

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

**Preliminary Environmental Assessment
DOI-BLM-NV-L000-2009-0021-EA
July 28, 2009**

**Pescio Brothers Term Permit Renewal
On the Duckcreek Basin and Gallagher Gap Allotments**

Location: White Pine County, NV
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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 renewal of Pescio Brothers (#2704524) on the Gallagher Gap (00418) and Duckcreek Basin (00419) Allotments. The aforementioned allotments are approximately 20 miles north northeast of Ely, Nevada and are found entirely in White Pine County (see Figure 1, Appendix 1).

The legal descriptions of the allotments are as follows:

Gallagher Gap

T. 19 N., R. 64 E., all or portions of sections 13, 14, 15, 22 through 27.

T. 19 N., R. 65 E., all or portions of sections 19 and 30.

Duckcreek Basin

T. 19 N., R. 65 E., all or portions of sections 19 and 28 through 33.

T. 18 N., R. 65 E., all or portions of sections 4 through 9 and 16 through 21.

T. 19 N., R. 64 E., all or portions of section 36.

T. 18 N., R. 64 E., all or portions of sections 1, 12, 13, 14, 23 and 24.

1.0.1 Background

Current management practices implemented since the Final Multiple Use Decisions were issued for the Duckcreek Basin Allotment on January 28, 1992.

The Final Multiple Use Decision proposed no changes in livestock use, it recommended that the permit be maintained at 436 AUMs of active permitted use with 150 AUMs allocated in the crested wheatgrass seeding and 286 AUMs in the native range. Season-of-use was established from April 1st to September 30th. A riparian fence was recommended for the East Creek Drainage to allow for recovery of the riparian vegetation and enhance streambank stabilization. A third year reevaluation summary was issued. A deferred rotation grazing system between the north and south units in conjunction with the seeding was recommended with the season of use for the seeding from April 1st to May 15th. The north and south pastures licensed separately with a season of use of May 1st to July 15th and July 16th to September 30th on a rotating basis every other year. The deferred rotation grazing system recommended was never implemented. In addition the East Creek Riparian fence was constructed in 1994 and created a 175 acre riparian pasture. A high intensity short duration grazing system has occurred on an annual basis in East Creek riparian pasture.

The Gallagher Gap Allotment was not evaluated previously, and no Final Multiple Use Decision was ever issued for the Gallagher Gap Allotment.

1.1 Introduction of the Proposed Action.

The Bureau of Land Management (BLM) Schell Field Office proposes to issue and fully process a term grazing permit for Pescio Brothers (#2704524) and authorize grazing on the Gallagher Gap and Duckcreek Basin Allotments. Changes to the existing permit 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.

Monitoring data were reviewed and assessments of the rangeland health of each allotment were completed in 2009 during the term permit renewal process through a Standards Determination Document (see complete Standards Determination Document, Appendix II).

The following is a summary of the Standards Determination Document by allotment for achievement of the standards.

ALLOTMENT	STANDARD 1 Upland Sites	STANDARD 2 Riparian and Wetland Sites	STANDARD 3 Habitat
Duckcreek Basin (00419)	Uplands: Not achieving the Standard	Riparian: Not achieving the Standard	Uplands: Not achieving the Standard
Gallagher Gap (00418)	Uplands: Not achieving the Standard	Riparian: N/A	Uplands: Not achieving the Standard

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 permit for Pescio Brothers 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 permit for Pescio Brothers and authorize grazing in accordance with applicable laws, regulations, and land use plans (LUP) on approximately 12,144 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.

1.4 Relationship to Planning

The proposed action is in conformance with the goals and objectives for livestock grazing found in 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).

1.5 Relevant Issues and Internal Scoping/Public Scoping.

The Pescio Brothers term permit renewal proposal was initiated on March 26, 2008, with a presentation to the internal resource specialist team. A letter notifying the permittee and interested public of the term permit renewal was sent on April 24, 2008.

The Pescio Brothers term permit renewal proposal was internally scoped by the Schell Field Office inter-disciplinary (ID) team/resource specialists on December 18, 2008 to identify any relevant issues. Issues identified were effects of the proposed action on greater sage grouse habitat, a BLM sensitive species.

Comments were received during the external scoping period. A comment letter was received from Western Watersheds Project December 29, 2008 concerning all permit renewals within the Ely District Office. A two week external review/public comment period will be established to allow interested public to express any concerns not addressed in the preliminary document. A notice of the proposed action will be published on the Ely District NEPA website during the two week external public period and all interested parties will be sent a notification letter that welcomes comments.

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 Pescio Brothers (#2704524) on the Gallagher Gap (00418) and Duckcreek Basin (00419) Allotments (Figure 1, Appendix 1). Changes to the permit are recommended to achieve the Standards and Guidelines for Nevada’s Northeastern Great Basin Area on the allotments. The current permit is shown in Table 1. Proposed changes are in Table 2. The same kind of livestock would be grazed and the active use previously authorized would not be changed. Proposed changes to the permit terms and conditions would affect the overall management of livestock based on timing and duration of grazing on the Duckcreek Basin Allotment pasture system.

2.1.1 Current permit

Table 1. Current Term Permit for Pescio Brothers (#2704524).

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
Duckcreek Basin (00419)	72 Cattle	04/01 - 09/30	100	Active	433
Gallagher Gap (00418)	42 Cattle	11/01 - 02/28	100	Active	166
*% Public Land is the percent of public land for billing purposes. **AUMs may differ from Active Use due to a rounding difference with the number of livestock and the period of use.					
Allotment Summary (AUMs)					
Allotment	Active Use AUMs	Suspended AUMs	Total Permitted Use AUMs		
Duckcreek Basin (00419)	436	0	436		
Gallagher Gap (00418)	169	139	308		

Duckcreek Basin and Gallagher Gap Terms and Conditions

Active use within the Duckcreek Basin Allotment crested wheatgrass pasture is 150 AUMs.

Active use on the Duckcreek Basin Allotment native range is 286 AUMs.

Saltblocks will be placed at least ½ mile from water sources to enhance proper distribution and utilization.

Gallagher Gap #00418: Grazing use will be in accordance with the Northeastern Great Basin Area Standards and Guidelines.

Duckcreek Basin #00419: Grazing use will be in accordance with the Northeastern Great Basin Area Standards and Guidelines, and with the Final Multiple Use Decision Dated January 28, 1992.

The afformentioned Great Basin Area Standards and Guidelines for grazing administration were developed by the respective resource advisory council and were approved by the Secretary of the Interior on February 12, 1997.

Other Terms and Conditions:

Grazing use will also be in accordance with 43 CFR sub-part 4180 – Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.

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

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.

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

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 \$25.00 or 10 percent of the grazing bill, whichever is greater, not to exceed \$250.00. 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.

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 for 30 days or until notified to proceed by the authorized officer.

2.1.2 Proposed term permit

The proposed term (changes) permit and allotment information are as follows:

Table 2. Proposed Term Permit for Pescio Brothers (#2704524).

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
Duckcreek Basin (00419)	72 Cattle	04/01 - 09/30 With a deferred rotation grazing system, see Table 3	100	Active	433
Gallagher Gap (00418)	42 Cattle	11/01 - 02/28	100	Active	166
*% Public Land is the percent of public land for billing purposes. **AUMs may differ from Active Use due to a rounding difference with the number of livestock and the period of use.					
Allotment Summary (AUMs)					
Allotment	Active AUMs	Suspended AUMs	Permitted Use AUMs		
Duckcreek Basin (00419)	436	0	436		
Gallagher Gap (00418)	169	139	308		

The renewal of the term grazing permit would be for a period of up to ten years. Proposed changes to the permit terms and conditions would affect the overall management of livestock based on timing and duration of grazing on the Duckcreek Basin Allotment pasture system.

There are additional terms and conditions needed for management practices to conform with guidelines and achieve standards. The current terms and conditions of the term grazing permit would be changed. Livestock management practices and terms and conditions will incorporate the Ely District ROD and Approved RMP resource program best management practices. A rotation grazing system would be implemented between the seeding and native pastures. Allowable Use Levels have been quantified and added into the terms and conditions to assist in the achievement or move toward achievement of the standards and guidelines and land use plan objectives. A new term and condition relative to utilization levels and movement dates will also be added. A three pasture deferred rotation grazing system would be implemented when adequate water (water hauling, pipeline etc.) is provided in the northern native portion of the allotment.

1. A term permit will be issued for a period of up to ten years associated with fully processing this term permit. Terms and conditions of the grazing permit will be in accordance with the ten year grazing agreement. An evaluation will be completed during

October 2019 at which time this term permit may or may not be issued with changes, based on the need for new terms and conditions.

2. Annual meetings will take place to discuss and develop annual grazing use. Annual meetings will help to establish a long-term stable grazing operation and grazing rotation system. Stocking levels and periods of use will be based upon forage availability and condition, current growing conditions, and any changes as a result of the previous years' monitoring and achievement of the standards.
3. For both Duckcreek Basin and Gallagher Gap Allotments the maximum utilization levels would be established according to the following guidelines:

If livestock use occurs during the spring period of use (prior to May 31st) the following use levels will apply.

- Perennial native grasses perennial non-native seedings: 40% during April and May of current year's.
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.

If livestock use occurs during the summer and early fall period of use (after May 31st) the following use levels will apply.

- Perennial native grasses and perennial non-native seedings: 50% of current year's growth June through September.
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.

If livestock use occurs during the winter fall period of use (November 1st to February 28th) the following use levels will apply.

- Perennial native grasses: 50% of current year's growth November through February.
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.

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.

Current livestock management practices have evolved from the final multiple use decision and agreements on the Duckcreek Basin Allotment and incorporate the Ely District RMP/FEIS resource program best management practices.

The livestock management practices identified above will continue to assist in the maintenance and/or improvement of the native range. These management practices help to achieve the 40% allowable use level on native range and the crested wheatgrass seeding during April and May and 50% during June through September allowable use levels, proper cover and ecological condition of the native range.

2.1.2.1 The grazing system for the Duckcreek Basin is described as follows;

Recommended Grazing Practices

The season of use would remain 04/01 to 09/30. Permitted use would remain at 436 AUMs. 111 AUM's would be placed in voluntary nonuse for the conservation and protection of natural resources until adequate water facilities (water hauling, pipeline etc.) are provided in the northern portion of the native range. 150 AUMs are available in the seeding and 175 AUMs are available in the southern portion of the native range and the riparian pasture.

When adequate water is provided in the northern portion of the native use area (i.e. water hauling, pipeline(s) or well etc.) and vegetative treatments are implemented a three-pasture deferred rotation grazing system would be established for the Duckcreek Basin Allotment. The three pastures are the Laucirica Seeding, the North Native Pasture, and the South Native Pasture. The system would provide spring or early summer growing season rest for each pasture two out of three years. The grazing schedule for the three pastures in the Duck Creek Basin Allotment is shown in Table 3.

Table 3. Grazing Schedule for the Duckcreek Basin Allotment:

	Laucirica Seeding	North Native	South Native
Year 1	04/01 to 05/31	06/01 to 07/31	08/01 to 09/30
Year 2	08/01 to 09/30	04/01 to 05/31	06/01 to 07/31
Year 3	06/01 to 07/31	08/01 to 09/30	04/01 to 05/31

Use of the East Creek Riparian Pasture would be for 14 days (33 AUMs) at the beginning of the use period or until utilization or management objectives are met. This would allow the vegetation to fully recover through the summer and fall and provide stream bank stabilization during the monsoon season and in case of a heavy spring event.

In the interim a two-pasture deferred rotation grazing system would be established for the Duckcreek Basin Allotment. The two pastures are the Laucirica Seeding and the Native Pasture. The system would provide spring and early summer growing season rest for one pasture every other year. This would allow plants to reach seed ripe or seed dissemination prior to grazing. The periods of use would be established as June 1st to July 31th and August 1st to September 30th. The grazing schedule for the two pastures in the Duck Creek Basin Allotment is shown in Table 2.

Table 2. Grazing Schedule for the Duckcreek Basin Allotment:

	Laucirica Seeding	Native	AUMs
Year 1	06/01 to 07/31	08/01 to 09/30	150
Year 2	08/01 to 09/30	06/01 to 07/31	142

Use of the East Creek Riparian Pasture would be for 14 days (33 AUMs) at the beginning of the use period or until utilization or management objectives are met. This would allow the vegetation to fully recover through the summer and fall and provide stream bank stabilization during the monsoon season and in case of a heavy spring event.

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.

Deviations in livestock movement will require authorization from the authorized officer.

Terms and Conditions common to all allotments:

1. Livestock numbers identified in the term grazing permit are a function of seasons of use and permitted use for each allotment. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the above allotment(s).
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.
3. 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 for 30 days or until notified to proceed by the authorized officer.
4. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.
5. 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 \$25.00 or 10 percent of the grazing bill, whichever is greater, not to exceed \$250.00. 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.
6. Grazing use in will be in accordance with the Northern Great Basin Area Standards and Guidelines for Grazing Administration, as developed by the resource Advisory Council (RAC)

and approved by the Secretary of the Interior on February 12, 1997. Grazing use will also be in accordance with 43 CFR sub-part 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.

2.1.3 Best Management Practices (BMPs) incorporated into the Terms and Conditions

BMPs applicable to the proposed action as described in the RMP (August 2008), Appendix A.

2.1.3.1 Livestock Grazing

Based on allotment situations and circumstances associated with livestock grazing and multiple use management, implement any or all of the following appropriate management practices on winterfat dominated ecological sites.

- Place salt and supplements at least 0.5 mile away from winterfat dominated sites. Base placement on site-specific assessment and characteristics such as riparian, topography, cultural, special status species, etc.

2.1.3.2 Fish and Wildlife

- Install wildlife escape ramps in all watering troughs, including temporary water haul facilities, and open storage tanks.
- Pipe the overflow away from the last water trough on an open system to provide water at ground level.

2.1.3.3 Special Status Species

- Develop grazing systems to minimize conflicts with special status species habitat.

2.1.3.4 Salt and mineral supplements:

- Base placement of salt and mineral supplements on site-specific assessment.
- Normally place salt and mineral supplements at least 0.5 mile away from riparian areas, sensitive sites, populations of special status plant species, cultural resource sites.
- Place salt at least 0.5 mile from any water source including troughs.
- Place salt and mineral supplements at least 1 mile from sage grouse leks.
- Place water haul sites at least 0.5 mile away from riparian areas, cultural sites, and special status species locations.

2.1.4 Invasive, Non-Native Species and Noxious Weeds

A Weed Risk Assessment (See Appendix III) was completed on October 16, 2008. The stipulations listed in the Weed Risk Assessment will be followed when grazing occurs on the allotments.

Measures (mitigation) identified in the Weed Risk Assessment will be brought forward into the terms and conditions:

- 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 District 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 Cultural Resources

A cultural resources review of known eligible sites or properties was conducted by BLM staff associated with the Pescio Brothers term permit renewal.

2.1.6 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 grazing system on the Duckcreek Basin Allotment.

2.3 Alternatives Considered but Eliminated from Further Analysis

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

The Ely Proposed Resource Management Plan/Final Environmental Impact (November, 2007) analyzes five alternatives of livestock grazing (p.4.16-1 to 4.16-15.), 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

Since the RMP EIS analyzed a full range of grazing alternatives, including “No-Grazing” (Alternative D) no further analysis is necessary.

3.0 Description of the Affected Environment and Associated Environmental Consequences.

3.1 Allotment Information

The Duckcreek Basin and Gallagher Gap Allotments are the permitted grazing allotments for Pescio Brothers (Operator No. 2704524).

The Duckcreek Basin Allotment (#00419) encompasses approximately 8,444 acres of public lands. Approximately 2,161 acres are privately owned within the allotment (see figure 2, general location map). The allotment is situated in Duckcreek Basin. The allotment is located entirely within White Pine County, in the north central portion of the Ely BLM District approximately 20 miles north northeast of Ely, Nevada within the Great Basin physiographic region. The western boundary is the Duck Creek range ridge top and the Schoolhouse Spring and Gallagher Gap Allotments. The northern and eastern boundary is Forest Service administered lands. The southern boundary of the allotment is Duck Creek Allotment. The elevation ranges from approximately 6,560 feet above sea level in Duckcreek Basin to approximately 8,530 feet above sea level in the Duck Creek Range. Average annual precipitation ranges from 8 inches to 14 inches on the allotment. The vegetation within the allotment is diverse on public lands consisting primarily of pinyon and juniper communities (33%), black and low sagebrush communities (28%), mountain big sagebrush communities (10%) mahogany communities (8%), mountain big sagebrush/bitterbrush communities (7%), Wyoming sagebrush communities (6%), big sagebrush communities (3%), low sagebrush communities (2%) and basin big sagebrush communities (1%). Rock outcrops account for approximately 3% of the allotment. Duckcreek Basin Allotment is located in Duck Creek Basin (#128).

The Gallagher Gap Allotment (#00418) encompasses approximately 3,700 acres of public lands. Approximately 200 acres are privately owned within the allotment (see figure 2, general location map). The allotment is situated in Steptoe Valley. The allotment is located entirely within White Pine County, in the north central portion of the Ely BLM District approximately 20 miles north northeast of Ely, Nevada within the Great Basin physiographic region. The western boundary is the Steptoe and Duckcreek Flat Allotments along Hwy 93. The northern boundary is Duckcreek Flat Allotment. The eastern boundary is Forest Service administered lands and the

Duckcreek Basin Allotment. The southern boundary is Schoolhouse Spring and State Highway 486. The elevation ranges from approximately 6,400 feet above sea level in Steptoe Valley to approximately 8,200 feet above sea level in the Schell Creek Range. Average annual precipitation ranges from 7 inches to 14 inches on the allotment. The vegetation within the allotment is diverse on public lands consisting primarily of black sagebrush communities (29%), shadscale communities (25%), pinyon-juniper communities (16%), winterfat communities (13%), mountain mahogany communities (9%), Wyoming big sagebrush communities (3%) and fourwing saltbush communities (1%). Rock outcrops account for approximately 3% of the allotment.

Common to all allotments, precipitation occurs as winter snow or spring/fall thundershowers and rains. July and August are normally very hot, dry months. Annual air temperature ranges from 42 to 50 degrees Fahrenheit. The frost-free season ranges from 75 to 120 days. The allotments also occur within the Central Nevada Basin and Range (028B) Major Land Resource Areas (MLRA).

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.

Table 4. Resources/Concerns Considered for Analysis

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 generally good except for occasional dust storms. The proposed action would contribute to ambient dust in the air due to trailing, but the impact would be temporary and would not approach a level that would exceed any air quality standards. Detailed analysis is not required.
Cultural Resources	No	The Ely District Resource Management Plan, August 2008, goal is to identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations. The BLM conducts field investigations and maintains files of archeological sites on public lands. Analyses of existing documentation indicates that concentrated livestock activities near water sources, along fences, and in areas where livestock seek shelter, could adversely affect cultural resources.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		The cultural staff will identify cultural properties being impacted by grazing activities to be monitored in order to determine condition, impacts, deterioration, and use of these properties. As necessary, strategies (including mitigation) are developed and implemented in order to reduce threats and resolve conflicts to the property.
Forest Health	No	No unique or sensitive forests exist in the project area.
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. No further analysis is needed.
Migratory Birds	Yes	Several migratory bird species of conservation concern have a high probability of occurrence on the two allotments, and livestock grazing would be occurring during the breeding and nesting season.
Native American Religious Concerns	No	A Native American Coordination Meeting was held in the BLM Ely Field Office on March 22, 2007. No concerns were identified. 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 or Endangered species are not present in the area and would not be impacted by the proposed term permit renewal.
Wastes, Hazardous or Solid	No	No hazardous or solid wastes exist on the permit renewal area, nor would any be introduced.
Water Quality, Drinking/Ground	No	Impacts from livestock grazing on Water Resources were analyzed in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) (page 4.3-5). Design features in the proposed action would not pose any impact to ground water in the proposed term permit renewal area. No surface water in the proposed

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		action area is used for drinking water within the allotments.
Wilderness	No	Resource is not present.
Environmental Justice	No	No minority or low-income groups would be affected by disproportionately high and adverse health or environmental effects identified in the Proposed Action Area.
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, however, livestock grazing would have a negligible effect on the beneficial values of any floodplains within the allotments.
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).
Wetlands/Riparian Zones	Yes	Livestock grazing would occur in the East Creek Riparian Pasture as part of the proposed grazing system.
Noxious and Invasive Weed Management	Yes	Impacts from livestock grazing on Noxious and Invasive Weed Management are analyzed on page 4.21-4 of the Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). See Appendix III, Weed Risk Assessment.
Special Status Animal Species, other than those listed or proposed by the FWS as Threatened or Endangered	Yes	There are 2 active sage grouse leks within the boundary of the Duckcreek Basin Allotment, and both allotments provide yearlong habitat for sage grouse.
Special Status Plant Species, other than those listed or proposed by the FWS as Threatened or Endangered	No	Resource is not present.
Wild Horses	No	Resource is not present.
Fish and Wildlife	Yes	There is crucial mule deer winter range on both allotments; however, cattle are only permitted on the Gallagher Gap Allotment, not the Duckcreek Basin Allotment, during the winter.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
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).
Special Designations other than Designated Wilderness	No	Resource is not present.
VRM	No	The proposed action is consistent with the VRM classification 2 and 3 for the area therefore no direct or cumulative impacts to visual resources would occur.
Grazing Uses	No	The proposed action and the changes to the Duckcreek Basin Allotment management system would continue to meet the RMP goals and objectives, including progressing to meet the standards for rangeland health. 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	Dispersed recreation in this area includes large and small game hunting, wildlife observation and photography, hiking and general off highway vehicle use. Design features identified in the proposed action would result in negligible impacts to recreational activities
Paleontological Resources	No	Paleontological resources may be present in the allotment, however due to usually being embedded within solid rock matrixes, they would not be vulnerable to disturbance by livestock.
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). Beneficial impacts to vegetative resources are consistent with the need and objectives

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		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 mineral resources, paleontological resources, recreation uses, land uses, visual resource management, special designation other than designated wilderness, special status plant species (other than those listed or proposed by the FWS as Threatened or Endangered), floodplains, environmental justice, Native American Religious Concerns, FWS listed or proposed for listing threatened or endangered species or critical habitat, wastes (hazardous or solid), water quality (drinking/ground), wild horses, wilderness, air quality and forest health.

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

The resources that have been identified as effected by the proposed action will be analyzed. These resources include migratory birds, wetland and riparian, noxious and invasive weed management, special status animal species and fish and wildlife.

3.3 Migratory Birds

3.3.1 Affected Environment

Both the Duckcreek Basin Allotment and the Gallagher Gap Allotment provide habitat for several migratory bird species of conservation concern including Brewer’s sparrow, sage sparrow, and vesper sparrow in the sagebrush communities, and gray vireo and pinyon jay in the pinyon and juniper woodlands. The vesper sparrow nests on the ground and the Brewer’s sparrow nests in low shrubs while the sage sparrow nests on the ground or in low shrubs. Both the gray vireo and the pinyon jay nest in trees. Although the breeding and nesting season for various species of migratory birds varies, most species breed and nest sometime between April and August.

3.3.2 Proposed Action Environmental Consequences

The deferred rotation grazing system proposed for the Duckcreek Basin Allotment would reduce disturbance to breeding and nesting migratory birds because cattle would not be in any one pasture during the entire breeding and nesting season. Some ground nests may be trampled by cattle, but this would be minimized because the small number of cattle (i.e., 72) are only in a given pasture for two months during the year. The condition of the habitat for migratory birds should improve over time with implementation of the proposed deferred rotation grazing system and establishment of allowable use levels at 40 percent during the April and May and 50 percent

from June through September. There should be no impacts to any populations of migratory bird species of conservation concern.

There should be no impacts to migratory birds on the Gallagher Gap Allotment since the allotment is only grazed by cattle from November through February.

3.3.3 No Action Alternative Environmental Consequences

Disturbance to migratory birds would be more intense within the crested wheatgrass pasture because this pasture would continue to be grazed in April and May every year. Habitat for species like Brewer's sparrow, sage sparrow, and vesper sparrow would continue to be degraded.

3.4 Wetland/Riparian Zones

3.4.1 Affected Environment

East Creek is located in the northern portion of the Duckcreek Basin Allotment. In 1994 a riparian pasture fence was constructed to manage livestock grazing along the creek. The lower stretch of East Creek is rated as Functional-At-Risk with an upward trend while the upper two portions are rated as proper functioning condition. Paine Spring, which is located on public lands, is fully developed and is fenced to exclude livestock grazing around the spring.

There are no wetlands/riparian zones on public land on the Gallagher Gap Allotment.

3.4.2 Proposed Action Environmental Consequences

The riparian functioning condition along East Creek should continue to improve with the implementation of the deferred rotation grazing system.

3.4.3 No Action Alternative Environmental Consequences

Impacts would be the same as the proposed action since the riparian fence is already in place and livestock grazing within the East Creek Riparian Pasture is being controlled.

3.5 Invasive, Non-native Species, including Noxious Weeds

3.5.1 Affected Environment

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. The following species is found within the boundaries of the Gallagher Gap allotment:

<i>Carduus nutans</i>	Musk thistle
<i>Centaurea stoebe</i>	Spotted knapweed
<i>Cirsium arvense</i>	Canada thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Lepidium draba</i>	Hoary cress
<i>Tamarix spp.</i>	Salt cedar

The following species is found within the boundaries of the Duck Creek Basin allotment:

<i>Carduus nutans</i>	Musk thistle
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<i>Centaurea stoebe</i>	Spotted knapweed
<i>Cirsium arvense</i>	Canada thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Lepidium draba</i>	Hoary cress
<i>Tamarix spp.</i>	Salt cedar

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

<i>Acroptilon repens</i>	Russian knapweed
<i>Carduus nutans</i>	Musk thistle
<i>Cirsium arvense</i>	Canada thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Centaurea stoebe</i>	Spotted knapweed
<i>Lepidium draba</i>	Hoary cress
<i>Lepidium latifolium</i>	Tall whitetop
<i>Onopordum acanthium</i>	Scotch thistle
<i>Tamarix spp.</i>	Salt cedar

The allotments were last inventoried for noxious weeds in 2002. While not officially documented the following non-native invasive weeds occur in or around the allotment: cheatgrass (*Bromus tectorum*) and halogeton (*Halogeton glomeratus*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

3.5.2 Proposed Action Environmental Consequences

For this term permit renewal, the Risk Rating is Moderate (32) (see WRA, Appendix III). Since there are currently so many weed infestations within these allotments the proposed action could increase the populations of the noxious and invasive weeds already within the allotment and could aid in the introduction of weeds from surrounding areas. Within the allotment, watering and salt block sites are of particular concern of new weed infestations due to the concentration of livestock around those sites and the amount of ground disturbance associated with that. If new weed infestations establish within the allotment this could have an adverse impact those native plant communities since the allotment is currently considered to be mostly weed-free. Also, any increase of cheatgrass could alter the fire regime in the area. By following the stipulations listed in the Weed Risk Assessment affects to weeds should be minimized.

3.5.3 No Action Alternative Environmental Consequences

The no action alternative would renew the term permit without the proposed changes to the management system. Without the changes to grazing and the additional stipulations included in the Proposed Action, the native vegetation in the area would be further degraded and would increase the chance for noxious and non-native invasive weed invasion.

3.6 Special Status Species

3.6.1 Affected Environment

The Duckcreek Basin Allotment and the Gallagher Gap Allotment are located within the Schell Range/Antelope Valley Population Management Unit (PMU) for sage grouse. Both allotments provides nesting, summer, and winter habitat for sage grouse. There are also two active leks within the boundary of the Duckcreek Basin Allotment. One is on public land, and the other on adjacent private land. Survey data since 2004 shows the population trend appears to be down at both leks. There are no leks on the Gallagher Gap Allotment. The White Pine County Sage Grouse Conservation Plan identifies the quantity and quality of breeding and nesting/early brood-rearing as a moderate to low “risk”, respectively. The late brood-rearing habitat is identified as a high “risk” for sage grouse. The main reason for these “risk” ratings is because of the expansion of pinyon and juniper trees into sagebrush habitat. According to the Conservation Plan livestock grazing is a low “risk” in the PMU (NDOW, 2004).

3.6.2 Proposed Action Environmental Consequences

The deferred rotation grazing system proposed for the Duckcreek Basin Allotment would reduce disturbance to sage grouse because cattle would only be in the pasture where the lek is located during the breeding and nesting season one year out of two or three depending on when the three-pasture deferred rotation grazing system is implemented. Currently cattle graze this pasture every spring. Managing cattle grazing so the allowable use levels of 40 percent during April and May and 50 percent from June through September is not exceeded should provide residual perennial grass cover for sage grouse. This should increase nesting success.

There should be no impacts to sage grouse on the Gallagher Gap Allotment since only a small number of cattle (i.e., 42) graze the allotment from November through February.

3.6.3 No Action Alternative Environmental Consequences

Maintaining the status quo and not implementing a grazing system on the Duckcreek Basin Allotment would disturb sage grouse using the lek on the Duckcreek Basin Allotment since the pasture where the lek is located would be grazed by cattle every spring. Spring grazing every spring would also reduce perennial grass cover in the pasture which would reduce nesting success. This would result in the continued downward trend in the sage grouse population on the allotment.

3.7 Fish and Wildlife

3.7.1 Affected Environment

There is crucial mule deer winter range on both the Duckcreek Basin Allotment and the Gallagher Gap Allotment. Both allotments also provide habitat for elk and pronghorn antelope, as well as habitat for numerous non-game species.

3.7.2 Proposed Action Environmental Consequences

Implementation of the deferred rotation grazing system on the Duckcreek Basin Allotment would improve wildlife habitat by providing growing season rest on each pasture two out of three years. Establishment of allowable use levels at 40 percent during the April and May and 50 percent

from June through September should provide sufficient forage for wildlife especially mule deer when they are on the allotment in the winter.

There should be no impact to mule deer on the Gallagher Gap Allotment since only a small number of cattle (i.e., 42) graze the allotment from November through February, and the cattle seldom graze in the steeper hills where the mule deer winter.

3.7.3 No Action Alternative Environmental Consequences

Wildlife habitat would not improve because the deferred rotation grazing system would not be implemented on the Duckcreek Basin Allotment. Impacts on the Gallagher Gap Allotment would be the same as 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).

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).

The CESA for the cumulative effects analysis on special status species is defined by the watershed boundaries within all the allotments.

4.1 Past Activities

Livestock grazing has a long history in the region dating back to the 1800's. Throughout its' history ranching has remained a dispersed activity characterized by localized areas of more intense use. Nevada is prone to extended periods of drought. Under these conditions, wildfires can be frequent and quite damaging. The Laucirica Seeding, a crested wheatgrass seeding, occurred on 600 acres of the Duckcreek Basin Allotment during the 1960's. Hunting, trapping, wildlife viewing, and other recreational activities have occurred on the allotments year round. Several range improvements have occurred on all allotments to improve grazing management including enclosure fences around East Creek.

4.2 Present Activities

All allotments are currently being used for livestock grazing. OHV use occurs on the roads and two-tracks on the allotments. Hunting, trapping, wildlife viewing, and other recreational

activities occur on all the allotments year round. Fire suppression activities continue to occur on the allotments.

4.3 Identified Potential Future Actions

Pescio Brothers would remain the permittee on Duckcreek Basin and Gallagher Gap Allotments. It is reasonable that the permit will be active and that cattle would be permitted to graze on the allotments. Rangeland monitoring would be expected to continue. Dozens of range permit renewals will occur each year through 2009 and subsequent years. Additional power lines are proposed for the Steptoe Valley including the Southwest Intertie Project (SWIP). A wind generating farm is being studied for the area in the Egan Mountain Range, northwest of the Gallagher Gap Allotment. If there is an increase in population for this area due to these proposed projects recreation use could be expected to increase for the area.

Range improvement projects are considered on an annual basis. Range improvements will be analyzed on a site specific basis, but could include vegetation treatments.

Adjustments to livestock use to maintain quality habitat for greater sage grouse and various other special status species may be determined through the watershed analysis process in 2009.

4.4 Cumulative Impacts Summary

Past actions that have had effects on special status species include livestock grazing, mining, water developments, and wildfires. While past actions result in the degradation of suitable habitat for wildlife, migratory birds, and special status species, wildfires may create new forage and habitat for some species following reseeding and reclamation.

The present actions that may affect special status species are the same as the past actions, including the proposed action. The potential future action of an increased population for this area may result in minor effects to greater sage grouse and other special status species.

The special status species habitat improvement resulting from the Proposed RMP should offset a large portion of the past and potential future habitat losses and damage resulting from interrelated project. However, local greater sage-grouse populations may be reduced in numbers because of development in and around breeding habitat (i.e., leks) regardless of the habitat improvement that may occur elsewhere.

The proposed action in conjunction with the past actions, present actions and reasonable foreseeable future actions would result in no noticeable overall changes to the affected environment. Implementation of the proposed permit renewal would make progress toward meeting the rangeland health standards. No cumulative impacts of major or minor concern are anticipated as a result of the proposed project, other than those disclosed in the Ely Resource Management Plan Final Environmental Impact Statement.

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 Schell Field Office Resource Specialists

Brett Covlin	Rangeland Resources
Mark D'Aversa	Soil/Water/Air/Riparian
Shawn Gibson	Cultural Resources
Kyle Hansen	Supervisory Resource Management Specialist
Craig Hoover	Rangeland Resources
Dave Jacobson	Visual Resources/Recreation
Chris Mayer	Rangeland Resources
Bonnie Million	Noxious Weeds
Melanie Peterson	Wastes, Hazardous & Solid
Zach Peterson	Environmental Coordination
Paul Podborny	Wildlife/T & E Species/Riparian
Elvis Wall	Native American Cultural Concerns

6.2 Persons, Groups or Agencies Consulted

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

•Permittees

- Joe Pescio

•Nevada Department of Wildlife

- Steve Foree

•Tribal Consultation

- Tribal Coordination Letters were sent November 19, 2008. No concerns were identified through coordination.

Public Notice of Availability

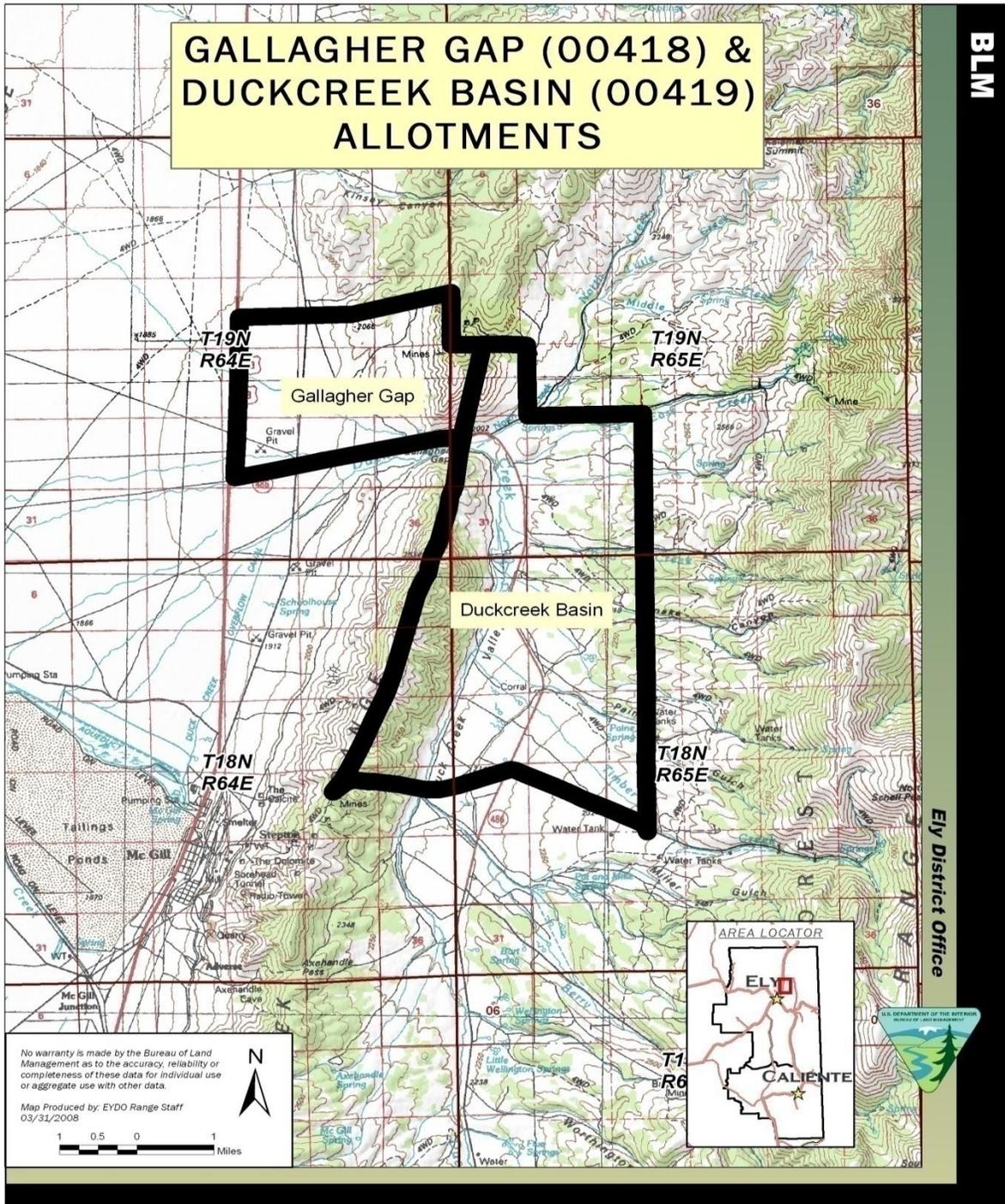
On April 24, 2008 scoping letters were sent to interested persons and organizations on the Ely District Rangeland Management Interested Public List. A copy of the scoping Interested Public letter was posted on the BLM Ely District. You may access the Ely District Website by navigating to "<http://www.blm.gov/nv/>" and then click on the Ely District. A comment letter was received from Western Watersheds Project December 29, 2008 concerning all permit renewals within the Ely District Office. An external review period of the preliminary EA will be issued.

References

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- USDOI. 2007. Ely Proposed Resource Management Plan/ Final Environmental Impact Statement. U.S. Department of the Interior, Bureau of Land Management. BLM/EL/PL-07/09+1793. DOI No. FES07-40. November 2007.
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- White Pine County Portion (Lincoln/White Pine Planning Area) Sage Grouse Conservation Plan. 2004.

Appendix 1

Figure 1 General Location Map for Duckcreek Basin and Gallagher Gap Allotments



Appendix II

STANDARDS DETERMINATION DOCUMENT

FUNDAMENTALS OF RANGELAND HEALTH

Standards and Guidelines Assessment

Duckcreek Basin and Gallagher Gap Allotments

Standards and Guidelines for Grazing Administration were developed by the Northeastern Great Basin Resource Advisory Council and approved by the Secretary of the Interior on February 12, 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 Duckcreek Basin and Gallagher Gap Allotments in the Ely BLM District. This document does not evaluate or assess achievement of the wild horse and burro or Off Highway Vehicle Standards or conformance to the respective Guidelines.

The standards were assessed for the Duckcreek Basin (00419) and Gallagher Gap (00418) Allotments by a BLM interdisciplinary team consisting of rangeland management specialists, wildlife biologist, weeds specialist, and watershed specialist. Documents and publications used in the assessment process include the 1) Soil Survey of Western White Pine County, Nevada 2) Ecological Site Descriptions Major Land Resource Area 28B, Central Nevada Basin and Range Nevada, 3) Interpreting Indicators of Rangeland Health (USDI-BLM et al. 2000), 4) Sampling Vegetation Attributes (USDI-BLM et al. 1996) and 5) 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.

Gallagher Gap Allotment is approximately 3,900 acres in size of which approximately 200 acres are private and 3,700 acres are public lands. Gallagher Gap Allotment is located approximately 18 miles north northeast of Ely, Nevada in the Steptoe C (#8C) watershed, entirely within White Pine County and the Great Basin physiographic region. The western boundary is the Steptoe and Duckcreek Flat Allotments along Hwy 93. The northern boundary is Duckcreek Flat Allotment. The eastern boundary is Forest Service administered lands and the Duckcreek Basin Allotment. The southern boundary is Schoolhouse Spring and State Highway 486. The elevation ranges from approximately 6,400 feet above sea level in Steptoe Valley to approximately 8,200 feet above sea level in the Schell Creek Range. Average annual precipitation ranges from 7 inches to 14 inches on the allotment. Precipitation occurs as winter snow or spring/fall

thundershowers and rains. July and August are normally very hot, dry months. Average annual air temperature is from 42 to 49 degrees Fahrenheit. The average frost-free season is from 85 to 115 days.

Duckcreek Basin Allotment is approximately 10,605 acres in size of which approximately 2,161 acres are private and 8,444 acres are public lands. Duckcreek Basin Allotment is located approximately 17 miles northeast of Ely Nevada in the Duck Creek Basin (#128) watershed, entirely within White Pine County and the Great Basin physiographic region. The western boundary is the Duck Creek range ridge top and the Schoolhouse Spring and Gallagher Gap Allotments. The northern and eastern boundary is Forest Service administered lands. The southern boundary of the allotment is Duck Creek Allotment. The elevation ranges from approximately 6,560 feet above sea level in Duckcreek Basin to approximately 8,530 feet above sea level in the Duck Creek Range. Average annual precipitation ranges from 8 inches to 14 inches on the allotment. Precipitation occurs as winter snow or spring/fall thundershowers and rains. July and August are normally very hot, dry months. Average annual air temperature is from 42 to 50 degrees Fahrenheit. The average frost-free season is from 75 to 120 days.

The Duckcreek Basin and Gallagher Gap Allotments occur within Major Land Resource Area (MLRA) 028B, the Central Nevada Basin and Range Area, first described by the U. S. Department of Agriculture in the early 1960's. The Soil Conservation Service (now Natural Resource Conservation Service (NRCS)) has extensively described the topography, geology, soils, climate, and range sites of each MLRA. The NRCS periodically updates information concerning each MLRA as new data becomes available. NRCS data will be used in this analysis to assess watershed conditions. The NRCS website is: <http://www.nv.nrcs.usda.gov>

A Final Multiple Use Decision (FMUD) was issued for the Duckcreek Basin Allotment on January 28, 1992. The Final Multiple Use Decision proposed no changes in livestock use, it recommended that the permit be maintained at 436 AUMs of permitted use with 150 AUMs allocated in the crested wheatgrass seeding and 286 AUMs in the native range. Season-of-use was established from April 1st to September 30th. A riparian fence was recommended for the East Creek Drainage to allow for recovery of the riparian vegetation and enhance streambank stabilization. A third year reevaluation summary was issued. The evaluation revealed the objectives for the Duckcreek Basin Allotment were not being met due to over utilization on key species by livestock along the lower section of East Creek. The recommendation was to construct the East Creek Riparian Exclosure Fence and establish a deferred rotation grazing system. The recommended deferred rotation grazing system was to be between the north and south units, in conjunction with the seeding. The season of use for the seeding was recommended from April 1st to May 1st through the 15th. The north and south pastures were recommended to be licensed separately with a season of use of May 1st to July 15th and July 16th to September 30th and rotated every other year. The grazing system was not fully implemented. In addition, the East Creek Riparian fence was recommended. The fence was constructed in 1994 and created a 175 acre pasture.

The affected environment for these allotments is described in the Ely District RMP/FEIS.

One key area and one study site have been established on the Gallagher Gap Allotment and four key areas have been established on the Duckcreek Basin Allotment. Establishment of key areas is based on accessibility and general use by livestock, vegetation and ecological range sites. The key areas for Gallagher Gap and Duckcreek Basin were monitored in 2007. Monitoring data was analyzed in this assessment. Native key forage species throughout Gallagher Gap and Duckcreek Basin Allotments include Indian ricegrass (*Achnatherum hymenoides*), needleandthread grass (*Hesperostipa comata*), bluebunch wheatgrass (*Pseudoroegneria spicata*) and winterfat (*Krascheninnikovia lanata*). There is one crested wheatgrass (*Agropyron cristatum*) seeding in the Duckcreek Basin Allotment. Data recently collected includes key forage plant utilization, use pattern mapping, cover, ecological condition and riparian functioning condition. A summary of the monitoring data for Duckcreek Basin and Gallagher Gap Allotments is located in Appendix I of this document.

PART 1. STANDARD CONFORMANCE REVIEW

Summary of Standards Achievement Statements by Allotment

ALLOTMENT	STANDARD 1 Upland Sites	STANDARD 2 Riparian and Wetland Sites	STANDARD 3 Habitat
Duckcreek Basin	Uplands: Not achieving the Standard	Riparian: Not achieving the Standard	Uplands: Not achieving the Standard
Gallagher Gap	Uplands: Not achieving the Standard	Riparian: N/A	Uplands: Not achieving the Standard

Duckcreek Basin

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 the potential of the site.

Determination:

- Meeting the Standard
- Not Meeting the Standard, but making significant progress towards
- Not Meeting the Standard, not making significant progress toward standard**

Causal Factors:

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

- Livestock are not a contributing factor to not meeting the standard
- Failure to meet the standard is related to other issues or conditions.**

Guidelines Conformance:

- In conformance with the Guidelines
- Not in conformance with the Guidelines**

Findings and Conclusion: *Standard Not Achieved.*

While significant progress towards achievement of the standard cannot be determined due to the lack of baseline data, it is the professional observation of the author that progress is being made towards achieving the standard. Rangeland monitoring and professional observation indicates that soil condition is currently being maintained for the majority of native range within the Duckcreek Basin Allotment. No areas have been identified as areas of immediate concern for erosion. There are no known or identified areas of soil rills, gullies, or surface water flow patterns. There are no known areas where plant species are pedestalled due to wind or water erosion and no areas have been identified that have been compacted heavily enough by grazing or other impacts that could restrict water infiltration and permeability rates. Soils are stable and productive and the topsoil is holding in place. While the percentages of the desired plant communities are not within the range desired for the potential natural community, the desired species are present, and vegetative plant communities have developed on many different soil types with several kinds of parent material.

The parent materials of the soils in Duckcreek Basin are primarily residuum and colluviums derived from limestone and dolomite and mixed alluvium. Other soil parent material on the allotment is residuum and colluvium derived from andesite, quartzite and conglomerate; residuum and colluvium derived from andesite and conglomerate; alluvium derived from limestone and dolomite; and alluvium from andesite. Minor soil parent material in the allotment includes mixed silty alluvium; alluvium derived from limestone and some loess high in ash content; residuum derived from andesite and conglomerate and some loess.

Line intercept data was collected on Duckcreek Basin Allotment at DB-03 in 2007, total cover (basal and crown) for the key area use was 15%. Approximate ground cover (basal and crown) is 20 to 30 percent as identified in the range site descriptions for range site 028BY094NV. In addition litter cover was 19% at the key area. The vegetative cover is lower than the ecological site description identifies however the soil is also protected by the litter at the site. Utilization levels on the vegetation were slight therefore current livestock levels are not contributing to the low cover. Lack of precipitation, drought conditions and changes in climate are probably contributing more to the present situation.

There is one seeding on the Duckcreek Basin Allotment. At the key area DB-1, the crested wheatgrass seeding, utilization was heavy, 74% in 2007. This may in part be attributed to a drought season where plant development was stunted. The site has long term soil stability as evidenced by the lack of known or identified areas of soil rills,

gullies, or surface water flow patterns. Additionally, there are no known areas where plant species are pedestalled due to wind or water erosion and no areas have been identified that have been compacted heavily enough by grazing or other impacts that could restrict water infiltration and permeability rates.

Duckcreek Basin has had heavy use on the seeding portion of the allotment; use on the remaining portion of the allotment is slight to moderate. Use pattern mapping in 2007 indicated approximately 1% of the allotment had heavy use and 3% had moderate use. The remainder was slight to light or not mapped. A riparian pasture and a rotation grazing system between the seeding and the native range was not fully implemented in the past.

Vegetation treatments should be considered to maintain the resiliency of the black sagebrush, mountain big sagebrush, mountain mahogany, antelope bitterbrush, Wyoming big sagebrush and woodland sites in the Duckcreek Basin Allotment on the benchlands and at higher elevations. This would help restore the appropriate cover and composition of understory grasses, forbs, shrubs, and small trees, and prevent crossing the advanced threshold leading to a closed canopy of pinyon and juniper trees or shrub dominated communities and the resulting loss to the soil resource. The closed canopy of trees could lead to catastrophic fire events which have been shown to result in invasive plant species spread and other negative impacts, however this is not a problem at this time.

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.

Determination:

Meeting the Standard

Not Meeting the Standard, but making significant progress towards

Not Meeting the Standard, not making significant progress toward standard

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.
- Livestock are not a contributing factor to not meeting the standard.**
- Failure to meet the standard is related to other issues or conditions.**

Guidelines Conformance:

- In conformance with the Guidelines**
- Not in conformance with the Guidelines

Findings and Conclusion: *Standard Not Achieved.*

Proper functioning condition ratings were conducted on East Creek of Duckcreek Basin Allotment in 2007. Three stretches were rated. A riparian pasture fence was previously constructed in 1994. The lower stretch was rated as Functional-At Risk with an upward trend. The lower stretch rated as Nonfunctional in 1993. The upper two portions of East Creek (within the fenced riparian pasture) were rated as proper functioning condition.

The springs located on Duckcreek Basin Allotment are located within the East Creek enclosure and are associated with the proper functioning condition rating described above. In addition, Paine Spring, located on public land, is fully developed and has been fenced.

Utilization was measured at two locations along East Creek. Lower East Creek had 26% use and middle East Creek had 5% use when measured in 2007.

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:

- Meeting the Standard
- Not Meeting the Standard, but making significant progress towards
- Not Meeting the Standard, not making significant progress toward standard**

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.**
- Livestock are not a contributing factor to not meeting the standard
- Failure to meet the standard is related to other issues or conditions**

Guidelines Conformance:

- In conformance with the Guidelines**
- Not in conformance with the Guidelines

Findings and Conclusion: *Standard Not Achieved.*

While significant progress towards achievement of the standard cannot be determined due to the lack of baseline data, it is the professional observation of the author that progress is being made towards achieving the standard.

The vegetation composition, structure and distribution within the watershed and allotment are diverse and include many different range sites. Baseline range surveys (cover and professional observation (including photographs) indicate a diverse habitat that is distributed in a mosaic across the landscape appropriately for the size and location of the allotment. The variety of plant communities present shows the vegetation distribution is appropriate for the size and location of the allotment and enhanced by the mid and high elevation rolling, broken topography of the land area. The drainage bottoms provide cover and escape cover corridors.

Duckcreek Basin Allotment vegetation (identified from soil and range site information) on public lands consist primarily of pinyon juniper communities (33%), black and low sagebrush communities (28%), mountain big sagebrush (10%) mahogany communities (8%), mountain big sagebrush/bitterbrush communities (7%), Wyoming sagebrush (6%), big sagebrush (3%), low sagebrush (2%) and basin big sagebrush (1%). Rock outcrops account for approximately 3% of the allotment.

Ecological condition was collected at key area DB-3 in 2007, a gravelly clay 10 – 12” p.z. and the present composition is 16% grasses, 20% forbs and 64% shrubs. The potential plant community composition is about 55% grasses, 10% forbs and 35% shrubs and trees. The site has 1/3rd grass composition and twice the forb and shrub composition described for the site. The small rabbitbrush component is 42% by weight on this site indicating previous disturbance.

Line intercept data was collected on Duckcreek Basin Allotment at DB-03 in 2007; total cover for the key area use was 15%. Approximate ground cover (basal and crown) is 20 to 30 percent as identified in the range site descriptions for range site 028BY094NV. The perennial cover is below the site description.

Litter cover was recorded at 19%. Soils are stable with no erosion or pedestalling, untrampled and cryptogammic crusts are present in the plant interspaces. Surface rock

fragments are abundant. No cheatgrass or halogeton was observed in the site.

Apparent trend is improving at the site.

Vegetation composition from the line intercept method showed 11.7% grasses, 13% forbs and 75.3% shrubs. Sagebrush at the site is not very tall with some mortality as indicated by some plant skeletons in the area. Alluvial fans are frequently sites of invasion of pinyon-juniper as noted in Duckcreek Basin at key area DB-3. Young pinyon and juniper (ranging in height from 5 inches to 36 inches) are growing throughout the site. This would indicate the site may be transitioning toward a pinyon-juniper community.

Numerous young trees occur in the bench area on the eastern portion of the allotment within Soil Map Unit (SMU) 413, young trees also occur in SMUs 1282, 760 and 750.

Composition and cover are not appropriate for the site. This is attributed to a combination of current grazing by livestock and wildlife and an increase in pinion and juniper trees.

There is concern that the black sagebrush and low sagebrush ecological sites are transitioning to areas of denser canopy cover of pinyon and juniper trees in the eastern portion of the Duckcreek Basin Allotment. Many of the understory shrubs, grasses, and forbs show increased plant mortality, decadence and an increase in tree canopy. The more favorable understory species are being out competed for water, light, and nutrients by the pinyon and juniper trees. These areas are losing resiliency and ecological function, in part due to lack of wildfire.

Invasive species and noxious weeds

Invasive annuals include halogeton (*Halogeton glomeratus*) and cheatgrass (*Bromus tectorum*), which occur sporadically throughout the Duckcreek Basin Allotment.

The following species are found within the boundary of Duckcreek Basin Allotment; musk thistle (*Carduus nutans*), spotted knapweed (*Centaurea stoebe*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), hoary cress (*Lepidium draba*) and salt cedar (*Tamarix spp.*). The following species are found along roads and drainages leading to the allotment Russian knapweed (*Acroptilon repens*), musk thistle (*Carduus nutans*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), spotted knapweed (*Centaurea stoebe*), hoary cress (*Lepidium draba*), tall whitetop (*Lepidium latifolium*), Scotch thistle (*Onopordum acanthium*), and salt cedar (*Tamarix spp.*).

Gallagher Gap Allotment

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 the potential of the site.

Determination:

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

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.
- X Livestock are not a contributing factor to not meeting the standard**
- X Failure to meet the standard is related to other issues or conditions.**

Guidelines Conformance:

- In conformance with the Guidelines
- X Not in conformance with the Guidelines**

Findings and Conclusion: *Standard Not Achieved.*

While significant progress towards achievement of the standard cannot be determined due to the lack of baseline data, it is the professional observation of the author that progress is being made towards achieving the standard.

Rangeland monitoring and professional observation indicates that soil condition is currently being maintained for the majority of native range within Gallagher Gap Allotment. No areas have been identified as areas of immediate concern for erosion. There are no known or identified areas with soil rills, gullies, or surface water flow patterns. There are no known areas where plant species are pedestalled due to wind or water erosion and no areas have been identified that have been compacted heavily enough by grazing or other impacts that could restrict water infiltration and permeability rates. Soils are generally stable and productive with topsoil in place. The vegetative plant communities have developed on many different soil types with several kinds of parent material.

The soil parent material for Gallagher Gap Allotment is primarily mixed alluvium and residuum and colluvium derived from limestone and dolomite. There is some residuum and colluvium derived from andesite and alluvium derived from limestone. A small portion of the soils are residuum derived from andesite, mixed alluvium derived from mixed rocks and some volcanic ash and residuum and colluviums derived from andesite and conglomerate.

Line intercept cover was collected at two locations on Gallagher Gap in 2007 and perennial ground cover is appropriate for both sites. Cover for key area GG-01 was 16 percent. The approximate ground cover (basal and crown) as identified in the range site descriptions for the range site (028BY084NV) is 10 to 20 percent. Total cover for key

area GG-01 was 50.44 percent of which 16 percent was perennial vegetation, 15 percent was cheatgrass and 20 percent consisted of litter.

At study site GGSS-1 cover was measured at 21 percent. Approximate ground cover (basal and crown) as identified in the range site descriptions for the range site (028BY089NV) is 15 to 25 percent. The total cover was 66 percent which consisted of 21 percent perennial vegetation, 4 percent cheatgrass and 41 percent litter. .

The Gallagher Gap Allotment has been in nonuse by livestock since 2004. Use has primarily been made by wildlife (elk, antelope and rabbits).

Management practices (prescribed fire, mechanical manipulations, and prescription herbivory or chemical treatments) should be considered to maintain the resiliency of the black sagebrush, salt desert shrub and winterfat sites in areas where cheatgrass is present within the Gallagher Gap Allotment.

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.

Determination:

- Meeting the Standard
- Not Meeting the Standard, but making significant progress towards
- Not Meeting the Standard, not making significant progress toward standard

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.
- Livestock are not a contributing factor to not meeting the standard.
- Failure to meet the standard is related to other issues or conditions.

Guidelines Conformance:

- In conformance with the Guidelines
- Not in conformance with the Guidelines

Findings and Conclusion: *Standard Not Applicable.*

Gallagher Gap has no spring riparian areas on public lands.

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:

- Meeting the Standard
- Not Meeting the Standard, but making significant progress towards
- Not Meeting the Standard, not making significant progress toward standard**

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.
- Livestock are not a contributing factor to not meeting the standard**
- Failure to meet the standard is related to other issues or conditions**

Guidelines Conformance:

- In conformance with the Guidelines**
- Not in conformance with the Guidelines

Findings and Conclusion: *Standard Not Achieved.*

While significant progress towards achievement of the standard cannot be determined due to the lack of baseline data, it is the professional observation of the author that progress is being made towards achieving the standard.

The vegetation composition, structure and distribution within the watershed and allotment are diverse and include many different range sites. Baseline range surveys (cover, key forage plant utilization and professional observation (including photographs))

all indicate a diverse habitat that is distributed in a mosaic across the landscape appropriately for the size and location of the allotments. The variety of plant communities present shows the vegetation distribution indicator to be appropriate for the size and location of the allotment and enhanced by the mid elevation rolling, broken topography of the land area. The drainage bottoms provide cover and escape cover corridors.

Gallagher Gap Allotment vegetation (identified from soil and range site information) on public lands consists primarily of black sagebrush (29%), shadscale (25%), pinyon-juniper communities (16%), winterfat (13%), mountain mahogany (9%), Wyoming big sagebrush (3%) and fourwing saltbush (1%). Rock outcrops account for approximately 3% of the allotment.

Line intercept cover data was collected at two locations on Gallagher Gap in 2007. Cover for key area GG-01 was 16 percent. The approximate ground cover (basal and crown) for the range site (028BY084NV) is 10 to 20 percent. Total cover for key area GG-01 was 50 percent of which 16 percent was perennial vegetation, 15 percent was cheatgrass and 20 percent consisted of litter.

The perennial composition using the line intercept method is 91 percent shrub (winterfat) and 9 percent grass (Indian ricegrass). Overall the site contains 48 percent cheatgrass 5 percent perennial grasses and 47% shrubs. Field observations indicate the winterfat present is vigorous and the Indian ricegrass is in good condition. Grazing is primarily by wildlife (elk, antelope and rabbits). The site has lower grass and forb composition and shrub composition is higher than described for the site.

Line intercept cover data was collected at Gallagher Gap study site GGSS-1 which occurs on a shallow clay loam 10 – 12 p. z. 028BY089NV. Approximate ground cover (basal and crown) as identified in the range site descriptions for the range site, 028BY089NV, is 15 to 25 percent. The ground cover at the site is 21 and appropriate for the site description. At study site GGSS-1 total cover was 66 percent which consisted of 21 percent perennial vegetation, 4 percent cheatgrass and 41 percent litter.

Potential vegetative composition range site 028BY089NV at study site GGSS-1 is about 50% grasses, 5% forbs and 45% shrubs and trees. Overall the site contains 16 percent cheatgrass. The perennial vegetative composition using the line intercept method is 98 percent shrub and 2 percent grass. Grass composition is 1/25th and shrub composition is twice that described for the site.

Although the majority of the allotment exhibits diverse mix of plant communities, undesirable species are also present. Cheatgrass in Gallagher Gap Allotment in the winterfat and black sagebrush communities is a concern. The nutritional value of cheatgrass diminishes rapidly as cheatgrass cures.

The sagebrush areas have been affected by drought, and lack of wildfire. The value of these areas for watershed and as habitat for wildlife and livestock is declining and these

areas should continue to be monitored when livestock grazing resumes. Vegetation treatments should be considered that restore range resiliency and health for these areas.

Invasive species and noxious weeds

Invasive annuals include halogeton (*Halogeton glomeratus*) and cheatgrass (*Bromus tectorum*), which occur sporadically throughout the Gallagher Gap Allotment. There are high concentrations of cheatgrass in areas of Gallagher Gap.

The following species are found within the boundary Gallagher Gap Allotment; musk thistle (*Carduus nutans*), spotted knapweed (*Centaurea stoebe*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), hoary cress (*Lepidium draba*) and salt cedar (*Tamarix spp.*). The following species are found along roads and drainages leading to the allotment; Russian knapweed (*Acroptilon repens*), musk thistle (*Carduus nutans*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), spotted knapweed (*Centaurea stoebe*), hoary cress (*Lepidium draba*), tall whitetop (*Lepidium latifolium*), Scotch thistle (*Onopordum acanthium*), and salt cedar (*Tamarix spp.*).

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

Duckcreek Basin

Standard #1: UPLAND SITES

Yes. Livestock are a contributing factor to not meeting the upland site standard.

Utilization levels were exceeded on the seeding in Duckcreek Basin. The causal factors include livestock and wildlife. Lower production due to droughty conditions occurred during the evaluation period.

Duckcreek Basin has had heavy use on the seeding portion of the allotment; use on the remaining portion of the allotment is slight to moderate. A riparian pasture and a rotation grazing system between the seeding and the native range were proposed in the past but not fully implemented.

Existing grazing management and levels of grazing use within the Duckcreek Basin are not causal factors in failing to achieve the standard in those black and low sagebrush, mountain big sagebrush, mahogany, mountain big sagebrush/bitterbrush, Wyoming sagebrush communities and woodland communities that are areas of concern. Causal factors in these areas are considered to be drought, fire suppression.

Standard #2: RIPARIAN AND WETLAND SITES

NO. Livestock are not contributing factor to not meeting the riparian and wetland site standard.

Existing grazing management and levels of grazing are not a causal factor on the Duckcreek Basin Allotment. East Creek and the associated springs were fenced and developed into a riparian pasture. Paine Spring has been fenced.

Past livestock use is a causal factor for the present areas of concern where head cutting had occurred.

Standard #3: HABITAT

No. Livestock are not a contributing factor to not meeting the habitat site standard.

There is concern in black sagebrush and low sagebrush ecological sites that are transitioning to areas of denser canopy cover of pinyon and juniper trees in the eastern portion of the Duckcreek Basin Allotment. Alluvial fans are frequently sites of invasion of pinyon-juniper as noted in Duckcreek Basin at key area DB-3. Many of the understory shrubs, grasses, and forbs show increased plant mortality, decadence and increase in tree canopy. The more favorable understory species are being out competed for water, light, and nutrients by the pinyon and juniper trees. These areas are losing resiliency and ecological function, in part due to lack of wildfire.

Gallagher Gap

Standard #1: UPLAND SITES

No. Livestock are not a contributing factor to not meeting the upland site standard.

Gallagher Gap has been in nonuse since 2004. Existing grazing management and levels of grazing use within the Gallagher Gap Allotment are not causal factors in failing to achieve the standard in those black and Wyoming sagebrush communities that are areas of concern. Causal factors in these areas are considered to be drought, fire suppression.

Standard #2: RIPARIAN AND WETLAND SITES

No. Livestock are not contributing factor to not meeting the riparian and wetland site standard.

There are no spring riparian areas on public lands in the Gallagher Gap Allotment.

Standard #3: HABITAT

No. Livestock are not a contributing factor to not meeting the habitat site standard.

Gallagher Gap has been in nonuse since 2004.

Although the majority of the allotment exhibits diverse mix of plant communities, undesirable species are also present. Cheatgrass in Gallagher Gap Allotment in the winterfat and black sagebrush communities is a concern. The nutritional value of cheatgrass diminishes rapidly as cheatgrass cures.

The sagebrush areas have been affected by drought, and lack of wildfire. The value of these areas for watershed and as habitat for wildlife and livestock is declining and these areas should continue to be monitored when livestock grazing resumes.

PART 3. GUIDELINE CONFORMANCE REVIEW

Duckcreek Basin

The assessment found current management is not in conformance with Guidelines 1.1 and 1.3. Guideline 1.2 is not applicable to the assessment area.

The assessment found current management to be in conformance with Guidelines 2.1, 2.3 and 2.4. Guideline 2.2 is not applicable to the assessment area.

The assessment found current management is not in conformance with Guidelines 3.1, 3.2, 3.3, and 3.6. Guidelines 3.4 and 3.5 are not applicable to the assessment area.

Gallagher Gap

The assessment found current management to be in conformance with Guidelines 1.1 and 1.3. Guideline 1.2 is not applicable to the assessment area.

Guidelines 2.1, 2.2, 2.3 and 2.4 are not applicable to the assessment area.

The assessment found current management to be in conformance with Guidelines 3.1, 3.2, 3.3, and 3.6. Guidelines 3.4 and 3.5 are not applicable to the assessment area.

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

Vegetation treatments should be considered to maintain the resiliency of the black sagebrush, mountain big sagebrush, mountain mahogany, antelope bitterbrush, Wyoming big sagebrush and woodland sites in the Duckcreek Basin Allotment on the benchlands and at higher elevations. This would help restore the appropriate cover and composition

of understory grasses, forbs, shrubs, and small trees, and prevent crossing the advanced threshold leading to a closed canopy of pinyon and juniper trees or shrub dominated communities and the resulting loss to the soil resource. The closed canopy of trees could lead to catastrophic fire events which have been shown to result in invasive plant species spread and other negative impacts, however this is not a problem at this time.

Vegetation treatments should be considered to remove juniper trees and big rabbitbrush and to maintain the riparian area in the East Creek riparian pasture.

Management practices (prescribed fire, mechanical manipulations, prescription herbivory or chemical treatments) should be considered to maintain the resiliency of the black sagebrush, salt desert shrub and winterfat sites in areas where there is a cheatgrass component within the Gallagher Gap Allotment.

There are additional terms and conditions needed for management practices to conform with guidelines and achieve standards. The current terms and conditions of the term grazing permit would be changed. A rotation grazing system would be implemented between the seeding and native pasture. Allowable Use Levels have been quantified and added into the terms and conditions to assist in the achievement of the standards and guidelines and land use plan objectives. Allowable use levels for the crested wheatgrass seeding during April and May would be 40% and during June through August would be 50%.

Current Grazing Practices

The season of use on the Duckcreek Basin Allotment is from 04/01 to 09/30. Permitted use is 436 AUMs. Permitted use for the crested wheatgrass pasture is 150 AUMs and permitted use on the native is 286 AUMs. Use on the Duckcreek Basin Allotment has ranged from 191 AUMs to 436 AUMs. A grazing system has not been established. Permitted use in the East Creek Riparian Pasture has ranged from 7 days to 34 days and from 17 AUMs to 84 AUMs. Generally livestock use begins in the seeding and then livestock are turned into the native range.

Redistribution of livestock from the seeding to the native range through a rotation grazing system, herding and salt or mineral placement could improve utilization levels and assist in meeting the standard.

Recommended Grazing Practices

The season of use would remain 04/01 to 09/30. Permitted use would remain at 436 AUMs. 111 AUM's would be placed in voluntary nonuse for the conservation and protection of natural resources until adequate water facilities (water hauling, pipeline etc.) are provided in the northern portion of the native range. 150 AUMs are available in the seeding and 175 AUMs are available in the southern portion of the native range and the riparian pasture.

When adequate water is provided in the northern portion of the native use area (i.e. water hauling, pipeline(s) or well etc.) and vegetative treatments are implemented a three-

pasture deferred rotation grazing system would be established for the Duckcreek Basin Allotment. The three pastures are the Laucirica Seeding, the North Native Pasture, and the South Native Pasture. The system would provide spring or early summer growing season rest for each pasture two out of three years. The grazing schedule for the three pastures in the Duck Creek Basin Allotment is shown in Table 3.

Table 3. Grazing Schedule for the Duckcreek Basin Allotment:

	Laucirica Seeding	North Native	South Native
Year 1	04/01 to 05/31	06/01 to 07/31	08/01 to 09/30
Year 2	08/01 to 09/30	04/01 to 05/31	06/01 to 07/31
Year 3	06/01 to 07/31	08/01 to 09/30	04/01 to 05/31

Use of the East Creek Riparian Pasture would be for 14 days (33 AUMs) at the beginning of the use period or until utilization or management objectives are met. This would allow the vegetation to fully recover through the summer and fall and provide stream bank stabilization during the monsoon season and in case of a heavy spring event.

In the interim a two-pasture deferred rotation grazing system would be established for the Duckcreek Basin Allotment. The two pastures are the Laucirica Seeding and the Native Pasture. The system would provide spring and early summer growing season rest for one pasture every other year. This would allow plants to reach seed ripe or seed dissemination prior to grazing. The periods of use would be established as June 1st to July 31th and August 1st to September 30th. The grazing schedule for the two pastures in the Duck Creek Basin Allotment is shown in Table 2.

Table 2. Grazing Schedule for the Duckcreek Basin Allotment:

	Laucirica Seeding	Native	AUMs
Year 1	06/01 to 07/31	08/01 to 09/30	150
Year 2	08/01 to 09/30	06/01 to 07/31	142

Use of the East Creek Riparian Pasture would be for 14 days (33 AUMs) at the beginning of the use period or until utilization or management objectives are met. This would allow the vegetation to fully recover through the summer and fall and provide stream bank stabilization during the monsoon season and in case of a heavy spring event.

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.

Deviations in livestock movement will require authorization from the authorized officer.

Terms and Conditions common to all allotments:

1. Livestock numbers identified in the term grazing permit are a function of seasons of use and permitted use for each allotment. Deviations from those livestock numbers and

seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the above allotment(s).

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.
3. 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 for 30 days or until notified to proceed by the authorized officer.
4. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.
5. 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 \$25.00 or 10 percent of the grazing bill, whichever is greater, not to exceed \$250.00. 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.
6. Grazing use in will be in accordance with the Northern Great Basin Area Standards and Guidelines for Grazing Administration, as developed by the resource Advisory Council (RAC) and approved by the Secretary of the Interior on February 12, 1997. Grazing use will also be in accordance with 43 CFR sub-part 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.

Best Management Practices (BMPs) incorporated into the Terms and Conditions

BMPs applicable to the proposed action as described in the RMP (August 2008), Appendix A.

Livestock Grazing

Based on allotment situations and circumstances associated with livestock grazing and multiple use management, implement any or all of the following appropriate management practices on winterfat dominated ecological sites.

- Place salt and supplements at least 0.5 mile away from winterfat dominated sites. Base placement on site-specific assessment and characteristics such as riparian, topography, cultural, special status species, etc.

Fish and Wildlife

- Install wildlife escape ramps in all watering troughs, including temporary water haul facilities, and open storage tanks.
- Pipe the overflow away from the last water trough on an open system to provide water at ground level.

Special Status Species

- Develop grazing systems to minimize conflicts with special status species habitat.

Salt and mineral supplements:

- Base placement of salt and mineral supplements on site-specific assessment.
- Normally place salt and mineral supplements at least 0.5 mile away from riparian areas, sensitive sites, populations of special status plant species, cultural resource sites.
- Place salt at least 0.5 mile from any water source including troughs.
- Place salt and mineral supplements at least 1 mile from sage grouse leks.
- Place water haul sites at least 0.5 mile away from riparian areas, cultural sites, and special status species locations.

Invasive, Non-Native Species and Noxious Weeds

A Weed Risk Assessment (See Appendix III) was completed on October 16, 2008. The stipulations listed in the Weed Risk Assessment will be followed when grazing occurs on the allotments.

Measures (mitigation) identified in the Weed Risk Assessment will be brought forward into the terms and conditions:

- 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 District 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.

Current livestock management practices have evolved from the final multiple use decision and agreements on the Duckcreek Basin Allotment and incorporate the Ely District RMP/FEIS resource program best management practices.

The livestock management practices identified above will continue to assist in the maintenance and/or improvement of the native range. These management practices help to achieve the 50% allowable use level on native range and 40% on the crested wheatgrass seeding during April and May and 50% during June through September allowable use levels, proper cover and ecological condition of the native range.

Prepared by:

_____	_____	_____
RMS	Title	Date

_____	_____	_____
Lead RMS	Title	Date

Other Resource Specialists

_____	_____
Kyle Hansen Supervisory Resource Management Specialist	Date
_____	_____

Bonnie Million
Noxious and invasive non-native species

Date

Shawn Gibson
Cultural resources

Date

Paul Podborny
Wildlife/migratory birds/special status animals/plants

Date

Dave Jacobson
Wilderness Values/ACEC/Special designations

Date

Kalem Lenard
VRM/recreation

Date

Mark D'Aversa
Soil/water/air/floodplains/riparian/wetlands

Date

Elvis Wall
Native American religious concerns

Date

Zach Peterson
Forestry/environmental coordination

Date

Gary Medlyn
Watershed assessment

Date

Craig Hoover
Range Management Specialist

Date

I concur:

Authorized Officer

Date

REFERENCES

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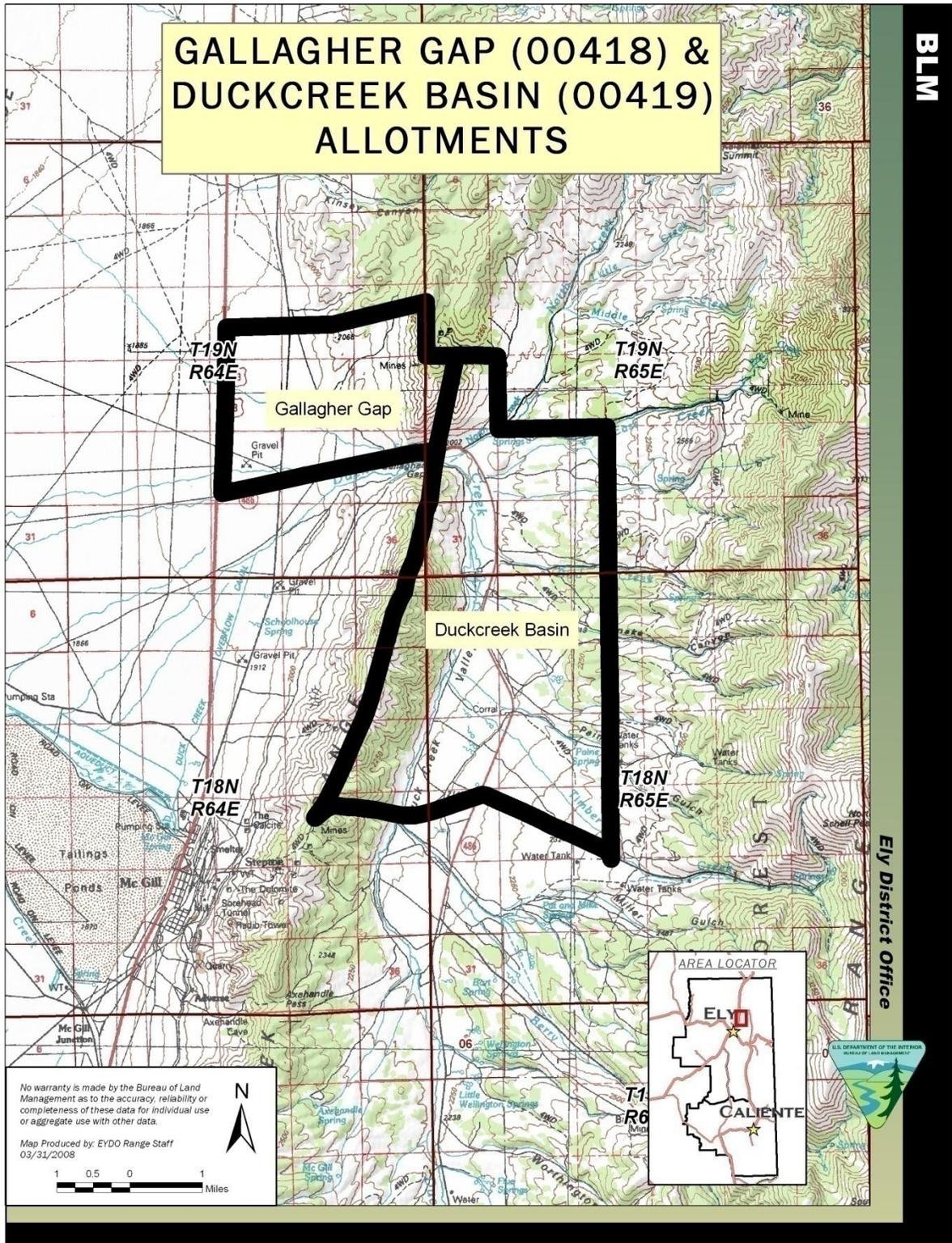
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USDA – NRCS. 2003. Major Land Resource Area 28B, Central Nevada Basin and Range Nevada Ecological Site Descriptions.

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Figure 1 General Location Map for Duckcreek Basin and Gallagher Gap Allotments



Appendix I

Monitoring Data Analysis - Duckcreek Basin and Gallagher Gap Allotments

Licensed Livestock Use

Table 1. Use in AUMs by Allotment by Year

Allotment	Kind	2000	2001	2002	2003	2004	2005	2006	2007	2008
Duckcreek Basin	Cattle	436	436	435	189	370	474	429	191	303
Gallagher Gap	Cattle	168	168	168	167	Non use				

Wild Horse Use

Duckcreek Basin and Gallagher Gap Allotments are not within a Herd Management Area (HMA).

Utilization

Key Forage Plant Method

Utilization transects conducted in 2007 and 2008 using the key forage plant method ranged. Use levels for the vast majority of the Gallagher Gap allotment as measured at the key sites by the key forage plant utilization method were appropriate during the evaluation period and were slight to low moderate. Key Area GG-01 had a measured utilization of 15% on winterfat and 15% on Indian ricegrass in 2007. The key area had a measured utilization of 34% on winterfat and 34% bluegrass in 2008. Areas of heavy cheatgrass and litter were noted and young sagebrush and rabbitbrush plants were noted on the site. Study site GGSS-1 had 11% use on Indian ricegrass and 5% on needleandthread grass. In 2008 utilization was measured approximately 500 feet northeast of the study site and was 40 percent on needleandthread grass. Use was attributed to elk. Biotic crusts were noted along with bud sagebrush, globemallow, winterfat and Indian ricegrass. Young rabbitbrush and winterfat plants were noted in the area.

Utilization on Duckcreek Basin Allotment was collected at three locations along East Creek in 2007. Utilization on lower East Creek was 26 percent. Utilization at the upper East Creek cage was 29% with elk sign noted. Utilization in middle East Creek was 5%. Utilization in Duckcreek Basin at DB-03 was 4% on Indian ricegrass (ACHY) and 2% on bluebunch wheatgrass (PSSP) in 2007. Utilization at DB-1 was 74% on crested wheatgrass (AGCR) in 2007. Field notes indicated that sagebrush was encroaching on

the seeding and there were native grasses and forbs in the seeding in addition to some junipers. Utilization in the seeding in 2008 appeared to be heavy.

Use Pattern Mapping

Use pattern mapping was collected in 2007 for Duckcreek Basin Allotment. One area of heavy use was noted in a portion of the crested wheatgrass seeding. The native portion of the allotment was primarily slight to light use with some moderate use. Heavy use was observed in 2008 on the crested wheatgrass seeding.

Riparian

Proper functioning condition ratings on East Creek of Duckcreek Basin in 2007. Three stretches were rated. The lower stretch was rated as Functional-At Risk with an upward trend, the primary concern is head cutting the sinuosity, width/depth ratio, and gradient are not in balance with the landscape setting (i.e., landform, geology, and bioclimatic region) in addition the system is not vertically stable. There is a good diversity of plants. Utilization by livestock and wildlife and noted on the form as looking good with an upward trend. Juniper trees and rabbitbrush were identified as needing removal. There is musk thistle and Canada thistle present. The upper two portions of East Creek were rated as proper functioning condition and upland watershed was contributing to riparian-wetland degradation in the upper stretch due to unstable banks with bare ground. Throughout the reaches indicate the riparian wetland area is widening or has achieved potential extent. There is a diverse age-class distribution of riparian vegetation. There is a diverse composition of riparian-wetland vegetation. Species present indicate maintenance of riparian-wetland soil moisture characteristics. Riparian-wetland plants exhibit high vigor. There is adequate riparian-wetland vegetative cover to protect banks and dissipate energy during high flows. Floodplain and channel characteristics are adequate to dissipate energy. Lateral stream movement is associated with natural sinuosity. The stream is in balance with the water and sediment being supplied by the watershed.

Utilization was measured at two locations along East Creek, lower East Creek had 26% use and middle East Creek had 5% use.

Proper functioning condition ratings were conducted on East Creek in 1993. The upper reach was rated as proper functioning condition. The lower reach was rated as nonfunctional. The floodplain was not inundated in “relatively” frequent events (1-3) years. Sinuosity, width/depth ratio, and gradient were not in balance with the landscape setting and the riparian zone was not widening. There was not a diverse age structure or composition of vegetation. Species present did not indicate maintenance of riparian soil moisture characteristics. Streambank vegetation did not comprise those plants or plant communities that have root masses capable of withstanding high streamflow events. Riparian plants did not exhibit high vigor. There was not adequate vegetative cover present to protect banks and dissipate energy during high flows. The plant communities in the riparian area were not an adequate source of coarse and/or large woody debris.

Floodplain and channel characteristics were not adequate to dissipate energy. Point bars were not revegetating and the system was not vertically stable. The stream was not in balance with the water and sediment being supplied by the watershed.

Gallagher Gap has no spring riparian areas on public lands.

Ecological Condition

Ecological condition was collected at key area DB-3 in 2007, a calcareous loam 10 – 14” p.z. 028BY094NV potential vegetative composition is about 60% grasses, 5% forbs 35% shrubs. Approximate ground cover (basal and crown) is 20 to 30 percent. The present composition is 16% grasses, 20% forbs and 64% shrubs. The site is mid seral at 42%. The site has lower grass composition and forb and shrub composition is higher. Numerous young trees were noted in the area.

Cover

Line intercept cover was collected on Gallagher Gap and Duckcreek Basin in 2007. Cover basal and ground meets or exceeds the cover identified for specific range sites in the Major Land Resource Area 28B, Central Nevada Basin and Range Nevada Ecological Site Descriptions for the Gallagher Gap Allotment. Cover is less than the cover identified in the range site descriptions for Duckcreek Basin Allotment.

Gallagher Gap key area GG-01 occurs on a coarse silty 6-8” p.z. 028BY084NV range site. The plant community is dominated by winterfat and Indian ricegrass. The potential vegetative composition is about 55% grasses, 10% forbs and 35% shrubs. The approximate ground cover (basal and crown) is 10 to 20 percent. Both sites meet or exceed the ground cover.

Total cover for key area GG-01 was 50.44 percent of which 15.52 percent was perennial vegetation, 14.69 percent was cheatgrass and 20.23 percent consisted of litter. The perennial ground cover is appropriate for the site. The perennial composition using the line intercept method is 91 percent shrub and 9 percent grass. The shrub component 2.6 times the site description the grass composition is 1/6th the site description. Overall the site contains 48 percent cheatgrass. Field observations indicate the winterfat present is vigorous and the Indian ricegrass is in good condition. Grazing is primarily by wildlife (elk, antelope and rabbits).

Gallagher Gap study site GGSS-1 occurs on a shallow clay loam 10 – 12 p. z. 028BY089NV, the plant community is dominated by black sagebrush, Indian ricegrass and Thurber needlegrass. Potential vegetative composition is about 50% grasses, 5% forbs and 45% shrubs and trees. Overall the site contains 16 percent cheatgrass. The perennial composition using the line intercept method is 98 percent shrub and 2 percent grass. Approximate ground cover (basal and crown) is 15 to 25 percent. The ground cover at the site is 20.57 and appropriate for the site description. At study site GGSS-1 total cover was 65.7 percent which consisted of 20.57 percent perennial vegetation, 3.98

percent cheatgrass and 41.15 percent litter.

Line intercept data was collected on Duckcreek Basin Allotment at DB-03 in 2007, total cover for the key area use was 14.91% litter cover was 19.42%. Approximate ground cover (basal and crown) is 20 to 30 percent for range site 028BY094NV. The perennial cover is five percent below the site description. Vegetation composition from the line intercept method showed 11.7% grasses, 13% forbs and 75.3% shrubs. Soils are stable with no erosion or pedistalling, untrampled and cryptogammic crusts are present in the plant interspaces. No cheatgrass or halogeton was observed in the site. Sagebrush at the site is not very tall and is dying out with some plant skeletons in the area. Young pinyon and juniper (ranging in height from 5 inches to 36 inches) are growing throughout the site. Field observations and notes indicated the standard is being met.

Precipitation Data

Data from the National Oceanic and Atmospheric Administration (NOAA) recording Station at Yelland Air Field in Ely, Nevada is being used for this assessment. The average annual precipitation from 1971 to 2000 is 9.87 inches. Precipitation data can be used to calculate a yield index for each year (Sneva et al. 1983). In calculating the yield index, the first step is to calculate the crop yield (effective precipitation). For the Intermountain Big Sagebrush Region this includes precipitation from September through June.

Precipitation data was used in the formulation of a yield index in the calculation of a long term stocking rate. The first step was to calculate the crop yield, the effective annual precipitation for plant growth occurring between September and June of each year. The crop yield for each year was arrayed to determine the averaged median long term crop yield. The average crop yield for the Yelland Air Field reporting station was 8.46 inches. The individual yearly crop yields during the evaluation period were then divided by the long term average crop yield to determine a precipitation index for each year. The yield index was then determined from the precipitation index by using the linear regression equation $\hat{Y} = -23 + 1.23X$, where \hat{Y} represents the yield index and x represents the precipitation index. ^{1/} Table 2 shows the precipitation and yield indices for the Yelland Air Field data.

^{1/} Sneva, Forest, C. M. Britton. August 1983. Adjusting and forecasting herbage yields in the Intermountain Big Sagebrush Region of the Steppe Province. Agricultural Experimental Station, Oregon State University, Corvallis. Station Bulletin 659, Page 61.

YEAR	CROP YIELD	PRECIPITATION INDEX	YIELD INDEX
1995	12.77	151	163
1996	5.59	66	58
1997	7.84	93	91

YEAR	CROP YIELD	PRECIPITATION INDEX	YIELD INDEX
1998	10.37	123	128
1999	7.07	84	80
2000	6.70	79	74
2001	5.15	61	52
2002	4.41	52	41
2003	6.89	81	77
2004	5.43	64	56
2005	12.2	144	154
2006	8.32	98	98
2007	5.62	66	59
2008	5.46	65	57

A Final Multiple Use Decision was issued January 28, 1992 for the Duckcreek Basin Allotment. The season of use was established from April 1st to September 30th. The decision recommended that the existing cattle permit be maintained at is 436 AUMs of active permitted use with 150 AUMs allocated in the crested wheatgrass seeding and 286 AUMs in the native range. A riparian exclosure fence was constructed along the East Creek drainage to allow for recovery of the riparian vegetation and enhance streambank stabilization. A division fence was constructed dividing the native range into two pastures.

A three year re-evaluation summary was also completed for the allotment. The three year re-evaluation recommended a deferred rotation grazing system between the north and south pastures in conjunction with the crested wheatgrass seeding. The permittee was encouraged to use the seeding for early spring grazing (April-May) and delay turn-out on the native range until May 1 to May 15. The recommendation was to license the north and south pastures separately with a season of use of May 1 to July 15 and July 16 to September 30 on a rotating basis every other year. The grazing system was not fully implemented.

Guidelines for Nevada’s Northeastern Great Basin Area

GUIDELINES;

1.1 Management practices will maintain or promote upland vegetation and other organisms and provide for infiltration and permeability rates, soil moisture storage, and soil stability appropriate to the ecological site within management units.

1.2 When grazing practices alone are not likely to restore areas of low infiltration or permeability, land management treatments should be designed and implemented where appropriate.

1.3 Management practices are adequate when significant progress is being made toward this Standard.

2.1 Management practices will maintain or promote sufficient vegetation cover, large wood debris, or rock to achieve proper functioning condition in riparian and wetland areas. Supporting the process of energy dissipation, sediment capture, groundwater recharge, and stream bank stability will thus promote stream channel morphology (e.g., width/depth ratio, channel roughness, and sinuosity) appropriate to climate, landform, gradient, and erosional history.

2.2 Where grazing management practices are not likely to restore riparian and wetland sites, land management treatments should be designed and implemented where appropriate to the site.

2.3 Management practices are adequate when significant progress is being made toward this Standard.

2.4 Grazing management practices will maintain, restore or enhance water quality and ensure the attainment of water quality that meets or exceeds state standards.

3.1 Management practices will promote the conservation, restoration, and maintenance of habitat for threatened and endangered species, and other special status species as may be appropriate.

3.2 Intensity, frequency, season of use and distribution of grazing use should provide for growth and reproduction of those plant species needed to reach long-term land use plan objectives. Measurements of ecological condition and trend/utilization will be in accordance with techniques identified in the Nevada Rangeland Monitoring Handbook.

3.3 Grazing management practices should be planned and implemented to allow for integrated use by domestic livestock, wildlife, and wild horses consistent with land use plan objectives.

3.4 Where grazing practices alone are not likely to achieve habitat objectives, land treatments may be designed and implemented as appropriate.

3.5 When native plant species adapted to the site are available in sufficient quantities, and it is economically and biologically feasible to establish or increase them to meet management objectives, they will be emphasized over non-native species.

3.6 Management practices are adequate when significant progress is being made toward this Standard.

Appendix 2

TERMS AND CONDITIONS

Allotment Number/ Name	Livestock Number/ Kind	Grazing Period		% PL*	Type Use	AUMs**	Permitted Use		
		Begin	End				Permitted use	Historic Suspended	Total
00418 Gallagher Gap	52 Cattle	11/01	02/28	100	Active	166	169	139	308
00419 Duckcreek Basin	72 Cattle	04/01	9/30	100	Active	433	436	0	436

* % PL is the percent of public land for billing purposes.

** AUMs may differ from Active Use due to a rounding difference with the number of livestock and the period of use.

In accordance with 43 CFR 4130.3-2, the following terms and conditions will be included in the grazing permit for Pescio Brothers.

Active use within the Duckcreek Basin Allotment crested wheatgrass pasture is 150 AUMs.

Active use on the Duckcreek Basin Allotment native range is 286 AUMs.

Saltblocks will be placed at least ½ mile from water sources to enhance proper distribution and utilization.

Gallagher Gap #00418: Grazing use will be in accordance with the Northeastern Great Basin Area Standards and Guidelines.

Duckcreek Basin #00419: Grazing use will be in accordance with the Northeastern Great Basin Area Standards and Guidelines

The aforementioned Great Basin Area Standards and Guidelines for grazing administration were developed by the respective Resource Advisory Council and were approved by the Secretary of the Interior on February 12, 1997.

Maximum allowable use level has been established at 50% on key species at the key areas within the Gallagher Gap and Duckcreek Basin Allotments. Allowable use levels for the crested wheatgrass seeding have been established at 40% during April and May and 50% during June through September.

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.

Place salt and supplements at least 0.5 mile away from winterfat dominated sites. Base placement on site-specific assessment and characteristics such as riparian, topography, cultural, special status species, etc.

Place salt at least 0.5 mile from any water source including troughs.

Place salt and mineral supplements at least 1 mile from sage grouse leks.

Measures (mitigation) identified in the Weed Risk Assessment will be brought forward into the terms and conditions:

- 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.
- 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. Any newly established populations of noxious/invasive weeds discovered will be communicated to the Ely District Noxious and Invasive Weeds Coordinator for treatment.

Terms and Conditions common to all allotments:

Grazing use will also be in accordance with 43 CFR subpart 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for grazing administration.

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

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.

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

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.

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.

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.

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

Noxious & Invasive Weed Risk Assessment

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Term Grazing Permit Renewal for Pescio Brothers

Gallagher Gap & Duck Creek Basin Allotments

White Pine County, Nevada

On October 16th, 2008 a Noxious & Invasive Weed Risk Assessment was completed for the term grazing permit renewal for the Pescio Brothers on the Gallagher Gap and Duck Creek Basin allotments in White Pine County, NV. The current permit allows up to 42 cattle to graze on the Gallagher Gap Allotment from November 1st to February 28th for 169 AUMs permitted use and 139 AUMs historic suspended with a total permitted use of 308 AUMs. The current permit also allows up to 72 cattle to graze on the Duckcreek Basin Allotment from April 1st to September 30th for 436 AUMs permitted use and 0 AUMs historic suspended with a total permitted use of 436 AUMs. Based on a Standards Determination Document the term grazing permit could be for 10 years.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. The following species is found within the boundaries of the Gallagher Gap allotment:

<i>Carduus nutans</i>	Musk thistle
<i>Centaurea stoebe</i>	Spotted knapweed
<i>Cirsium arvense</i>	Canada thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Lepidium draba</i>	Hoary cress
<i>Tamarix spp.</i>	Salt cedar

The following species is found within the boundaries of the Duck Creek Basin allotment:

<i>Carduus nutans</i>	Musk thistle
<i>Centaurea stoebe</i>	Spotted knapweed
<i>Cirsium arvense</i>	Canada thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Lepidium draba</i>	Hoary cress
<i>Tamarix spp.</i>	Salt cedar

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

<i>Acroptilon repens</i>	Russian knapweed
<i>Carduus nutans</i>	Musk thistle
<i>Cirsium arvense</i>	Canada thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Centaurea stoebe</i>	Spotted knapweed
<i>Lepidium draba</i>	Hoary cress
<i>Lepidium latifolium</i>	Tall whitetop

Onopordum acanthium Scotch thistle
Tamarix spp. Salt cedar

Both allotments were last inventoried for noxious weeds in 2004. 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*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

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

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

For this project, the factor rates as Moderate (4) at the present time. The proposed action could increase the populations of the noxious and invasive weeds already within the allotment and could aid in the introduction of weeds from surrounding areas. Within the allotment, watering and salt block sites are of particular concern of new weed infestations due to the concentration of livestock around those sites and the amount of ground disturbance associated with that.

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

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

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

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

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

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

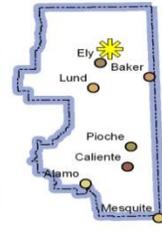
- Prior to entering public lands, the BLM will provide information regarding noxious weed management and identification to the permit holders affiliated with the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will 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: _____
 Bonnie M. Million
 Ely District Noxious & Invasive Weeds Coordinator

10/16/2008
 Date

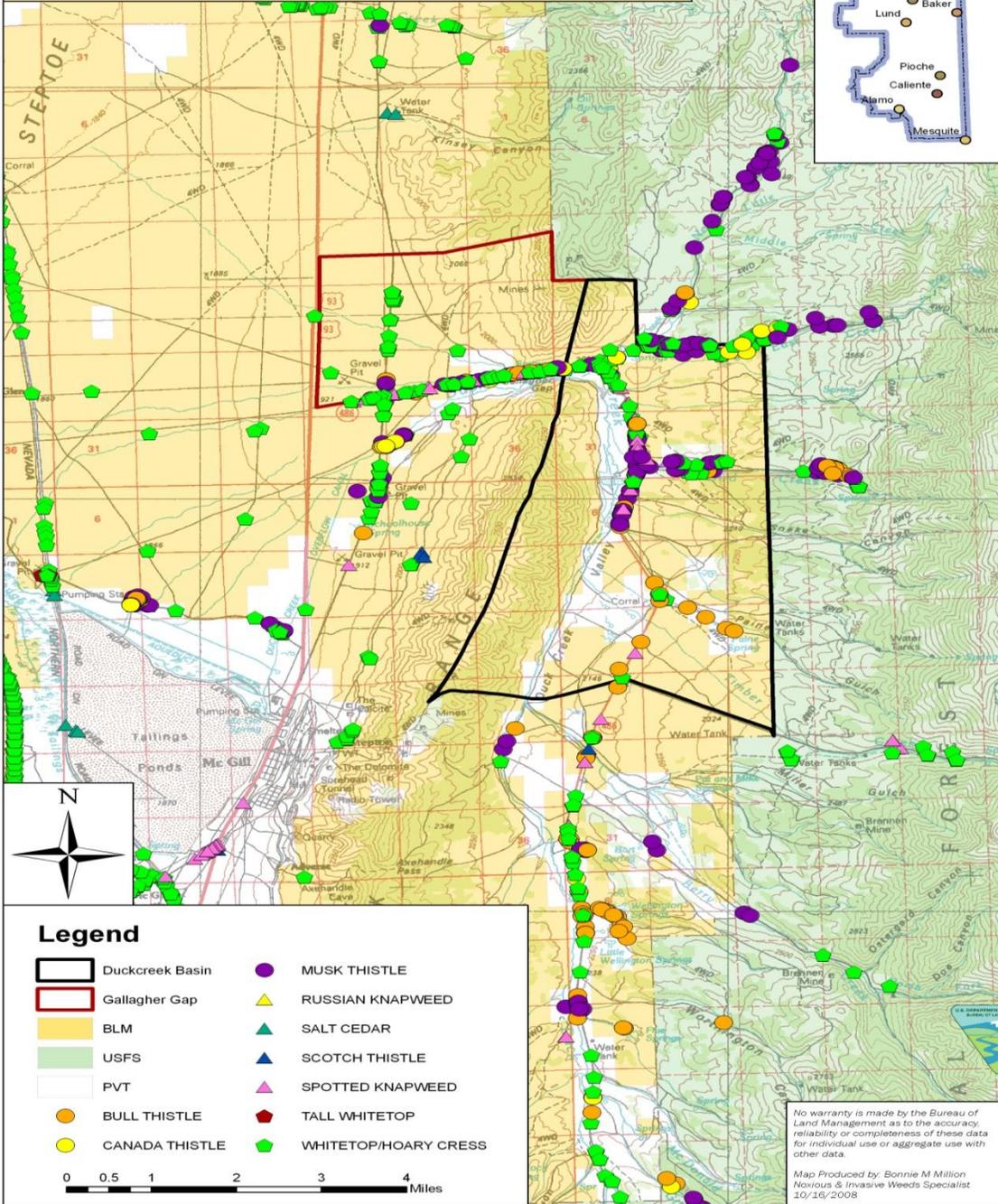
Duckcreek Basin & Gallagher Gap Term Permit Renewal Documented Noxious & Invasive Weed Infestations

Location within the Ely District boundary



BLM

Ely District Office



Legend

- | | |
|-----------------|----------------------|
| Duckcreek Basin | MUSK THISTLE |
| Gallagher Gap | RUSSIAN KNAWEED |
| BLM | SALT CEDAR |
| USFS | SCOTCH THISTLE |
| PVT | SPOTTED KNAWEED |
| BULL THISTLE | TALL WHITETOP |
| CANADA THISTLE | WHITETOP/HOARY CRESS |

No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.
Map Produced by: Bonnie M Million
Noxious & Invasive Weeds Specialist
10/16/2008

