

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

**ENVIRONMENTAL ASSESSMENT (EA DOI-BLM-NV-L010-2010-0025)
June 15, 2010**

(Operator No. 2704554)
Term Permit Renewal
Six Mile Allotment (0613)

Location: White Pine County, Nevada

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



1.0 BACKGROUND INFORMATION

1.0.1 Introduction

This environmental assessment (EA) identifies issues, analyzes alternatives, and discloses the potential environmental effects associated with the proposal to renew the term grazing permit for operator #2704554 on the Six Mile Allotment (0613). Operator #2704554 has reached a lease agreement with Barrick Gold of North America for use of the Six Mile Allotment through October, 2011. This EA fulfills the National Environmental Policy Act (NEPA) requirement for site-specific analysis of resource impacts. Both the proposed action and alternatives to the proposed action are considered. This EA also analyses information to determine whether to prepare an Environmental Impact Statement (EIS) or issue a “Finding of No Significant Impact” (FONSI). A FONSI documents why implementation of the selected action will not result in environmental impacts that significantly affect the quality of the human environment.

Standards and Guidelines for Grazing Administration were developed by the Northeastern Great Basin Resource Advisory Council (RAC) and approved by the Secretary of the Interior on February 12, 1997. The Standards and Guidelines reflect the stated goals of improving rangeland health while providing for the viability of the livestock industry, all wildlife species, and wild horses and burros in the Northeastern Great Basin Area. 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. A thorough discussion of Standards and Guidelines is presented in BLM Handbook H-4180-1 (Rangeland Health Standards). The Northeast Great Basin RAC Standards and Guidelines are available for public review in the Egan Field Office.

This EA also summarizes information from the associated Standards Determination Document (SDD – Appendix I) that evaluates whether current livestock management practices are conforming to the approved Standards and Guidelines for Rangeland Health for the Six Mile Allotment.

The term grazing permit under consideration authorizes grazing use within the Six Mile Allotment. Cattle and sheep are the authorized kind of livestock. The permit would be for the period of the livestock lease ending 10/31/2011. Operator # 2704554 is expected to renew the livestock lease with Barrick Gold of North America following the 2011 ending date. The base property for the permit would be Harper Farm and private land within the Six Mile Allotment boundaries. The grazing permit area occurs entirely within White Pine County, and is situated in the west portion of the Ely District BLM, approximately 50 miles west of Ely, Nevada. The permit area occurs within the Newark Valley Watershed. The current term permit for the Six Mile Allotment has been issued for the period 11/01/2006 to 10/31/2011. The current permit is set forth according to the following schedule:

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	Type Use
Six Mile Native Range	840 S	11/01 – 04/15	917*	Active
Fernando Seeding	43 C	04/15 – 10/31	283*	Active

* Active permitted use in the Six Mile Allotment native range for sheep grazing is 922 AUMs. Active permitted cattle use in the Six Mile Allotment (Fernando Seedings) is 287 AUMs. The figures presented in the table are rounded figures.

The legal description of the Six Mile Allotment is as follows:

Six Mile Allotment

- T. 17N., R. 57E., many sections
- T. 17N., R. 58E., several sections

1.0.2 Recent Multiple Use Grazing Decision

A Final Grazing Decision (FMUD) was issued to renew the grazing permit for operator #2704554 on the Six Mile Allotment on December 3, 2008. This decision was subsequently appealed by Western Watersheds Project (WWP). As a result of the appeal, WWP and BLM both filed motions for summary judgment to the Office of Hearings and Appeals (OHA) concerning environmental issues raised by the National Environmental Policy Act (NEPA) analysis for the permit renewal. Following review of the motions for summary judgment, the OHA issued an ORDER dated March 12, 2010 partially granting summary judgment and remanding the Final Decision back to BLM to conduct further environmental analysis. Thus this Environmental assessment (EA) is presented which considers additional new grazing alternatives to the proposed action to renew the grazing permit for operator #2704554 on the Six Mile Allotment.

1.0.3 History of Grazing Permit and Multiple Use Grazing Decision

A Grazing Final Multiple Use Decision (FMUD) was previously issued for the Six Mile Allotment on April 19, 1991. A Grazing Evaluation, Management Action Selection Report (MASR), and Plan Conformance and NEPA Compliance Record were completed in association with the FMUD. Interested publics were given the opportunity to comment on the evaluation. The FMUD implemented changes in livestock grazing management practices and established appropriate numbers of wild horses in the Six Mile Allotment. The FMUD broke out the allotment into 2 use areas for sheep on native range, set a season of use for sheep grazing, reduced cattle permitted use in the Fernando Seedings, required water hauling to distribute sheep use, and established other terms and conditions of livestock use. The MASR documented the selected management action as reducing the active cattle use on the crested wheatgrass seedings from 432 to 287 AUMs (34% reduction - phased in over 5 years), setting

the appropriate management level of wild horses (AML) at 11 horses yearlong (135 AUMs), and maintaining the existing sheep active use at 922 AUMs with stipulations regarding use areas, seasons of use, water haul locations, and other terms and conditions. Third and fifth year re-evaluations were completed for the Six Mile Allotment. Each of these documents re-affirmed the changes in grazing practices implemented by the 1991 FMUD. Current livestock grazing management practices have been similar for the Six Mile Allotment since the FMUD was issued in 1991. Livestock licensed use for the term permit renewal area is summarized in the Standards Determination Document (Appendix I).

The permit renewal project proposal for the Six Mile Allotment was presented to a BLM interdisciplinary ID team on February 27, 2008. At this meeting the ID team discussed the known resource issues and concerns on the allotment. An assessment of the rangeland health has been conducted during the permit renewal process. Standards for Rangeland Health have been reviewed and evaluated by the BLM ID team for the Six Mile Allotment. The interdisciplinary team (consisting of Rangeland Management Specialists, Wildlife Biologist, Weeds Specialist, Soil/Water/Air Specialist, Archaeologist, Wild Horse Specialist, Watershed Specialist, Recreation Specialist, and others) individually or collaboratively utilized several scientifically based documents and official publications to complete the assessment. These documents include the Western White Pine County Soil Survey (USDA-NRCS), Rangeland Ecological Site Descriptions (USDA-NRCS 2003), Interpreting Indicators of Rangeland Health (USDI-BLM et al. 2005), Sampling Vegetation Attributes (USDI-BLM et al. 1996), the Nevada Rangeland Monitoring Handbook (USDA-SCS et al. 1984), Utilization Studies and Residual Measurements, and the National Range and Pasture Handbook (USDA NRCS 2003). For a complete list of references, see Appendix IV. The interdisciplinary team also used rangeland monitoring data, maps, professional observations, and photographs to evaluate achievement of the Standards and conformance with the Guidelines.

All scientifically based documents and rangeland monitoring data are available for public inspection at the Ely District Office during business hours.

1.1 Standards Achievement

The rangeland health evaluation of the Six Mile Allotment has been based on rangeland monitoring data that is summarized in the Standards Determination Document that is associated with this term permit renewal EA (Appendix I). As a result of the I.D. team assessment and monitoring data review and interpretation, it has been determined that the Upland Standard is being achieved and the Habitat Standard is not achieved (but significant progress is being made toward achievement). The third Standard (riparian) is not applicable. A summary of these findings follows:

Table 1.1 Summarized Standard Determination for the Six Mile Allotment

ALLOTMENT	STANDARD 1 Upland Sites	STANDARD 2 Riparian and Wetland Sites	STANDARD 3 Habitat
Six Mile (0613)	Achieving the Standard	Not applicable	Not achieving the Standard, but making significant progress towards. The Habitat Standard is achieved in the Fernando Seedings, but not achieved in native range. Sheep grazing is not a contributing factor to not achieving the Standard in native range. Failure to achieve the standard is related to other issues or conditions, including wild horses, drought, historical heavy livestock grazing prior to 1990, and lack of natural wildfire.

Guidelines Conformance – Six Mile Allotment

As a result of the assessment and monitoring data review, it has been determined that current livestock grazing management practices conform to the Guidelines on the Six Mile Allotment:

Current livestock grazing management practices conform to Guidelines 1.1 and 1.3. Guideline 1.2 is not applicable to the allotment at this time. Current practices conform to Guidelines 3.1, 3.2, 3.3, and 3.6. Guidelines 3.4 and 3.5 are not applicable to the allotment area at this time. Refer to Appendix I for the Guidelines Conformance Review on page 50.

Are livestock a contributing factor to not achieving the Standards?

Existing grazing management practices and levels of grazing use on public lands within the Six Mile Allotment are not significant causal factors or contributing factors in failing to achieve the Habitat Standard. The non-achievement of this Standard is caused by other factors or conditions (refer to Table 1.1 above).

Causal Factors – Habitat Standard

- Livestock are a contributing factor to not achieving the Standard
- Livestock are not a contributing factor to not achieving the Standard**
- Failure to achieve the Standard is related to other issues or conditions**

1.2 Need for the Proposal

The need for the proposal is to provide for legitimate multiple uses of the public lands by fully processing the renewal of the term grazing permit for operator #2704554 on the Six Mile Allotment in accordance with all applicable laws, regulations, and policies with terms and conditions of grazing use that conform to the Standards and Guidelines for Grazing Administration and the other pertinent land

use objectives for livestock use. The grazing permit would be renewed for a period not to exceed ten years. In accordance with Title 43 CFR 4130.2(a), “Grazing permits or leases shall be issued to qualified applicants to authorize use on the public lands and other lands under the administration of the Bureau of Land Management that are designated as available for livestock grazing through land use plans.” Operator #2704554 meets all of the qualifications to graze livestock on public lands administered by the BLM according to Chapter 1 of BLM Manual H-4110, “Qualifications, Permitted Use, and Allotment Transfers.”

1.3 Objectives for the Proposed Action.

1.3.1. To renew the grazing term permit on the Six Mile Allotment and authorize grazing in accordance with applicable laws, regulations, and land use plans (LUP) on approximately 21,335 acres of public land.

1.3.2. To improve rangeland health and vegetative attributes on the Six Mile Allotment and continue to make progress towards achieving the Standards and Guidelines for Rangeland Health as approved and published by Nevada’s Northeastern Great Basin RAC (1997).

1.4 Relationship to Planning

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

The proposed action is in conformance with the Ely District Record of Decision and Approved Resource Management Plan signed August 20, 2008, which states, “Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health.” In addition, “To allow livestock grazing to occur in a manner and at levels consistent with multiple use, sustained yield, and the standards for rangeland health (p 85-86).”

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

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

1.4.1 Relationship to Other Plans

The proposed action is in compliance with the following laws, regulations, Executive Orders, and county public land plans:

- The National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4347, January 1, 1970, as amended 1975 and 1994)
- The Federal Land Policy and Management Act of 1976 (43 U.S.C. §§ 1701-1782, October 21, 1976, as amended 1978, 1984, 1986, 1988, 1990-1992, 1994 and 1996)
- Northeastern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (February 12, 1997).

County Land Use Plans

- White Pine County Public Lands Policy Plan (2007).

Archaeological

- State Protocol Agreement between the Bureau of Land Management (BLM), Nevada and the Nevada State Historic Preservation Office (October 26, 2009).
- U.S.D.I. BLM Manual 8100 – The Foundations for Managing Cultural Resources.
- Archaeological Resources Protection Act of 1979 (ARPA) 16 U.S.C. 470aa.
- Section 106 of the National Historic Preservation Act of 1966 (NHPA).
- 36 CFR Part 800, Section 106

Wildlife, Special Status Species, and Migratory Birds

- Migratory Bird Treaty Act (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989)
- The Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544, December 28, 1973, as amended 1976-1982, 1984, and 1988)
- Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds (2001)
- White Pine County Portion (Lincoln/White Pine Planning Area) Sage Grouse Conservation Plan (2004)
- 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 (Ely Proposed RMP/FEIS - November 2007). The Proposed RMP/FEIS is a broader NEPA document that includes general discussions of resources such as Rangeland Standards and Health, Soils, Fish and Wildlife, Wild Horses, and so on (see page 26 of this EA). This tiered EA is a site specific analysis that focuses on the issues not already discussed in the broader RMP/FEIS.

1.4.3 Relationship to Bureau of Land Management Guidance

The Proposed Action also complies with Nevada BLM Instruction Memorandum (IM) No. NV-2006-0034, which provides guidance to facilitate the preparation of grazing permit renewal Environmental Assessments (EAs) as per the requirement set forth in IMs WO 2003-071 and WO 2004-126. It also complies with the requirements outlined in the following handbooks and manuals:

- BLM Manual 8400 – Visual Resources Management
- BLM Handbook 4180-1 (Rangeland Health Standards).

1.5 Relevant Issues and Internal Scoping/Public Scoping.

The term permit renewal proposal was initiated on February 27, 2008 with a presentation to the BLM internal resource specialist team to identify any relevant issues. At that time, no resource value issues were identified. Meeting participants identified that external consultation would include general public notification via the Ely BLM web page, plus hard copies of the EA mailed directly to certain interested publics who have requested them. Also, it was determined that Native American Coordination would need to occur. Additionally, the public has been invited to provide input concerning this action and will continue to be afforded the opportunity to provide comments through the review of this document. No issues were identified as a result of public scoping that led to the issuance of the Final Grazing Decision in December, 2008. Following the Issuance of the decision and appeal by Western Watersheds Project, the Special Status Species greater sage-grouse has become a relevant issue. Further information on public coordination is presented in the Consultation and Coordination section on page 39.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

In order to meet the need for the proposal, the BLM would fully process and issue a new term grazing permit for operator #2704554 and authorize livestock grazing on the Six Mile Grazing Allotment. The issuance of the term grazing permit would be for a period not to exceed ten years. The proposed action is to issue a new permit with fundamental changes to the current permit. The stocking level for sheep on native range would change to 460 active AUMs, or about 50% of the current active authorization of 922 AUMs. 462 AUMs would be placed in voluntary non-use. 271 AUMs would be authorized west of Belmont Road for winter use from 11/1 to 2/28 and 189 AUMs would be authorized east of Belmont Road for spring grazing from 3/1 to 4/15. The overall season of use would remain the same, or 11/01 – 04/15. Permitted sheep numbers would be flexible, not to exceed the active permitted use of 460 AUMs on native range. The active permitted use for cattle in the Fernando Seedings would be maintained as previously authorized, at 287 active AUMs. The season of use in these seedings would remain the same, or 04/15 to 10/31.

The proposed action is summarized in table format as follows:

Table 2.1 Operator #2704554 Proposed Action Grazing Term Permit

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	% Public Land	Type Use
Six Mile (0613) Native Range West of Belmont Road East of Belmont Road	344 Sheep 625 Sheep	11/1 – 02/28 3/1 – 4/15	271* 189	100% 100%	Active Active
Fernando Seeding	43 C	04/15 – 10/31	283*	100%	Active

* Active permitted use in the Six Mile Allotment native range for sheep grazing is 460 AUMs. Active permitted cattle use in the Six Mile Allotment (Fernando Seedings) is 287 AUMs. The figures presented in the table are rounded figures.

The allotment summary as it would appear on the proposed action term permit is as follows:

<u>Allotment</u>	<u>Active AUMs</u>	<u>Voluntary Non-Use</u>	<u>Suspended AUMs</u>	<u>Grazing Preference</u>
00613 Six Mile	747	462	145	1354

This proposed action establishes new appropriate proper utilization levels for key forage species on the Six Mile Allotment. These use levels have changed from, and are an improvement of, those established by the terms and conditions of the previous ten year permit. These new utilization levels would allow native plants to develop above ground biomass for protection of soils; contribute to litter cover; and develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover. These new use levels would also allow additional habitat cover for wildlife.

2.1.1 Permit Issuance Upon Transfer or Further Renewal

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

Terms and Conditions:

In accordance with 43 CFR 4130.3-2, the following terms and conditions will be included in the grazing permit for operator #2704554 in the Six Mile Allotment:

Six Mile Stipulations:

1. Total active permitted use in the Fernando Seedings of the Six Mile Allotment is 287 AUMs for cattle grazing. Total active permitted use in native range for sheep grazing is 460 AUMs.
2. Of the 460 sheep AUMs permitted use on native range, 189 AUMs are to be used east of Belmont Road for sheep spring grazing (03/01 – 04/15) dependent on the availability of water/snow. When snow is not available, water hauling along the Buster Mountain bench will be required for this permitted use. 271 AUMs are to be used west of Belmont Road in the Newark Valley portion of the allotment for winter sheep grazing (11/01 - 02/28).
3. Sheep will not be trailed or bedded in winterfat bottoms. Sheep camps/bedding grounds will be located a minimum of ½ mile from winterfat bottoms.
4. Sheep authorized to graze on native range will be watered on native range, and will not be allowed access to the water development inside the Fernando Seedings. Sheep will not be allowed to graze or to have access to the Fernando Seedings unless approved by the authorized officer.

5. Two water haul sites will be located at T. 17N., R. 57E., Section 7, NE1/4 SE1/4. Full use of the 271 AUMs west of Belmont Road will be dependent on use of these sites or availability of snow. Water will be hauled in accordance with Nevada State Water Law.

6. An allowable use level will be established as 40% of the current year's growth by weight for the key species Indian ricegrass, winterfat, and black sagebrush on native range for spring use by all herbivores (wild horses also use native range). The use level will be established as 50% for these key species for yearlong use. An allowable use level will be established as 55% of the current year's growth by weight for the key species crested wheatgrass in the Fernando Seedings for spring/summer/fall use.

7. Livestock will be removed to another 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.

Additional Stipulations Common to All Grazing Allotments:

1. Livestock numbers identified in the Term Grazing Permit are a function of seasons of use and permitted use. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the allotment.
2. Deviations from specified grazing use dates will be allowed when consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.
3. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.
4. Grazing use will be in accordance with the Standards and Guidelines for Grazing Administration. The Standards and Guidelines have been developed by the respective Resource Advisory Council and approved by the Secretary of the Interior on February 12, 1997. Grazing use will also be in accordance with 43 CFR Subpart 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.
5. 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.
6. 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.
7. 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.
8. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.
9. When necessary, control or restrict the timing of livestock movement to minimize the transport of livestock-borne noxious weed seeds, roots, or rhizomes between weed-infested and weed-free areas.

2.1.2 Additional Grazing Guidance Other Than Terms and Conditions of the Permit

From the Resource Management Plan Best Management Practices (Ely District BLM ROD/RMP – August, 2008) Livestock Grazing Section A. 1-8. Develop grazing systems to control or rest grazing use on winterfat sites after March 1 or when the critical growing season begins. Allow spring grazing use during the critical growing period if a grazing rotation system that provides rest from grazing during the critical growing period at least every other year for all areas is in place. Utilization during the critical growth period should not exceed 35% under any circumstances.

2.1.3 Invasive, Non-Native Species and Noxious Weeds

A Weed Risk Assessment (See Appendix I) was completed on January 24, 2008 and revised on June 2, 2010. The stipulations listed in the Weed Risk Assessment will be followed when grazing occurs on the allotments.

2.1.4 Migratory Birds

The proposed action will be in accordance with Interim Management Guidance, WO IM No. 2008-050 (December, 2007) which states, “Best Management Practices to avoid or minimize the possibility of the unintentional take of migratory birds should be applied to all projects.”

2.1.5 Cultural Resources

A cultural needs assessment will be completed under 8111 {NV040} NANV04-FY10-031. Previously recorded eligible sites will be evaluated and monitored to determine grazing impacts. If grazing conflicts are identified, the conflicts will then be mitigated in accordance with the State Protocol Agreement.

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 grazing will be monitored to support periodic analysis/evaluation, site-specific adjustments of livestock management actions, and term permit renewals. Monitoring will determine when grazing will be authorized in burned areas, and will contribute to the selection of prescribed burn treatments or other types of treatments based on attainment of resource objectives. (p.88)”

Rangeland monitoring data would continue to be collected for the Six Mile Allotment to determine if the livestock management practices as authorized by the permit renewal are conforming to the Standards and Guidelines for Rangeland Health and other vegetative and multiple use objectives for the allotments. Prior to authorizing annual grazing use, monitoring would be conducted to determine forage availability, grazing use areas and grazing management practices. Following the grazing period, monitoring would be conducted to determine overall utilization levels and grazing use patterns.

2.2 Alternatives to the Proposed Action

Specific alternatives to the Proposed Action are presented in this section. These alternatives were not previously presented in the EA that was issued on August 1, 2008. The Office of Hearings and Appeals (OHA) has perceived that there are unresolved conflicts concerning alternative uses of available resources in the Six Mile Allotment. The OHA has issued an ORDER requiring BLM to develop

additional alternative analysis. The following alternatives to the Proposed Action are thus analyzed in this EA:

2.2.1 No Action Alternative – The Current Grazing Permit

As a result of taking no action, the grazing permit would be renewed “as is” with no changes to the current grazing permit. The stocking level, season of use, area of use, key forage species use levels, or other terms and conditions of the grazing permit would not change. The BLM would fully process and issue a new term grazing permit for operator #2704554 and authorize livestock grazing on the Six Mile Grazing Allotment. The stocking level for sheep on native range would remain at 922 active AUMs. 542 AUMs would be authorized west of Belmont Road for winter use from 11/1 to 2/28 and 380 AUMs would be authorized east of Belmont Road for spring grazing from 3/1 to 4/15. The overall season of use would remain the same, or 11/01 – 04/15. The active permitted use for cattle in the Fernando Seedings would be at 287 active AUMs. The season of use in these seedings would remain the same, or 04/15 to 10/31.

The current permit is summarized in table format as follows:

Table 2.2.1 – Paris Livestock Current Grazing Permit

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	% Public Land	Type Use
Six Mile (0613) Native Range	840 Sheep	11/1 – 4/15	917*	100%	Active
Fernando Seeding	43 C	04/15 – 10/31	283*	100%	Active

* Active permitted use in the Six Mile Allotment native range for sheep grazing is 922 AUMs. Active permitted cattle use in the Six Mile Allotment (Fernando Seedings) is 287 AUMs. The figures presented in the table are rounded figures.

The allotment summary as it appears on the current term permit is as follows:

Allotment	Active AUMs	Suspended AUMs	Grazing Preference
00613 Six Mile	1209	145	1354

The no action alternative would maintain terms and conditions of the current grazing permit as follows:

Six Mile Allotment #00613

Total active permitted cattle use in the Six Mile Allotment (crested wheatgrass seeding) is 287 AUMs. Total active permitted use in the Six Mile Allotment native range for sheep grazing is 922. Of the 922

sheep AUMs permitted use on native range, 380 AUMs are to be used east of Belmont Road for sheep spring grazing dependent on the availability of water/snow. Water hauling along the Buster Mountain bench will be required for this permitted use. 542 AUMs are to be used west of Belmont Road in the Newark Valley portion of the allotment for winter sheep grazing (11/01 - 02/28).

Sheep will not be trailed or bedded in winterfat bottoms. Sheep camps will be located a minimum of ½ mile from winterfat bottoms.

Sheep watered at the seedings will only be allowed access to the troughs placed outside the seeding fence at the east seeding. Sheep will not be allowed access to the seedings unless granted by the authorized officer.

Two water haul sites will be located at T. 17N., R. 57E., Section 7, NE1/4 SE1/4. Full use of the 542 AUMs in Newark Valley will be dependent on use of these sites.

The proper allowable use level for Indian ricegrass on native range will be established at 50% for year-long use (both sheep and wild horses graze native range). The proper allowable use level for winterfat on native range will also be established at 50% for year-long use.

2.2.2 Actual Use Alternative

According to the Actual Use Alternative, the BLM would fully process and issue a new term grazing permit for operator #2704554 and authorize livestock grazing on the Six Mile Grazing Allotment. The issuance of the term grazing permit would be for a period not to exceed ten years. The new permit would be issued with fundamental changes to the current permit. The stocking level for sheep on native range would change to 322 active AUMs, or about 35% of the current active authorization of 922 AUMs. 600 AUMs would be placed in voluntary non-use. 190 AUMs would be authorized west of Belmont Road for winter use from 11/1 to 2/28 and 132 AUMs would be authorized east of Belmont Road for spring grazing from 3/1 to 4/15. The overall season of use would remain the same, or 11/01 – 04/15. The active permitted use for cattle in the Fernando Seedings would be maintained as previously authorized, at 287 active AUMs. The season of use in these seedings would remain the same, or 04/15 to 10/31.

The Actual Use Alternative is summarized in table format as follows:

Table 2.2.2 Operator #2704554 Actual Use Alternative Grazing Term Permit

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	% Public Land	Type Use
Six Mile (0613) Native Range					
West of Belmont Road	241 Sheep*	11/1 – 02/28	190	100%	Active
East of Belmont Road	436 Sheep	3/1 – 4/15	132	100%	Active

Fernando Seeding	43 C	04/15 – 10/31	283**	100%	Active
------------------	------	---------------	-------	------	--------

* Sheep numbers are flexible. Active use is not to exceed 322 AUMs in both native pastures.

** Active permitted use in the Six Mile Allotment native range for sheep grazing is 322 AUMs. Active permitted cattle use in the Six Mile Allotment (Fernando Seedings) is 287 AUMs. The figures presented in the table are rounded figures.

The Actual Use Alternative also establishes new, improved, appropriate proper utilization levels for key forage species on the Six Mile Allotment. These new utilization levels would allow native plants to develop above ground biomass for protection of soils; contribute to litter cover; and develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover. These use levels would also allow additional habitat cover for wildlife.

Terms and Conditions – Actual Use Alternative:

In accordance with 43 CFR 4130.3-2, the following terms and conditions will be included in the grazing permit for operator #2704554 in the Six Mile Allotment:

Six Mile Stipulations:

1. Total active permitted use in the Fernando Seedings of the Six Mile Allotment is 287 AUMs for cattle grazing. Total active permitted use in native range for sheep grazing is 322 AUMs.
2. Of the 322 sheep AUMs permitted use on native range, 132 AUMs are to be used east of Belmont Road for sheep spring grazing (03/01 – 04/15) dependent on the availability of water/snow. When snow is not available, water hauling along the Buster Mountain bench will be required for this permitted use. 190 AUMs are to be used west of Belmont Road in the Newark Valley portion of the allotment for winter sheep grazing (11/01 - 02/28).
3. Sheep will not be trailed or bedded in winterfat bottoms. Sheep camps/bedding grounds will be located a minimum of ½ mile from winterfat bottoms.
4. Sheep authorized to graze on native range will be watered on native range, and will not be allowed access to the water development inside the Fernando Seedings. Sheep will not be allowed to graze or to have access to the Fernando Seedings unless approved by the authorized officer.
5. Two water haul sites will be located at T. 17N., R. 57E., Section 7, NE1/4 SE1/4. Full use of the 190 AUMs west of Belmont Road will be dependent on use of these sites or availability of snow. Water will be hauled in accordance with Nevada State Water Law.
6. An allowable use level will be established as 40% of the current year’s growth by weight for the key species Indian ricegrass, winterfat, and black sagebrush on native range for spring use by all herbivores (wild horses also use native range). The use level will be established as 50% for these key species for yearlong use. An allowable use level will be established as 55% of the current year’s growth by weight for the key species crested wheatgrass in the Fernando Seedings for spring/summer/fall use.
7. Livestock will be removed to another 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.

2.2.3 Alternatives Considered but Eliminated from Further Analysis – No Grazing Alternative From the Ely District Resource Management Plan

The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November, 2007) analyzes five alternatives of livestock grazing (p.4.16-1 to 4.16-15.), including a no-grazing alternative (D). The five alternatives are as follows:

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

The EIS analyzed the impacts of grazing through a proposed action and alternatives. Not issuing term grazing permits was considered as an alternative but eliminated from detailed analysis. Since the alternative of no livestock grazing was fully described and analyzed in the Ely RMP-FEIS, the effects of not renewing the term grazing permit are not analyzed in this document. The decision in the RMP-FEIS was that the lands within the Six Mile Allotment would be available for grazing, in which case 43 CFR 4130.2(a) and 4130.2(e)(3) requires the issuance of grazing permits to qualified applicants that accept the proposed terms and conditions of the permit or lease.

3.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT AND ASSOCIATED ENVIRONMENTAL EFFECTS

3.1 General Area Description

The Six Mile Allotment (0613) encompasses approximately 21,335 public land acres. Approximately 80 acres of private ground occur in the east portion of the allotment. The allotment is situated in southern Newark Valley, south of Highway 50. The allotment is located entirely within White Pine County, in the western portion of the Ely BLM District approximately 50 miles west of Ely, Nevada. The allotment is situated on the west side of Buster Mountain. The native range of the allotment is entirely unfenced and borders the Newark, South Pancake, Monte Cristo, and Moorman Ranch Allotments. Native range is grazed exclusively by sheep. Two crested wheatgrass seedings (Fernando Seedings) totaling about 1,000 acres occur in the middle portion of the allotment. These seedings are entirely fenced, and are grazed exclusively by cattle. Elevations range from about 6,300 feet at valley bottom to 8,400 feet on Buster Mountain. Average annual precipitation is 8 – 12 inches. Salt desert shrub and winterfat plant communities occur in the lower portions of the allotment while sagebrush/perennial grass communities and pinyon/juniper woodlands dominate the benches and higher elevation sites. A water development that originates on private ground serves cattle grazing in the Fernando Seedings. Sheep may also use this development when grazing native range. Water is sometimes hauled for sheep grazing when snow is not available. There are no public land water sources in the allotment. Two small springs occur on private ground on Buster Mountain.

The Six Mile Allotment occurs within the Newark Valley Watershed. The allotment also occurs within the Central Nevada Basin and Range (028B) Major Land Resource Area (MLRA).

3.2 Resources/Concerns Considered for Analysis

Internal scoping was conducted by an interdisciplinary (ID) team that analyzed the potential effects of the proposed action. Potential effects to the following resources/concerns were evaluated in accordance with criteria listed in the BLM NEPA Handbook (2008) to determine if detailed analysis is required. 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 District BLM in particular.

Table 3.2. Resources/Concerns Considered and Rationale for Detailed Analysis or Rational for Dismissal from Further 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 sheep trailing or cattle grazing, but the impact would be temporary, and would not approach a level that would exceed air quality standards. Detailed analysis is not required.
Areas of Critical Environmental Concern (ACEC)	No	Resource not present in the project area.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Cultural Resources	No	Impacts from livestock grazing on Cultural Resources were analyzed on page 4.9-4 of the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007). The district as a whole has not been adequately inventoried and recorded. All eligible historic resources need to be monitored for impacts as identified within the cultural review process. Mitigation and treatment will be applied as concerns are identified. A Cultural Resources Inventory Needs Assessment has been prepared and signed for this permit renewal. A cultural resources sensitivity map has been generated for the Six Mile Allotment showing that cultural resource sensitivity varies from low to high. Prehistoric cultural resources (habitation/non habitation sites; lithic scatters, projectile points; isolates; camp areas) may be found in areas adjacent to spring sites, ridge tops and nearby hills throughout the Ely District.
Environmental Justice	No	No environmental justice issues are present at or near the project area. No minority or low income populations would be unduly affected by the proposed action.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Fish and Wildlife	No	<p>Impacts from livestock grazing on Fish and Wildlife were analyzed on pages 4.6-10 through 4.6-12 in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). Site specific examination of the project area did not reveal any concerns above those addressed in the EIS. The term permit renewal area is within Nevada Division of Wildlife Big Game Management Area 13, Unit 131. The area provides habitat for elk, mule deer, and pronghorn antelope. Due to limited perennial water sources in this area, numbers of big game and trophy game species are limited. The Six Mile Allotment receives year-long antelope use and provides year-long, summer, migratory, and winter range for mule deer and transition and winter range for elk.</p> <p>The area also provides habitat for coyotes (<i>Canus latrans</i>), rabbits (<i>Lepus spp.</i> And <i>Sylvilagus spp.</i>), badgers, bobcats, fox, chukar partridge, sagebrush obligate birds, and other small mammals and reptiles.</p> <p>There are no identified key or critical management areas for wildlife on the term permit renewal area. No fisheries occur in the area of the proposed action. There are no wildlife water guzzlers in the term permit renewal area. No big horn sheep habitat occurs on or near the Six Mile Allotment or Mount Hamilton. Detailed analysis is not required.</p> <p>It is expected that wildlife habitat would be maintained or enhanced by appropriate native vegetation and ground cover and a better quantity and availability of forage resulting from primarily winter grazing and distribution of sheep grazing. To the extent that moderate livestock grazing stimulates new plant growth, that growth will be available for wildlife. Wildlife have been shown to prefer the regrowth of grazed plants.</p>

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Floodplains	No	No floodplains have been identified by HUD or FEMA within the South Newark Valley. Resource not present.
Forest Health	No	Pinyon-juniper woodlands occur in the Six Mile Allotment. However cattle make no use and sheep make minimal use of the woodlands during the spring or winter grazing period. Detailed analysis is not required.
Grazing Uses	No	Historically, grazing has been a common activity in eastern Nevada since the late 1800s. The Six Mile Allotment is currently permitted for sheep and cattle grazing. Historically the Six Mile Allotment has also been permitted for both sheep and cattle grazing. Historically, cattle use occurred year-round. Sheep use occurred during winter. Licensed use records, adjudication records, scientific and popular literature all indicate the area has been grazed heavily from the late 1800s up until the Grazing Decision of 1991. Grazing use is expected to continue in the allotment.
Land Uses	No	There would be no modifications to land use authorizations through the proposed term permit renewal therefore no impacts would occur. No direct or cumulative impacts would occur to access and land use.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Migratory Birds	No	Federal agencies are required to protect migratory birds and their habitat. This is according to the Migratory Bird Treaty Act of 1918 and subsequent amendments (16 U.S.C. 703-711) and Executive Order 13186 issued January 11, 2001. Several species of migratory birds are known to have a distribution that overlaps with the proposed action area. Migratory bird nesting and foraging habitat may be located throughout the term permit renewal area. Sagebrush obligates are most likely to use the area. Outside the breeding season, any number of species have the potential to use the area during the winter or migration. Insofar as the proposed action encourages progress towards the RAC standards, it will aid in achieving the future desired condition of habitat for most migratory bird species. The potential for the proposed livestock grazing to negatively affect migratory birds is discounted because of the low density of livestock, dispersed grazing within the allotment, and the primarily winter (sheep) season of use.
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.
Native American Religious Concerns	No	No concerns were identified through consultation and coordination. Direct impacts and cumulative impacts would not occur because there were no identified concerns through coordination.
Noxious and Invasive Weed Management	No	Tall white top (<i>Lepidium latifolium</i>) and Scotch thistle (<i>Onopordum acanthium</i>) are documented within the project area along roads. Although improper grazing can increase the populations of the noxious and invasive weeds already present in the permitted area, the design features of the Proposed Action, including setting utilization levels of native species, would help to prevent weeds from establishing or spreading. The same would be true for the actual use alternative due to the utilization levels set. Because no utilization levels are set in the no action alternative weeds could spread due to lack of native plant vigor. No additional analysis is needed.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Paleontological Resources	No	No known resources are currently identified in the project area.
Prime or Unique Farmlands	No	There are approximately 4107 acres of prime and unique farmlands in the Six Mile Grazing Allotment. The classified rangelands would require augmentation of soil moisture and removal of accumulated salts in order to attain their potential. The proposed action would have no effect on the prime and unique farmland classification or potential. The EIS presented the effects of livestock grazing on Soil Resources.
Rangeland Standards and Health	Yes	Impacts from livestock grazing on Rangeland Standards and Health were analyzed on pages 4.16-3 through 4.16-4 of the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007). An assessment and evaluation of livestock grazing management's achievement of the standards and conformance to the guidelines was completed in conjunction with this project (SDD). Since the proposed action and the grazing alternatives pose potential differences in the achievement of Rangeland Standards and Health, a detailed analysis for Rangeland Standards and Health together with Vegetative Resources is provided below.
Recreation Uses	No	Implementing the proposed action to renew the grazing permit would result in negligible impacts to recreation uses. The term permit renewal area is generally isolated and undeveloped with no modern recreational facilities. Recreation in this area includes minimal large and small game hunting, horseback riding, primitive camping, hiking, wildlife observation and photography, wild horse observation, cultural resource exploration or rock & fossil collecting, antler collecting, and off highway vehicle (OHV) exploration.
Social and Economic Values	Yes	The farming and ranching life style has been and continues to be important in White Pine County and the State of Nevada. The local economy of White Pine County has been dependent on farming and ranching activity. Taxes generated from agricultural activity benefit the county. General impacts to Social and Economic Values has also been presented in the Ely District RMP. Implementing the proposed action or the other grazing alternatives would have differing effects to the permittee's livestock operation. Detailed analysis provided.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Soil Resources	No	<p>Soil resources were analyzed in the SDD in relationship to the Standards and Guidelines for Rangeland Health and in the EIS for livestock grazing effects on Soil Resources. Beneficial impacts to soils are consistent with the need and objectives for the proposed action. No further analysis is needed.</p> <p>Soils consist of material weathered and eroded from Mount Hamilton. In the term permit renewal area, the soils in the valley bottoms are primarily silty clays and silty loams that are lacustrine sediments. These soils are fragile and somewhat susceptible to wind or water erosion. The soils on the mountain benches (fan piedmonts) and higher elevation areas are primarily gravelly loams, silt loams, and sandy loams that are alluviums derived from limestone, dolomite, andesite, loess, and ash. The soils on the benches and higher elevation sites are less susceptible to erosion than the fragile silts on the lower elevation salt desert shrub or winterfat areas. Soils in the Six Mile Allotment vary in depth, percolation rates, and erosion potential. The three main Soil Mapping Units (SMU) in the area are 286, 173, and 295. Many other SMUs occur in the area.</p> <p>The permit renewal under all alternatives could result in positive or negative impacts to soils. Sheep use under all alternatives in the native range of the allotment would be deferred, dispersed, and distributed. However there could be soil disturbance and compaction to the sensitive lower elevation silty soils in winterfat areas due to hoof action during the critical spring growing period, generally March through May. The more stable soils on the piedmont benches (gravelly loams) would be expected to be less compacted, eroded, or trampled. There could be some effects to soil structure, water holding capacity, and percolation characteristics. Biological surfaces (cryptogamic structures) may be broken up by hoof action. Biotic crusts could also remain in place to stabilize the ecological sites. Impacts to soils would be expected to be minimal during the winter grazing period. Appropriate forage production and ground cover resulting from the livestock management practices as implemented by the permit renewal could tend to result in less soil erosion, better soil/water relations, and appropriate soil functionality.</p>

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered	Yes	Impacts from livestock grazing on selected Special Status Species were analyzed on pages 4.7-28 through 4.7-32 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). The Proposed Action and the other grazing alternatives pose differing environmental effects to Special Status Species, thus a detailed analysis for Special Status Species is provided below.
Special Status Plant Species	No	No Special Status Plant species are known to occur within the project area. Because the proposed action is designed to improve vegetative community conditions, it is not anticipated that the proposed action would negatively affect any unknown extant Special Status Plant populations within the project area.
FWS Listed or proposed for listing Threatened or Endangered Species or critical habitat.*	No	Threatened, Endangered, or Proposed species are not known to be present in the proposed action area.
Vegetative Resources	Yes	Impacts from livestock grazing on Vegetation (including Riparian) Resources were analyzed in the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007) (page 4.5-9). Vegetation was also analyzed in the SDD. The proposed action and the grazing alternatives pose potential differences in the effects to Vegetative Resources. A detailed analysis for Vegetative Resources together with Rangeland Standards and Health is provided below.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Visual Resource Management (VRM)	No	The Six Mile Allotment occurs within Visual Resource Management (VRM) Class 2, 3, and 4 zones. The allotment occurs in a scenic area typical of the intermountain great basin landforms. No direct or cumulative impacts to visual resources would occur. The Visual Resource Management (VRM) System provides a way to identify and evaluate scenic values to determine the appropriate levels of management. It also provides a way to analyze potential visual impacts and apply visual design techniques to ensure that surface disturbing activities are in harmony with their surroundings.
Wastes, Hazardous or Solid	No	No hazardous or solid wastes are known to exist in the Six Mile Allotment area nor would they be introduced by the proposed action.
Water Quality, Drinking/Ground	No	The proposed action does not pose any impact to ground water in the project area. No surface water in the project area is used as human drinking water sources and no CWA section 303(d) impaired water bodies are found in the project area.
Water Resources	No	The proposed action or the grazing alternatives would not affect current water use, distribution, or quantity. The EIS presented the effects of livestock grazing on Water Resources. Water quantity for livestock grazing varies annually according to climatic conditions. Sheep watering in the Six Mile Allotment primarily occurs from available snowpack. In addition, temporary water haul sites are also used. The location and number of water haul sites varies annually. In the Fernando Seedings, cattle are watered from a water pipeline development that originates on private ground. Sheep may also use this development from time to time on native range. Authorizing the permit would allow the continued operation of this water pipeline development, making water available for cattle, sheep, and occasionally wild horses and wildlife.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Watershed Management	No	By maintaining sound livestock management practices, the Proposed Action or alternatives are expected to maintain or improve watershed function and health by improving the vegetative attributes of cover, production, composition, diversity, vigor, structure, litter, and seed production. These expected improvements to Watershed Management are consistent with the purpose and need for the action, thus further detailed analysis is not required. The EIS (November 2007) presented effects of livestock grazing on Watershed Management. Further changes to livestock management may be recommended in a future watershed analysis, however no concerns have been identified at this time.
Wetlands/Riparian Areas	No	There are no Wetlands or Jurisdictional Wetlands in the proposed term permit renewal area. There are no riparian systems on public lands. The EIS (November 2007) also presented the effects of livestock grazing on Wetlands/Riparian Areas. No further analysis is required.
Wilderness	No	Wilderness or Wilderness Study Areas are not present. Detailed analysis is not required.
Special Designations other than Designated Wilderness	No	No Special Designations occur within the term permit renewal area.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Wild Horses	No	Impacts from livestock grazing on Wild Horses were analyzed on page 4.8-6 of the Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). The project area is within the Pancake Wild Horse Herd Management Area (HMA). The appropriate management level (AML) for this HMA is from 240 – 493 wild horses. The most recent population estimate (March, 2010) is 1,056 wild horses, prior to the 2010 foaling season. A wild horse gather for this HMA is scheduled for 2011. Historically the term permit renewal area has received moderate to heavy wild horse use. Implementing the permit renewal would have minimal impacts upon wild horses in the Pancake HMA. Wild horses would benefit from an appropriate forage resource resulting from sound livestock grazing management practices. Occasionally wild horses break through the Fernando Seeding fences or enter through open gates where water is generally available from May through November because of the cattle grazing that is occurring there. The Fernando Seedings are wild horse free areas. The wild horses would be removed from the seedings upon discovery.
Wild and Scenic Rivers	No	There are no wild and scenic rivers within the project area. Resource not present.

The resources/concerns that are not present in the Six Mile Allotment or are affected negligibly by the proposed action and do not require a detailed analysis include Air Quality, Areas of Critical Environmental Concern, Environmental Justice, Floodplains, Forest Health, Grazing Uses, Land Uses, Migratory Birds, Mineral Resources, Native American Religious Concerns, Paleontological Resources, Prime or Unique Farmlands, Recreation Uses, Special Status Plant Species, FWS Listed or Proposed for Listing Threatened or Endangered Species or Critical Habitat, Visual Resource Management (VRM), Wastes, Hazardous or Solid, Water Quality Drinking/Ground, Wetlands/Riparian Areas, Wilderness, Special Designations other than Designated Wilderness, and Wild and Scenic Rivers.

The resources that have impacts from livestock grazing are disclosed in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) and include Water Resources (page 4.3-5), Soil Resources (page 4.4-4), Fish and Wildlife (pages 4.6-10 through 4.6-11), Wild Horses (page 4.8-6), Cultural Resources (page 4.9-5), Rangeland Standards and Health (pages 4.16-3 through 4.16-4), Watershed Management (page 4.19-8), Special Status Animal Species other than

those listed or proposed by the FWS as Threatened or Endangered (page 4.7-28 through 4.7-30), and Noxious and Invasive Weed Management (page 4.21-5).

A detailed analysis is presented below for Rangeland Standards and Health/Vegetative Resources, Social and Economic Values, and Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered, which were assigned a “yes” in the above table and have been identified by the BLM interdisciplinary team as resources in the affected environment that merit a detailed analysis.

4.0 ENVIRONMENTAL EFFECTS – DETAILED ANALYSIS

4.1.0 Rangeland Standards and Health/Vegetative Resources **Affected Environment – Rangeland Standards and Health**

The Six Mile Allotment occurs within the Northeastern Great Basin Area Resource Advisory Council (RAC) area. The Standards and Guidelines reflect the stated goals of improving rangeland health while providing for the viability of the livestock industry, all wildlife species, and wild horses and burros in the Northeastern Great Basin Area. 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. For each grazing permit renewal, BLM conducts a Standards Conformance analysis to determine if the current livestock grazing management practices in place are achieving the Standards and conforming to the Guidelines. If one or more of three Standards are not achieved, a determination is made if significant progress is being made towards Standards achievement, and if livestock are a contributing factor to non-achievement (see Section 1.1 on page 4).

In the case of the permit #2704554 on the Six Mile Allotment, the Upland Sites Standard is achieved, the Riparian/Wetlands Sites Standard is not applicable, and the Habitat Standard is achieved in the Fernando Seedings but not achieved in native range. Significant progress is being made towards the Habitat Standard in native range. Current sheep grazing management practices are not contributing factors to not achieving the Standard. Failure to achieve the standard is related to other issues or conditions, including wild horses, drought, historical heavy livestock grazing prior to 1990, and lack of natural wildfire.

Affected Environment – Vegetative Resources

The vegetative resources for the grazing permit renewal are primarily described in Appendix I of the SDD for this permit renewal (Monitoring Data Section). Vegetation is typical of the Intermountain Great Basin Area and Major Land Resource Area (MLRA) 028B, the Central Nevada Basin and Range Area. The two main vegetation types within the term permit renewal area are salt desert shrub and northern desert shrub (sagebrush) types. The soils and rangeland ecological sites within the Six Mile Allotment have been described, classified, and studied by the Natural Resource Conservation Service (NRCS). The three most prevalent ecological sites in the Six Mile Allotment area as follows:

Key Area SM-07 is located within a Shallow Calcareous Loam 8-10” ecological site (Ararn/Orhy-Stco4 – 028BY011NV).

Key Areas SM-02 and SM-05 are located within a Silty 8-10" ecological site (Eula5/Orhy – 028BY013NV).

Key Area SM-08 is located within a Shallow Loam 8-10" ecological site (Artrw/Orhy-Stco4 – 028BY080NV).

Several other range sites occur in the area, and the vegetation is diverse. Important native upland range plant species in the term permit renewal area include black sagebrush, Wyoming sagebrush, Indian ricegrass, needleandthread grass, winterfat, Bailey's greasewood, fourwing saltbush, galleta grass, globemallow, prince's plume, and basin wild rye. The invasive annual grass cheatgrass is present in the term permit renewal area in low densities. Other non-native invasive plants including halogeton, Russian thistle, and mustards are present in the area.

The Fernando Crested Wheatgrass Seedings were established in the 1960s. Range monitoring data from the 1980s show the seedings to be in good condition at that time, with productive, vigorous components of crested wheatgrass and sagebrush. This condition still exists at the present time.

Rangeland Standards and Health/Vegetative Resources **Proposed Action – Environmental Effects**

According to the Proposed Action, active permitted sheep use on native range would be reduced from 922 to 460 AUMs. 271 AUMs would be authorized in the west pasture for winter use and 189 AUMs would be authorized in the east pasture for spring grazing. Other terms and conditions of sheep grazing use would be included in the permit (see page 9). According to the terms and conditions of the Proposed Action permit, sheep will be removed to another pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. The Proposed Action provides the option of licensing up to 460 AUMs on a good year or a year when use in this allotment fits in with the annual sheep movement of the operator.

Sheep numbers would vary from about 600 to 2,000 sheep, depending on annual growth conditions and the needs of the operator. Sheep numbers would be flexible, not to exceed the active permitted use of 460 AUMs on native range. Grazing use would be expected to be primarily winter use, when forage is primarily dormant. Grazing use would be rotated to different areas within the allotment. Grazing use would be expected to occur primarily in the black sagebrush rangeland ecological sites. Key forage utilization would be expected to be slight (0-20%) and light (21-40%) by sheep on the key species black sagebrush, winterfat, Indian ricegrass, and needleandthread. When combined with wild horse use, use levels would be expected to be light (21 – 40%) or moderate (41 – 60%). Some grazing use of cheatgrass would be expected in both winter and spring. Complete regrowth of native herbaceous grasses and forbs would be allowed in sagebrush range during the critical growing period in the west pasture, and some regrowth would be allowed following the off date of April 15 in the east pasture. This would strengthen the herbaceous native plant component relative to the current shrub dominance, thus improving plant composition and making the range more resistant to invasive species spread.

The Proposed Action would be expected to lead to beneficial vegetation impacts such as proper, moderate utilization of key forage plants, maintained or improved composition, cover, structure, and vigor, appropriate production and forage availability, and a stable to improved rangeland condition and

trend. By making primarily winter use and by making light use or less in spring, sheep grazing would allow native plants to be productive and produce seed. During many recent drought years native plants have not produced much seed. It is possible that local areas of over-utilization of key forage plants could result from combined use by sheep and wild horses. This possibility would be monitored and actions taken to correct the problem. Grazing cheatgrass could help prevent wildfire and could result in less grazing of native plants.

A desired stocking level formula was applied as a tool to evaluate sheep stocking levels in the Six Mile Allotment. Application of this formula based on licensed use data and utilization data summarized in the SDD (licensed use data summarized in the SDD on page 54) along with consideration of other sheep management practices as implemented by the Proposed Action, leads to the conclusion that a stocking level of 460 AUMs would continue to achieve the Upland Sites Standard and continue to make significant progress towards achievement of the Habitat Standard. Sheep management practices would conform to the Guidelines. The vegetative response would be appropriate to ecological site potential. Forage availability for wild horses and wildlife would also be appropriate.

Rangeland Standards and Health/Vegetative Resources

No Action Alternative – If Full Active Permitted Use were Licensed – Environmental Effects

As a result of taking no action, the grazing permit would be renewed “as is” with no changes to the current grazing permit, which was renewed through a grazing decision in 1991. The stocking level, season of use, area of use, or other terms and conditions of the grazing permit would not change. 542 AUMs would be authorized west of the Belmont Road in the Newark Valley portion of the allotment for winter sheep grazing (11/01 - 02/28), and 380 AUMs would be authorized east of the Belmont Road for sheep spring grazing (03/01 – 04/15), for a total of 922 active AUMs. Other grazing terms and conditions would apply to the grazing permit, for example allowable utilization levels, stipulations regarding trailing in winterfat areas, and water hauling requirements (see pages 12-13). The terms and conditions of the current permit exclude sheep from trailing in winterfat areas.

Were the permittee to license the full active permitted use of 922 AUMs it would mean that the permittee would need to run in excess of 4,000 sheep. Even without any current range monitoring data on record for this event, it is reasonable to expect from a review of the rangeland monitoring data in the SDD that utilization levels on the key forage species Indian ricegrass, winterfat, and needleandthread would be moderate (40-60%) or heavy (61-80%), depending on annual climate conditions, and that significant progress would not be made towards the Upland Sites or Habitat Standards achievement. Sheep management practices would not be in conformance to the Guidelines. When combined with wild horse use, use levels would be expected to be heavy (61 – 80%) or severe (81 – 100%), which would be magnified during drought years or those years when wild horse populations are above the appropriate management level (AML). This use would exceed the Ely District RMP use objectives and the allowable use levels as implemented by this permit renewal, and may not leave adequate forage available for wild horses, wildlife, or sage grouse cover and forage. The response to vegetative resources would thus be inappropriate if full active permitted use were authorized. Vegetative cover, production, structure, composition, diversity, vigor, and seed production would likely not be appropriate.

Black sagebrush would be the primary key forage species for sheep on native range with use also expected on winterfat or cured native bunchgrass. Some use might also occur of cheatgrass in both

winter and spring. Licensing full active permitted use of 922 AUMs would also be expected to result in the greatest use of cheatgrass in winter or spring. This use of cheatgrass could help prevent wildfire. Sheep would be expected to make minimal use in the Wyoming sagebrush range sites, since Wyoming sage is not a preferred forage for sheep. Complete regrowth of native herbaceous grasses and forbs would be allowed in sagebrush range during the critical growing period in the west pasture, and some regrowth would be allowed following the off date of April 15 in the east pasture.

According to the No Action Alternative, if it is discovered through rangeland monitoring that allowable use levels are exceeded, the grazing permittee would be contacted as well as the BLM wild horse specialist to identify the problem and take corrective action. However this old way of doing business would be less effective in maintaining or making significant progress towards achievement of the Upland Sites and Habitat Standards than the new terms and conditions related to allowable utilization levels as implemented by the Proposed Action or the Actual Use Alternative.

Rangeland Standards and Health/Vegetative Resources **Actual Use Alternative – Environmental Effects**

According to the Actual Use Alternative, sheep grazing use would be authorized at 322 active AUMs on native range of the Six Mile Allotment, with 190 AUMs authorized west of Belmont Road for winter use from 11/1 to 2/28 and 132 AUMs authorized east of Belmont Road for spring grazing from 3/1 to 4/15. The overall season of use would remain the same, or 11/01 – 04/15. Sheep numbers would vary from about 600 to 2,000 sheep, depending on annual growth conditions and the needs of the operator. Sheep numbers would be flexible, not to exceed the active permitted use of 460 AUMs on native range. As for the Proposed Action, other grazing terms and conditions would apply to the grazing permit, for example, new allowable utilization levels, and movement or removal of sheep from the allotment upon reaching utilization levels (see page 14). The permittee would not have the opportunity to graze above the 322 AUM level on a good year.

Sheep would be expected to continue to use the allotment lightly. Key forage utilization would be expected to be slight (0-20%) and light (21-40%) by sheep on the key species black sagebrush, winterfat, Indian ricegrass, and needleandthread. When combined with wild horse use, key forage utilization would be expected to be light (21-40%) and moderate (41-60%). Sheep would continue to use the allotment primarily during the winter period, when forage is relatively dormant, and would rotate grazing locations. Some spring use by sheep would be expected to be activated. Sheep would continue to use black sagebrush as the primary key forage species with some use expected on winterfat and cured native bunchgrass. Sheep would be expected to make minimal use in the Wyoming sagebrush range sites, since Wyoming sage is not a preferred forage for sheep.

Complete regrowth of native herbaceous grasses and forbs would be allowed in sagebrush range during the critical growing period in the west pasture, and some regrowth would be allowed following the off date of April 15 in the east pasture. This would strengthen the herbaceous native plant component relative to the current shrub dominance.

Significant progress towards Habitat Standard Achievement would be made according to this alternative. Livestock management practices would conform to the Guidelines. Vegetative attributes such as vegetation production, composition, cover, structure, vigor, diversity, seed production, and litter

would be appropriate to ecological site potential. Forage availability for wild horses and wildlife would likely be greater according to this alternative, although this would also be dependent on precipitation and climate.

4.1.1 Cattle Grazing in the Fernando Seedlings – All Alternatives

Cattle grazing would continue in the Fernando Seedlings in accordance with the Grazing Decision of 1991, for all alternatives. Cattle use would be authorized at 287 AUMs, with a season of use from 04/15 to 10/31. The Upland Sites and Habitat Standards are both achieved in the Fernando Seedlings. The Riparian/Wetland sites Standard is not applicable. From 2001 through 2007, licensed cattle use in the seedlings averaged 254 AUMs for six years of grazing. The seedlings were completely rested during the 2006 year, as the permittee took total voluntary non-use on the permit. Use ranged from a high of 304 AUMs in 2007 to a low of 209 AUMs in 2002. The average turn out date was about April 18. The off dates varied from September 19 to December 1.

Cattle grazing in the Fernando Seedlings is expected to be equal to or less than the allowable use levels for key forage plants as identified in the terms and conditions of the proposed permit renewal in Appendix II.

4.2 Social and Economic Values Affected Environment

The farming and ranching life style and economy is important to White Pine County. Taxes generated from agricultural activity benefit the county and local residents. Sheep and cattle operations have been a way of life in the area since the 1870s. There is a potential impact to farm income and local economies as a result of different livestock grazing levels authorized on public lands. Grazing receipts that accrue to BLM generate payments to range improvement funds and payments to counties of origin (White Pine County). For further information on economic and social values, see section 4.23 in Volume 2 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement.

Social and Economic Values Proposed Action - Environmental Effects

The Proposed Action would authorize 460 AUMs active permitted use for sheep grazing on native range in the allotment. This alternative would provide a moderate amount of flexibility in the grazing operation. The permittee would be able to use the Six Mile Allotment when good years present grazing opportunities. There would not be an opportunity to graze AUMs above the 460 level any year. There would be greater opportunity to choose to graze the Six Mile, South Pancake, Duckwater, or Newark Allotments than under the actual use grazing alternative. The proposed action alternative would maintain the stability and economic value of the overall grazing permit. Grazing receipts accrued by BLM would be expected to stay about the same under this alternative, since average actual sheep use over the evaluation period was 322 active AUMs and would be expected to be similar for the period of the permit renewal.

Social and Economic Values No Action Alternative – If Full Active Permitted Use were Licensed – Environmental Effects

The No Action Alternative would authorize 922 AUMs active permitted use for sheep grazing on native range in the allotment. This alternative would provide economic benefits for the livestock permittee by maintaining the economic stability, efficiency, and flexibility of their overall operation. The sheep permittee would have a broader array of options to choose to graze the Six Mile, South Pancake, Duckwater, and Newark Allotments during both the winter and spring grazing periods and the No Action Alternative would facilitate livestock management. Grazing receipts accrued by BLM and distributed to range improvements funds or White Pine County could increase according to this alternative, but would be expected to be about the same as for the Proposed Action.

Social and Economic Values

Actual Use Alternative - Environmental Effects

The actual use alternative would authorize 322 AUMs active permitted use for sheep grazing on native range in the allotment. This alternative would provide the least amount of flexibility in the grazing operation. The permittee would not be able to use the Six Mile Allotment when good years present grazing opportunities. There would not be an opportunity to graze AUMs above the 322 level any year. There would be less opportunity to choose to graze the Six Mile, South Pancake, Duckwater, or Newark Allotments than under the Proposed Action. The permittee would be expected to increase sheep use in these other allotments, if active AUMs are available there. This alternative would reduce the stability and economic value of the overall grazing operation. This alternative could result in a reduction in grazing receipts that are distributed to range improvement funds or to White Pine County.

4.3 Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered

Affected Environment – Sage Grouse

Five sage grouse leks have been documented in the allotment, all west of the Belmont Road. Of these, two were last surveyed in 2004, and were classified as “unknown” at that time, when no strutting males were found. Two other leks were last surveyed in 1988 and classified as active at that time. One of these had 33 males and one had 5 males. The fifth lek was last surveyed in 2001 and had 2 males. Also, a potential lek occurs approximately 0.75 miles to the west of the northwest boundary of the allotment. Five males and a hen were present at this lek when discovered in 2004. There is no lek survey information for the Six Mile Allotment since 2004. Based upon the information available, there is expected to be sage grouse nesting habitat within three miles of the lek areas and winter habitat is expected to be present wherever sagebrush commonly occurs above the snowpack. The Ely District BLM GIS layers indicate that approximately 78% of the land area of the Six Mile Allotment is potential sage grouse nesting habitat and 76% of the land area is potential winter habitat. Brood rearing habitat is expected to occur near nesting areas, at higher elevations on Buster Mountain, or near a small spring system on private land. Sage grouse are known to prefer Wyoming sagebrush rangeland ecological sites for nesting and wintering habitat.

Affected Environment – Other Special Status Animal Species

Based on a general merging of soil and vegetation types known to be preferred by pygmy rabbits (*Brachylagus idahoensis*), the Six Mile Allotment contains no potential habitat. No sightings have been documented within the project area.

There are two ferruginous hawk (*Buteo regalis*) nests on the allotment and golden eagles (*Aquila chrysaetos*) are known to occur in the area.

Proposed Action - Environmental Effects – Sage Grouse and other Special Status Animal Species
Features of the Proposed Action, which would authorize 460 AUMs active permitted use for sheep on the native range of the Six Mile Allotment, including a reduction in authorized AUMs, a simple pasture rotation, implementation of utilization levels, sheep trailing and camping terms, water hauling requirements, and the term and condition to move livestock to another authorized pasture or to remove them from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives, are designed to improve vegetative community conditions, particularly for the herbaceous understory. These changes should benefit greater sage-grouse (*Centrocercus urophasianus*) populations within the project area by providing appropriate vegetation cover and forage for sage grouse.

Sheep would continue to use black sagebrush as the primary key forage species with some use expected on winterfat and cured native bunchgrass. Sheep would be expected to make minimal use in the Wyoming sagebrush range sites, since Wyoming sage is not a preferred forage for sheep. Sage grouse are known to prefer Wyoming sagebrush for nesting sites and winter use. Complete regrowth of native herbaceous grasses and forbs would be allowed in sagebrush range during the critical growing period in the west pasture, and some regrowth would be allowed following the off date of April 15 in the east pasture. This would strengthen the herbaceous native plant component relative to the current shrub dominance, providing appropriate forage and cover for sage grouse.

All identified sage grouse leks (active, inactive, and unknown status) occur in the west pasture. Sheep would continue to leave the west pasture on or about February 28, allowing the complete regrowth of native herbaceous grasses and forbs for sage grouse forage, cover, and nesting cover each season. Sheep would not be grazing the west pasture during the sage grouse strutting and nesting period, generally accepted to be March 15 to May 31.

The proposed action would not contribute to the need to list any Special Status Species as threatened or endangered. Assuming there are existing populations of ferruginous hawks or golden eagles within the project area, the changes within the proposed action are designed to improve vegetative conditions and thus should benefit those potential populations by providing habitat for the small mammals and rabbits they prey on.

No Action Alternative – If Full Active Permitted Use were Licensed – Environmental Effects – Sage Grouse and other Special Status Animal Species

The No Action Alternative would be expected to result in the greatest amount of utilization of key grasses that are considered important as sage grouse cover. Implementation of this alternative could result in heavy (61-80%) and severe (81-100%) use of Indian ricegrass were the permittee to license full active permitted use of 922 AUMs. It is reasonable to expect that if full active use were permitted the range would likely remain in a shrub dominant state and vegetation cover and forage would not be appropriate for sage grouse. Drought and wild horses could magnify the effects of heavy and severe grazing use.

The No Action Alternative is not likely to improve vegetative conditions. The small mammal species upon which the ferruginous hawk and golden eagle depend for food may not benefit, since the range would remain shrub dominant without an appropriate understory of herbaceous grasses and forbs. Therefore, the no action alternative may or may not affect ferruginous hawk and golden eagle populations.

The No Action Alternative would permit the highest number of sheep of all the alternatives. Grazing may be more concentrated and less dispersed. This increases the likelihood that a sheep might step on or near a pygmy rabbit burrow.

Actual Use Alternative - Environmental Effects – Sage Grouse and other Special Status Animal Species

Features of the Actual Use Alternative, which would authorize 322 active sheep AUMs on the native range of the Six Mile Allotment, including a reduction in authorized AUMs, a simple pasture rotation, implementation of utilization levels, sheep trailing and camping terms, water hauling requirements, and the term and condition to move livestock to another authorized pasture or to remove them from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives, are designed to improve vegetative ecological conditions, particularly for the herbaceous understory of native grasses and forbs. These changes should benefit greater sage-grouse populations within the project area by providing appropriate vegetation cover and forage for sage grouse. The Actual Use Alternative would result in the least amount of utilization of key grasses that are considered important as sage grouse cover.

Other effects of the Actual Use Grazing Alternative are as described above on page 33 for the Proposed Action.

Because the changes to livestock management practices within the Actual Use Alternative are designed to improve vegetative conditions, the small mammal species upon which the ferruginous hawk and golden eagle depend for food should also benefit, particularly from an improving herbaceous understory. Therefore, the actual use alternative action is not expected to negatively affect ferruginous hawk populations.

5.0 Cumulative Impacts

The purpose of the cumulative analysis in the EA is to evaluate the significance of the Proposed Action's contributions to cumulative impacts. A cumulative impact is defined under federal regulations

as follows:

Cumulative impacts are impacts to the environment or resource values that result from the incremental or combined impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively important actions taking place over a period of time (40 CFR 1508.7).

According to the 1994 BLM publication (attached to WO-IB-94-310) “Guidelines for Assessing and Documenting Cumulative Impacts,” the cumulative analysis can be focused on those issues and resource values identified during scoping that are of major importance. Issues or resource values of major importance identified during the EA scoping period are Rangeland Standards and Health/Vegetative Resources, Social and Economic Values, and Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered. These issues are discussed below. First, a general discussion of past, present, and reasonably foreseeable future actions follows:

5.1 Past Actions

There have been limited previous actions occurring in the project area. The Six Mile Allotment is fairly remote and isolated, being about 60 road miles from Ely and 40 road miles from Eureka. Historical mineral mining has been common near Mt. Hamilton, which is located approximately two miles easterly from the Six Mile Allotment. Woodcutting, pinyon nut gathering, and trapping have been minimal. Hunting, wildlife viewing, and other recreational activities including OHV use have been minimal. Small two track roads associated with these activities are not extensive and have not altered the landscape. Wildfires have not been frequent or catastrophic. The Ely District Managed Natural and Prescribed Burn Plan was completed in November, 2000. A revision of this plan was completed in August, 2007. Wildlife use has not been intensive in the area and has not fundamentally altered the plant communities. The White Pine County Elk Management Plan was approved in March 1999 to regulate and monitor elk populations and distribution. A revision of this plan was completed and signed in 2007. Wild horse use has been common in this area, and wild horse gathers have occurred regularly. The last wild horse gather in the permit area occurred in January, 2006.

There has been no historical oil exploration in the Six Mile Allotment. There has been no historical agricultural activity in the allotment. Livestock grazing has been intensive historically, and along with wild horse use, drought, road establishment, and historical mining, may be a contributing factor to declining native range and the presence of invasive plant species. One seeding fence and one water development have been authorized and constructed over the years. Rangeland monitoring has been a common activity in the area.

5.2 Present Actions

Current activities or projects occurring in the project area are very limited. There is no current mineral mining. The Mt. Hamilton Mine to the south has been reclaimed. There is currently no oil exploration or production and no wind energy testing areas or solar energy testing areas. Woodcutting, pinyon nut gathering, and trapping are minimal. Recreational activities including OHV use are currently minimal, due to the remote location and relative lack of water sources. There is occasional use of the small two

track roads in the area. There have been no recent wildfires. Livestock use is currently far less than permitted active use. Wild horse use has been limited by recent gather operations. Wildlife use is common in the allotment, however there are only a few perennial water sources on Buster Mountain, so wildlife numbers are limited. There are no current gravel operations on the allotment. No power lines occur on the allotment and none are proposed. The area continues to be monitored to determine if plant communities are meeting Rangeland Health Standards and other vegetative objectives for the allotment.

5.3 Reasonably Foreseeable Future Actions

It is reasonable to expect that the grazing permit as proposed by this EA would become approved and sheep and cattle would be permitted to graze the Six Mile Allotment. Rangeland monitoring is expected to continue in about the same manner and scope as it has in the past. Monitoring would continue to evaluate the rangeland ecological sites to determine if Rangeland Health Standards and other vegetative objectives are being achieved. Dozens of grazing term permit renewals are expected to be completed by the Egan Field Office BLM in the years to come.

No other significant public lands actions are planned for the project area in the near future. The Nevada Dept. of transportation has submitted a project proposal to BLM for a public safety radio communications facility on Buster Mountain, approximately one mile north of the northeast corner of the Six Mile Allotment. This would disturb a very small portion of land. Also, a winter cattle grazing permit is being transferred from one operator to another in the South Newark Use Area of the Newark Allotment. This use area occurs along the unfenced north boundary of the Six Mile Allotment. Slight cattle drift into the Six Mile Allotment is anticipated. Also, rangeland monitoring for the Newark Valley Watershed is scheduled to begin in the summer of 2010. Future wild horse gathers would continue to occur within the Pancake Wild Horse Herd Management Area. The next gather is currently scheduled for 2011. There are no anticipated increases in mining, wind energy development, solar energy development, oil and gas exploration, power lines, or water wells. There are no anticipated increases in woodcutting, pinyon nut gathering, trapping, or OHV use in the area in the reasonably foreseeable future. No gravel acquisition is expected. No other range improvements such as wells, fences, or spring developments are anticipated.

The area of the proposed action occurs within the Newark Valley Watershed. Broad watershed assessment of this watershed is expected to be accomplished by BLM within the next two years (2010 – 2011). The assessment will determine if further changes in grazing management practices are needed to conform to the Standards and Guidelines for Rangeland Health. The assessment may also recommend sagebrush restoration treatments or other vegetative treatments designed to maintain or improve rangeland ecological health and watershed health.

5.4 Cumulative Impacts Summary

Rangeland Standards and Health/Vegetative Resources

The permit renewal under the Proposed Action or the Actual Use Alternative in combination with the next wild horse gather in 2011 and subsequent regular wild horse gathers would be expected to result in more appropriate ecological conditions and vegetative attributes, and would make significant progress towards achievement of the Habitat Standard under both alternatives. The permit renewal under the Proposed Action or the Actual Use Alternative in combination with an Elk Management Plan in place

for White Pine County and The Ely District Managed Natural and Prescribed Burn Plan in place for the Ely District would be expected to result in healthy vegetative resources over the long term with continued achievement and significant progress towards Standards achievement. Native vegetative cover, production, composition, structure, diversity, vigor, litter, and seed production would improve.

The permit renewal under the No Action Alternative – If Full Active Permitted Use were Licensed - in combination with the next wild horse gather in 2011 and subsequent regular wild horse gathers would reasonably be expected not to make significant progress towards achievement of the Habitat Standard. Ecological conditions and vegetative attributes would not be appropriate. The permit renewal under the No Action Alternative in combination with an Elk Management Plan in place for White Pine County and The Ely District Managed Natural and Prescribed Burn Plan in place for the Ely District would reasonably be expected not to result in healthy vegetative resources over the long term. Significant progress may not be made towards Standards achievement. Native vegetative cover, production, composition, structure, diversity, vigor, litter, and seed production may not improve.

Social and Economic Values

There would be no cumulative effect to Social and Economic Values as a result of any of the presented alternatives in combination with other past, current, or reasonably foreseeable future actions.

Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered

The permit renewal under the Proposed Action or the Actual Use Alternative in combination with the wild horse gather planned for 2011 and subsequent wild horse gathers would be expected to result in more appropriate ecological conditions and vegetative attributes. Significant progress would be made towards achievement of the Standards and Guidelines for Rangeland Health and the salt desert shrub and sagebrush ecological sites would maintain or improve. Both alternatives would be expected to result in a more appropriate herbaceous understory of native grasses and forbs that are important for sage grouse cover, forage, and nesting habitat.

The permit renewal under the No Action Alternative – If Full Active Permitted Use were Licensed in combination with the wild horse gather planned for 2011 and subsequent regular wild horse gathers would reasonably be expected not to result in appropriate habitat conditions for sage grouse.

No cumulative impacts of major concern are anticipated as a result of the proposed project in combination with any other actions in the area.

6.0 PROPOSED MITIGATING MEASURES

The terms and conditions of the grazing permit would mitigate anticipated impacts. No additional mitigating measures are proposed based on this environmental analysis.

7.0 SUGGESTED MONITORING

Appropriate monitoring has been included in the Proposed Action. No additional monitoring has been suggested by the BLM interdisciplinary team at this time.

8.0 CONSULTATION AND COORDINATION

8.1 Public Interest and Record of Contacts

There is a general public interest in the proper grazing management of public lands. Operator #2704554 has a strong interest in this term permit renewal. The Western Watersheds Project also has an interest in this permit renewal.

On February 12, 2008, the operator #2704554 Term Permit Renewal proposal was presented to a Tribal coordination meeting at the Ely BLM Field Office. No concerns were identified during this meeting. There were no questions or comments regarding the proposal from the Tribal participants. On February 27, 2008, the project was presented to the Ely BLM internal interdisciplinary team and no issues were identified.

A scoping letter was mailed to the grazing permittee regarding the permit renewal action on February 28, 2008, requesting comments by March 14, 2008. No comments were received in response to this letter. A project summary of this term permit renewal was posted on the BLM website on April 3, 2008. No comments have been received regarding the posting.

The preliminary EA was posted for a fifteen day public review and comment period on the Ely BLM external website. A hard copy of the preliminary EA, dated August 1, 2008, was also mailed to those interested publics who have requested it, and who have expressed an interest in range management actions on the Six Mile Allotment. Changes in the preliminary EA based upon public input were made as appropriate.

Interested publics were notified by mail or e-mail when the preliminary EA was completed and the Decision Record/Finding of No Significant Impact (DR/FONSI) was signed. These documents were mailed to interested publics that have requested a hard copy. The signed DR/FONSI initiated a 15 day protest period and a 30 day appeal period. Western Watersheds Project subsequently appealed the Decision Record, and the matter came before the Office of Hearings and Appeals for review and resolution.

This new EA was reviewed by a BLM interdisciplinary team in May, 2010 and will also be posted for a thirty day public review and comment period on the Ely BLM external website. A hard copy of this new EA is also being sent for a thirty day review to those interested publics on the 2010 range interested public mailing list, as well as those interested publics from the 2008 range mailing list. Comments will be requested by a specified date.

The Ely District Office mails an annual Consultation, Cooperation, and Coordination (CCC) Letter to individuals and organizations that have expressed an interest in rangeland management related actions. Those receiving the annual CCC Letter have the opportunity to request from the Field Office more information regarding specific actions. Those requesting notification of range improvement actions are requested to respond if they want to receive a copy of the final EA and signed Decision Record/Finding of No Significant Impact. Those individuals and organizations who were sent the annual CCC letter in January, 2008, or January, 2010, and have requested additional information regarding rangeland related

actions or programs within the Six Mile Grazing Allotment will receive a copy of this EA for review.

8.2 Record of Personal Consultation and Coordination

Operator #2704554

Operator #2704520

8.3 Internal District Review

Ruth Thompson/Ben Noyes

Dave Jacobson

Kalem Lenard, Erin Rajala

Mark Lowrie

Amanda Anderson

Mindy Seal

Elvis Wall

Gina Jones

Marian Lichtler

Nicholas Pay

Mark D'Aversa

Chris Mayer

Wild Horses

Wilderness

Recreation/Visual Resources

Rangeland Resources, Environmental Coordination,
Wildlife

Rangeland Resources

Noxious Weeds & Invasive, Non-Native Species,
Watershed Assessment, Vegetation

Native American Religious Concerns

Environmental Coordination

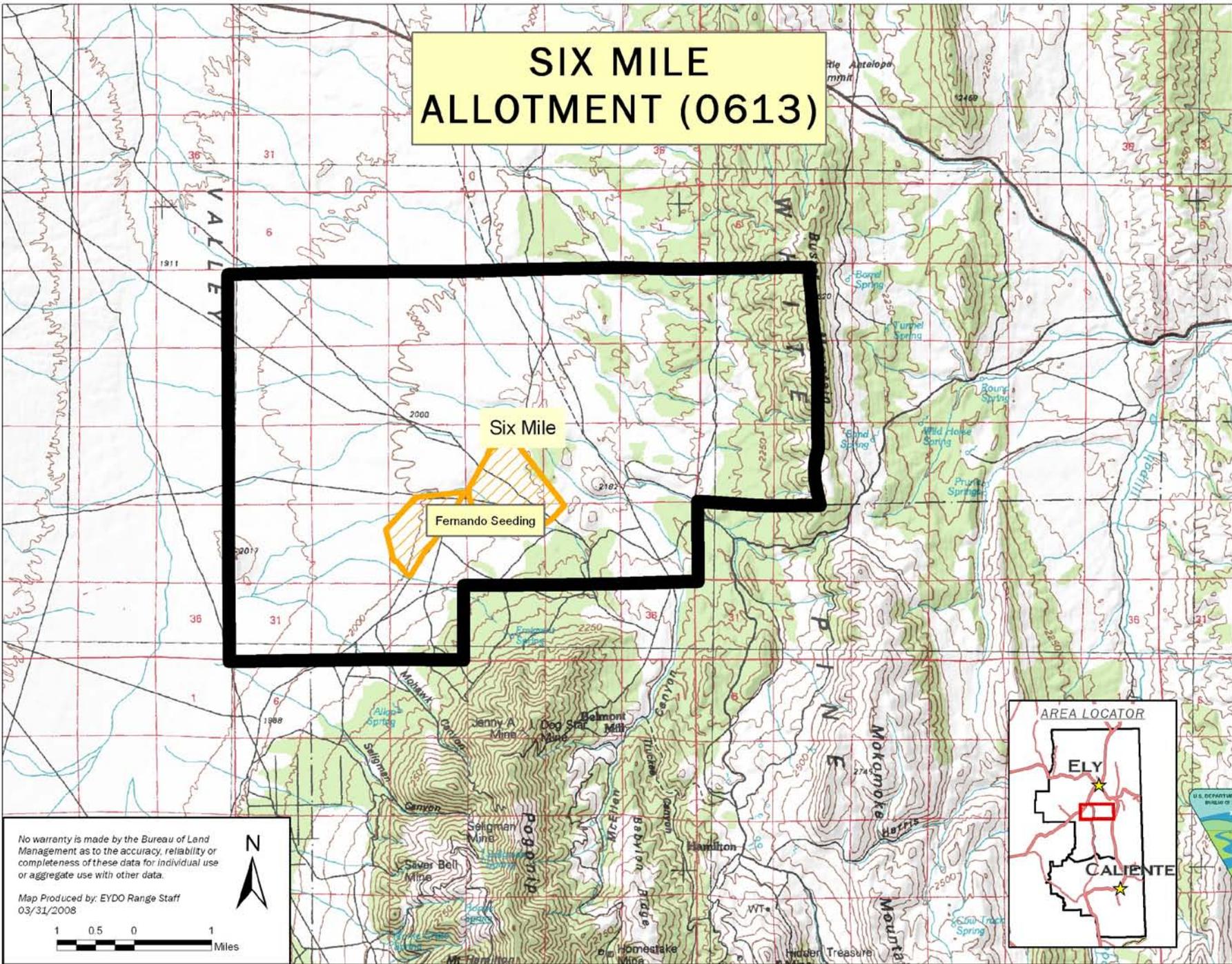
Wildlife/T&E Species/Riparian/Migratory Birds

Cultural Resources

Soil/Water/Air

Rangeland Resources/Environmental Coordination

SIX MILE ALLOTMENT (0613)

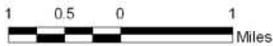


Six Mile

Fernando Seeding

No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: EYDO Range Staff
03/31/2008



Ely District Office



STANDARDS DETERMINATION DOCUMENT
GRAZING PERMIT RENEWAL FOR OPERATOR # 2704554
SIX MILE ALLOTMENT

United States Department of the Interior
Bureau of Land Management
Ely District Office

Prepared By: Mark Lowrie
June 14, 2010

STANDARDS DETERMINATION DOCUMENT
Operator #2704554 Grazing Term Permit Renewal
Six Mile Allotment

Standards and Guidelines Assessment

Standards and Guidelines for Grazing Administration were developed by the Northeastern Great Basin Area Resource Advisory Council (RAC) and approved by the Secretary of the Interior on February 12, 1997. Standards and Guidelines reflect the stated goals of improving rangeland health while providing for the viability of the livestock industry, all wildlife species and wild horses and burros in the Northeastern Great Basin Area. 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 (SDD) evaluates and assesses livestock grazing management achievement of the Standards and conformance to the Guidelines for the Six Mile Allotment (0613) in the Egan Field Office BLM. 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 Six Mile Allotment is the permitted grazing allotment for operator No. 2704554. Operator #2704554 is currently leasing the allotment for five years from Barrick Gold of North America, Inc. There are no other livestock operators on the allotment. The Six Mile Allotment encompasses approximately 21,335 public land acres. Operator #2704554 is currently authorized for both sheep and cattle grazing on the allotment. Sheep graze native range exclusively and cattle graze the Fernando Seedings exclusively. The Fernando Seedings are completely fenced.

The permit renewal project proposal for the Six Mile Allotment was presented to a BLM interdisciplinary ID team on February 27, 2008. At this meeting the ID team discussed the known resource issues and concerns on the allotment. A BLM interdisciplinary team also reviewed this SDD and the new EA for this permit renewal in May and June, 2010. This assessment of the rangeland health has been conducted during the permit renewal process. Standards for Rangeland Health have been evaluated by the BLM ID team for the Six Mile Allotment. The interdisciplinary team (consisting of Rangeland Management Specialists, Wildlife Biologist, Weeds Specialist, Soil/Water/Air Specialist, Archaeologist, Wild Horse Specialist, Watershed Specialist, Recreation Specialist, and others) individually or collaboratively utilized several scientifically based documents and official publications to complete the assessment. These documents include the Western White Pine County Soil Survey (USDA-SCS), Rangeland Ecological Site Descriptions (USDA-NRCS 2003), Interpreting Indicators of Rangeland Health (USDI-BLM et al. 2005), Sampling Vegetation Attributes (USDI-BLM et al. 1996), the Nevada Rangeland Monitoring Handbook (USDA-SCS et al. 1984), Utilization Studies and Residual Measurements, and the National Range and Pasture Handbook (USDA NRCS 2003). For a complete list of references, see Appendix IV. The interdisciplinary team also used rangeland monitoring data, maps, professional observations, and photographs to evaluate achievement of the Standards and conformance with the Guidelines.

Rangeland monitoring is conducted at key areas and representative study sites in the term permit renewal area. The key areas and study sites have been selected based on accessibility, soil mapping units

(SMU), representative rangeland ecological sites, livestock use patterns, and permittee input. The term permit renewal area has been monitored for vegetation condition and rangeland health periodically since the 1960s. The primary evaluation period for this Standards Determination Document is considered to be from 2000 through 2008. "Current livestock grazing management practices" are considered to be those practices implemented during this period. A small amount of data prior to 2000 is also considered in this SDD. All scientifically based documents and rangeland monitoring data are available for public inspection at the Ely District Office during business hours.

PART 1. STANDARD CONFORMANCE REVIEW

Standard # 1. Upland Sites

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

Soil indicators:

- ❖ Canopy and ground cover, including litter, live vegetation and rock, appropriate to the potential of the site.

Determination:

X Achieving the Standard

- Not achieving the Standard, but making significant progress towards
- Not achieving the Standard, not making significant progress towards

Guidelines Conformance:

X In conformance with the Guidelines (See Part 3. Guideline Conformance Review)

- Not in conformance with the Guidelines

Conclusion:

Standard achieved. Vegetation cover studies, ecological condition studies, utilization studies, licensed use records, drought studies, photographs, and professional observations indicate the term permit renewal area (Six Mile Allotment) is achieving the Upland Sites Standard. The amount of canopy and ground cover, including litter, live vegetation, and rock, are appropriate to ecological site potential. Canopy and ground cover were found to be appropriate to ecological site potential at five key grazing areas in native range in June 2003 and July 2007 (pages 36-38). Vegetation production data rates are above ecological site potential (see ecological condition data pages 45-46). Vegetation vigor was found to be fair to good even in a very low precipitation year (see drought monitoring on page 47). Biological crusts are generally present and there is no sign of excess surface compaction or trampling of soils. This indicates stable soils where percolation and infiltration are appropriate to range site potential. Rangeland observations listed with the utilization monitoring (Appendix I) also indicate primarily stable soils. Native plant communities are somewhat resilient and resistant to invasive species spread. There are no cheatgrass/annual grass dominant ranges in the allotment. Range monitoring studies show that

the occurrence and production of invasive species is minimal in the Six Mile Allotment. Key forage plant method utilization accomplished at key areas and study sites in salt desert shrub range, sagebrush range, and in the crested wheatgrass seedings has been generally moderate or less, and often times light or less, during the assessment period. Forage utilization has been in conformance with the Guidelines for Rangeland Health and is within the range that scientific literature and experience indicates should allow for healthy soils. This promotes litter to stabilize upland sites. The native range in the allotment was not grazed at all by sheep during the spring of 2001, 2002, 2003, 2005, or 2006. No use at all was made on the native range by sheep during the 2003 grazing year. Key Grazing Areas are on landform slopes less than 8%. Mild slopes are contributing to stable soil conditions.

However, vegetation composition is inappropriate in this allotment to the extent that certain key areas are in a shrub dominant state with a native grass and forb component that is below ecological site potential (see Habitat Standard discussion below). Soil/water relations are optimum when a healthy herbaceous component appropriate to site potential is present. The absence of the more desired native grasses and forb component increases the risk of soil erosion, runoff, and less water infiltration and percolation.

Use on the Fernando Seedings has been well below active permitted use (see licensing records Appendix I). The seedings were completely rested during the 2006 grazing year. Since active permitted use was reduced by 34% in the Fernando Seedings in 1991, many photographs indicate the crested wheatgrass seedings are in good condition with a productive grass component estimated to be from 60 to 80% by weight of current annual growth of the plant community within the seeding. Sagebrush dominance is not a problem in these seedings. Litter has been abundant to protect soils. The crested wheatgrass plants have produced a great abundance of forage and seed since the 1991 grazing decision.

Standard #2. Riparian and Wetland Sites

Riparian and wetland areas exhibit a properly functioning condition and achieve State water quality criteria

Riparian and Wetland Sites Indicators:

- ❖ Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows. Elements indicating proper functioning condition such as avoiding accelerated 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:

This Standard is not applicable to the Six Mile Allotment.

There are no public land riparian systems in the Six Mile Allotment. In the Fernando Seedings, cattle are watered from a water pipeline development that originates on private ground one half mile east of the seedings. In native range sheep are watered from this same pipeline or from temporary water haul troughs that are placed along the main county road or prominent two track roads that occur through the allotment. “Standard Riparian Functioning Condition Checklists” (USDI-BLM 2000) were thus not completed for any riparian systems of the term permit renewal area.

Conclusion: Standard not applicable

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.

Habitat indicators:

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

Determination:

Achieving the Standard

X Not achieving the Standard, but making significant progress towards

Not achieving the Standard, not making significant progress towards

Guidelines Conformance:

X In conformance with the Guidelines (See Part 3. Guideline Conformance Review – p. 31)

Not in conformance with the Guidelines

Livestock As A Causal Factor:

Livestock are a causal or contributing factor

X Livestock are not a causal or contributing factor

X Failure to achieve the Standard is related to other factors or conditions

Current or existing grazing management and levels of grazing use within the Six Mile Allotment are not a causal or contributing factor in failing to achieve the Habitat Standard. Licensed livestock use in

native range has been well below active permitted use during the evaluation period. Licensed sheep use averaged less than 35% of active permitted use for the eight year period 2000 – 2007. No use at all was made in 2003. Spring use by sheep was made only in 3 of the last eight years.

The non-achievement of the Habitat Standard, or the difference in the current plant composition and the ecological site potential at certain key areas of the allotment in native range, as indicated by over dominance of shrubs, is more directly attributable to drought, historic heavy livestock grazing from 1870 to 1990, absence of natural fire, fire suppression, high numbers of wild horses during the 1990s, or climate change.

Conclusion:

The Habitat Standard is being achieved in the Fernando Seedings. Current active permitted use is 287 AUMs. From 2001 through 2007, licensed cattle use in the seedings averaged 254 AUMs for six years of grazing. The seedings were completely rested during the 2006 year, as the permittee took total voluntary non-use on the permit. The average turn out date was about April 18. Thus each year cattle use is deferred until after a good portion of the critical growing period. The off dates varied from September 19 to December 1. Since active permitted use was reduced by 34% in the Fernando Seedings in 1991, many photographs indicate the crested wheatgrass seedings are in good condition with a productive grass component estimated to be from 60 to 80% by weight of current annual growth of the plant community within the seeding. Sagebrush dominance is not a problem in these seedings. Litter has been abundant to protect soils. The crested wheatgrass plants have been vigorous and have produced a great abundance of forage and seed since the 1991 grazing decision.

The Habitat Standard is not achieved on native range, but significant progress is being made towards achievement. Vegetation cover studies, ecological condition studies, frequency trend studies, photographs, and professional observations indicate portions of the Six Mile Allotment are not achieving the Habitat Standard, due to inappropriate plant composition at certain key areas. Plant composition is one of the five habitat indicators listed above. The shrub composition at Key Areas SM-02, SM-07, and SM-08 is too high. The composition of shrubs according to ecological condition studies (EC) at Key Areas SM-07 and SM-08 is in excess of 90%. The composition of Wyoming sagebrush at SM-08 according to a vegetation cover study is 94.4% (EC – combined shrubs are 91.9%). The composition of combined shrubs at SM-07 according to a vegetation cover study is 94.5 % (EC – 91.8%). At SM-07 (black sagebrush site) shrubs should compose about 45% of the plant community. At SM-08 (Wyoming sagebrush site) shrubs should compose about 35% of the plant community. EC indicates a declining trend at SM-08. Frequency trend data indicates range trend may also be declining at SM-02 (winterfat site) and SM-07 due to less Indian ricegrass, less winterfat, and more cheatgrass. The composition of winterfat at SM-02 according to a vegetation cover study is 94.8%. According to the ecological condition study for SM-02, winterfat composition is 79.3%.

Vegetation structure is inappropriate in this allotment to the extent that certain key areas are in a shrub dominant state with a native grass and forb component that is below ecological site potential. The shrub life form is over abundant and the forb and Indian ricegrass life form is lacking. However the variation in vegetation structure over the entire allotment is good, as indicated by the many soil mapping units, rangeland ecological sites, and plant diversity.

Range monitoring data indicates the amount of vegetation cover is adequate to sustain healthy soils and appropriate infiltration and permeability rates (see Upland Sites Standard above). Vegetation height and age classes are diverse. A diversity of native shrubs and grasses is present at all key areas of the allotment as indicated by the Native Plant Species Table on page 48, vegetation cover data, ecological condition data, and professional observations. Invasive species are minimal in this allotment. The invasive annual grass cheatgrass is present in small quantities in portions of the allotment. Cheatgrass production varies according to annual climatic conditions. The invasive annuals halogeton, Russian thistle, and some mustards are present, primarily along roadways. Vegetation productivity, measured during the drought years of 2003 and 2007, generally exceeds ecological site potential. Vegetation nutritional value has not been monitored, however the palatable, key forage plants are present in the allotment to sustain the physiological needs of livestock, wild horses, and wildlife, even during drought periods. The allotment has not been closed to grazing since records have been kept.

The native plant communities have not crossed a threshold to the “cheatgrass/annual grass infested state” where a significant amount of cheatgrass occurs in a shrub dominated community. The plant communities are still considered somewhat resilient and resistant to invasive annual introduction. The understory herbaceous component needs to be maintained or improved to achieve desired plant community objectives, which would help prevent the spread of halogeton, cheatgrass, or other invasive species into these ecological sites. The Fernando Seedings should continue to be monitored to ensure grazing use complies with active permitted use and allowable use levels.

By using soil unit maps, topographic maps, and knowledge and experience of walking and driving the allotment, it is estimated approximately 75%, or 16,000 public land acres in the term permit renewal area are achieving the Habitat Standard, with appropriate vegetation composition, vegetation structure, vegetation distribution, vegetation productivity, and vegetation nutritional value. Approximately 200 acres of winterfat ecological sites in the east/west draws and on the alluvial fans of the Six Mile Allotment (028BY013NV and 028BY084NV) are not achieving the Standard. Approximately 2,000 acres of black sagebrush ecological sites on the alluvial fans of the allotment (028BY011NV) are not achieving the Standard. Approximately 3,000 acres of Wyoming sagebrush ecological sites are not achieving the Standard. It should be noted from the ecological condition studies summarized on page 21 that there is generally a fair native grass component at five key areas.

The acres of non-achievement should continue to be monitored. These areas show signs of historic heavy use and lack a more appropriate and desirable herbaceous understory of native grasses and forbs where such should occur with native shrubs according to ecological site potential. Vegetation treatments should be considered to maintain sensitive soils, vegetation resiliency, resistance, watershed health, and native species diversity of these areas. The understory herbaceous component needs to be maintained or improved, which would help stabilize soils and prevent the spread of cheatgrass, halogeton or other invasive species into these ecological sites.

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

Grazing related questions as part of the determination process

1. Is it more likely than not that existing grazing management practices or levels of grazing use are significant factors in failing to achieve the Standards or conform with the Guidelines? No.
2. Is it more likely than not that existing grazing management needs to be modified to ensure that the Fundamentals of rangeland health are met, or making significant progress toward being met? No.

Standard # 1. Upland Sites

No. The Standard for stable soils is being achieved.

Standard # 2. Riparian and Wetland Sites

No. This Standard is not applicable to the Six Mile Allotment.

Standard # 3. Habitat

No. The failure to achieve plant composition goals (ecological site potential) is more directly attributable to drought, historic heavy livestock grazing from 1870 – 1990, high numbers of wild horses during the 1990s, lack of natural wildfire, climate change, road construction, or other factors.

Significant progress is being made towards achievement of this Standard in terms of the current livestock grazing system. On native range, a sheep grazing system has been in place on the allotment since the 1991 grazing decision. Sheep use is rotated to two pastures, sheep camps are moved, and very little sheep use has occurred during the spring critical growth period. Sheep use has occurred primarily during winter, in the black sagebrush range sites. Little use has been made in the Wyoming sagebrush range sites, which are considered favored nesting sites and winter areas for sage grouse. KFPM utilization studies show combined use by sheep and wild horses on native range has often been light or less either during the spring/summer period or yearlong. KFPM utilization studies show moderate use or no use in the Fernando Seedings. Sheep use has averaged only 322 AUMs for the eight years native range was grazed. No use was made in the 2003 grazing year. It has been demonstrated over time that proper management of sheep grazing can reduce the black sagebrush component and increase the understory herbaceous native grass and forb component. Because of the current grazing system and given the natural capability of the vegetative resources on this allotment, movement toward achieving the Habitat Standard is at an acceptable level of rate and magnitude.

PART 3. GUIDELINE CONFORMANCE REVIEW AND SUMMARY

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.

Current livestock management practices conform to Guidelines 1.1 and 1.3. Guideline 1.2 is not applicable to the assessment area at this time. The proposed action is to maintain current livestock management practices.

GUIDELINES:

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.

Current livestock management practices conform to Guidelines 3.1, 3.2, 3.3, and 3.6. Guidelines 3.4 and 3.5 are not applicable to the assessment area at this time. No land treatments have been recommended to date for the Six Mile Allotment as a result of the interdisciplinary review for this term permit renewal. The proposed action is to maintain current livestock management practices. Land treatments may be recommended in the future, especially in association with watershed analysis for the Newark Valley Watershed.

VEGETATION MANAGEMENT GUIDELINES (APPENDIX A TO STANDARDS AND GUIDELINES)

Current livestock management practices are in conformance with Salt Desert Shrublands Guideline #1 which states:

“Grazing should generally be limited to very early season grazing or dormant season rather than year round. If very early season grazing is permitted or prescribed to control cheatgrass early in spring, grazing should be terminated early enough to allow perennial plant species to set seed.”

Current livestock management practices are in conformance with Sagebrush/Bunchgrass Rangelands Guideline #1 which states:

“Create and maintain a diversity of sagebrush age and cover classes on the landscape through the use of prescribed fire, prescribed natural fire, mechanical, biological, and/or chemical means to provide a variety of habitats and productivity conditions.”

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

Six Mile Allotment Number	Pasture	Livestock Number/Kind	Grazing Period		% Public Land	Type Use	AUMs
			Begin	End			
0613	Fernando Sdng.	43 Cattle	04/15	10/31	100	Active	283*
	Six Mile Native						
	West of Belmont Road	344 Sheep	11/01	02/28	100	Active	271
	East of Belmont Road	625 Sheep	3/01	04/15	100	Active	189

* Active permitted cattle use in the Six Mile Allotment (Fernando Seedings) is 287 AUMs. Active permitted use in the Six Mile Allotment native range for sheep grazing is 460 AUMs. The figures presented in the table are rounded figures.

The allotment summary as it would appear on the proposed action term permit is as follows:

Allotment	Active AUMs	Voluntary Suspended Grazing		
		Non-Use	AUMs	Preference
00613 Six Mile	747	462	145	1354

This recommendation establishes new proper utilization levels for key forage species on the Six Mile Allotment. These utilization levels would allow native plants to develop above ground biomass for protection of soils; contribute to litter cover; and develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover. These use levels would also allow additional habitat cover for wildlife.

Terms and Conditions:

In accordance with 43 CFR 4130.3-2, the following terms and conditions will be included in the grazing permit for Operator # 2704554 in the Six Mile Allotment.

Six Mile Stipulations:

1. Total active permitted use in the Fernando Seedings of the Six Mile Allotment is 287 AUMs for cattle grazing. Total active permitted use in native range for sheep grazing is 460 AUMs.
2. Of the 460 sheep AUMs permitted use on native range, 189 AUMs are to be used east of Belmont Road for sheep spring grazing (03/01 – 04/15) dependent on the availability of water/snow. When snow is not available, water hauling along the Buster Mountain bench will be required for this permitted use. 271 AUMs are to be used west of Belmont Road in the Newark Valley portion of the allotment for winter sheep grazing (11/01 - 02/28).
3. Sheep will not be trailed or bedded in winterfat bottoms. Sheep camps/bedding grounds will be located a minimum of ½ mile from winterfat bottoms.
4. Sheep authorized to graze on native range will be watered on native range, and will not be allowed access to the water development inside the Fernando Seedings. Sheep will not be allowed to graze or to have access to the Fernando Seedings unless approved by the authorized officer.
5. Two water haul sites will be located at T. 17N., R. 57E., Section 7, NE1/4 SE1/4. Full use of the 271 AUMs west of Belmont Road will be dependent on use of these sites or availability of snow. Water will be hauled in accordance with Nevada State Water Law.
6. An allowable use level will be established as 40% of the current year's growth by weight for the key species Indian ricegrass, winterfat, and black sagebrush on native range for spring use by all herbivores (wild horses also use native range). The use level will be established as 50% for these key species for yearlong use. An allowable use level will be established as 55% of the current year's growth by weight for the key species crested wheatgrass in the Fernando Seedings for spring/summer/fall use.
7. Livestock will be removed to another 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.
8. The permittee is required to perform normal maintenance on the range improvements that have been issued through approved cooperative agreements or section 4 permits.

Prepared by:

Mark Lowrie, Rangeland Management Specialist

Date _____

Reviewed by:

Chris Mayer, Lead Rangeland Management Specialist

Date _____

Other Resource Specialists

	Date
Mark D' Aversa Soil/water/air/floodplains/riparian/wetlands	
Mindy Seal Noxious and invasive non-native species Vegetation, Watershed	
Lisa Gilbert Cultural resources	
Ruth Thompson Wild horses and burros	
Marian Lichtler Wildlife/migratory birds/special status animals/plants	
Dave Jacobson Wilderness Values/ACEC/Special designations	
Erin Rajala VRM/recreation	
Melanie Peterson Hazardous and solid wastes	
Elvis Wall Native American religious concerns	
Gina Jones Ecology/environmental coordination	

Amanda Anderson
Rangeland Resources

I concur:

Jeffrey A. Weeks
Field Manager
Egan Field Office

Date

Standards Determination Document
Appendix I
Monitoring Data for the Six Mile Allotment

Findings: *Monitoring data results describing current resource conditions for key areas and study sites in the Six Mile Allotment as they relate to the Upland Sites Standard and soils indicators are as follows:*

The Six Mile Allotment occurs within Major Land Resource Area (MLRA) 028B, the Central Nevada Basin and Range Area. The allotment occurs primarily on an area dominated by soils on fan piedmonts (General Soil Mapping Unit No. 11 – Palinor-Shabliss-Blimo Association, and General Soil Mapping Unit 16 – Palinor-Roden-Urmafot Association). The allotment also occurs in an area dominated by soils on hills and mountains (General Soil Mapping Unit No. 20 – Zimbob-Pookaloo-Hyzen Association). Soil types vary through the allotment. Over 20 different Soil Mapping Units (SMUs) have been identified in the allotment. The six major SMUs in the allotment are SMUs 286, 173, 295, 323, 232, 283, and 124. Together these mapping units represent about 75% of the land area of the allotment. Key Areas for range monitoring studies have been established in several of the soil types. Key Areas SM-01, 01b, 03, and 04 occur in SMU 173. Key Areas SM-02 and 05 occur in SMU 232. Key Area SM-06 occurs in SMU 283. SM-07 occurs in SMU 323. SM-08 occurs in SMU 286.

Key Areas SM-01, 01b, and 03 occur in the crested wheatgrass seedings (Fernando Seedings). These two fenced seedings together comprise about 800 acres of lands and were completed in 1965. The remaining key areas occur in native range.

Vegetation Cover Studies – Six Mile Allotment

Two types of vegetation cover studies have been completed on the Six Mile Allotment. The first of two, ground cover studies, were completed at four key areas of the Six Mile Allotment during June, 2003. Photographs were taken and professional observations noted. Results of the ground cover studies are as follows:

Ground Cover Studies - Six Mile Allotment - June, 2003.

Ground Cover, Six Mile Allotment

1. Key Area SM-02 occurs in a Silty 8-10” ecological site (Eula5/Orhy – 028BY013NV)

<u>Study Area</u>	<u>Ground Cover</u>	
SM 02	Vegetation	14.0%
	Bare ground	78.0%
	Litter	8.0%
	Rock	0.0%

2. Key Area SM-05 also occurs in a Silty 8-10” ecological site (Eula5/Orhy – 028BY013NV)

<u>Study Area</u>	<u>Ground Cover</u>	
SM 05	Vegetation	16.0%
	Bare ground	72.0%

Litter	12.0%
Rock	0.0%

3. *Key Area SM-07 occurs in a shallow calcareous loam 8-10” ecological site (Ararn/Orhy-Stco4 – 028BY011NV)*

Study Area	Ground Cover	
SM 07	Vegetation	28.0%
	Bare ground	50.0%
	Litter	19.0%
	Rock	2.0%

4. *Key Area SM-08 occurs in a shallow loam 8-10” ecological site (ArtrW/Orhy-Stco4 – 028BY080NV)*

Study Area	Ground Cover	
SM 07	Vegetation	23.0%
	Bare ground	63.0%
	Litter	13.0%
	Rock	1.0%

Line Intercept Vegetation Cover Data

The second type of vegetation cover study that has been completed in the Six Mile Allotment is called the Line Intercept Vegetation Cover Study. This vegetation cover study measures the foliar (canopy) cover of shrubs and forbs and the basal crown cover of native grasses. Vegetation cover is a linear measure, expressed in feet, along a 100 foot tapeline. Visual professional observations are recorded on the cover study form regarding the presence or absence of biological surfaces and whether or not the soils are compacted or trampled by animals. Line intercept vegetation cover data was gathered for the Six Mile Allotment in June 2003 and July 2007. The results are as follows:

Table 1. Line Intercept Vegetation Cover Data – Six Mile Allotment

Key Area/ Date	Vegetative Canopy Cover	Biological Surfaces	Soil Compaction/ Infiltration
SM-02 6/04/03	15.57 feet	Present	No excess compaction or trampling
SM-04 7/25/07	15.68 feet	Abundant	No excess compaction or trampling
SM-05 6/09/03	15.28 feet	Present	No excess compaction or trampling
SM-07 6/11/03	22.14 feet	Small %	No excess compaction or trampling
SM-08 6/26/03	22.67 feet	Good mat	No excess compaction or trampling

The canopy and ground cover at all of the above key areas were found to be similar to the potential of the ecological site. Key Areas SM-02 and SM-05 are located within a Silty 8-10” ecological site (Eula5/Orhy – 028BY013NV). Winterfat and Indian ricegrass dominate the plant community. Approximate ground cover (basal and crown) is 10 to 20 percent. This compares to 15.57% at SM-02 and 15.28% at SM-05.

Key Area SM-04 is located within a Coarse Silty 6-8" ecological site (Eula5/Orhy – 028BY084NV). Winterfat and Indian ricegrass dominate the plant community. Approximate ground cover (basal and crown) is 10 to 20 percent. This compares to 15.68% at SM-04.

Key Area SM-07 is located within a Shallow Calcareous Loam 8-10" ecological site (Ararn/Orhy-Stco4 – 028BY011NV). Black sagebrush, Indian ricegrass and needleandthread dominate the plant community. Approximate ground cover (basal and crown) is 15 to 20 percent. This compares to 22.14% at SM-07.

Key Area SM-08 is located within a Shallow Loam 8-10" ecological site (Artrw/Orhy-Stco4 – 028BY080NV). Indian ricegrass, needleandthread, and Wyoming big sagebrush dominate the plant community. Approximate ground cover (basal and crown) is 10 to 20 percent. This compares to 22.67% at SM-08.

The relative percent composition of native plant species according to the line intercept vegetation cover studies for the Six Mile Allotment is as follows:

Key Area SM-02 (2003)

Total cover of all vegetation = 15.57 feet (of 100 feet).

Vegetation composition by percent along the 100 foot transect is as follows:

<u>Species</u>	<u>Percent Composition</u>
Winterfat	94.8%
Squirreltail	03.4%
Bluegrass	01.2%
Indian ricegrass	00.6%

The following range notes were made on the line intercept cover form:

Biotic crusts (black) are present < 0.5% of soil surface. Evidence of heavy use this last drought year by wild horses. Sheep have also used the area. Slight pedestalling...no real compaction or trampling problems. Orhy probably decreasing while Sihy and Poa increasing. Cheatgrass occurred in the transect (about 8 plants) but was not counted as cover because it is a single stemmed species.

Key Area SM-04 (2007)

Total cover of all vegetation = 15.68 feet (of 100 feet).

Vegetation composition by percent along the 100 foot transect is as follows:

<u>Species</u>	<u>Percent Composition</u>
Winterfat	74.5%
Wyoming sagebrush	08.3%
Squirreltail	08.2%
Bluegrass	08.2%
Indian ricegrass	00.9%

The following range notes were made on the line intercept cover form:

Bionic crusts are abundant in the shrub interspaces. No excess compaction or trampling. Stable "blocky structure" gravelly silt soil. Good Sihy and Poa component. Good site. No invasive or noxious weeds present.

Key Area SM-05 (2003)

Total cover of all vegetation = 15.28 feet (of 100 feet).
 Vegetation composition by percent along the 100 foot transect is as follows:

<u>Species</u>	<u>Percent Composition</u>
Winterfat	73.7%
Bluegrass	18.5%
Shadscale	02.8%
Indian ricegrass	02.6%
Squirreltail	02.5%

The following range notes were made on the line intercept cover form:

No cheatgrass or halogeton or Russian thistle in the transect. Cryptogamic mat is present on red blocky crusty soil surface < 1% of ground cover. No excess trampling or compaction problems. Somewhat stable soil. Wyoming sagebrush is plentiful near the winterfat bottom but not encountered in the transect.

Key Area SM-07 (2003)

Total cover of all vegetation = 22.14 feet (of 100 feet).
 Vegetation composition by percent along the 100 foot transect is as follows:

<u>Species</u>	<u>Percent Composition</u>
Black sagebrush	54.9%
Small rabbitbrush	31.1%
Winterfat	08.5%
Bluegrass	05.4%
Squirreltail	00.1%

The following range notes were made on the line intercept cover form:

Very stable gravelly soil with a small % of cryptogamic mat present (black). Phlox & sprouting shrubs are common. Cheatgrass common to area – sparse – still small % of native plant production. Arno, Chvi, Eula in good vigor.

Key Area SM-08 (2007)

Total cover of all vegetation = 22.67 feet (of 100 feet).
 Vegetation composition by percent along the 100 foot transect is as follows:

<u>Species</u>	<u>Percent Composition</u>
Wyoming sagebrush	94.4%
Indian ricegrass	02.9%
Squirreltail	02.3%
Winterfat	00.4%

The following range notes were made on the line intercept cover form:

This area generally not grazed by sheep but receives generally light or less wild horse use. Shallow loam soil is stable with a good cryptogamic structure (black cryptogams). Very few tracks present. No trampling or compaction problems.

Rabbitbrush present but not encountered in the transect. No invasive species present. Few to no forbs present.

The vegetative line intercept cover studies compare somewhat favorably with ecological site potential. The studies compare favorably with ecological site potential in terms of linear distance of vegetative cover. This data is confirmed by professional observations of the area over a period of sixteen years. Line intercept cover studies also indicate ecological sites that have the balance tipped in favor of shrubs. Key native grasses such as Indian ricegrass and some forbs are generally well below ecological site potential in both sagebrush and winterfat areas. The presence of biological surfaces (cryptogamic crusts) and the absence of surface compaction or trampling problems indicates stable soils where percolation and infiltration are appropriate to range site potential.

Forage Utilization – Six Mile Allotment

Utilization levels of forage plants are indicators of herbivory use, vegetation production, and the amount of live vegetative canopy and decayed plant litter covering and protecting the soil. Key Forage Plant Method (KFPM) utilization transects measure the percent vegetation removed by weight of key forage plants by herbivory or other disturbance for a given season or period of time. Use is assigned to “use classes” as follows:

- No use = 0% utilization
- Slight = 1 - 20%
- Light = 21- 40%
- Moderate = 41 – 60%
- Heavy = 61 – 80%
- Severe = 81 - 100%

KFPM transects are conducted at key grazing areas, study sites, or other areas that are typical of the plant communities and animal grazing patterns in an allotment. Utilization is measured for key species that are indicators of rangeland health. The key species are usually the most palatable, favored, and nutritious species for most animals.

Forage Utilization – Six Mile Allotment – Native Range

Forage utilization - 2001

Key Forage Plant Method utilization transects (KFPM) were conducted at five key areas and one study site in the Six Mile Allotment on October 25, 2001 for grazing use during the 2001 grazing year, beginning in March. Utilization was observed for the key forage species Indian ricegrass (Orhy), winterfat (Eula), and needleandthread grass (Stco4). Photographs were taken and range observations noted. The results are listed in Table 2 as follows:

Table 2. Forage Utilization Studies – Six Mile Allotment – 2001

Key Area/ Study Site	% Use Orhy	% Use Eula	% Use Stco	Notes
SM 06		14%	12%	Eula in cage of good vigor to 10” tall. Stco also of good vigor. Range has overall appearance of slight use. Brte present, not common.

SM 07	48%	10%		Eula in cage of good vigor to 10" tall. Orhy moderate vigor to 7" tall. Stco also present, used light or less. Stable, gravel soil. Bionic crusts common, Brte not common. Do not seed if burned.
SM 04	34%	27%		Meadow looks good. Eula in cage of good vigor to 11" tall. Orhy moderate vigor to 9" tall. Use on Sihy slight or less. Soils stabilized. Wild horse use, no sheep from spring.
SM 02	76%	62%		Eula in cage of good vigor to 9" tall. Orhy fair vigor to 7". Brte present in cage & common in draw. Wild horses grazing area pretty good. Wild horse sign abundant. Silty soil. Sheep sign from spring also here.
SM 05	68%	58%		Eula in cage of fair vigor to 6" tall. Orhy of fair cured vigor to 10" tall. Recent wild horse sign abundant.
Transect No. 6 SW1/4 Sec. 12	18%			Orhy to 30" tall. Artr/chvi/orhy range. Agsm, Elci, Poa, Sihy present. Do not seed if burned. Aram producing lots of seed this year. East of Belmont Rd.

Forage Utilization – 2003

KFPM utilization transects were conducted in the allotment on June 4, 9, 11, and 13 2003 in association with ground cover and line intercept vegetation cover studies done on the same days. Utilization was studied for use to date for the 2003 growth year. Photographs were taken and range observation notes recorded. The results are indicated in Table 3 as follows:

Table 3. Forage Utilization Studies – Six Mile Allotment – 2003

Key Area/ Study Site	% Use Orhy	% Use Eula	% Use Sihy	Notes
SM 02 6/04/03		9%	3%	Brte occurs in the draw but is not very common or abundant. Not enough Orhy to sample.
SM 05 6/9/03	5%	10%	1%	Very little spring use by wild horses. Appears sheep used area this last winter. A little rabbit use occurring.
SM 07	1%	5%		Use of black sagebrush is 0%. Orhy & Stco in fair vigor at best. Crowns generally empty. Perennial grass is infrequent in the area. Not much spring use by sheep or wild horses.
SM 08	4%	25%	0%	

Forage Utilization – 2006

KFPM utilization transects were conducted in the native range of the allotment on July 6, 2006. Utilization was studied for use to date by wild horses and sheep for the 2006 growth year. Photographs

were taken and range observation notes recorded. The results are as follows:

Table 4. Forage Utilization Studies – Six Mile Allotment – 2006

Key Area/ Study Site	% Use Orhy	% Use Eula	% Use Sihy	Notes
SM 05	38%	28%		Bluegrass in cage of excellent vigor to 20" tall. Orhy of good vigor to 10" tall. Eula of excellent vigor to 10" tall. Good cured + green growth under cured. Use primarily by wild horses this summer.
SE1/4 Section 15	27%	16%	5%	Draw of Eula, Sihy, Artr, Save4. Range looks fantastic.
SM 07	11%	26%		Eula in cage of good vigor to 10" tall. Cured poa in cage of good vigor to 16" tall.
SM 06	6%	22%	Stco 0%	Range looks great. Black sage/winterfat/perennial grass range. Eula in cage of good vigor to 12" tall. Stco of good vigor to 8" tall.
SM 04		26%	4%	Eula in cage of good vigor to 8" tall. Orhy cured growth to 11" tall. Green suppressed to 5". Sihy to 10" cured
SM 08	0%			Stable gravel soil with lots of bionic crust. No use on Orhy. Orhy in cage of good vigor green under cured seedstalks to 7".
SM 02		25%	4%	Eula in cage of good vigor to 12" tall. Orhy, Sihy, Poa mostly cured forage. Green leaves suppressed.

Forage Utilization – 2007

Eight KFPM utilization transects were conducted in the native range of the allotment on July 25, 2007. Utilization was studied for use to date by wild horses and sheep for the 2007 growth year. Photographs were taken and range observation notes recorded. The results are indicated in Table 5 as follows:

Table 5. Forage Utilization Studies – Six Mile Allotment – 2007

Key Area/ Study Site	% Use Orhy	% Use Eula	% Use Sihy	Notes
SM 04	19%	28%		Eula in cage of fair vigor to 6" tall. Seedheads present, not that vigorous. Orhy in cage fair vigor, dry, leaves to 5" no seedstalks. Range has overall appearance of light use. Current year use primarily by wild horses. Black & white bionic crusts are abundant on a gravelly silt soil. Many in shrub interspaces.

SM 02		40%	30%	Eula in cage of fair vigor to 11" tall. Sihy of dense cured vigor to 8". Primarily wild horse use.
SM 02b	9%			Black sage range. Very good Ararn range. Very stable soil. Biotic crust abundant. Good bunchgrass component. Many forbs present.
SS 01	4%	0%		Eula of good vigor to 12" tall.
SM 05	28%	52%		Eula in cage of fair vigor to 8" tall. Orhy, sihy, poa in cage of cured vigor, dense growth to 9" tall. Orhy producing no seed.
SM 05b	5%			Black sage range with widely scattered P/J. The area in good ecological health. Native grasses = 5 to 15% of current annual growth.
Transect No. 7	1%			Wyoming sage range. Good looking range. Scattered juniper. Excellent range. Large Orhy plants. Range needs use. Estimate bunchgrasses to be 25-35% by weight of current annual growth. Stable gravely soils, no invasive species.... forbs present.
Transect No. 8	0%	Agsp 0%		Black sage range. Scattered juniper.

Forage Utilization – Six Mile Allotment – Fernando Seedings

Four Key Forage Plant Method Utilization Transects (KFPM) were conducted in the East Fernando Seeding on 10/25/01 for cattle grazing during the summer and fall of 2001. Three transects resulted in moderate use and one transect resulted in heavy use of crested wheatgrass. Use was by cattle.

Two Key Forage Plant Method Utilization Transects (KFPM) were conducted in the East Fernando Seeding on July 6, 2006. Transects were read at Key Areas SM 1b and SM 03. No grazing was recorded.

Complete KFPM utilization summaries for all of the years identified above are available for review in the Ely BLM Field Office.

Licensed Use – Six Mile Allotment

Fernando Seedings

Current active permitted use on the Fernando Seedings for cattle grazing is 287 AUMs. From 2001 through 2007, licensed cattle use in the seedings averaged 254 AUMs for six years of grazing. The seedings were completely rested during the 2006 year, as the permittee took total voluntary non-use on the permit. Use ranged from a high of 304 AUMs in 2007 to a low of 209 AUMs in 2002. The average turn out date was about April 18. The off dates varied from September 19 to December 1.

Native Range

Current active permitted use on native range for sheep is 922 AUMs. Paris Livestock has mainly used the allotment as a winter grazing area, generally grazing in January and the early portion of February.

From 2000 through 2007, spring sheep use was made only in 2000, 2004, and 2007 (3 of 8 years). From 2000 through 2008, licensed sheep use averaged 322 AUMs for the eight years native range was grazed. No use was made in the 2003 grazing year. Use ranged from a high of 500 AUMs in 2002 to a low of total non-use in 2003. In January 2008, 132 AUMs were used in native range on both sides of the Belmont Road according to actual use provided to BLM on 2/25/08.

Grazing Year/Period	Livestock Number/Kind	Season of Use	Licensed Use (AUMs)	% Annual Licensed Use of Permitted Use (AUMs)
2000 (spring)	700 sheep	4/9/2000 – 5/10/2000	147	
2000 (winter)	1500 sheep	1/1/2001 – 1/31/2001	306	49%
2001 (spring)	Non – use			
2001 (winter)	1500 sheep	1/1/2002 – 1/18/2002	178	19%
2002 (spring)	Non – use			
2002 (winter)	1900 sheep	1/11/2003 – 2/19/2003	500	54%
2003 (spring)	Non – use			
2003 (winter)	Non – use			
2004 (spring)	1000 sheep	3/21/2004 – 4/9/2004	132	
2004 (winter)	900 sheep	1/1/2005 – 1/10/2005	59	
	840 sheep	1/11/2005 – 1/24/2005	77	29%
2005 (spring)	Non – use			
2005 (winter)	1500 sheep	1/1/2006 – 2/5/2006	355	39%
2006 (spring)	Non – use			
2006 (winter)	1600 sheep	1/1/2007 – 1/15/2007	158	
	1050 sheep	1/6/2007 – 1/19/2007	97	28%
2007 (spring)	600 sheep	3/30/2007 – 4/11/2007	51	
2007 (winter)	2000 sheep	1/4/2008 – 1/15/2008	158	23%
2008 (spring)	1300 sheep	4/7/2008 – 4/26/2008	171	
2008 (winter)	2000 sheep	1/6/2009 – 1/19/2009	184	39%

Findings: *Monitoring data results describing current resource conditions for Key Areas and other representative areas in the Six Mile Allotment as they relate to the Habitat Standard and Habitat indicators are as follows:*

Ecological Condition

Ecological condition data for the Six Mile Allotment has been gathered for five key areas of the allotment. This data was collected in June 2003 and July 2007 (SM-02 6/4/03; SM-04 7/25/07; SM-05 6/9/03; SM-07 6/11/03; SM-08 6/26/03). Photographs were taken and professional observations noted. The data is summarized in Tables 6 and 7 as follows:

Table 6. Ecological Condition Information for Native Key Areas, Six Mile Allotment.

Key Area	Allotment Area	Range Site	Veg Type	Similarity Index*
SM-02	Winterfat draw	028BY013NV Silty 8-10"	Eula5/Orhy	65

SM-04 Winterfat bench	028BY084NV Coarse silty 6-8"	Eula5/Orhy	41
SM-05 Winterfat draw	028BY013NV Silty 8-10"	Eula5/Orhy	64
SM-07 Sagebrush bench	028BY011NV Shallow calcareous loam 8-10"	Ararn/Orhy-Stco4	54
SM-08 Sagebrush bench	028BY080NV Shallow loam 8-10"	Artrw/Orhy-Stco4	44

* Generally, the closer the similarity index approaches 100, the closer the existing plant community resembles the potential natural community (PNC). The similarity index is the percentage of a specific vegetation state plant community that is presently on a rangeland ecological site.

Table 7. Ecological Condition Data for Native Key Areas, Six Mile Allotment.

Study Site/ Date	Ecological Site	Location	Dominant Vegetation	Percent Shrubs	Percent Native Grass	Percent Forbs	Trend*	Production Lbs./acre
SM-02	028BY013NV	N: 435528 E: 624025	Winterfat/ Indian Ricegrass	79.3%	20.7%	0.0%	Declining	560
SM-04	028BY084NV	N: 4352809 E: 622741	Winterfat/ Indian Ricegrass	83.5%	16.5%	0.0%	Improving	436
SM-05	028BY013NV	N: 4356735 E: 626865	Winterfat/ Indian Ricegrass	85.2%	14.7%	0.2%	Not Apparent	559
SM-07	028BY011NV	N: 4353211 E: 625436	Black sage/ Ricegrass Needleand thread	91.8%	7.8%	0.4%	Declining	500
SM-08	028BY080NV	N: 4355349 E: 621941	Wyoming Sagebrush/ Ricegrass/ Needleand thread	91.9%	7.1%	0.3%	Not Apparent	677

* Trend was rated on the Range Inventory Worksheet.

Normal year production for the 028BY013NV (Silty ecological site) is about 500 lbs. per acre. Unfavorable year production is about 350 lbs. per acre.

Normal year production for the 028BY084NV (Coarse silty ecological site) is about 700 lbs. per acre. Unfavorable year production is about 400 lbs. per acre.

Normal year production for the 028BY011NV (Shallow calcareous loam ecological site) is about 450 lbs. per acre. Unfavorable year production is about 250 lbs. per acre.

Normal year production for the 028BY080NV (Shallow loam ecological site) is about 400 lbs. per acre. Unfavorable year production is about 300 lbs. per acre.

The crop year precipitation for 2003 as measured at Yelland Field was 6.88 inches. The crop year precipitation for 2007 was 5.62 inches.

No cheatgrass, other invasive species, or noxious weeds were present at Key Areas SM-04 or 05. No cheatgrass was present at Key Area SM-08, however 5 lbs. mustard of 677 lbs. total production was present. At Key Area SM-02, 2 lbs. cheatgrass of 562 lbs. total production was present. At SM-07, 2 lbs. cheatgrass of 502 lbs. total production was present.

Potential vegetative composition for the silty range site (028BY013NV) is about 30% grasses, 5% forbs, and 65% shrubs.

Potential vegetative composition for the coarse silty range site (028BY084NV) is about 55% grasses, 10% forbs, and 35% shrubs.

Potential vegetative composition for the shallow calcareous loam range site (028BY011NV) is about 50% grasses, 5% forbs, and 45% shrubs.

Potential vegetative composition for the shallow loam range site (028BY080NV) is about 55% grasses, 10% forbs, and 35% shrubs.

Frequency Trend Studies

Frequency trend studies have been established on five native key grazing areas in the Six Mile Allotment. The study at Key Area SM-02 was established and read on July 9, 1997 and again read on June 4, 2003 (6 year difference). The study at Key Area SM-04 was established and read on June 3, 1997. The study at Key Area SM-05 was established and read on October 15, 1992 and again read on August 29, 1996 and June 9, 2003 (11 year difference). The study at Key Area SM-07 was established and read on July 9, 1997 and again read on June 11, 2003 (6 year difference). The study at Key Area SM-08 was established and read on June 26, 2003.

Frequency trend studies involve measuring the frequency of occurrence of plant species that occur in a rectangular sampling area. A sampling frame divided into 3", 10", and 20" square plots is placed at 200 sampling locations within the overall rectangular area. The presence of plant species is recorded as a dot tally on a standardized form.

Table 8. Frequency Trend Data - Six Mile Allotment

<u>Key Area</u>	<u>Years Read</u>	<u>Significant Changes</u>	<u>Indicated Trend</u>
SM-02	97/03	Less Indian ricegrass More Sandberg bluegrass More cheatgrass Less winterfat	Declining

<u>Key Area</u>	<u>Years Read</u>	<u>Significant Changes</u>	<u>Indicated Trend</u>
SM-05	92/03	More Sandberg bluegrass Less halogeton Less shadscale Less mustard	Static

<u>Key Area</u>	<u>Years Read</u>	<u>Significant Changes</u>	<u>Indicated Trend</u>
SM-07	97/03	Less Indian ricegrass More cheatgrass Less winterfat	Declining

Drought Monitoring

Drought monitoring of the Six Mile Allotment was conducted on June 11, 2002. A form called "Drought Indicator Checklist" was filled out for four key areas of the allotment, SM-02, SM-04, SM-05, and SM-07. Soils were tested for moisture, and KFPM utilization was recorded for key forage plants. Crop year

precipitation for the 2002 year was 4.42 inches, well below normal (see p. 23). The results of the drought monitoring are as indicated in Table 6 as follows:

Table 9. Drought Monitoring – Six Mile Allotment - 2002

Key Area	Pasture	% Use Orhy	% Use Eula	% Use Sihy	Soil Moisture	Condition of wild horses, wildlife, livestock	Notes
SM-02*	West		11%	27%	None to 16"	normal	Little water at Emigrant Spring
SM-04#	West	42%	22%	46%	None to 16"	normal	No invasive species
SM-05**	East	15%	6%		At 14"	none in area	Clay soil holding moisture
SM-07##	East	29%	13%		At 14"	normal	Few invasive species

* At SM-02 the average height of the current year's growth of Eula was 5". Orhy – 4". Sihy – 5". Artr & Eula were in good vigor.

At SM-04 the average height of the current year's growth of Eula was 5". Orhy – 4". Artr & Eula were in fair to good vigor. Silt clay soil holding moisture. Light wild horse and antelope tracks in the area.

** At SM-05 the average height of the current year's growth of Eula was 4". Orhy – 4". Sihy – 7". Artr, Atco & Eula were in good vigor. Few invasive species were present. Eula numerous seed heads. Orhy fair vigor, little seed being produced. Light droppings & tracks in area from recent sheep or wild horse use.

At SM-07 the average height of the current year's growth of Eula was 6". Orhy – 3". Ararn, Eula & Chvi in fair vigor. Stable gravel soil. Orhy fair vigor at best.

As a result of the drought monitoring, it was determined that no changes in livestock grazing management practices were needed in order to protect vegetative resources from drought. It was determined that it would not be necessary to close the allotment to grazing or to round up wild horses on an emergency basis.

Ecological Processes

Direct measures of the status of ecological processes are difficult or expensive to measure due to the complexity of the processes and their interrelationships. Therefore, biological and physical attributes are often used as indicators of the functional status of ecological processes and site integrity. Based on the generally positive vegetative attributes of the term permit renewal area as presented by monitoring data, the hydrologic cycle, nutrient cycle, and energy flow are being maintained. In addition to range monitoring data, qualitative observations and professional judgment indicate ecological processes are adequate for the vegetative communities.

Vegetation Distribution

Professional observation as well as soil mapping unit data and ecological site descriptions indicates vegetation distribution (patchiness, corridors) to be appropriate in this area. The vegetation composition changes along the elevation gradient and plant communities are separated by washes or rolling hills in the Six Mile Allotment. Elevations vary from about 6,300 feet to 8,400 feet. Topographic diversity is complex. There is a mosaic and "mix" of plant communities and ecological sites, including sites dominated by winterfat, black sagebrush, Wyoming big sagebrush, basin big sagebrush, black greasewood, and pinyon and juniper trees.

There are many travel corridors present for grazing animals between the hills. Escape cover is present for grazing animals in these areas.

Vegetation Nutritional Value

It is assumed that nutritional value of the available forage in the area is adequate to sustain animal needs, even in the winter period. The condition of wild horses was observed to be normal in June of an extreme drought year. No losses of sheep due to halogeton have been reported by the sheep operator in this allotment. Sheep seem to thrive on this allotment. The condition of cattle has been excellent in the Fernando Seedings.

Native Plant Species - Six Mile Allotment

A combination of all of the range monitoring studies accomplished in the term permit renewal area over the last few years indicate a diversity of native upland vegetation is present in the allotment. The following table lists the native upland plant species that have been observed in the term permit renewal area.

Table 10. Native Plant Species - Six Mile Allotment – Grasses, Forbs, and Shrubs

Common Name	Symbol	Common Name	Symbol
Indian ricegrass	Orhy	Indian paintbrush	Casti2
Needleandthread	Heco26	Prince’s plume	Stanl
Galleta grass	Hija	Daisy	Erig
Squirreltail grass	Sihy		
Bluegrass	Poa	Shadscale	Atco
Nevada bluegrass	Pone3	Winterfat	Eula5
Thurber needlegr.	Sth2	Bud sagebrush	Arsp5
Western wheat	Pasm	Greasewood	Save4
Thickspike wheat	Elma7	Mormon Tea	Epne
Bluebunch wheat	Pssps	Douglas rabbitbrush	Chvi8
Basin wildrye	Elci2	Fourwing saltbush	Atca2
Muttongrass	Pofe	Broom Snakeweed	Gusa2
		Horsebrush	Tetra3
Aster	Aster	Spiny hopsage	Grsp
Globemallow	Sphae	Downy rabbitbrush	Chvip4
Penstemon	Penst	Sickle saltbush	Atfa
Eriogonum	Eriog	Antelope bitterbrush	Putr2
Phlox	Phlox	Black sagebrush	Arno4
Loco (milkvetch)	Astra	Mexican cliffrose	Come5
Crag aster	Assc3	Desert snowberry	Sylo
Thickstem cabbag	Cacr11	Mountain sagebrush	Arva2
Goldenweed	Haplo2	Low sagebrush	Ararn
Hawksbeard	Crac2	Basin sagebrush	Artrt
Arrow Balsamroot	Basa3	Utah serviceberry	Amut

The following precipitation data by year is presented for the Ely Weather Station (Yelland Field) as summarized by the National Oceanic and Atmospheric Administration. The precipitation totals are for **crop year precipitation**, or that moisture (including snow) measured from September through June. This is effective moisture for plant growth. The average crop year precipitation for the Ely Station for the thirty year period 1977 – 2006 is 8.44 inches. Nine of the eleven years listed below are below this

average. This represents drought conditions.

Table 11. Crop Year Precipitation – Ely Station

Year	Crop Year Precipitation
1997	7.83
1998	10.00
1999	7.18
2000	6.70
2001	5.26
2002	4.42
2003	6.88
2004	5.45
2005	12.20
2006	8.32
2007	5.62
2008	4.14

**Appendix II
Grazing Permit Terms and Conditions**

Terms and Conditions of Authorized Use

In accordance with 43 CFR 4130.3-1, sheep and cattle grazing use would be authorized as follows. These terms and conditions would be included in the term grazing permit for Operator # 2704554 for the length of the livestock lease with Barrick Gold of North America.

The number and kind of livestock, season-of-use and permitted use will be as follows on the Six Mile Allotment:

Table 2.1 Operator #2704554 Proposed Action Grazing Term Permit

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	% Public Land	Type Use
Six Mile (0613) Native Range West of Belmont Road East of Belmont Road	344 Sheep 625 Sheep	11/1 – 02/28 3/1 – 4/15	271* 189	100% 100%	Active Active
Fernando Seeding	43 C	04/15 – 10/31	283*	100%	Active

* Active permitted use in the Six Mile Allotment native range for sheep grazing is 460 AUMs. Active permitted cattle use in the Six Mile Allotment (Fernando Seedings) is 287 AUMs. The figures presented in the table are rounded figures.

The allotment summary as it would appear on the proposed action term permit is as follows:

Allotment	Active AUMs	Voluntary Non-Use	Suspended AUMs	Grazing Preference
00613 Six Mile	747	462	145	1354

This proposed action establishes new proper utilization levels for key forage species on the Six Mile Allotment. These utilization levels would allow native plants to develop above ground biomass for protection of soils; contribute to litter cover; and develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover. These use levels would also allow additional habitat cover for wildlife.

Terms and Conditions:

In accordance with 43 CFR 4130.3-2, the following terms and conditions will be included in the grazing permit for operator #2704554 in the Six Mile Allotment.

1. Total active permitted use in the Fernando Seedings of the Six Mile Allotment is 287 AUMs

for cattle grazing. Total active permitted use in native range for sheep grazing is 460 AUMs.

2. Of the 460 sheep AUMs permitted use on native range, 189 AUMs are to be used east of Belmont Road for sheep spring grazing (03/01 – 04/15) dependent on the availability of water/snow. When snow is not available, water hauling along the Buster Mountain bench will be required for this permitted use. 271 AUMs are to be used west of Belmont Road in the Newark Valley portion of the allotment for winter sheep grazing (11/01 - 02/28).

3. Sheep will not be trailed or bedded in winterfat bottoms. Sheep camps/bedding grounds will be located a minimum of ½ mile from winterfat bottoms.

4. Sheep authorized to graze on native range will be watered on native range, and will not be allowed access to the water development inside the Fernando Seedings. Sheep will not be allowed to graze or to have access to the Fernando Seedings unless approved by the authorized officer.

5. Two water haul sites will be located at T. 17N., R. 57E., Section 7, NE1/4 SE1/4. Full use of the 271 AUMs west of Belmont Road will be dependent on use of these sites or availability of snow. Water will be hauled in accordance with Nevada State Water Law.

6. An allowable use level will be established as 40% of the current year's growth by weight for the key species Indian ricegrass, winterfat, and black sagebrush on native range for spring use by all herbivores (wild horses also use native range). The use level will be established as 50% for these key species for yearlong use. An allowable use level will be established as 55% of the current year's growth by weight for the key species crested wheatgrass in the Fernando Seedings for spring/summer/fall use.

7. Livestock will be removed to another 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.

8. The permittee is required to perform normal maintenance on the range improvements that have been issued through approved cooperative agreements or section 4 permits.

Additional Stipulations Common to All Grazing Allotments

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

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

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

4. The payment of your grazing fees is due on or before the date specified in the grazing bill. This date is generally the opening date of your allotment. If payment is not received within 15 days of the due date, you will be charged a late fee assessment of \$25 or 10 percent of the grazing bill, whichever is greater, not to exceed \$250. Payment with Visa, MasterCard or American Express is accepted. Failure to make payment within 30 days of the due date may result in trespass action.
5. Pursuant to 43 CFR 10.4 (G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.
6. Grazing use in White Pine County will be in accordance with the Northeastern Great Basin Area Standards and Guidelines for Grazing Administration. The Standards and Guidelines have been developed by the respective Resource Advisory Council and approved by the Secretary of the Interior on February 12, 1997. Grazing use will also be in accordance with 43 CFR 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 is required to perform normal maintenance on the range improvements that have been or will be issued through approved cooperative agreements or section 4 permits including wildlife escape ramps for both permanent and temporary water troughs.
9. 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.

Monitoring Program

During the period of this permit renewal, BLM and operator #2704554 will monitor the Six Mile Allotment for resource conditions in order to determine the continued effectiveness of the livestock grazing management practices in achieving or making progress towards achieving the Standards for Rangeland Health and conformance to the Guidelines. Operator #2704554 will be encouraged to participate in the monitoring. Rangeland monitoring may be conducted both prior to and following annual use. Monitoring conducted prior to annual use will determine areas of forage availability. Monitoring conducted following grazing use will determine utilization levels and use patterns. Specific rangeland monitoring studies could include vegetation cover studies, ecological condition studies, key forage plant method utilization transects, use pattern mapping, frequency trend, observed apparent trend, professional observation, photographs, or other approved methods.

APPENDIX III
RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS
Term Grazing Permit Renewals for Paris Livestock
Six Mile Allotment
White Pine County, Nevada

On January 24th, 2008 a Noxious & Invasive Weed Risk Assessment was completed for NV-040-08-038 term grazing permit renewal for Paris Livestock in the Six Mile allotment in White Pine County approximately 50 miles west of Ely, Nevada. The current term permit authorizes 1,209 AUMs of sheep and cattle use with a season of use from 11/01 to 04/15 for sheep on native range and 04/15 to 10/31 for cattle in the Fernando Seedings. The current term permit has been issued for the period 11/01/2006 to 10/31/2011, based upon the grazing lease. The issuance of the new term grazing permit would be for the lease period ending 10/31/2011. At this time the proposed action would be to renew the permit without any changes to the terms and conditions.

On June 2, 2010 the risk assessment was revised to assess the changed proposed action. The new proposed action is to issue a new permit with fundamental changes to the current permit. The stocking level for sheep on native range would change to 460 active AUMs, or about 50% of the current active authorization of 922 AUMs. 462 AUMs would be placed in voluntary non-use. 271 AUMs would be authorized west of Belmont Road for winter use from 11/1 to 2/28 and 189 AUMs would be authorized east of Belmont Road for spring grazing from 3/1 to 4/15. The overall season of use would remain the same, or 11/01 – 04/15. Permitted sheep numbers would be flexible, not to exceed the active permitted use of 460 AUMs on native range. The active permitted use for cattle in the Fernando Seedings would be maintained as previously authorized, at 287 active AUMs. The season of use in these seedings would remain the same, or 04/15 to 10/31.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. The following species are found within the boundaries of and along roads leading to the Six Mile allotment:

<i>Acroptilon repens</i>	Russian knapweed
<i>Carduus nutans</i>	Musk thistle
<i>Centaurea stoebe</i>	Spotted knapweed
<i>Cirsium vulgare</i>	Bull thistle
<i>Hyoscyamus niger</i>	Black henbane
<i>Lepidium draba</i>	Hoary cress
<i>Lepidium latifolium</i>	Tall whitetop
<i>Onopordum acanthium</i>	Scotch thistle

There is also probably cheatgrass (*Bromus tectorum*), halogeton (*Halogeton glomeratus*), and Russian thistle (*Salsola kali*) scattered along roads in the area.

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, water haul 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. The changes to the proposed action would not change the factor rating since the utilization levels are the same allowing for a more vigorous native plant community that would compete against weeds for resources.

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 most of the allotment is currently considered to be 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 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.

Reviewed by: /s/ Bonnie Waggoner 1/25/2008
Bonnie Waggoner
Ely District Noxious & Invasive Weeds Coordinator
Date

Revised by: /s/ Mindy Seal 6/2/2010
Mindy Seal
Natural Resource Specialist – Ely District Noxious &
Invasive Weeds Program
Date

Appendix IV - List of References

- USDA- SCS. 1982. Soil Survey of White Pine County, Nevada. US government printing office 0-355-097. 273 pp.
- USDA-SCS. 2003. Range Site Descriptions (034 & 047). Section II-E. Soil Conservation Service.
- USDI-BLM. 2005. Interpreting Indicators of Rangeland Health. Version 3. Technical Reference 1734-6. BLM/WO/ST-00/001+1734. National Science and Technology Center Information and Communications Group, Denver, Colorado.
- USDI-BLM. 2000. Rangeland Health Assessment Worksheets. Ely District Office. Unpublished field data.
- USDA – SCS, USDA Forest Service, DOI BLM, UNR Reno, USDA ARS and Range Consultants. 1984. Nevada Rangeland Monitoring Handbook.
- Nevada Rangeland Monitoring Handbook – New Edition. 2006.
- USDA Forest Service, USDA NRCS, DOI BLM, Cooperative Extension Service. 1996. Sampling Vegetation Attributes.
- USDA-NRCS. Revised 2003. National Range and Pasture Handbook.
- Dietz, Harland H. Grass: The Stockman's Crop How to harvest more of it. 1989. Sunshine Unlimited, Inc.
- USDI-BLM. 1997. Standards and Guidelines for Rangeland Health (Northeastern Great Basin Area). As amended December 2000, September 2003, March 2004.
- Federal Land Policy and Management Act (FLPMA) 1976. Public Law 94-190.
- National Environmental Policy Act of 1969. Public Law 91 – 190.
- USDI-BLM. Code of Federal Regulations.
- Grazing Guidelines (House report no. 101 – 405 Appendix B).
- Migratory Bird treaty Act of 1918.
- Executive Order 13186 (1/11/2001). Concerning migratory birds.
- University of Idaho. Targeted Grazing, a Handbook. 2007.
- USDI BLM. April 2000. The Great Basin: Healing the Land
- James A. Young & B. Abbott Sparks – Cattle in the Cold Desert. Utah State University Press 1985.
- James A. Young and Charlie D. Clements – Cheatgrass and Grazing Rangelands. Rangelands Magazine Volume 29 Issue 6 (December 2007).