and trampling is resulting in erosion.

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, 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 achieving suitable habitat for wildlife and maintaining ecological processes. Studies done at all three key areas indicate that plant diversity is appropriate to the sites. Utilization studies conducted on the allotment showed livestock grazing to be within proper use levels. Two of the key areas are in the late seral stage and one key area is in the mid seral stage (Appendix II, Table 3-1). Calculating the seral stage (similarity index) helps quantify if the vegetative composition and productivity are providing suitable forage for wildlife and livestock and maintaining ecological processes. Although none of the sites have reached the potential natural community for the appropriate ecological sites, 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). A discussion of the dominant vegetation areas follows.

Montane sagebrush steppe plant communities

Data collected indicates appropriate composition, and production in significant portions of these montane sagebrush steppe range sites. This area has a diverse understory of grasses with low sagebrush as the dominate shrub. Shrub composition is above the potential vegetative composition range for this site, however the ecological condition of this site is stable with a diverse grass component and the shrubs are not currently outcompeting grasses.

Alpine/Montane plant communities
Plant communities at this high elevation are composed of bunch grasses, alpine forbs, and low sage. Data collected indicates appropriate cover, composition, and production in significant portions of the low sagebrush range sites. This area has a diverse understory of grasses with a high production of forbs including wildflowers. Shrub composition is comparable to the potential vegetative composition range for these sites.

Montane meadow and riparian woodland communities
Although these plant communities make up only a very small portion of the allotment, they are important plant communities both in terms of forage production and wildlife habitat. The montane meadows are made up of various high elevation grasses and the montane riparian woodlands include aspen stands, along with a variety of shrubs and grasses. These plant communities are analyzed in the riparian standard and not part of the upland standard for habitat. The purpose for discussing these communities here is only to provide a brief description of these as part of the dominate plant communities in this allotment.

Indian 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:
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.

Two of the key areas are located in silty clay loam soils and are dry mountain meadow sites. The third key area is located in a gravely clay soil. Professional observations at the two meadow sites indicate that cover is at 75% to 80% and appropriate to the ecological site. Since these sites are prone to gullying from overland flows having appropriate cover is essential in preventing erosion. At the third site the line intercept cover study shows 26% cover, which is just below the appropriate range of cover for this site of 30% to 40%. Since soils at this site are gravely clay they are more resilient to erosion and no rill or sheet erosion has been observed.

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: No lotic (stream) riparian areas were assessed. Indian Creek does flow within the boundary of the Indian Creek Allotment, but the stream system is on private ground within this allotment. There are three springs on public land within this allotment (see Appendix III, Figure IV. Indian Creek Allotment Riparian Areas Map). All three springs were assessed in 2008. Dry Canyon Spring is the only spring on this allotment that had a riparian assessment done previously. A comparison of past and present data for Dry Canyon Spring revealed that this spring had improved from functional at risk in 1995 to proper functioning condition in 2008. Although there is hoof action present at the spring source, the riparian area shows recruitment of riparian vegetation including rosewood and aspen. The two other springs are unnamed. Spring source number 690 was determined to be proper functioning condition in 2008. Although there was heavy grazing by cattle and wildlife at this spring, the area is rocky providing protection from excessive grazing and trampling. Spring source number 689 was determined to be functional at risk with a downward trend in 2008. This spring is moderately to heavily grazed by wildlife and livestock. This riparian area improves gradually as it moves down stream and plant diversity is high a little further down from spring head. A summary of the results of these studies is in Table 4-2.

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, 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 achieving suitable habitat for wildlife and maintaining ecological processes.

Studies done at all three key areas indicate that plant diversity is appropriate to the sites. Utilization studies conducted on the allotment showed livestock grazing to be within proper use levels. One key area is in the late seral stage and one key area is in the mid seral stage (Appendix II, Table 3-1). Calculating the seral stage (similarity index) helps quantify if the vegetative composition and productivity are providing suitable forage for wildlife and livestock and maintaining ecological processes. Although none of the sites have reached the potential natural community for the appropriate ecological sites, 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). Professional observations at all three sites determined that there is a diverse composition of grasses. Shrubs at key area IC-02 are above the potential vegetative composition for the ecological site, but photographs and professional observations show a healthy and diverse understory of grasses that are helping to maintain ecological processes. Dominate vegetative areas for this allotment is the same as for the Goshute Basin Allotment and was discussed previously.

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

Goshute Basin Allotment Standards Summary Review

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

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
The Standard is being achieved.

Indian Creek Allotment Standards Summary Review

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

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
The Standard is being achieved.

PART 3. GUIDELINE CONFORMANCE REVIEW AND SUMMARY

Goshute Basin 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 Goshute Basin Allotment are largely in conformance with the Guidelines for Livestock Grazing Management. Permittees, through livestock grazing agreements, have voluntarily reduced AUMs and the allotment has only been grazed by sheep on alternating years resulting in moderate or less utilization of key forage plant species. Herding sheep away from riparian areas has also helped improve several riparian areas. Range improvement projects such as enclosure fences around riparian areas have helped minimize impacts by livestock. Maintenance of the boundary fence between this allotment and Indian Creek Allotment has prevented drift of cattle into this allotment. Additional range improvement projects including riparian protection fencing may be considered on a case by case basis to help continue progressing toward achieving Standard 2.

Indian 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 Indian Creek Allotment are in conformance with the Guidelines for Livestock Grazing Management. Permittees, through livestock grazing agreements, have voluntarily reduced AUMs and modified the season of use, resulting in moderate or less utilization of

key forage plant species and reduced impacts to riparian areas. Additional range improvement projects including riparian protection fencing may be considered on a case by case basis to help continue progressing toward achieving Standard 2.

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

Discussion:
Current management practices implemented since the Final Multiple Use Decision for the Goshute Basin Allotment and the Indian Creek Allotment and the implementation of agreements with permittees are helping these allotments to achieve Standard 1 and Standard 3 and progress toward achieving Standard 2.

Recommendations:
Since the agreements for Goshute Basin Allotment and the Indian Creek Allotment expired in 2003 and 2004, changes in livestock use and management are recommended. It should also be noted that under the past agreements to offset the loss of AUMs in the Goshute Basin Allotment, both permittees had the option to use additional AUMs in other allotments they were permitted for. For the Double U Livestock LLC permit (sheep) these additional AUMs would be authorized in the Medicine Butte Allotment and for the Dan Hoots permit (cattle) these additional AUMs would be authorized in the Cherry Creek Allotment. Although both permittees had this option, neither permittee exercised this option. **Given that these agreements have expired, this option is no longer being considered. Also, based on the Standard Determination Document completed for the Cherry Creek Allotment in 2008, no additional active AUMs were determined to be available at that time.**

For Goshute Basin Allotment, it is recommended to modify the terms and conditions. These changes include alternating sheep and cattle grazing annually with sheep grazing permitted on even years and cattle grazing permitted on odd years. The season of use would be 07/01-10/15 for sheep and 07/01-08/31 for cattle with cattle gathered and removed from the allotment by 08/15 and all stragglers removed by 08/31. The season of use for cattle is the same as the Indian Creek Allotment so the permittee can manage his livestock in conjunction with his permitted use on the Indian Creek Allotment. **Due to the moderate utilization recorded, it is recommended that active AUMs be 350 AUMs for sheep and 99 AUMs for cattle with the remaining AUMs held in voluntary nonuse. It is also recommended that daily herding of livestock (sheep and cattle) away from riparian areas be required.**

For Indian Creek Allotment, it is recommended to continue with the terms and conditions previously implemented through agreements. These include keeping the adjustment to the season of use to 07/01-08/31 with cattle gathered and removed from the allotment by 08/15 and all stragglers removed by 08/31. Keeping the rest rotation system, with grazing authorized every other year. Due to the moderate utilization recorded for this allotment (see Appendix II, Table 6-1), it is also recommended keeping

the active AUMs at 45 for Dan Hoots's permit and 30 for Kay and Mary K. Lear's permit with the remaining AUMs held in voluntary nonuse.

Other recommendations include 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 compliance with proper allowable use levels for these allotments. **Maintain allotment boundary fence between these allotments and maintain current riparian enclosure fences for both allotments.** For both allotments, continue to evaluate riparian areas and determine if additional management actions such as enclosure fences are needed. Although it is outside the scope of this document, wildlife impacts to riparian areas need to be further evaluated and management alternatives considered if progress toward meeting Standard 2 (Riparian) is to continue.

Goshute Basin Allotment and Indian Creek Allotment

1. Establish utilization levels as follows:

- **Riparian vegetation including grasses, forbs and shrubs: 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 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 perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use.

2. Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 2 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.

It is also recommended that daily herding of livestock (sheep and cattle) away from riparian areas be required.

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Prepared by:

Mindy Seal, Rangeland Management Specialist (SCEP)	Date

Reviewed by:

Bonnie Million Noxious and invasive non-native species	Date
Ruth Thompson Wild horses and burros	Date

Marian Lichtler Wildlife/migratory birds/special status animals/plants	Date
Dave Jacobson Wilderness Values/ACEC/Special designations	Date
Gina Jones Ecology	Date
Mark D'Aversa Soil/Air/Water	Date

I concur:

Chris Mayer Supervisory Rangeland Management Specialist Egan Field Office	Date
Jeffrey A. Weeks Field Manager Egan Field Office	Date

APPENDIX II - DATA ANALYSIS FOR GOSHUTE BASIN ALLOTMENT AND INDIAN CREEK ALLOTMENT

1. Review of Final Multiple Use Decision/Management Action Selection Report

A Final Multiple Use Decision was issued for the Goshute Basin, Indian Creek and Cherry Creek Allotments 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 pasture or allotment selected because of its location, use, or grazing value as a monitoring point for grazing use. It is assumed that key areas, if properly selected, will reflect the current grazing management over the pasture or allotment as a whole (NRCS 1997). 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 these allotments as well as the year established.

Table 2-1. Key Areas

Allotment	Key Area	Year Established	Location
Goshute Basin	GB-01	1993	T25N, R63E, Sec. 9 SE
	GB-02	1995	T26N, R63E, Sec. 26, SESW
	GB-03	1998	T25N, R63E, Sec. 4, NE
Indian Creek	IC-01	1995	T26N, R63E, Sec. 25, NWSW
	IC-02	1997	T26N, R63E, Sec. 26, SE
	IC-03	1997	T26N, R63E, Sec. 25, SW

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.

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 target endpoint of vegetation management for these allotments is to sustain plant vigor and reproduction by maintaining plant carbohydrate storage and root biomass, while still providing forage for livestock and wildlife, habitat for wildlife, biomass ground cover for soil protection, and adequate root systems to stabilize both upland and riparian areas. 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.

Similarity index is calculated as a percent composition by air dry weight. The site is inventoried to determine the current percent composition by weight on an air dry basis. These numbers are then compared to the percent composition by weight on an air dry basis of the HCPC in the Rangeland Ecological Site Description for the site. To calculate the similarity index, current composition cannot exceed that of HCPC. This yields percent allowable. The sum of all allowable percentages equals the similarity index.

Listed below in Table 3-1 are descriptions of the ecological sites within the Goshute Basin Allotment and the Indian Creek Allotment where key areas have been established and monitored done using the line intercept cover study and double weight sampling method. 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.

Table 3-1. Ecological Sites Descriptions, Vegetative Cover and Composition Data, and Seral Stage

Goshute Basin Allotment - Ecological Site and description for 028BY029NV.
Montane 16" P.Z. (precipitation zone)
Soils are loamy with runoff from this site being slow and the potential for sheet and rill erosion is low to moderate depending on slope. ***Approximate ground cover (basal and crown) is about 35–50 percent.*** Plant community dominated by mountain brome and letterman needlegrass. The visual aspect is dominated by mountain big sagebrush in association with a variety of mountain browse shrubs. ***Potential veg composition is about 55% grasses and grass-likes, 10% forbs, and 35% shrubs.***

Key Areas	Date Monitored	Cover (%)	Composition by weight (%)	Seral Stage
GB-03	7/23/2008	30%		
	9/16/1998	44%	Grasses 43% Forbs 0% Shrubs 57%	Late Seral (64)
GB-03B	7/23/2008	28%		

Goshute Basin Allotment - Ecological Site and description for 028BY037NV.
Alpine/Montane 12-14" P.Z .
Soils are clay pan and have a high percentage of gravels, cobbles, rocks or stones on the surface which occupy plant growing space, yet help to reduce evaporation and conserve soil moisture. ***Approximate ground cover (basal and crown) is about 15–20 percent.*** Plant community dominated by bluebunch wheatgrass, western needlegrass, and low sagebrush. ***Potential veg composition is about 50% grasses and grass-likes, 10% forbs, and 40% shrubs.***

Key Areas	Date Monitored	Cover (%)	Composition by weight (%)	Seral Stage
GB-01	7/23/2008	18%		
	8/22/2002	43%		
	9/24/1998	31%	Grasses 60% Forbs <1% Shrubs 39%	Late Seral (72)
GB-02	7/24/2008	32%		
	9/16/1998	30%	Grasses 24% Forbs 30% Shrubs 46%	Mid Seral (59)

Indian Creek Basin Allotment - Ecological Site and description for 028BY095NV.
Dry Mountain Meadow 12-16" P.Z .
Soils are silty clay loam with overland flow occuring as run-in from higher landscapes. Runoff is slow to medium and the potential for sheet and rill erosion is slight. These soils are susceptible to gullying which intercepts normal over-flow patterns and results in site degradation. ***Approximate ground cover (basal and crown) is about 60–75 percent.*** Plant community dominated by Nevada bluegrass, alpine timothy, sedges, and slender wheatgrass. ***Potential veg composition is about 80% grasses and grass-likes, 15% forbs, and 5% shrubs.***

Key Areas	Date Monitored	Cover (%)	Composition by weight (%)	Seral Stage
IC-01	6/22/1999	n/a	Grasses 85% Forbs 15% Shrubs 0%	Late Seral (74)
	9/15/1998	75%*		
IC-03	9/15/1998	80%*	Comments: No information provided on plant composition at this site, some trampling and pedestalling impacting soil stability	

*Professional observations used to record cover instead of line intercept method due to meadow having almost complete cover. Also, no data was collected at either of these sites in 2008.

Indian Creek Basin Allotment - Ecological Site and description for 028BY087NV.
Alpine/Montane 12-14" P.Z .
Soils are gravelly clay and shallow to moderately deep and are well drained. ***Approximate ground cover (basal and crown) is about 30–40 percent.*** Plant community dominated by mountain big sagebrush, bluebunch wheatgrass and Thurber needlegrass. ***Potential veg composition is about 55% grasses and grass-likes, 15% forbs, and 30% shrubs.***

Key Areas	Date Monitored	Cover (%)	Composition by weight (%)	Seral Stage
IC-02	9/15/1998	45%	Grasses 30% Forbs 7% Shrubs 63%	Mid Seral (50)
IC-02B	7/24/2008	26%	Comments: Study site near original key area IC-02.	

4. Analysis of Riparian Areas

Proper Functioning Condition (PFC) is the analysis method used by the BLM to assess riparian health and functionality. The process is completed by an interdisciplinary (ID) team. The team looks at hydrology, vegetation, and erosion/deposition characteristics of the site in order to determine if the riparian area is in proper functioning condition, functioning at risk, or nonfunctional.

The following is a summary of the monitoring data collected for riparian areas of the Goshute Basin Allotment and the Indian Creek Allotment from 1995 to 2008. No lotic (stream) riparian areas were accessed. Goshute Creek and Paris Creek experience runoff from Goshute Basin, but these stream systems are surveyed and located outside of the Goshute Basin Allotment. Indian Creek does flow within the boundary of the Indian Creek Allotment, but the stream system is on private ground within this allotment.

Lentic (Spring) Riparian Areas

Goshute Basin Allotment Spring Sources

There are twenty-four springs within the allotment. Twenty-one of the twenty-four springs were assessed in 2008. These riparian assessments were compared to past riparian assessments to analyze if these springs and associated riparian areas are at proper functioning condition. A comparison of past and present data revealed which areas were improving, declining or maintaining. To summarize the twenty-one springs accessed in the Goshute Basin Allotment the springs are grouped into four clusters based on the springs proximity to each other (see map). Two spring sources (685 and 10406) were not access, these springs are not used by livestock due to the steep terrain. In 2008, two additional springs were discovered (NEW2008-01 and NEW2008-02) while collecting data. Clusters 1-3 are located near the main road within the Goshute Basin, while cluster 4 is located at the north end of the allotment. See Appendix III, Figure III for a map with the location of these springs by cluster.

Cluster 1 includes the spring sources 68, 678, 679, 682, 683, 711, 10426, and NEW2008-02. In August 1995, lentic (spring) proper functioning condition studies were completed by a riparian team for three of the eight sources, numbers 679, 682, and711. Additional proper functioning condition studies were completed in September 2008 for 68, 679, 682, 711, 10426, and NEW2008-02. Of the six springs access in 2008, five of them were determined to be proper functioning condition. Two of these springs rated were accessed in 1995 as functional at risk. Both of these springs have shown improvement. One spring source 711 has shown a decline from proper functioning condition in 1995 to functional at risk in 2008. This decline is attributed to hoof action causing head cutting and erosion; and heavy trampling is allowing weeds and upland shrubs to move into the riparian area. A summary of the results of these studies is in Table 4-1.

Cluster 2 includes the spring sources 677, 681, 684, and NEW2008-01. In August 1995, studies were completed by a riparian team for three of the four sources, numbers 677, 681, and 684. Additional proper functioning condition studies were completed in September 2008 for all four springs. Of the four springs assessed in 2008, only one, NEW2008-01, was determined to be proper functioning condition. One of the springs, 681, was rated functional at risk in both 1995 and 2008 showing no improvement. The two remaining springs, 677 and 684, demonstrated a decline since they were both rated proper functioning condition in 1995, but were rated functional at risk in 2008. Heavy trampling and grazing by elk are attributed to the decline in these riparian areas. A summary of the results of these studies is in Table 4-1.

Cluster 3 includes the spring sources 674, 675, 676, 691, 692, 693, and 10388. Three of these springs were accessed in August 1995 as proper functioning condition. All seven sources were assessed in 2008 as proper functioning condition. Although there are signs of sheep and elk use at two of the springs, these springs are not heavily trampled and diverse riparian vegetation is present. Enclosures around four of the springs and steep topography are attributed to these springs maintaining proper function. A summary of the results of these studies is in Table 4-1.

Cluster 4 includes the spring sources 694, 695, 696, and 697. All four of these springs were assessed in 1995 and again in 2008. One spring, 697, showed improvement from functional at risk in 1995 to proper functioning condition in 2008. One other spring, 696, demonstrated some improvement from nonfunctional in 1995 to functional at risk in 2008. Two of the springs, 694 and 695, showed no improvement with a functional at risk rating in 1995 and also in 2008. This lack of improvement is attributed to heavy grazing by sheep, elk and mule deer. This excessive grazing and trampling is resulting in erosion. A summary of the results of these studies is in Table 4-1.

Indian Creek Allotment Spring Sources

There are three springs on public land within this allotment. All three springs were assessed in 2008. Dry Canyon Spring is the only spring on this allotment that had a riparian assessment done previously. A comparison of past and present data for Dry Canyon Spring revealed that this spring had improved from functional at risk in 1995 to proper functioning condition in 2008. Although there is hoof action present at the spring source, the riparian area is recruitment of riparian vegetation including rose wood and aspen. The two other springs are unnamed. Spring source number 690 was determined to be proper functioning condition in 2008. Although there was heavy grazing by cattle and wildlife at this spring, the area is rocky providing protection from excessive grazing and trampling. Spring source number 689 was determined to be functional at risk with a downward trend in 2008. This riparian area improves gradually as it moves down stream and plant diversity is high a little further down from spring head. A summary of the results of these studies is in Table 4-2. See Appendix IV, Figures IV for a map with the location of these springs.

Table 4-1. Lentic (spring) Analysis Summary for Goshute Basin Allotment

Name Source Number Pasture Location	Dates Analyzed Function Remarks
unnamed spring 68 T. 25N., R. 63E., Sec. 7, SE	09/2008 Proper Functioning Condition Very thick with willows, roses, and aspen. Lots of recruitment of young plants, area is very rocky. Wildlife and sheep use.

unnamed spring 674 T. 25N., R. 63E., Sec. 4, NESE	09/2008 Proper Functioning Condition Convergence of channels. Very dense vegetation. Spring located at bottom of deep "v" shaped canyon. No trailing or other sign of animal use.
unnamed spring 675 T. 25N., R. 63E., Sec. 4, NENW	09/2008 Proper Functioning Condition Fence surrounds spring head but it is in disrepair and no longer functions. Some trampling.
	08/1995 Proper Functioning Condition
unnamed spring 676 T. 25N., R. 63E., Sec. 4, SWNW	09/2008 Proper Functioning Condition Spring is fenced, but fence is in disrepair. Some willows have been heavily grazed. Some hoof action. Pipe present- but is no longer functioning
	08/1995 Proper Functioning Condition
unnamed spring 677 T. 25N., R.63E., Sec. 5, SESE	09/2008 Functional at risk with downward trend Spring head is bare but otherwise vegetation cover is good. Some trailing and hoof action.
	08/1995 Proper Functioning Condition Spring within enclosure.
unnamed spring-developed 679 T. 25N., R. 63E., Sec. 7, NESE	09/2008 Proper Functioning Condition Hoof action present with bank shearing, but bank is starting to revegetate with a few shrubs present. There is moderate use by livestock and wildlife. Excellent ground coverage from grasses, rushes, and sedges.
	08/1995 Functional at risk trend not apparent Hoof action from cattle and sheep.
unnamed spring 681 T. 25N., R. 63E., Sec. 8, NENE	09/2008 Functional at risk with downward trend Road through wetland. Spring is developed with trough and pipeline. Extensive trampling and hoof action. There is excessive erosion.
	08/1995 Functional at risk with trend not apparent Hoof action from livestock and effects of livestock usage.
unnamed enclosed spring 682 T. 25N., R. 63E.,	09/2008 Proper Functioning Condition Spring is in good condition but there is musk thistle which puts the spring at risk.

Sec. 8, SWNW	08/1995 Functional at risk with downward trend Upland species encroaching, not heavily grazed, hoof action present.
unnamed spring 684 T. 25N., R. 63E., Sec. 9, NWNW	09/2008 Functional at risk with a downward trend Hoof action (elk) excessive. No carex or juncus present, very few plants with good root masses. Spring is in white fir forest community with aspen. Excessive bare ground and aspen and prunus are heavily browsed, most likely caused by elk.
	08/1995 Proper functioning condition Spring within enclosure.
unnamed spring 691 T. 26N., R. 63E., Sec. 34, NWSW	09/2008 Proper functioning condition Not much surface water, but high topography very steep. Some trailing. Channel is sparsely vegetated in parts. Uplands are well vegetated. Only small areas have saturated soil—most is not hydric. Spring is on steep hillside and in good condition. Rocky ravine dissipates flow.
unnamed spring 692 T. 26N., R. 63E., Sec. 34, NESW	09/2008 Proper functioning condition Trailing and hoof action present, but not causing water to channelize Sign of elk. There are a few other seeps that flow into the system.
	08/1995 Proper functioning condition Some hummocking is occurring due to hoof action.
unnamed spring 693 T. 26N., R. 63E., Sec. 34, NWSW	09/2008 Proper functioning condition Trough and pipe present. Hoof action from elk and domestic sheep Several spring heads in the area. Elk sign.
unnamed spring 694 T. 26N., R. 63E., Section 35, SWNW	09/2008 Functional at risk with a downward trend Developed with water piped to trough. Very rocky, Elk, mule deer, and domestic sheep use. Heavily grazed in some areas, leading to bare ground. Water is overflowing from trough and creating a new riparian area downstream.
	8/1995 Functional at risk with a downward trend Moderately heavy grazing and trampling down the channel.
unnamed spring 695 T. 26N., R. 63E., Section 35, NWNE	09/2008 Functional at risk with a downward trend Extremely eroded and incised on south end. Rills present. Area is heavily to severely grazed. Lots of bare ground. Stream flow only in springhead area. Heavily eroded bank has no vegetation.
	08/1995 Functional at risk with a downward trend Severe trampling throughout the meadow.

unnamed spring 696 T. 26N., R. 63E., Sec. 35, NENW	09/2008 Functional at risk with trend not apparent Cattle have trampled and severely grazed outside riparian area to the extent that bare ground is present. Livestock have heavily grazed sedges. Human disturbance –holes have been dug to increase ponding and berm was created to contain water.
	08/1995 Nonfunctional Heavy early season grazing and trampling contributed to sloughed banks, compacted soils and shrinking meadow.
unnamed spring 697 T. 26N., R. 63E., Section 35, NWNW	09/2008 Proper Functioning Condition Not very rocky. Spring doesn't flow into channel from riparian area. Moderate to heavy grazing by elk, mule deer, and domestic sheep.
	08/1995 Functional at risk with a downward trend Moderately heavy grazing contributed to potential washout of upper meadow and degradation of lower spring vegetation.
unnamed spring 711 T. 25N., R. 63E., Section 8, SW 1/4	09/2008 Functional at risk with a downward trend Hoof action is causing head cutting and erosion. There is enough soil moisture to accommodate aspen stand. Heavy trampling is encouraging weeds and shrubs to move into riparian area. However, riparian vegetation is still present and reproducing.
	08/1995 Proper Functioning Condition Spring enclosure with riparian vegetation.
unnamed spring 10388 T. 25N., R. 63E., Sec. 5, NENE	09/2008 Proper functioning condition Natural flow pattern with rose and willow. Steep gradient keeps water from ponding, but it is maintaining wet soils for some riparian vegetation. Sage grouse are numerous.
unnamed spring 10426 T. 25N., R 63E., Section 17, NWNW	09/2008 Proper functioning condition Very few riparian species. Very small pools and damp spots caused by small seeps along channel. Riparian areas restricted by rocky soil and channel. Outflow from spring is very small. Rocky substrate would help protect soil from erosion, though there is bare soil along the banks. seeps are very small and riparian areas are mostly damp spots and very small pools of water. Located in rocky gully.
unnamed spring NEW 2008_01 T. 25N., R. 63E., Section 4, SWSW	09/2008 Proper functioning condition Basically standing water, no flow. Very close to road. some trailing

unnamed spring NEW 2008_02 T. 25N., R. 63E., Section 8, SWSW	09/2008 Proper functioning condition Seep or spring is in excellent condition, lush dense vegetation that covers an east facing slope.

Table 4-2. Lentic (spring) Analysis Summary for Indian Creek Allotment

Name Source Number Pasture Location	Dates Analyzed Function Remarks
unnamed spring 689 T. 26N., R. 63E., Sec. 26, NWNE	09/2008 Functional at risk with a downward trend Lots of hoof action. Plant diversity is high a little further down from spring head. There is pugging and hummocking caused by livestock. Soil is very rocky. Area is heavily to moderately grazed by livestock and wildlife. The spring improves gradually as it moves down stream.
unnamed spring 690 T. 26N., R. 63E., Sec. 26, SWNE	09/2008 Proper functioning condition Vegetation is heavily grazed by cattle and wildlife, which is causing some bare ground to appear.
Dry Canyon Spring T. 26N., R. 63E., Sec. 24, NENE	09/2008 Proper Functioning Condition Very thick with rose and aspen. Some areas have sedges, rushes, and perennial forbs. Hoof action present. There is a spring about 30 feet from this one. It looks very similar but the no grass. Lots of recruitment from rose and aspen.
	08/1995 Functional at risk with trend not apparent Livestock and some wildlife trampling in spring. Cattle trails and grazing along stream bed has reduced it to bare dirt likely to erode during high overland flow.

5. Licensed Livestock Use

Since the implementation of the Final Multiple Use Decision and permittee agreements, livestock licensed actual use on the two allotments 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 from 1999 to 2007. The total number of active AUMs for the Goshute Basin Allotment is 627. The total number of active AUMs for the Indian Creek Allotment is 177. Both of these allotments had agreements with the permittees for a portion of these AUMs to be held in voluntary non use (see Table 5-2 and Table 5-3).

Table 5-1. Goshute Basin and Indian Creek Allotments Licensed Actual Use

Allotment Name	Livestock Kind	Grazing Year	Licensed Actual Use (AUMs)	% Licensed Actual Use of Total Permitted Use	Total Active Aums
Goshute Basin	Sheep	1999	230	44%	528
		2002	274	78%	350*
		2004	158	45%	350*
		2006	259	31%	528
	Cattle have not grazed this allotment in the past ten years.				
Indian Creek	Cattle	2000	71	40%	177
		2001	31	41%	75*
		2003	31	41%	75*
		2006	71	40%	177
		2008	72	41%	177

*This number delineates a portion of the total Active AUMs for these allotments. During this time the remaining balance of Active AUMs was held in voluntary nonuse through agreements with permittees from 2001 through 2004.

Table 5-2. Permitted Use (AUMs) for Goshute Basin Allotment

Permittee Livestock Kind	Prior to the Agreements and After the Agreements Expired				During the Agreements				
	Total Active	Voluntary Nonuse	Suspended Nonuse	Total AUMs	Total Active	Voluntary Nonuse	Suspended Nonuse	Total AUMs	Period of Agreement
Dan Hoots Cattle	99	0	81	180	0	99	81	180	3/1/2000 to 2/28/2003
Double U Livestock LLC Sheep	528	0	257	785	350	178	257	785	3/1/2000 to 2/28/2004
Total:	627	0	338	965	350	277	338	965	

Table 5-3. Permitted Use (AUMs) for Indian Creek Allotment

Permittee Livestock Kind	Prior to the Agreements and After the Agreements Expired				During the Agreements				
	Total Active	Voluntary Nonuse	Suspended Nonuse	Total AUMs	Total Active	Voluntary Nonuse	Suspended Nonuse	Total AUMs	Period of Agreement
Dan Hoots Cattle	106	0	87	193	45	61	87	193	3/1/2001 to 2/28/2004
Kay and Mary K. Lear Cattle	71	0	0	71	30	41	0	71	3/1/2001 to 2/28/2004
Total:	177	0	87	264	75	102	87	264	

6. Utilization

The following is a summary of the utilization data collected on the Goshute Basin Allotment and the Indian Creek Allotment. The Final Multiple Use Decision for these allotments 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 is the estimation of the proportion of annual production consumed or destroyed by animals (Swanson 2006). Utilization for these allotments is determined by measuring the key forage consumed of current year's growth, and does not differentiate use by livestock and wildlife. The general utilization objective for all allotments in the Ely BLM District according to the Ely District Record of Decision and Approved Resource Management Plan (ROD/RMP – August, 2008) is to "Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health" (Ely RMP, p. 85). The Nevada Rangeland Monitoring Handbook gives guidelines to determine the proper use levels by plant category (grasses, forbs, and 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. Utilization data was collected at three key areas in the Goshute Basin Allotment and one key area in the Indian Creek Allotment. For the Goshute Basin Allotment utilization was moderate in 2002. In 2008, utilization ranged from no use to

slight and moderate. For the Indian Creek Allotment utilization was moderate in 2002 and 2008.

Table 6-1. Utilization Summary

Allotment	Grazing Year	Key Area	Key Species	Percent Utilization	Utilization Range
Goshute Basin	2002	GB-01	bluebunch wheatgrass	46%	moderate
			low sagebrush	42%	moderate
		GB-03	bluebunch wheatgrass	52%	moderate
			common snowberry	42%	moderate
	2008	GB-01	bluebunch wheatgrass	16%	slight
			Sandberg bluegrass	12%	slight
		GB-02	mutton grass	42%	moderate
		GB-03	bluebunch wheatgrass	5%	no use
			bluegrass	5%	no use
		GB-03B	bluebunch wheatgrass	23%	light
Indian Creek	2001	IC-02	bluegrass	56%	moderate
	2008	IC-02	bluegrass	47%	moderate

Use pattern mapping has also been completed for the areas used by cattle and sheep for both allotments. For the Goshute Basin Allotment (see Figure 6-1 below), the majority of utilization in the basin was moderate in 2002. There were two small areas that received heavy use that year. Neither of these areas were at riparian areas, however riparian areas do occur nearby. As slope increased up the west side of the basin utilization decreased to slight and light. On the east side of the basin the slope is steep and there was no use recorded. For the Indian Creek (see Figure 6-2 below), utilization in the southwest portion of the allotment ranged from light to moderate. This use decreased to slight as the slope increased. The remainder of the allotment has steep slopes and showed no use.

Figure 6-2. Goshute Basin Allotment Use Pattern Mapping August 2002.

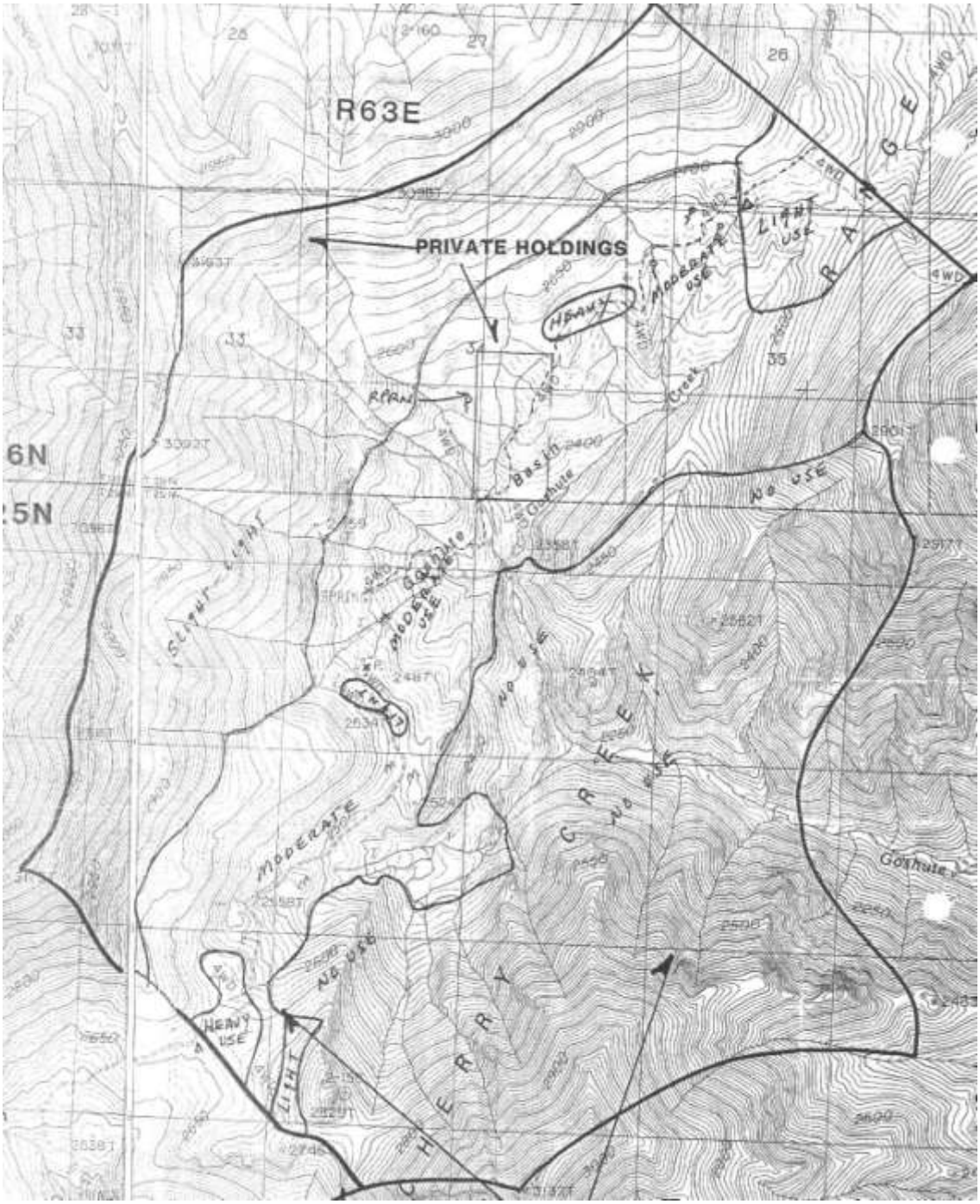
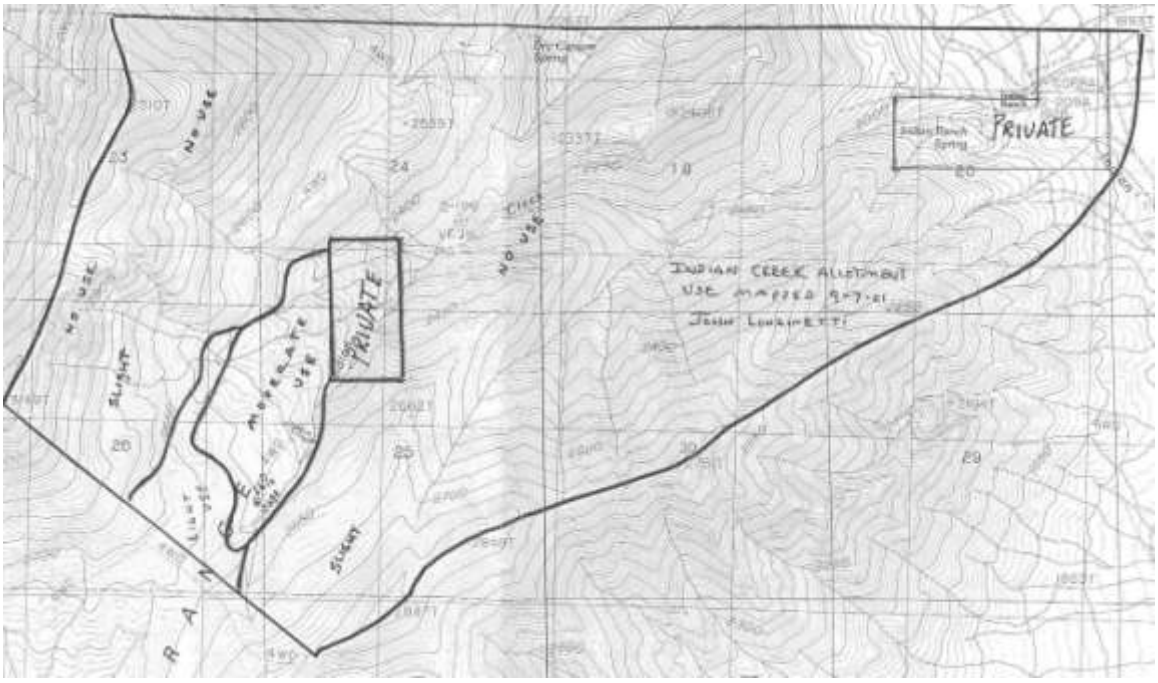


Figure 6-3. Indian Creek Allotment Use Pattern Mapping September 2001



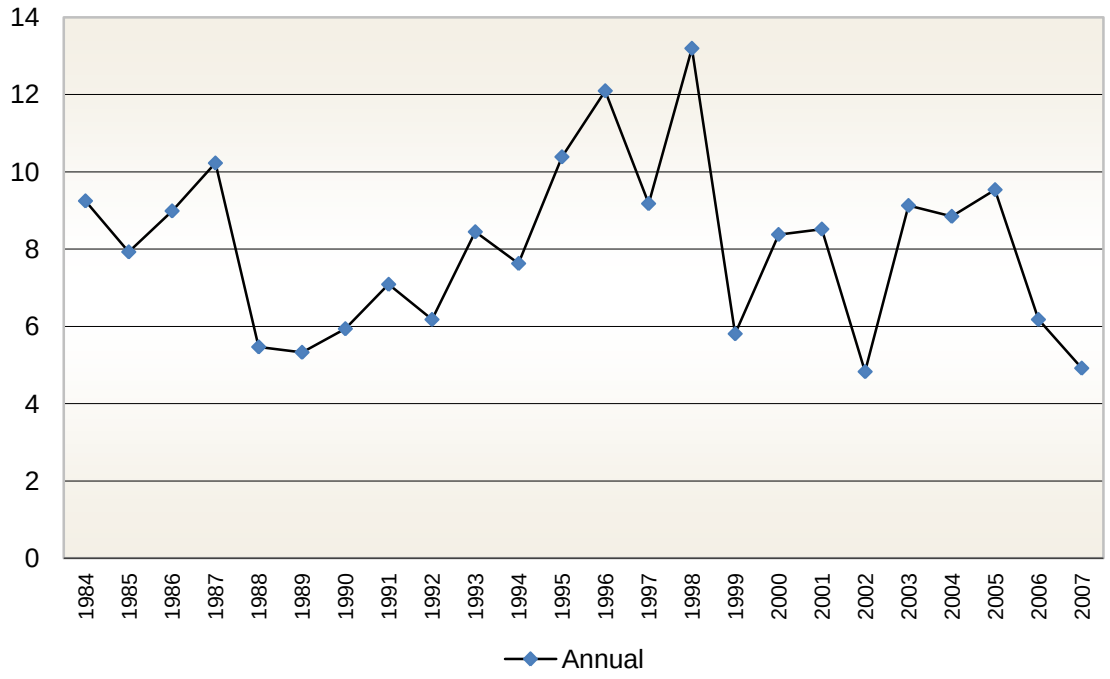
7. Precipitation data

Annual precipitation greatly influences growing condition of forage species and is often correlated to available forage. Historical climate data from the Western Regional Climate Center for Lages, Nevada is being used for this assessment. The table below includes annual precipitation data collected since 1984. Chart 7-1 demonstrates the trend of annual precipitation since 1984.

Table 7-1. Annual Precipitation for Lages, Nevada

Year	Annual Precipitation	Year	Annual Precipitation	Year	Annual Precipitation
1984	9.25	1994	7.63	2004	8.85
1985	7.93	1995	10.39	2005	9.54
1986	8.99	1996	12.1	2006	6.18
1987	10.23	1997	9.18	2007	4.92
1988	5.47	1998	13.2		
1989	5.33	1999	5.81		
1990	5.94	2000	8.38		
1991	7.09	2001	8.52		
1992	6.18	2002	4.83		
1993	8.45	2003	9.13		

Chart 7-1. Annual Precipitation Graphed From 1984 to 2007



APPENDIX III - MAPS

Figure I.

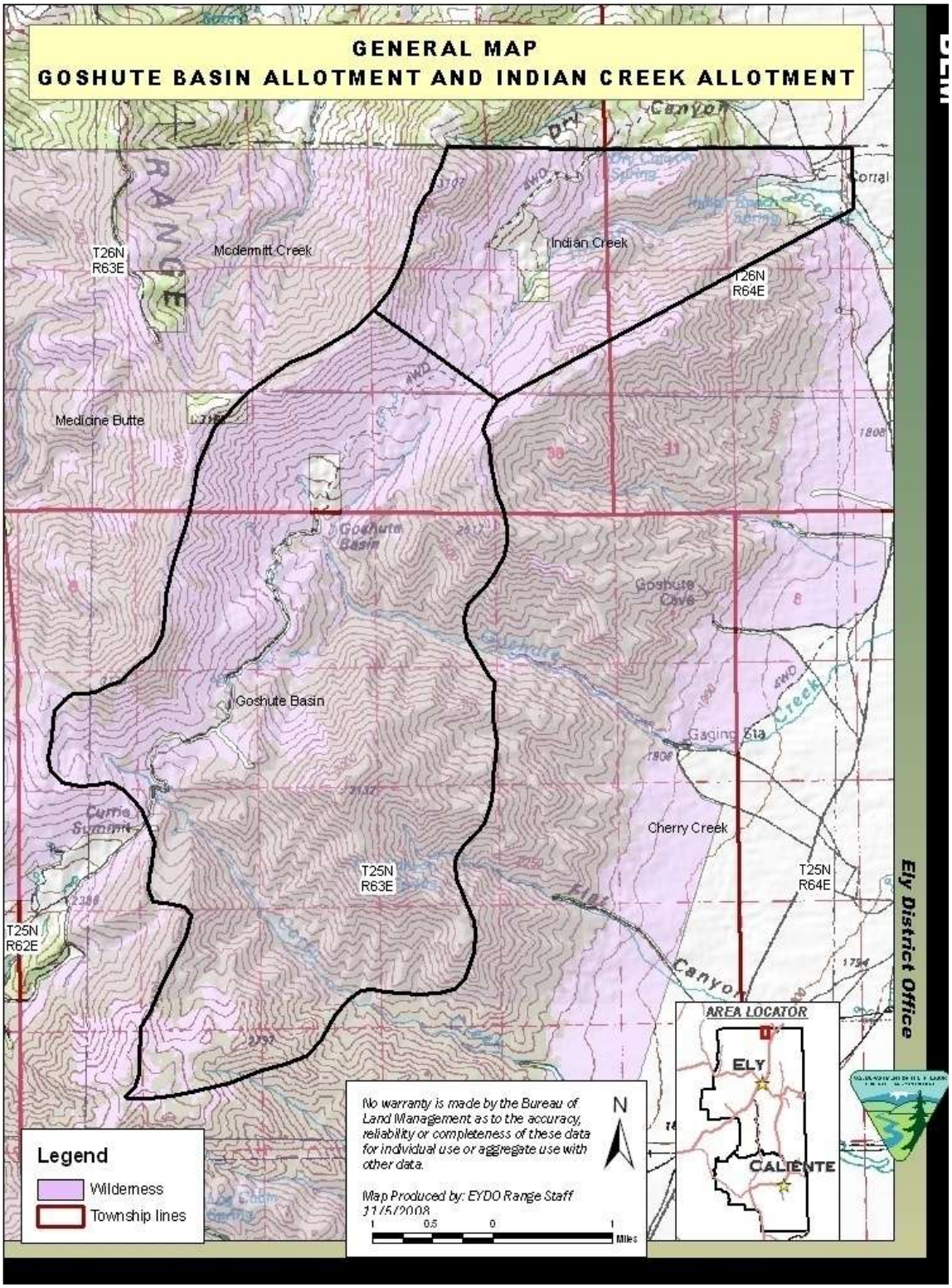


Figure II.

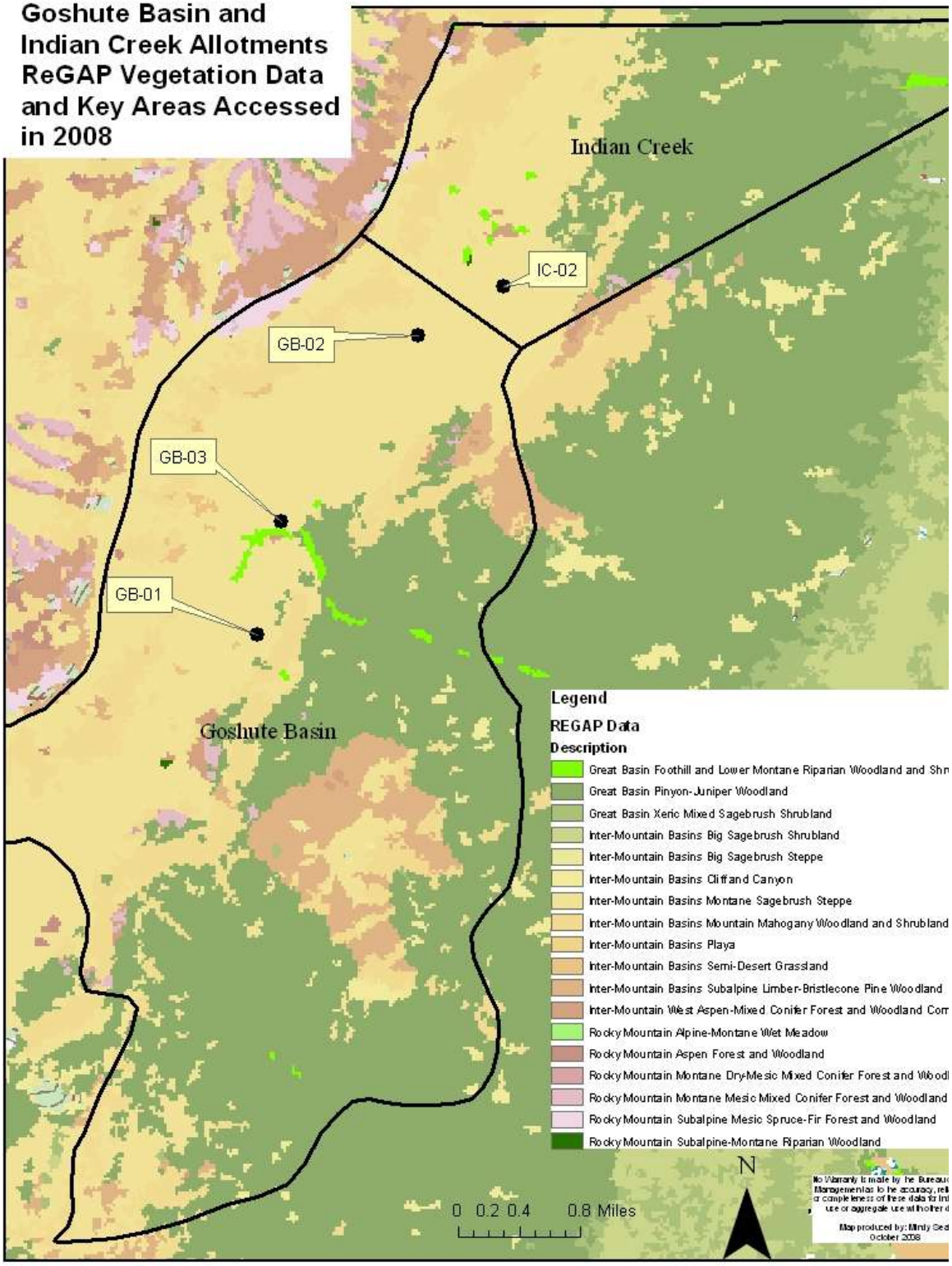

Goshute Basin and Indian Creek Allotments ReGAP Vegetation Data and Key Areas Accessed in 2008
Indian Creek
IC-02
GB-02
GB-03
GB-01
Goshute Basin
Legend
REGAP Data
Description
Great Basin Foothill and Lower Montane Riparian Woodland and Shr
Great Basin Pinyon-Juniper Woodland
Great Basin Xeric Mixed Sagebrush Shrubland
Inter-Mountain Basins Big Sagebrush Shrubland
Inter-Mountain Basins Big Sagebrush Steppe
Inter-Mountain Basins Cliff and Canyon
Inter-Mountain Basins Montane Sagebrush Steppe
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland
Inter-Mountain Basins Playa
Inter-Mountain Basins Semi-Desert Grassland
Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland
Inter-Mountain West Aspen-Mixed Conifer Forest and Woodland Com
Rocky Mountain Alpine-Montane Wet Meadow
Rocky Mountain Aspen Forest and Woodland
Rocky Mountain Montane Dry-Mesic Mixed Conifer Forest and Woodl
Rocky Mountain Montane Mesic Mixed Conifer Forest and Woodland
Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland
Rocky Mountain Subalpine-Montane Riparian Woodland
N
0 0.2 0.4 0.8 Miles

Figure III.

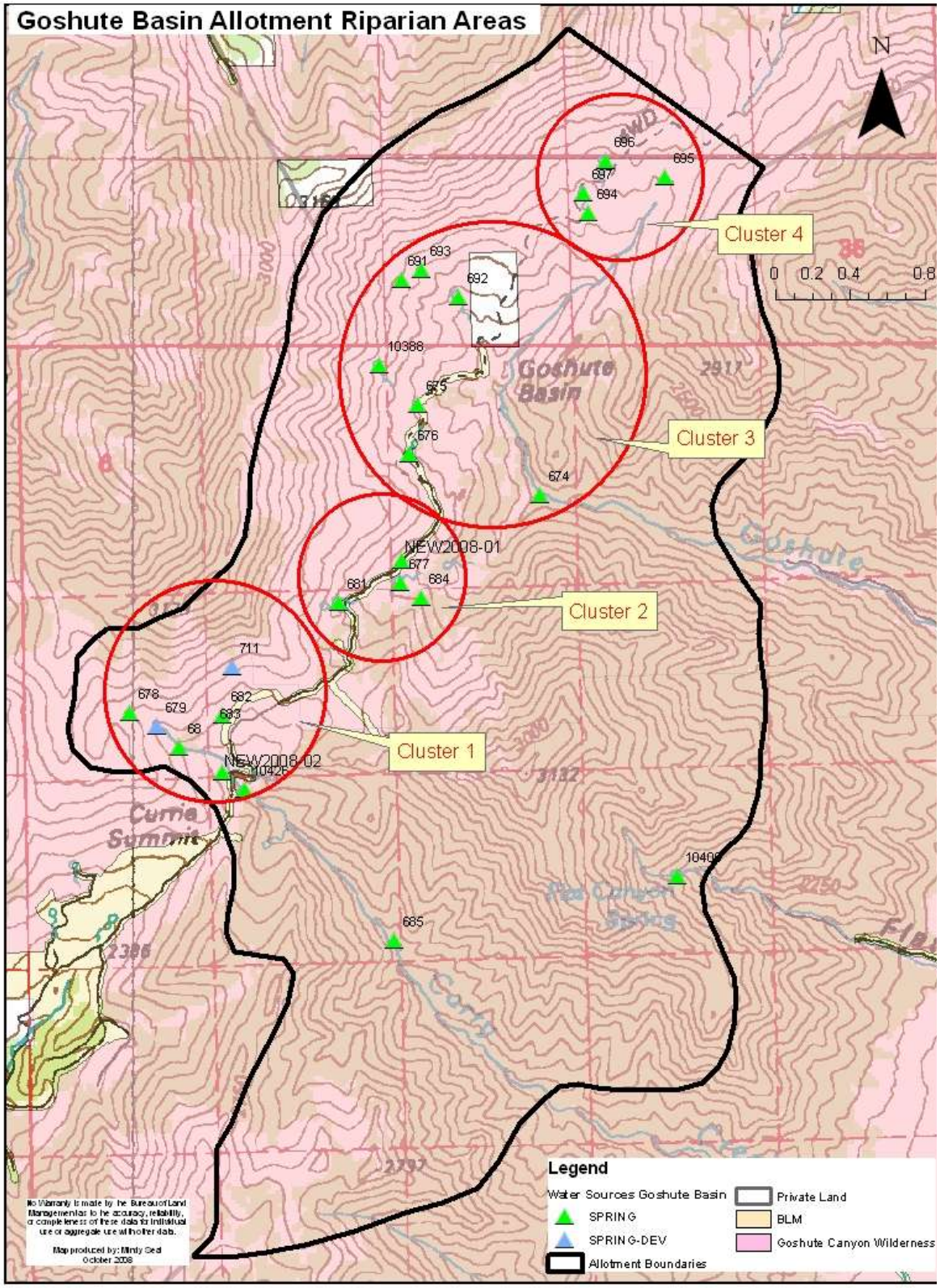
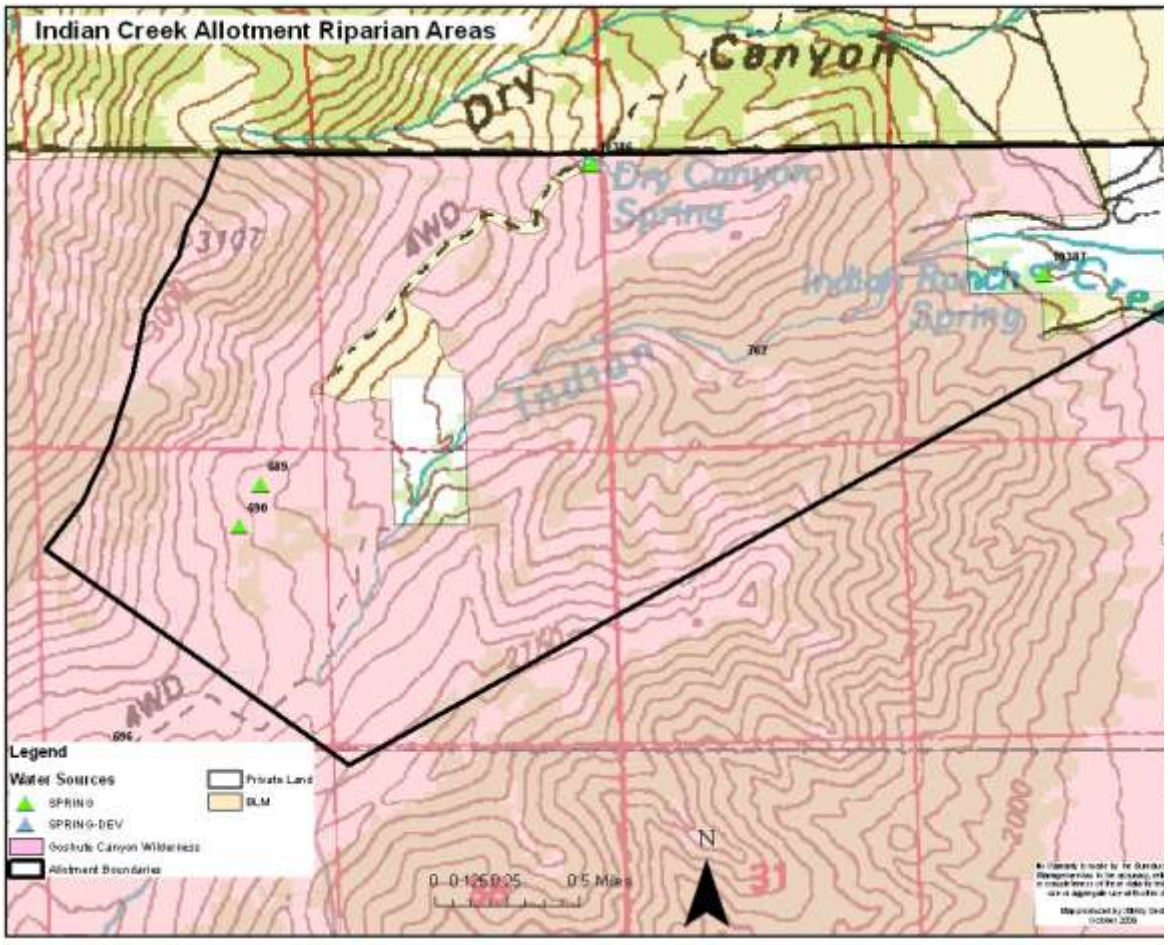

Goshute Basin Allotment Riparian Areas
N
Cluster 4
Cluster 3
Cluster 2
Cluster 1
0 0.2 0.4 0.8
Goshute Basin
Curie Summit
NEW2008-01
NEW2008-02
Legend
Water Sources Goshute Basin
SPRING
SPRING-DEV
Allotment Boundaries
Private Land
BLM
Goshute Canyon Wilderness

Figure IV.


Indian Creek Allotment Riparian Areas
Dry Canyon
Dry Canyon Spring
Indian Ranch Spring
Indian
4WD
3107
4WD
Legend
Water Sources
SPRING
SPRING-DEV
Allotment Boundaries
Private Land
BLM
N
0 0.125 0.25 0.5 Miles

Appendix IV
RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS
Term Grazing Permit Renewal for Dan Hoots and Kay & Mary Lear
Cherry Creek, Goshute Basin & Indian Creek Allotments
White Pine County, Nevada

On November 6th, 2008 a Noxious & Invasive Weed Risk Assessment was completed for the term grazing permit renewals for Dan Hoots on the Cherry Creek Allotment, Goshute Basin Allotment and Indian Creek Allotment and Kay and Mary Lear on the Cherry Creek Allotment and Indian Creek Allotment in White Pine County, NV.

The current term permit for Dan Hoots is issued under the 2004 Appropriations Act for the period 05/01/2008 to 4/30/2018 for the Cherry Creek Allotment, Goshute Basin Allotment and Indian Creek Allotment. Hoots's total grazing preference is for 1,359 Animal Unit Months (AUMs) for Cherry Creek Allotment, 180 AUMs for Goshute Basin Allotment and 193 AUMs for the Indian Creek Allotment. For the Cherry Creek Allotment, 748 AUMs are active and 611 AUMs are suspended nonuse, with the current term permit authorizing approximately 74 head of cattle with a season of use from 05/01 to 02/28. For the Goshute Basin Allotment, 99 AUMs are active and 81 AUMs are suspended nonuse, with the current term permit authorizing approximately 48 head of cattle with a season of use from 07/01 to 09/01. For the Indian Creek Allotment, 106 AUMs are active and 87 AUMs are suspended nonuse, with the current term permit authorizing approximately 51 head of cattle with a season of use from 07/01 to 09/01.

The current term permit for Kay and Mary K. Lear is issued for the period 03/01/2002 to 2/28/2012 for the Cherry Creek Allotment and the Indian Creek Allotment. Lears' total grazing preference is for 290 AUMs for Cherry Creek Allotment and 71 AUMs for the Indian Creek Allotment. For the Cherry Creek Allotment, 290 AUMs are active and 0 AUMs are suspended nonuse, with the current term permit authorizing approximately 29 head of cattle with a season of use from 05/01 to 02/28. For the Indian Creek Allotment, 71 AUMs are active and 0 AUMs are suspended nonuse, with the current term permit authorizing approximately 35 head of cattle with a season of use from 07/01 to 09/01.

The Cherry Creek Allotment, Goshute Basin Allotment and the Indian Creek Allotment encompasses approximately 153,107 public land acres, 9,397 public land acres and 3,167 public land acres, respectively. All of these allotments are common use allotments located approximately 40 miles north of Ely, Nevada within White Pine County. The issuance of the two new term grazing permits could be for a period up to ten years.

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 Cherry Creek Allotment:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
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 within the boundaries of the Goshute Basin Allotment:

Carduus nutans	Musk thistle
Cicuta maculata	Water hemlock
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle

The following species are found within the boundaries of the Indian Creek Allotment:

Cirsium arvense	Canada thistle
Onopordum acanthium	Scotch thistle

The following species are found along roads and drainages leading to all three 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
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

These areas were last inventoried for noxious weeds in 2003 and 2006. It should be noted that two of these allotments border the BLM Elko District and no weed inventory data for this District is currently available. While not officially documented the following non-native invasive weeds probably occur in or around both allotments: cheatgrass (*Bromus tectorum*), field bindweed (*Convolvulus arvensis*), Russian olive (*Elaeagnus angustifolia*), 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 (4) 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 block sites are of particular concern of new weed infestations due to the concentration of livestock around those sites and the amount of ground disturbance associated with that.

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

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

This project rates as Moderate (7) at the present time. If new weed infestations establish within the allotments this could have an adverse impact those native plant communities however, since there are many weed infestations currently within the allotments, those impacts would be limited. 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.

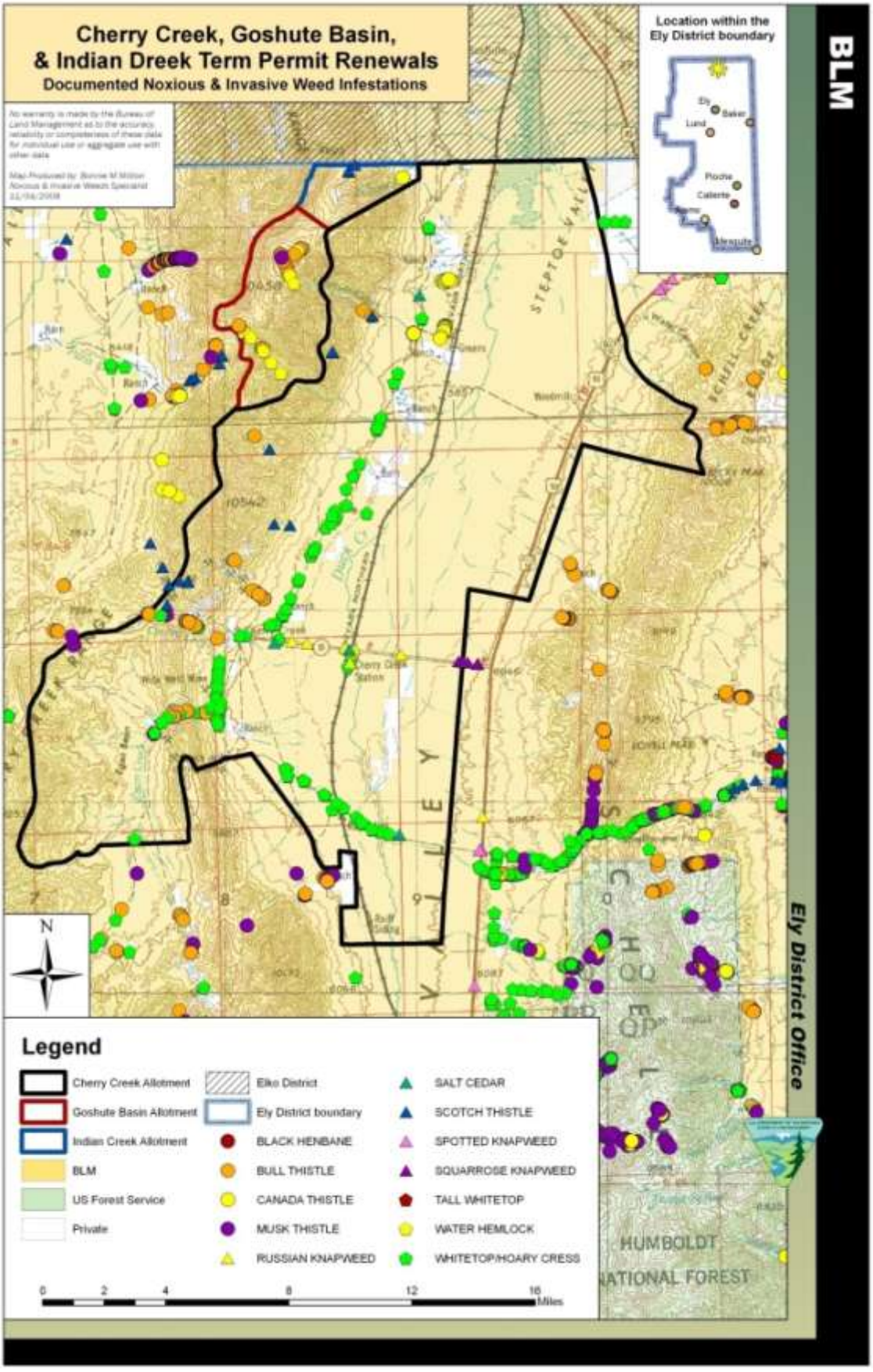
For this project, the Risk Rating is Moderate (32). This indicates that the project can proceed as planned as long as the following measures are followed:

- 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 District Office.
- 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.
- 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.
- Control or restrict the timing of livestock movement to minimize the transport of livestock-borne noxious weed seeds, roots, or rhizomes between weed-infested and weed-free areas.
- 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: /s/Bonnie Million 11/6/2008

Bonnie Million Date

Ely District Noxious & Invasive Weeds Coordinator


Cherry Creek, Goshute Basin,
& Indian Dreek Term Permit Renewals
Documented Noxious & Invasive Weed Infestations
Location within the Ely District boundary
BLM
Ely District Office
N
Legend
Cherry Creek Allotment
Goshute Basin Allotment
Indian Creek Allotment
BLM
US Forest Service
Private
Elko District
Ely District boundary
BLACK HENBANE
BULL THISTLE
CANADA THISTLE
MUSK THISTLE
RUSSIAN KNAPWEED
SALT CEDAR
SCOTCH THISTLE
SPOTTED KNAPWEED
SQUARROSE KNAPWEED
TALL WHITETOP
WATER HEMLOCK
WHITETOP/HOARY CRESS
0 2 4 8 12 16 Miles
HUMBOLDT
NATIONAL FOREST

Appendix V

Proposed Terms and Conditions:

Term Permit for Dan Hoots (#2703222)

Allotment Name and Number	Pasture Name	Livestock Number/ Kind	Grazing Period Begin - End	% Public Land*	Type Use	AUMs **
Cherry Creek (00403)	Native	43 Cattle	05/01-02/28	100	Active	430
	West Goshute Seeding	10 Cattle	05/01-02/28	100	Active	84
	East Goshute Seeding	43 Cattle	05/01-06-15 (odd years)	100	Active	25
		11 Cattle	09/01-02/28 (even years)			26
Indian Creek (00401)		**51 Cattle**	**07/01 - 08/31 (rest rotation system, grazing authorized every other year)**	**100**	**Active**	**106**
Goshute Basin (00402)		**48 Cattle**	**07/01 - 08/31 (rest rotation system, grazing only on odd years)**	**100**	**Active**	**99**

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Permitted Use due to a formula calculation 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	**569**	**179**	**611**	**1,359**
Native Range	434	179	611	1,224
West Goshute Seeding	84	0	0	84
East Goshute Seeding	51	0	0	51
Total for Indian Creek	**106**	**0**	**87**	**193**
Total for Goshute Basin	**99**	**On even years 99 AUMs**	**81**	**180**

Term Permit for Kay and Mary K. Lear (#2704539).

Allotment Name and Number	Pasture Name	Livestock Number/ Kind	Grazing Period Begin - End	% Public Land*	Type Use	AUMs **
Cherry Creek (00403)	Native	29 Cattle	05/01-02/28	100	Active	290
Indian Creek (00401)		**35 Cattle**	**07/01 - 08/31 (rest rotation system, grazing authorized every other year)**	**100**	**Active**	**72**

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Permitted Use due to a formula calculation 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	**205**	**85**	**0**	**290**
Native Range	205	85	0	290
Total for Indian Creek	**30**	**41**	**0**	**71**

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

Dan Hoots

1. Permittee agrees to continue to place 179 AUMs of his current permitted use on native range of 613 AUMs for 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 179 AUMs will remain on the Term Grazing Permit in voluntary nonuse.
2. Active use will not exceed 10% of the total active use for the Cherry Creek Allotment native range between May 1 and May 15, therefore, a maximum of 43 AUMs 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 will be established for the East Pasture of the Goshute Seeding. Spring use will be authorized from May 1 to June 15. Fall use will be authorized from September 1 to February 28.
- The season of use for the West Pasture of the Goshute Seeding will be May 1 to February 28. Water hauling will be required in the West Pasture to achieve proper livestock distribution.

Kay and Mary K. Lear

1. Permittee agrees to continue to place 85 AUMs of their current permitted use on native range of 290 AUMs for 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 85 AUMs will remain on the Term Grazing Permit in voluntary nonuse.
2. Active use will not exceed 10% of the total active use on the Cherry Creek Allotment native range between May 1 and May 15, therefore, a maximum of 21 can be licensed between May 1 and May 15 on the native range.

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 will be open to all permittees authorized on the Cherry Creek Allotment.
3. Water hauling will 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) will be maintained and pumped and troughs filled to distribute cattle use. Water hauling to this area will be required if well will not work.
    - The northeast portion of the allotment.
    - The Woodcamp Pasture east of Highway 93.
4. No livestock grazing will 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 will be located no closer than ¼ mile from water sources. Supplements are to be placed ½ mile from existing waters.
6. **Establish utilization levels for uplands and riparian vegetation 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 perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use.***

- **Crested wheatgrass: 65% use on current annual production**.
- **Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.**
- **Permittee will follow Congressional Grazing Guidelines when performing maintenance and repairs to facilities in wilderness**

Goshute Basin Allotment

1. Livestock numbers are flexible as long as permitted use is not exceeded during the authorized season of use.
2. **Daily herding of livestock (sheep and cattle) away from riparian areas would be required.**
3. Salt and/or mineral supplements for livestock will be located no closer than ¼ mile from water sources. Supplements are to be placed ½ mile from existing waters.
4. **Establish utilization levels as follows:**

- **Riparian vegetation including grasses, forbs and shrubs: 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 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 perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use.***
- **Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.**
- **Permittee will follow Congressional Grazing Guidelines when performing maintenance and repairs to facilities in wilderness**

Indian Creek Allotment

1. Livestock numbers are flexible as long as permitted use is not exceeded during the authorized season of use.
2. Cattle will be gathered and removed for the Indian Creek Allotment by August 15. Due to the rugged condition of the area, all stragglers will be removed by 8/31.
3. Rest rotation system: grazing would be authorized every other year and coincide with the cattle rest rotation system for Goshute Basin Allotment.
4. Salt and/or mineral supplements for livestock will be located no closer than ¼ mile from water sources. Supplements are to be placed ½ mile from existing waters.
5. **Establish utilization levels as follows:**

- **Riparian vegetation including grasses, forbs and shrubs: 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 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 perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use.***
- **Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.**
- **Permittee will follow Congressional Grazing Guidelines when performing maintenance and repairs to facilities in wilderness.**

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

The following data reflects survey blocks and/or incidental sightings of bird species within the allotment boundaries from the Atlas of the Breeding Birds of Nevada (Floyd et al. 2007). These data represent birds that were confirmed, probably, or possibly breeding within the allotment boundaries. These data are not comprehensive, and additional species not listed here may be present within the allotment boundary.

Works Cited

Floyd T, Elphick CS, Chisholm G, Mack K, Elston RG, Ammon EM, and Boone JD. 2007. Atlas of the Breeding Birds of Nevada. Reno: University of Nevada Press.

Cherry Creek Allotment

American kestrel *(Falco sparverius)*
American robin *(Turdus migratorius)*
Audubon's warbler *(Dendroica c. auduboni)*
black-billed magpie *(Pica hudsonia)*
black-headed grosbeak *(Pheucticus melanocephalus)*
Brewer's blackbird *(Euphagus cyanocephalus)*
brown creeper *(Certhia americana)*
Brewer's sparrow *(Spizella breweri)*
black-throated gray warbler *(Dendroica nigrescens)*
bushtit *(Psaltriparus minimus)*
Cassin's finch *(Carpodacus cassinii)*
canyon wren *(Catherpes mexicanus)*
chipping sparrow *(Spizella passerine)*
Clark's nutcracker *(Nucifraga Columbiana)*
common nighthawk *(Chordeiles minor)*
common poorwill *(Phalaenoptilus nuttallii)*
common raven *(Corvus corax)*
ferruginous hawk *(Buteo regalis)*
gray-headed junco *(Junco h. caniceps)*
great horned owl *(Bubo virginianus)*
golden eagle *(Aquila chrysaetos)*
gray vireo *(Vireo vicinior)*
green-tailed towhee *(Pipilo chlorurus)*
hermit thrush *(Catharus guttatus)*
house finch *(Carpodacus mexicanus)*
horned lark *(Eremophila alpestris)*
lark sparrow *(Chondestes grammacus)*
long-billed curlew *(Numenius americanus)*
long-eared owl *(Asio otus)*
mallard *(Anas platyrhynchos)*
mountain bluebird *(Sialia currucoides)*
mountain chickadee *(Poecile gambeli)*
mourning dove *(Zenaida macroura)*
northern flicker *(Colaptes auratus)*
northern goshawk *(Accipiter gentilis)*
northern harrier *(Circus cyaneus)*
pine siskin *(Carduelis pinus)*
prairie falcon *(Falco mexicanus)*
red-breasted nuthatch *(Sitta Canadensis)*
red-naped sapsucker *(Sphyrapicus nuchalis)*
rock wren *(Salpinctes obsoletus)*
sage thrasher *(Oreoscoptes montanus)*
Savannah sparrow *(Passerculus sandwichensis)*
short-eared owl *(Asio flammeus)*
spotted towhee *(Pipilo maculates)*
Steller's jay *(Cyanocitta stelleri)*
Townsend's solitaire *(Myadestes townsendi)*
vesper sparrow *(Pooecetes gramineus)*
warbling vireo *(Vireo gilvus)*
white-breasted nuthatch *(Sitta carolinensis)*
western kingbird *(Tyrannus verticalis)*
western meadowlark *(Sturnella neglecta)*
western scrub-jay *(Aphelocoma californica)*
western tanager *(Piranga ludoviciana)*
willet *(Tringa semipalmata)*

Goshute Basin Allotment
American kestrel *(Falco sparverius)*
American robin *(Turdus migratorius)*
Audubon's warbler *(Dendroica c. auduboni)*
brown creeper *(Certhia americana)*
Brewer's sparrow *(Spizella breweri)*
bushtit *(Psaltriparus minimus)*
Cassin's finch *(Carpodacus cassinii)*
canyon wren *(Catherpes mexicanus)*
chipping sparrow *(Spizella passerine)*
Clark's nutcracker *(Nucifraga Columbiana)*
cordilleran flycatcher *(Empidonax occidentalis)*
Cooper's hawk *(Accipiter cooperii)*
common raven *(Corvus corax)*
Ggray-headed junco *(Junco h. caniceps)*
great horned owl *(Bubo virginianus)*
golden eagle *(Aquila chrysaetos)*
gray flycatcher *(Empidonax wrightii)*
gray vireo *(Vireo vicinior)*
green-tailed towhee *(Pipilo chlorurus)*
hairy woodpecker *(Picoides villosus)*
hermit thrush *(Catharus guttatus)*
house wren *(Troglodytes aedon)*
lazuli bunting *(Passerina amoena)*
MacGillivray's warbler *(Oporornis tolmiei)*
mountain bluebird *(Sialia currucoides)*
mountain chickadee *(Poecile gambeli)*
northern flicker *(Colaptes auratus)*
northern goshawk *(Accipiter gentilis)*
pine siskin *(Carduelis pinus*
prairie falcon *(Falco mexicanus)*
ruby-crowned kinglet *(Regulus calendula)*
rock wren *(Salpinctes obsoletus)*
spotted towhee *(Pipilo maculates)*
Steller's jay *(Cyanocitta stelleri)*
Towndsend's solitaire *(Myadestes townsendi)*
violet-green swallow *(Tachycineta thalassina)*
Virginia's warbler *(Vermivora virginiae)*
warbling vireo *(Vireo gilvus)*
white-breasted nuthatch *(Sitta carolinensis)*
western kingbird *(Tyrannus verticalis)*
western scrub-jay *(Aphelocoma californica)*
western tanager *(Piranga ludoviciana)*

Indian Creek Allotment
American kestrel *(Falco sparverius)*
American robin *(Turdus migratorius)*
Audubon's warbler *(Dendroica c. auduboni)*
brown creeper *(Certhia americana)*
Brewer's sparrow *(Spizella breweri)*
bushtit *(Psaltriparus minimus)*
Cassin's finch *(Carpodacus cassinii)*
canyon wren *(Catherpes mexicanus)*
chipping sparrow *(Spizella passerine)*
Clark's nutcracker *(Nucifraga Columbiana)*
cordilleran flycatcher *(Empidonax occidentalis)*
Cooper's hawk *(Accipiter cooperii)*
common raven *(Corvus corax)*
gray-headed junco *(Junco h. caniceps)*
great horned owl *(Bubo virginianus)*
golden eagle *(Aquila chrysaetos)*
gray flycatcher *(Empidonax wrightii)*
gray vireo *(Vireo vicinior)*
green-tailed towhee *(Pipilo chlorurus)*
hairy woodpecker *(Picoides villosus)*
hermit thrush *(Catharus guttatus)*
house wren *(Troglodytes aedon)*
lazuli bunting *(Passerina amoena)*
MacGillivray's warbler *(Oporornis tolmiei)*
mountain bluebird *(Sialia currucoides)*
mountain chickadee *(Poecile gambeli)*
northern flicker *(Colaptes auratus)*
northern goshawk *(Accipiter gentilis)*
pine siskin *(Carduelis pinus*
prairie falcon *(Falco mexicanus)*
ruby-crowned kinglet *(Regulus calendula)*
rock wren *(Salpinctes obsoletus)*
spotted towhee *(Pipilo maculates)*
Steller's jay *(Cyanocitta stelleri)*
Towndsend's solitaire *(Myadestes townsendi)*
violet-green swallow *(Tachycineta thalassina)*
Virginia's warbler *(Vermivora virginiae)*
warbling vireo *(Vireo gilvus)*
white-breasted nuthatch *(Sitta carolinensis)*
western kingbird *(Tyrannus verticalis)*
western scrub-jay *(Aphelocoma californica)*
western tanager *(Piranga ludoviciana)*

For Reference Only

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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Prepared by:

/s/Mindy Seal	10/1/2008
Mindy Seal, Rangeland Management Specialist (SCEP)	Date

Reviewed by:

/s/Bonnie Million	10/20/2008
Bonnie Million Noxious and invasive non-native species	Date

/s/ Kathleen McConnell	10/1/2008
Kathleen McConnell Cultural resources	Date

/s/ Ruth Thompson	10/1/2008
Ruth Thompson Wild horses and burros	Date

/s/ Marian Lichtler	10/1/2008
Marian Lichtler Wildlife/migratory birds/special status animals/plants	Date

/s/ Dave Jacobson	10/1/2008
Dave Jacobson Wilderness Values/ACEC/Special designations	Date

/s/ Melanie Peterson	10/2/2008
Melanie Peterson Hazardous and solid wastes	Date

/s/Michael Herder	10/6/2008
for Elvis Wall Native American religious concerns	Date

/s/Gina Jones	10/1/2008
Gina Jones Ecology/environmental coordination	Date

I concur:

/s/Chris Mayer	10/6/2008
Chris Mayer Supervisory Rangeland Management Specialist Egan Field Office	Date

/s/ Jeffrey A. Weeks	10/7/2008
Jeffrey A. Weeks Field Manager Egan Field Office	Date

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.

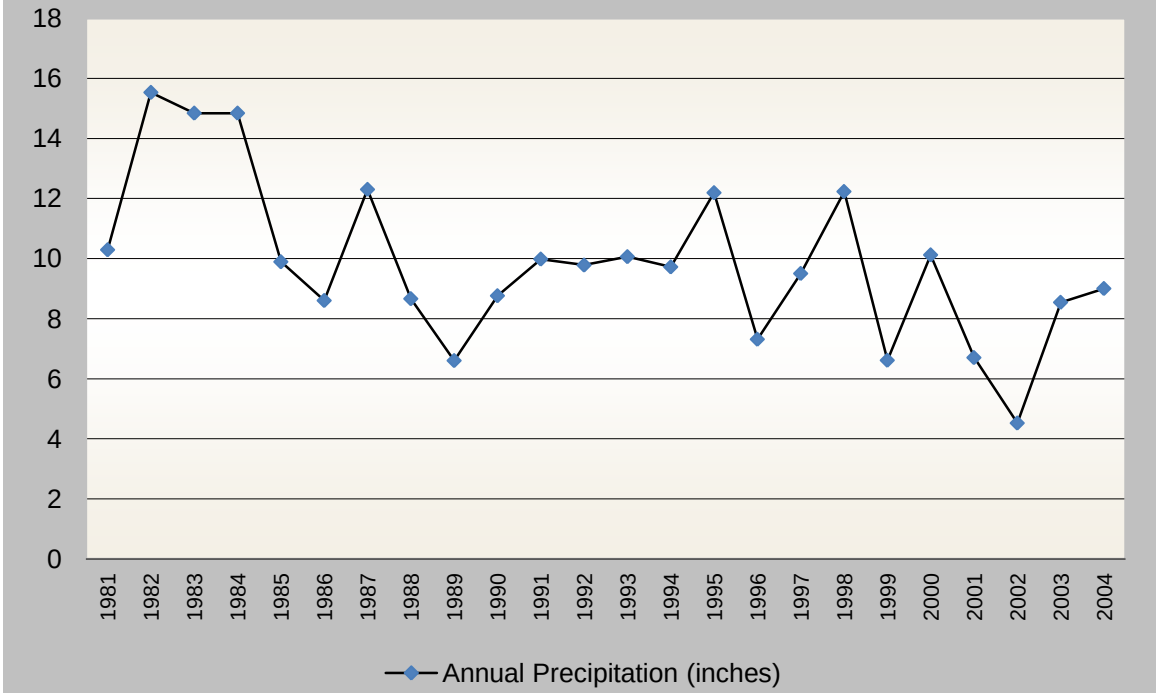
7. Precipitation data

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., Sec. 17, NE1/4	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.
	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
crested wheatgrass	1995	BR-1	15%

Table 5-1. Big Rock Seeding Allotment Utilization

Key Species	Grazing Year	Key Area	Utilization
		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.

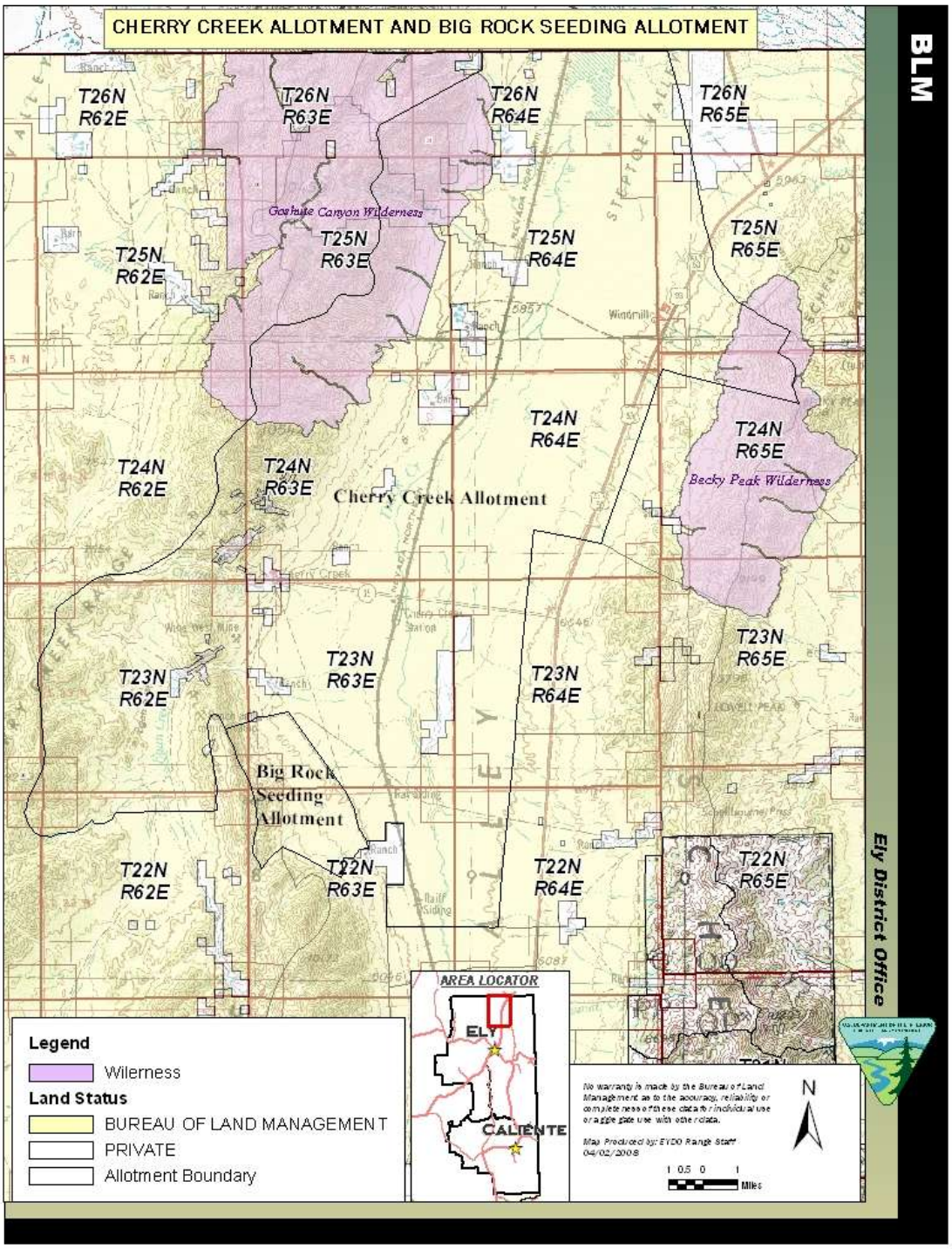


Figure II.

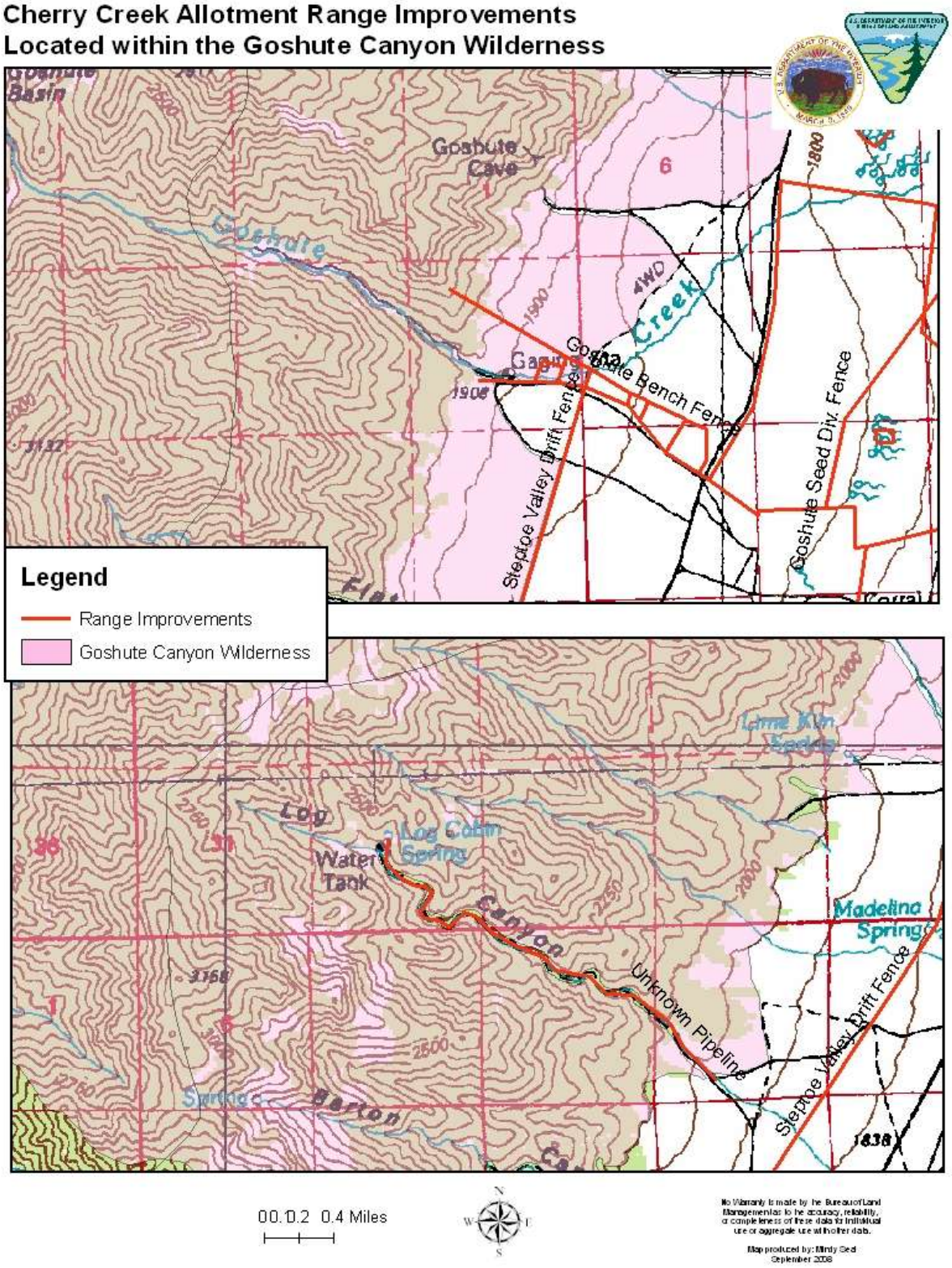

Cherry Creek Allotment Range Improvements
Located within the Goshute Canyon Wilderness
Goshute Cave
Goshute Creek
4WD
Goshute Bench Fence
Steptoe Valley Drift Fence
Goshute Seed Div. Fence
Legend
Range Improvements
Goshute Canyon Wilderness
Lime Kiln
Log Cabin Spring
Water Tank
Log Canyon
Madelina Spring
Unknown Pipeline
Steptoe Valley Drift Fence
Barton Springs
0 0.1 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.

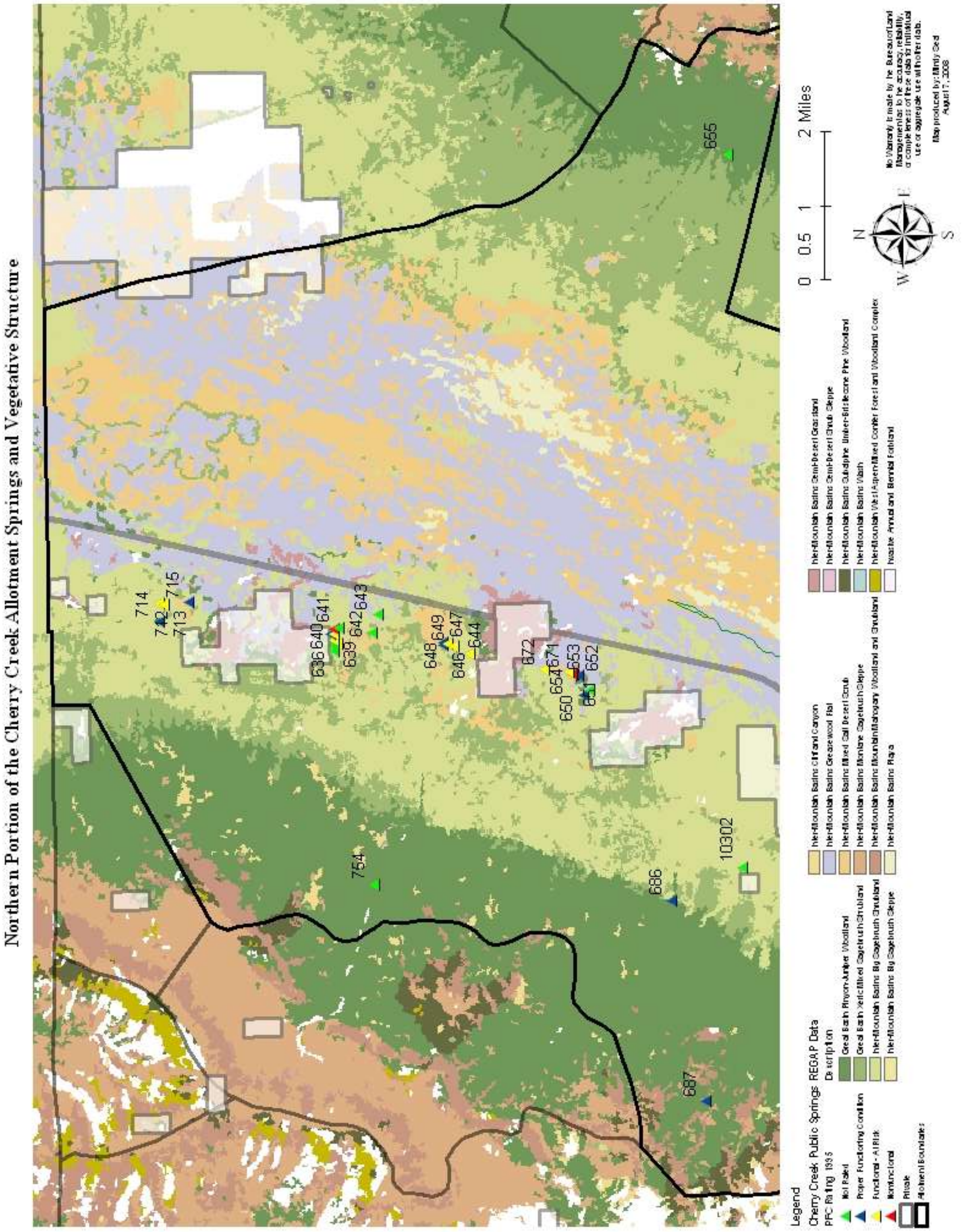

Northern Portion of the Cherry Creek Allotment Springs and Vegetative Structure
0 0.5 1 2 Miles
N
S
E
W
714
715
742
713
641
643
636
640
642
639
648
649
647
646
644
672
671
653
654
652
650
651
655
754
10302
686
687
Legend

Figure IV.

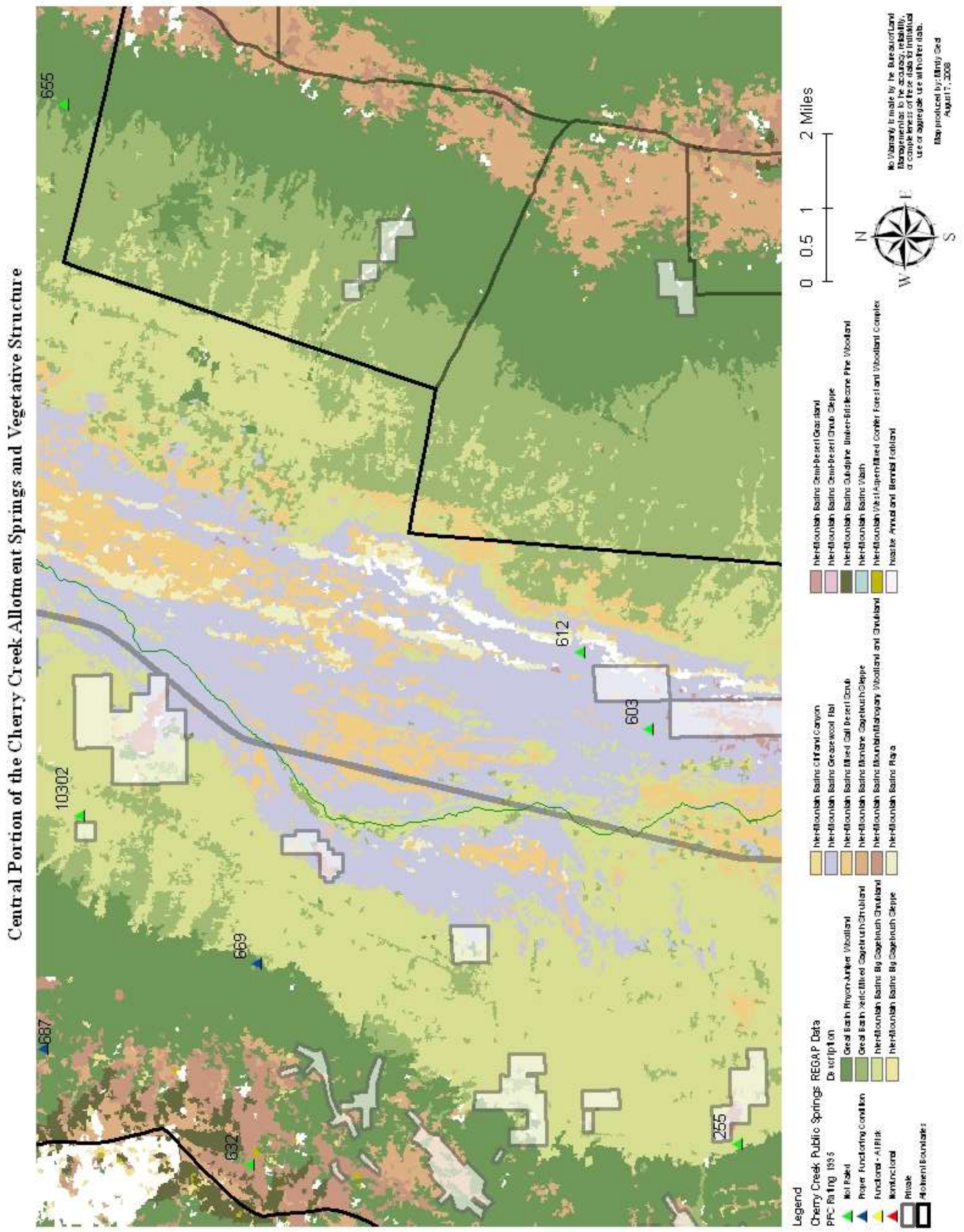

Central Portion of the Cherry Creek Allotment Springs and Vegetative Structure
655
10302
612
603
669
687
632
255
0 0.5 1 2 Miles
N
S
E
W
Legend
Cherry Creek Public Springs REGAP Data
PFC Rating 1996
Description
Not Rated
Proper Functioning Condition
Functional - At Risk
Nonfunctional
Private
Allotment Boundaries

Figure V.

Southern Portion of the Cherry Creek Allotment Springs and Vegetative Structure

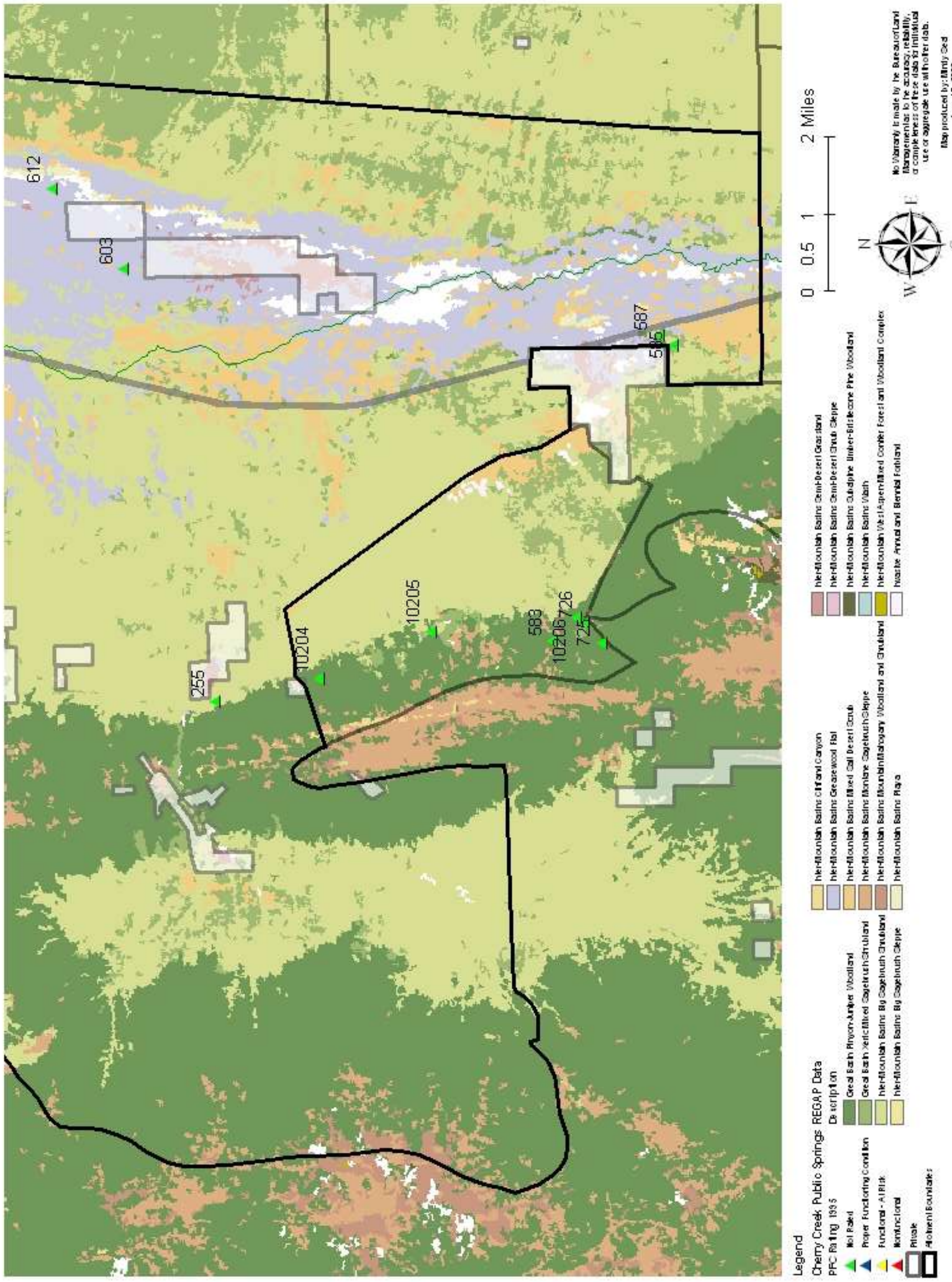


Figure VI.

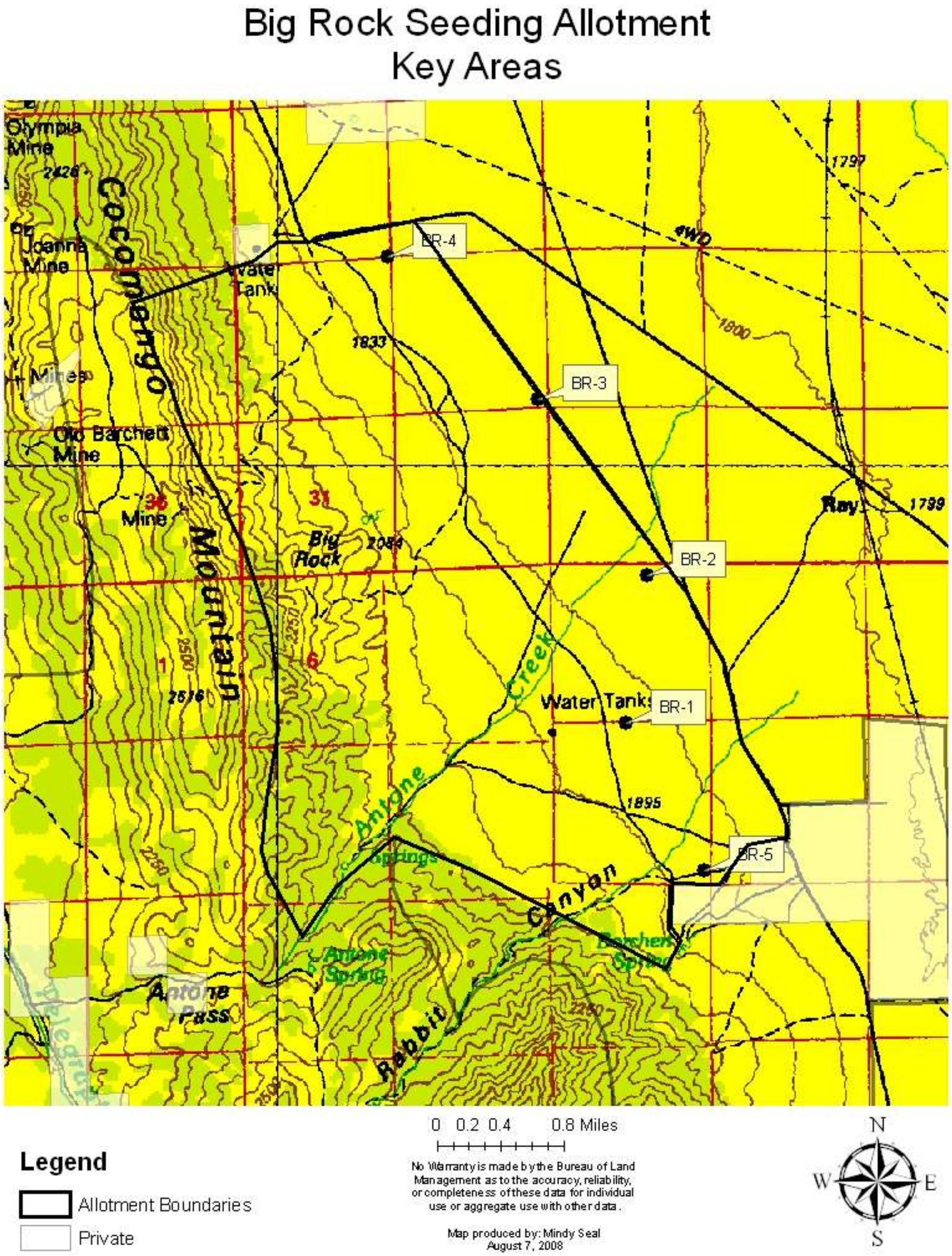
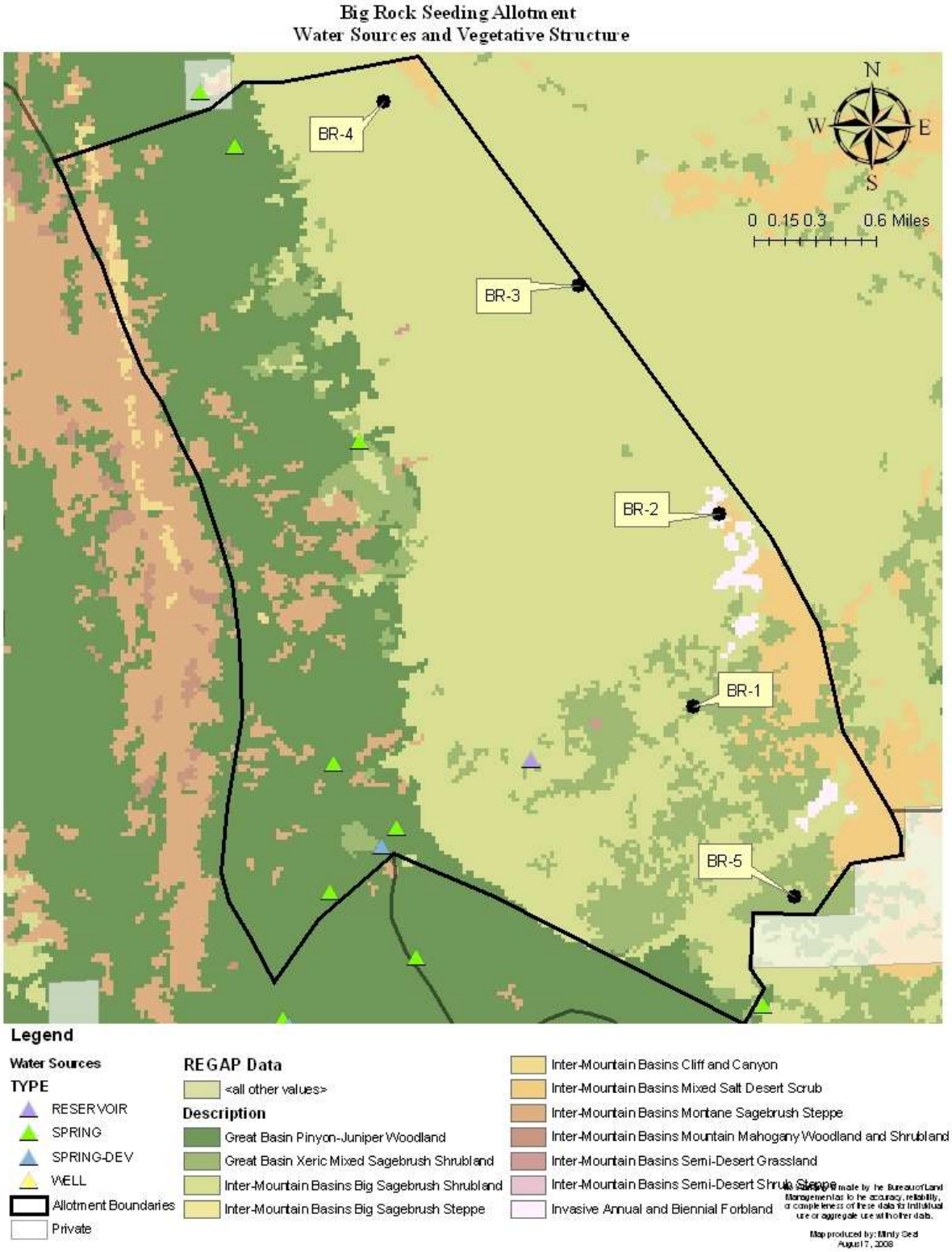

Big Rock Seeding Allotment
Key Areas
Olympia Mine
Joanna Mine
Cocomengo
Water Tank
Mines
Old Barchett Mine
Mine
Mountain
Big Rock
BR-4
BR-3
BR-2
BR-1
BR-5
Water Tanks
Ray
Antone Creek
Antone Springs
Antone Spring
Antone Pass
Canyon
Rabbit
Barchett Spring
1797
1800
1833
1799
2084
1895
2516
31
36
6
1
4WD
0 0.2 0.4 0.8 Miles
Legend
Allotment Boundaries
Private
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

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. Active use licensed would not exceed 10% of the total active use on the Cherry Creek Allotment native 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.
6. **The season of use for the North Egan Seeding in the Cherry Creek Allotment would be changed to March 1 to February 28 and include a six week rest period. On even years this rest period would be set from May 1 to June 15 to allow the crested wheat grass time to recover and maintain plant health.**

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. Active use licensed would not exceed 10% of the total active use on the Cherry Creek Allotment native 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. Active use licensed would not exceed 10% of the total active use on the Cherry Creek Allotment native 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. Active use licensed would not exceed 10% of the active permitted use on the Cherry Creek Allotment native 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.

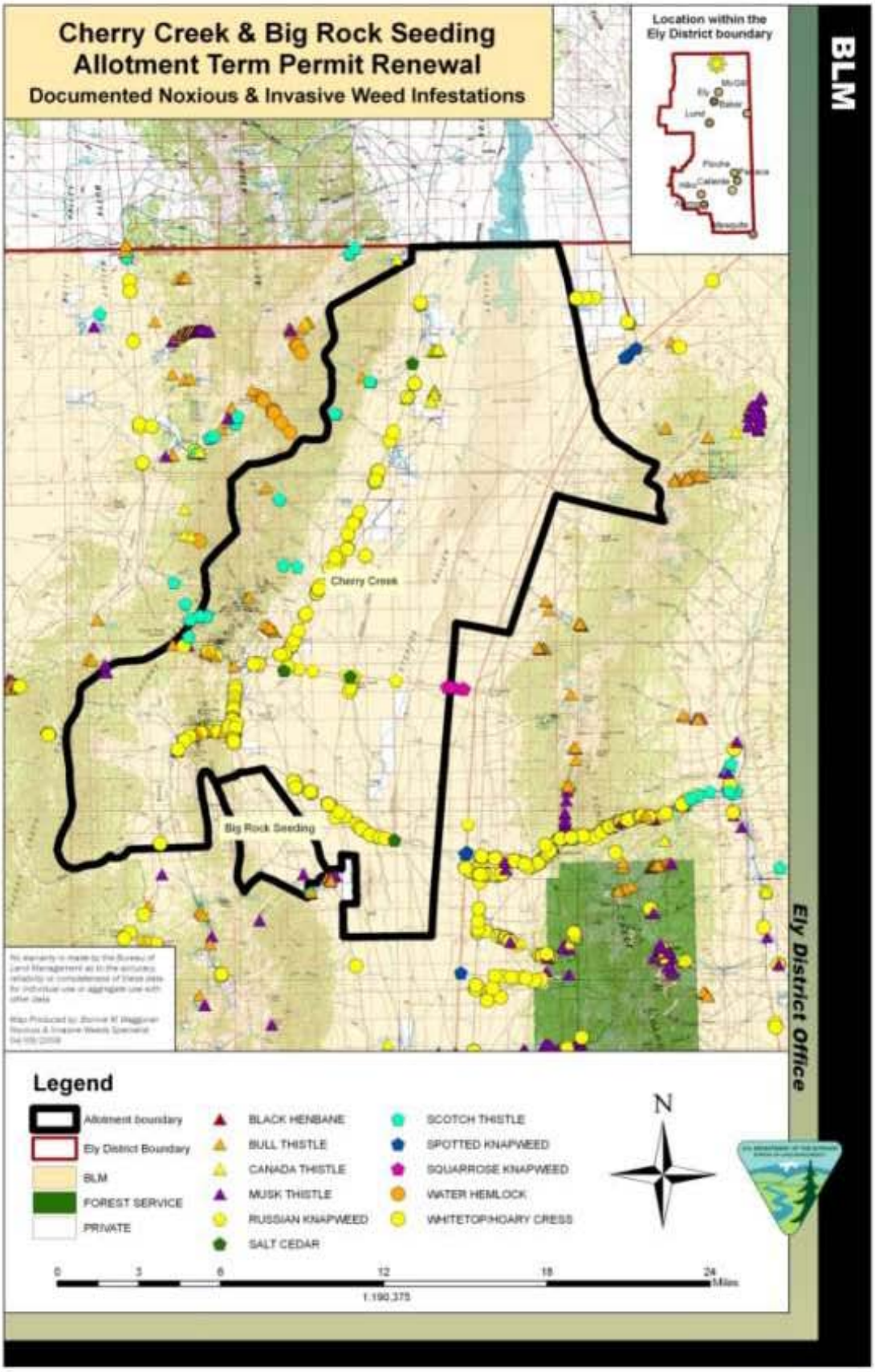
Grazing will be conducted in compliance with the Ely District BLM noxious weed schedules. The scheduled procedures can significantly and effectively reduce noxious weed spread or introduction into the project area.

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: /s/Bonnie Waggoner 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
Cherry Creek
Big Rock Seeding
BLM
Ely District Office
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