



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

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



In Reply Refer to:
4130 (NVL0100)

CERTIFIED MAIL– RETURN RECEIPT REQUESTED

Vince Ferreira
VW Land & Cattle LLC
953 Sutro Springs Road
Dayton, Nevada 89403

Dear Mr. Ferreira:

The Bureau of Land Management (BLM) Egan Field Office has completed a second Environmental Assessment (EA) for the VW Land & Cattle LLC (Vince Ferreira - #2702915) term grazing permit renewal on the Little Smoky Valley Use Area of the Duckwater Allotment (0701). This EA is being sent to you for solicitation of your comments and input. The EA is enclosed for a 30 day public review and comment period.

A preliminary EA and Standards Determination Document (SDD) for the Vince Ferreira term grazing permit renewal was previously issued for a thirty day comment period on June 17, 2011. Two comments were received in response to the preliminary EA. On August 9, 2011 Vince Ferreira met with the management team in the Egan Field Office concerning the EA & SDD. During this meeting Mr. Ferreira requested that some of the grazing AUMs being suspended (reduced) from his cattle grazing permit be considered for a winter sheep/goat grazing permit in Little Smoky Valley. The U.S. Fish and Wildlife Service submitted written comments that they supported the proposed action in the EA.

As a result of comments received to the preliminary EA and subsequent field tours and meetings with VW Land & Cattle LLC and other sheep operators in the Duckwater Allotment, this second EA addresses the impacts to the environment and public land resource values from a proposal to fully process the renewal of the grazing permit for VW Land & Cattle LLC and authorize cattle and sheep/goat grazing on the Little Smoky Valley Use Area of the Duckwater Allotment. The current grazing permit #2702915 has been issued for the period 04/01/06 to 01/22/2013, and authorizes cattle grazing use in the Little Smoky Valley Use Area of the Duckwater Allotment as follows:

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	Type Use
Duckwater (0701)	415 Cattle	10/01 – 02/28	2060	Active
Little Smoky Valley	413 Cattle	03/01 – 03/31	421	Active

Allotment Summary (AUMs)

Allotment	Active AUMs	Suspended AUMs	Grazing preference
00701 Duckwater	2,481	3,393	5,874

The issuance of the new permit would be for a period of 5 years. Changes to the current terms and conditions of the cattle grazing permit are proposed regarding stocking level, season of use, kind of livestock, and proper key forage allowable use levels (utilization objectives). The stocking level for cattle on native range would be reduced from 2,481 active AUMs to 700 active AUMs. 781 AUMs would be placed in voluntary non-use for the term of the grazing permit. The season of use for cattle would change from 10/1 to 3/31 to 10/15 to 3/15. Permitted cattle numbers would be flexible, not to exceed the active permitted use of 700 active AUMs on native range. The Little Smoky Valley Use Area would be completely rested from cattle grazing 1 out of every 4 years. 1,006 AUMs that are suspended from the cattle grazing permit would be converted to sheep or goat AUMs, or 1,000 sheep or goats from 10/28 to 3/31. Permitted sheep/goat numbers would be flexible, not to exceed the active permitted use of 1,006 active AUMs on native range. Sheep/goat grazing could occur every year. Allowable use levels for key forage species would be modified from those listed on the current grazing permit and would be established for both fall/winter use and early spring use during the critical growing period. (see permit terms and conditions in the EA).

The number and kind of livestock, season-of-use and permitted use would be as follows on the Little Smoky Valley Use Area of the Duckwater Allotment:

Table 2.1 Operator #2702915 Proposed Action Grazing Permit

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	Type Use
Duckwater (0701)	140 Cattle*	10/15 – 03/15	700	Active
Little Smoky Valley	1000 sheep or goats**	10/28 – 3/31	1006	Active

* Cattle numbers are flexible, not to exceed the active permitted use of 700 AUMs.

** 1,000 sheep or 1,000 goats could be grazed in any one winter, but not both sheep and goats in any one winter. Sheep or goat numbers are flexible, not to exceed the active permitted use of 1,006 AUMs.

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

Allotment Summary (AUMs)

Allotment	Active AUMs	Suspended AUMs	Voluntary Non-use	Grazing Preference
00701 Duckwater	1706	3393	775	5874

The Little Smoky Valley Use Area encompasses approximately 173,000 public land acres. The grazing permit area occurs entirely in Nye County, Nevada, and is situated approximately 60 to 70 miles west of Ely, Nevada.

The Egan Field Office has also completed a Standards Determination Document (SDD) in order to fully process the grazing permit renewal on the above mentioned allotment (attached). The SDD is an evaluation of range conditions and addresses the Standards and Guidelines for Rangeland Health (Northeastern Nevada Great Basin Area Resource Advisory Council, 1997). The Standards for Rangeland Health provide guidance for desired rangeland conditions including Standards for 1) Upland sites (soils); 2) Riparian and wetland sites; and 3) Habitat.

Please review the EA and SDD and provide written comments by **Friday, January 20, 2012**. Please address all comments to:

Mark Lowrie, Rangeland Management Specialist
Bureau of Land Management
HC 33, Box 33500
Ely, Nevada 89301

Please note, before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment including your personal identifying information may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Thank you for your cooperation. If you have any questions about this project, please contact Mark Lowrie, Rangeland Management Specialist at (775) 289-1888.

Sincerely,

Gary W. Medlyn
Field Manager
Egan Field Office

Enclosure

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

**DOI-BLM-NV-L010-2010-0004-EA
December 15, 2011**

**Environmental Assessment
Term Grazing Permit Renewal
for Permit # 2702915 on the Little Smoky Valley Use Area
of the Duckwater Allotment (0701)**

Location: Nye County, NV

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 Introduction

1.0.1 Background Information

This environmental assessment (EA) identifies issues, analyzes alternatives, and discloses the potential environmental effects associated with the proposed grazing term permit renewal for operator #2702915 on the Little Smoky Valley Use Area of the Duckwater Allotment (0701). 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.

This EA also summarizes information from the associated Standards Determination Document (SDD for operator #2702915 - attached) that evaluates whether current cattle management practices are conforming to the approved Standards and Guidelines for Rangeland Health for the Little Smoky Valley Use Area of the Duckwater Allotment. This EA will develop and analyze the environmental effects of a Proposed Action and alternative grazing actions which are developed to accomplish the same purpose and need as the Proposed Action. The environmental effects of authorizing the full 2,481 active AUMs as authorized on the current permit are also analyzed, as well as the effects of a no grazing alternative.

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.

The term grazing permit under consideration authorizes grazing use within the Little Smoky Valley Use Area of the Duckwater Allotment. This use area, composing approximately 170,000 acres of public land, is located entirely within Nye County; approximately 60 to 70 miles west of Ely, Nevada (see Figure 1). Currently cattle are the authorized kind of livestock. The new permit would be for a period not to exceed ten years. The base property for the permit is the Willow Creek Ranch (160 acres) and an additional private 40 acres. These private lands occur in both Eureka and Nye Counties, Nevada. The permit area occurs within the Central Little Smoky Valley (122), Park Range (175) and South Little Smoky Valley (176) Watersheds.

The current grazing permit #2702915, which has been issued for the period 04/01/06 to 01/22/2013, authorizes cattle grazing use in the Little Smoky Valley Use Area as follows:

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	Type Use
Duckwater (0701)	415 Cattle	10/01 – 02/28	2060	Active
Little Smoky Valley	413 Cattle	03/01 – 03/31	421	Active

Allotment Summary (AUMs)

Allotment	Active AUMs	Suspended AUMs	Grazing preference
00701 Duckwater	2,481	3,393	5,874

The legal description of the Little Smoky Valley Use Area is as follows:

Little Smoky Valley Use Area, Duckwater Allotment

- T. 15N., R. 52, 53E., several sections
- T. 15N., R. 52E., portions of sec. 19,30,31
- T. 14N., R. 52, 53E., all sections
- T. 14N., R. 54E., several sections
- T. 131/2 N., R. 52, 53E., all sections
- T. 131/2N., R. 54E., portions of sec. 19,30,31
- T. 13N., R. 52, 53E., all sections
- T. 12N., R. 52, 53E., many sections

1.0.2 History of Grazing Permit and Multiple Use Grazing Decisions

Grazing permit #2702915 submitted documents for a company name/title change in July, 2011. Vince Ferreira Roping Cattle became VW Land & Cattle, LLC on July 7, 2011. Grazing permit #2702915 was last renewed in April, 2006 when the permit was transferred to operator #2702915 from the previous permit holder. At the time of transfer, the permit was not fully processed through a public consultation process, environmental assessment, and a grazing decision. No changes were made to the previous grazing permit as a result of the grazing transfer. The current permit has been issued for the period 04/01/06 to 01/22/2013 under the appropriations language of BLM’s regulations.

The Full Force and Effect Final Multiple Use Decision (FMUD) was issued for the Duckwater Allotment on June 5, 1995. This decision established grazing use areas within the allotment, reduced the livestock stocking levels, established seasons of use, deferred grazing use in certain pastures, and made other changes to livestock grazing management practices for several grazing permits on the allotment, including the cattle grazing permit now held by operator #2702915 that was held by Russell Ranches in 1995. This decision also established appropriate management levels (AML) of wild horses in three herd management areas and resulted in the gather of approximately 1,400 wild horses during the summer of 1996.

The FMUD of June 5, 1995 reduced the active cattle grazing AUMs for Russell Ranches from 3,526 AUMs to 2,481 AUMs (a 30% reduction). The FMUD also changed the season of use from 10/01 – 04/15 to 10/1 – 03/31.

1.0.3 General Livestock Management Practices

Current cattle grazing management practices on the Little Smoky Valley Use Area have been implemented in accordance with the 1995 Full Force and Effect Final Multiple Use Decision (FMUD) for the Duckwater Allotment. Current cattle grazing management practices have been similar for the four years that this grazing authorization has been held by permit #2702915. Actual cattle use each year has been far less than the 2,481 active use stocking level. A summary of the general grazing operation is included in the SDD in section 1.2.

1.0.4 BLM Interdisciplinary Review and Assessment of Rangeland Health

The permit renewal project proposal for grazing permit #2702915 on the Little Smoky Valley Use Area was presented to a BLM interdisciplinary (ID) team on December 7, 2009. 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 Little Smoky Valley Use Area. 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 (for a complete list of references, see Appendix V to the SDD). 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.

1.0.5 Introduction of the Proposed Action.

The Bureau of Land Management (BLM) Egan Field Office proposes to fully process and issue a term grazing permit for operator #2702915 and authorize cattle and sheep or goat grazing on the Little Smoky Valley Use Area of the Duckwater Allotment. The proposed action is to issue the permit with changes to the current terms and conditions. The stocking level, season of use, and kind of livestock would change. New allowable use levels (utilization levels) for key forage species are proposed along with new terms and conditions related to weed management.

1.0.6 Other Grazing Permits in the Little Smoky Valley Use Area

There are currently two sheep permits authorized to graze in the Little Smoky Valley Use Area of the Duckwater Allotment. These are permit #2703638 and permit #2703175. Each of these sheep permits are authorized to graze in several use areas of the Duckwater Allotment as well as other BLM allotments. Permit #2703638 has been issued for the period 11/8/2011 to 11/7/2021 and is authorized for 1,770 active AUMs in the Duckwater Allotment, with a season of use from 11/1 to 3/31. Permit #2703175 has been issued for the period 3/15/2010 to 3/14/2020 and is authorized for 2,814 active AUMs in the Duckwater Allotment with a season of use from 11/1 to 4/15. Both of these sheep permits use the Little Smoky Valley Use Area primarily during the winter grazing period. Permit #2703175 has been fully processed and renewed through

environmental assessment and public consultation within the last two years through the Egan Field Office Area. Permit #2703175 has been issued for the period 3/15/2010 to 3/14/2020. Permit #2703638 is currently being fully processed, however the grazing decision to renew permit #2703638 has been appealed.

1.1 Standards Achievement

The rangeland health evaluation of the Little Smoky Valley Use Area of the Duckwater 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 ID team assessment and monitoring data interpretation and review, the following Table 1.1 is a summary of the SDD within the Little Smoky Valley Use Area for achievement of the Standards. Current livestock management practices as implemented between 2001 and 2010 are contributing to the non-achievement of the Upland Sites (#1) and Habitat (#3) Standards. Active use by cattle on native range from 2001 to 2009 has ranged from 426 to 1151 AUMs and has averaged about 658 AUMs for the nine year period, or about 27% of the current active authorization of 2481 AUMs in the Little Smoky Valley Use Area. Active use by cattle on native range from 2006 to 2009 has ranged from 426 to 596 AUMs and has averaged 543 AUMs for the four year period, or about 22% of the current active authorization.

Table 1.1 Summarized Standard Determination for the Little Smoky Valley Use Area of the Duckwater Allotment

	STANDARD 1 Upland Sites	STANDARD 2 Riparian and Wetland Sites	STANDARD 3 Habitat
Duckwater/Little Smoky Valley Use Area	Not achieving the Standard, not making significant progress towards. Cattle grazing is a contributing factor to not achieving the Standard. Failure to achieve the standard is also related to other issues or conditions, including wild horses, drought, historical heavy livestock grazing, and lack of natural wildfire.	Not applicable	Not achieving the Standard, not making significant progress towards. Cattle grazing is a contributing factor to not achieving the Standard. Failure to achieve the standard is also related to other issues or conditions, including wild horses, drought, historical heavy livestock grazing, and lack of natural wildfire.

1.1-1 Guidelines Conformance – Little Smoky Valley Use Area of the Duckwater Allotment:

The Northeastern Great Basin Area Guidelines are listed in the Little Smoky Valley SDD. As a result of the rangeland health assessment and monitoring data interpretation and review, it has been determined that current cattle grazing management practices (permit #2702915) do not

conform to the Guidelines on the Little Smoky Valley Use Area of the Duckwater Allotment as follows:

STANDARD 1 GUIDELINES:

1. Little Smoky Valley Use Area: Current livestock grazing management practices do not conform to Guidelines 1.1 and 1.3. Land management treatments (1.2) may be appropriate for portions of the Little Smoky Valley Use Area of the Duckwater Allotment, for example in Wyoming sagebrush rangelands that have an impoverished understory of native grasses and forbs, or in sagebrush rangelands that have been encroached by pinyon and juniper trees.

STANDARD 2 GUIDELINES:

1. Little Smoky Valley Use Area: The Standard 2 Guidelines are not appropriate to this use area.

STANDARD 3 GUIDELINES:

1. Little Smoky Valley Use Area: Current livestock grazing management practices do not conform to Guidelines 3.1, 3.2, 3.3, and 3.6. Land management treatments (3.4) may be appropriate for portions of this use area, for example, in Wyoming sagebrush rangelands that have an impoverished understory of native grasses and forbs, or in sagebrush rangelands that have been encroached by singleleaf pinyon and Utah juniper trees.

1.2 Purpose and Need for the Proposal

The purpose and 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 #2702915 on the Little Smoky Valley Use Area in accordance with all applicable laws, regulations, and policies with terms and conditions for grazing use that conform to Guidelines and achieve Standards for Nevada's Northeastern Great Basin Area 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." The need for the proposal is also to progress toward achievement of the Standards or continue to achieve the Standards for Rangeland Health while providing for a viable livestock operation. Operator #2702915 meets all of the qualifications to graze livestock on public lands administered by the BLM according to Title 43 CFR 4110.1 Mandatory Qualifications.

1.3 Objectives for the Proposed Action.

1.3.1. To renew the grazing term permit on the Little Smoky Valley Use Area and authorize grazing in accordance with applicable laws, regulations, and land use plans (LUP) on approximately 170,000 acres of public land.

1.3.2. To improve rangeland health and vegetative attributes on the Little Smoky Valley Use Area of the Duckwater 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 Additional Grazing Guidance from the ROD/RMP – Best Management Practices

The proposed action is in accordance with 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."

1.4.2 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

- Nye County Public Lands Policy Plan (1985).

Archaeological

- State Protocol Agreement between the Bureau of Land Management (BLM), Nevada and the Nevada State Historic Preservation Office (1999).
- 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)
- Nye County Portion (Lincoln/White Pine Planning Area) Sage Grouse Conservation Plan (2004)
- Nye County Elk Management Plan (2007 revision)

1.4.3 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. This tiered EA is a site specific analysis that focuses on the issues not already discussed in the broader RMP/FEIS.

1.4.4 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 Scoping and Public Involvement and Issues

The term permit renewal proposal was initiated on December 7, 2009 with a presentation to the BLM internal resource specialist team to identify any relevant issues. Preliminary issues identified were effects of the proposed action on cultural resources, noxious & invasive non-native weeds, wild horses, and wildlife including sage grouse, pygmy rabbits and ferruginous hawks.

A Grazing Permit Renewal Summary for this permit was posted on the Ely District website in January, 2010 at http://www.blm.gov/nv/st/en/fo/ely_field_office.htm. A letter was mailed to operator #2702915 regarding his grazing permit renewal action on January 6, 2010, requesting comments by January 22, 2010. No written comments were received in response to this letter. Operator #2702915 has submitted general verbal comments regarding cattle, sheep, and wild horse grazing in the Duckwater Allotment during field tours or over the telephone over a period of four years with the rangeland management specialist at the Ely District BLM Office. He has also submitted general verbal comments with the rangeland management specialist at the Mount Lewis Field Office BLM (Battle Mountain District). In addition, BLM received a letter from operator #2704615 on January 23, 2007 pertaining to “things I would like to do on my BLM allotments”. This letter was reviewed by the BLM range team.

On January 8, 2010, a letter was sent to local tribes requesting comments by February 8, 2010. No comments were received regarding grazing permit renewals.

On January 6, 2010 a Notice of Proposed Action on Lands in Wilderness was mailed to individuals and organizations that have expressed an interest in wilderness related actions requesting comments by February 8, 2010. No comments were received from the Wilderness mailing list.

Operator #2702915 has expressed interest in developing solar well pumping facilities on 2 or more wells on public land and 1 well on private land in the grazing area. He has also expressed interest in converting cattle AUMs to sheep or goat AUMs if monitoring data shows that a reduction is appropriate to the current active permitted use for cattle. The operator has also requested that some portion of the winter grazing permit be converted to a summer grazing permit.

During 2010 this EA was forwarded twice to resource specialists from the Mt. Lewis Field Office BLM for review and comment. The associated SDD was forwarded once. Submitted comments have been incorporated into the present EA and in addition telephone conversations with Mt. Lewis resource specialists concerning the grazing permit have been documented.

A preliminary EA & associated SDD for the grazing permit renewal were issued for a thirty day public review period on June 17, 2011. Written comments were requested by July 26, 2011. Written comments were received from the Fish and Wildlife Service prior to the July 26 deadline, indicating they supported the proposed action. On August 9, 2011 Vince Ferreira met with Chris Mayer and Gary Medlyn in the BLM Office concerning the EA & SDD. During this meeting Mr. Ferreira requested that some of the grazing AUMs being suspended (reduced) from his cattle grazing permit be considered for a sheep/goat grazing permit in Little Smoky Valley.

A field tour was then held on September 1, 2011 in Little Smoky Valley with Vince Ferreira and the range specialist attending. The purpose of the tour was to hear Mr. Ferreira’s concerns, observe range conditions, and determine if a small sheep grazing permit would be feasible in the valley. During the tour Mr. Ferreira also expressed interest in grazing goats on a potential permit. BLM determined that a small sheep and/or goat permit may be feasible, and that sufficient black sagebrush and other grazeable desert shrubs occurred in the valley to authorize a

winter sheep/goat permit ending before the majority of the critical growing period for winterfat and native perennial grasses. Sheep have a forage preference for black sagebrush during winter, and goats are known to prefer browse species. Mr. Ferreira was informed that a second tour or meeting would need to be arranged with the other sheep grazing permittees in Little Smoky Valley to get their comments and concerns about the potential sheep/goat permit.

A meeting was then held in Eureka, Nevada on October 5, 2011 concerning the grazing permit renewal for Vince Ferreira. Attending were Vince Ferreira (VW Land & Cattle LLC), Rich Hutchings (Truckee River Ranch LLC) who represented the Ellen Gardner sheep permit, Pete Paris Jr. and David Little (Little Paris Sheep Company), Chris Mayer (Supervisory Range Specialist BLM), and the range specialist BLM. In summary, although representatives of the Little Paris Sheep Company expressed misgivings about former reductions to their sheep permit in the Duckwater Allotment, they stated they could accept a sheep or goat permit for Vince Ferreira and could cooperate and communicate with Mr. Ferreira were he to graze sheep or goats in the valley. Mr. Hutchings also expressed that he could accept a sheep/goat permit and cooperate and communicate with Mr. Ferreira. All agreed that a new permit should be authorized for a maximum of 5 years, or on an “experimental basis” to determine what the effects of the action would be on the rangeland resources.

Public interests who have requested information or involvement in range related actions on the Duckwater Allotment will continue to be afforded the opportunity to provide comments to this permit renewal through the review of this EA and associated SDD.

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 #2702915 and authorize grazing on the Little Smoky Valley Use Area of the Duckwater Allotment. The issuance of the permit would be for a five year period. Changes to the current terms and conditions of the cattle grazing permit are proposed regarding stocking level, season of use, kind of livestock, and proper key forage allowable use levels (utilization standards). The stocking level for cattle on native range would be reduced from 2,481 active AUMs to 700 active AUMs. 781 AUMs would be placed in voluntary non-use for the term of the grazing permit. The season of use for cattle would change from 10/1 to 3/31 to 10/15 to 3/15. Permitted cattle numbers would be flexible, not to exceed the active permitted use of 700 active AUMs on native range. 1,006 AUMs that are suspended from the cattle grazing permit would be converted to sheep or goat AUMs, or 1,000 sheep or goats from 10/28 to 3/31. Allowable use levels for key forage species would be modified from those listed on the current grazing permit and would be established for both fall/winter use and early spring use during the critical growing period. (see terms and conditions below).

The number and kind of livestock, season-of-use and permitted use would be as follows on the Little Smoky Valley Use Area of the Duckwater Allotment:

Table 2.1 Operator #2702915 Proposed Action Grazing Permit

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	Type Use
Duckwater (0701)	140 Cattle*	10/15 – 03/15	700	Active
Little Smoky Valley	1000 sheep or goats**	10/28 – 3/31	1006	Active

* Cattle numbers are flexible, not to exceed the active permitted use of 700 AUMs.

** 1,000 sheep or 1,000 goats could be grazed in any one winter, but not both sheep and goats in any one winter. Sheep or goat numbers are flexible, not to exceed the active permitted use of 1,006 AUMs.

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

Allotment Summary (AUMs)

<u>Allotment</u>	<u>Active AUMs</u>	<u>Suspended AUMs</u>	<u>Voluntary Non-use</u>	<u>Grazing Preference</u>
00701 Duckwater	1706	3393	775	5874

Terms and Conditions:

In accordance with 43 CFR 4130.3-1, grazing use would be authorized as follows. These terms and conditions would be included in the term grazing permit #2702915 in the Little Smoky Valley Use Area.

1. Active permitted use for this permit is 1706 AUMs. Active use may be less than, but not exceed, 700 AUMs for cattle grazing. Active use may be less than, but not exceed, 1,006 AUMs for sheep or goat grazing. Flexibility in cattle or sheep/goat numbers will be allowed, not to exceed the active AUMs.
2. The Little Smoky Valley Use Area will be completely rested from cattle grazing one year out of every four years. The first non-use year will be the 2015 grazing year. The next non-use year would be the 2019 grazing year. Sheep or goat grazing can occur every winter.
3. Stocking levels and season of use will be determined through coordination by BLM and VW Land & Cattle Company LLC on an annual basis and will be based on forage availability and monitoring information. The stocking level and season of use will be approved annually by the authorized officer. If coordination by BLM and Vince Ferreira does not occur on an annual basis, grazing use will be authorized in accordance with the terms and conditions of the grazing permit.
4. Water hauling is necessary to distribute cattle use for dormant season, winter grazing. Water hauling is necessary to locate cattle on the Duckwater Allotment and prevent cattle drift to other use areas of the Duckwater Allotment or the Fish Creek Ranch Allotment (Mt. Lewis Field

Office Area) where rangeland ecological sites are in better condition. Without appropriate water, snow conditions can cause cattle to drift to unauthorized allotments and areas. The BLM range specialist and the permit holder will coordinate on watering locations and water haul locations on an annual basis. Watering locations or potential water haul sites are:

Public Land

- A. Arambel Well in the west portion of the use area (T. 15N., R. 52E., Sec 35).
- B. Summit Station Water Hauls in the south portion of the use area (T. 12N., R. 53E., Sec. 8).
- C. Rubber tire water haul on the east side of the valley (T. 131/2N., R. 57E., Sec. 27).
- D. Stock Well on the east side of the valley (T. 14N., R. 53E., Section 11 NW ¼.)
- E. Bartholomae Reservoirs in the middle of the valley.

Private Land

- A. Willow Creek Ranch (T. 14N., R. 52E., Sec. 19).
- B. Private 40 acres in the middle of the valley (T. 15N., R. 53E., Sec. 28 NENW).

Water hauling is required for sheep or goat grazing in the absence of snow availability. Water hauling for sheep or goats is to occur primarily along the main county roads. Other watering locations for either cattle or sheep/goats may be identified through coordination between the BLM range specialist and the permit holder on an annual basis, subject to environmental clearances and to be approved by the authorized officer.

- 5. Locate water haul sites at least 0.5 miles away from winterfat dominated sites. Base placement on site specific assessment and characteristics such as riparian, topography, cultural, special status species, etc. (from the Resource Program Best Management Practices (Ely District BLM ROD/RMP – August, 2008) Livestock Grazing Page A. 1-9.
- 6. Any water hauling done by the grazing permittee associated with this grazing permit must be in accordance with Nevada State Water Law regarding the use or location of water outside the place of use as indicated on a water right permit.
- 7. Sheep or goats will not be trailed or bedded in winterfat bottoms. Sheep/goat camps will be a minimum of ½ mile from winterfat bottoms. Sheep/goat camps will be moved at least every 7 days. No two sheep/goat camps will locate in the same area in a grazing season. Sheep/goat camps and bedding grounds will be located a minimum of ½ mile from springs. If sheep/goats must water at springs, they must move to and from the area in a timely manner.
- 8. A herder will accompany the sheep/goat band at all times. Sick or diseased domestic sheep/goats will be promptly removed from public lands. Any stray domestic sheep/goats will be promptly removed or returned to the herd by the permittee upon detection. Any direct association observed between domestic sheep/goats and wild sheep by the permittee or any representative (i.e., herder, other ranch employee) will be promptly reported to the NDOW or BLM.
- 9. When cattle are authorized to use the Little Smoky Valley Use Area of the Duckwater

Allotment, the permittee is responsible to use herding practices to keep the cattle on the Little Smoky Valley Use Area and off of the Fish Creek Ranch Allotment (Mt. Lewis Field Office Area). Much of the allotment boundary between these two areas is currently unfenced.

10. Sheep or goat trailing to and from the Little Smoky Valley Use Area from the Mt. Lewis Field Office BLM allotments will be coordinated each year with the Mt. Lewis Field Office range specialist.

Allowable Use Levels - Little Smoky Valley Use Area - Duckwater Allotment – all herbivores

1. An allowable use level will be established as 40% of the current year's new growth by weight for any spring use (3/1 – 5/31) of the key native cool season perennial bunchgrass species Indian ricegrass, needleandthread, bluebunch wheatgrass, or bottlebrush squirreltail in any native pasture in the Little Smoky Valley Use Area. An allowable use level will be established as 50% of the current year's growth by weight for yearlong use of these species. Utilization will be measured at established key grazing areas or other sites representative of the dominant vegetation in the allotment.

2. An allowable use level will be established as 35% of the current year's growth by weight for any critical growing season use (generally 3/1 – 4/15) of the key shrub winterfat. An allowable use level will be established as 50% of the current year's growth by weight for any total season spring use (3/1 – 5/31) of the key shrubs winterfat, sickle saltbush, black sagebrush, four wing saltbush, (or other shrub determined to be a key species for livestock, wild horses, or wildlife).

3. An allowable use level will be established as 60% of the current year's growth by weight for winterfat, black sagebrush, sickle saltbush, four wing saltbush, (or other appropriate shrub) for fall/winter grazing or year-long grazing in the Little Smoky Valley Use Area (by the end of plant dormancy). Utilization will be measured at established key grazing areas or other sites representative of the dominant vegetation in the allotment.

4. Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.

2.1.1 Permit Issuance Upon Transfer or Further Renewal

The renewal of the term grazing permit would be for a period of 5 years. If base property is transferred during this five 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 five 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.

2.1.2 Invasive, Non-Native Species and Noxious Weeds

A Weed Risk Assessment (See Appendix II) was completed on March 31, 2010. The stipulations listed in the Weed Risk Assessment will be followed when grazing occurs on the allotment.

2.1.3 Migratory Birds

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

2.1.4 Cultural Resources

A cultural resources review of known eligible sites or properties will be completed under Cultural Needs Assessment (8111 {NV-040} NANV04FY10-045). 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.

2.1.5 Monitoring

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

Rangeland monitoring data would continue to be collected for the Little Smoky Valley Use Area of the Duckwater 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. During or following the grazing period, monitoring would be conducted to determine overall utilization levels and grazing use patterns. The level of monitoring will be intensified, with special attention given to documenting the effects on vegetative resources and Rangeland Health as a result of the dual use of cattle and sheep/goats authorized by the new permit.

2.2 Alternatives to the Proposed Action

Specific grazing alternatives to the Proposed Action are presented in this section, as well as an alternatives comparison table (2.2.3). The following alternatives to the proposed action are thus analyzed in this EA:

2.2.1 No Action Alternative – The Current Grazing Permit

2.2.2 The Actual Use Grazing Alternative – A Reduced Grazing Alternative

2.2.3 Alternatives Comparison Table

2.2.4 Alternatives Considered but Not Analyzed in Detail

2.2.1 No Action Alternative – The Current Grazing Permit

As a result of taking no action, the grazing permit would be renewed with no modifications to the current grazing permit, which was authorized through a Final Multiple Use Decision in 1995. The stocking level, season of use, area of use, kind of livestock, or other terms and conditions of

the grazing permit would not change. There would be no new, modified allowable use levels (utilization standards). The stocking level for cattle on native range would remain at 2,481 active AUMs. The overall season of use would remain the same, or 10/1 – 3/31. The current permit is summarized in table format as follows:

The current grazing permit #2702915, which has been issued for the period 04/01/06 to 01/22/2013, authorizes cattle grazing use in the Little Smoky Valley Use Area as follows:

Table 2.2.1 – Operator #2702915 Current Grazing Permit

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	Type Use
Duckwater (0701)	415 Cattle	10/01 – 02/28	2060	Active
Little Smoky Valley	413 Cattle	03/01 – 03/31	421	Active

The allotment summary (AUMs) for the current grazing permit is as follows:

Allotment	Active AUMs	Suspended AUMs	Grazing preference
00701 Duckwater	2,481	3,393	5,874

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

The terms and conditions of this permit must be consistent with the Standards and Guidelines approved February 12, 1997, for the Northeastern Great Basin Resource Advisory Council (RAC) Area.

Active authorized grazing use in the Duckwater Allotment is 2,481 AUMs.

The following utilization standards will be followed on the Duckwater Allotment per the Shoshone-Eureka Rangeland Program Summary. Winterfat utilization is not to exceed 30% during the growing season or 50% by the end of winter dormancy. Utilization levels will not exceed 55% on perennial grasses and grass-like species and 45% on shrubs along stream riparian areas and mesic meadows.

All cattle grazing/management on the Duckwater Allotment’s Little Smoky Valley Use Area will be done in accordance with the “area manager’s final multiple use decision for the Duckwater Allotment” dated June 9, 1995 and the “terms and conditions” on this permit.

This permit reflects your adjusted permitted grazing use based on the “allotment evaluation” for the Duckwater Allotment. The terms and/or conditions of this permit shall be amended or changed when additional monitoring data reflects the need to do so.

2.2.2 Actual Use Alternative – Reduced Grazing Alternative

According to the Actual Use Alternative, the new permit would also be issued with changes to the current permit. Changes to the current terms and conditions of the permit are proposed regarding stocking level, season of use, kind of livestock, and proper key forage allowable use levels (utilization standards). The issuance of the term grazing permit would be for a five year period. The stocking level for cattle on native range would change to 550 active AUMs, or about 22% of the current active authorization of 2,481 active AUMs. 925 AUMs would be placed in voluntary non-use for the term of the permit. The overall season of use for cattle would be the same as the Proposed Action, from 10/15 to 03/15. Permitted cattle numbers would be flexible, not to exceed to active permitted use of 550 AUMs. Cattle could be grazed every year.

1,006 AUMs that are suspended from the cattle grazing permit would be converted to sheep or goat AUMs, or 1,000 sheep or goats from 10/28 to 3/31. Sheep or goats could be grazed every year.

Proper allowable use levels for key forage species for both fall/winter use and early spring use during the critical growing period would be modified as in the Proposed Action.

The number and kind of livestock, season-of-use and permitted use would be as follows for the Actual Use Alternative on the Little Smoky Valley Use Area of the Duckwater Allotment:

Table 2.2.2 Actual Use Alternative Grazing Permit – Reduced Grazing Alternative

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	Type Use
Duckwater (0701)	110 Cattle*	10/15 – 03/15	550	Active
Little Smoky Valley	1000 sheep or goats**	10/28-3/31	1006	Active

* Cattle numbers are flexible, not to exceed the active permitted use of 550 AUMs.

** 1,000 sheep or 1,000 goats could be grazed in any one winter, but not both sheep and goats in any one winter.

The allotment summary as it would appear on the Actual Use Alternative grazing permit is as follows:

Allotment Summary (AUMs)

Allotment	Active AUMs	Suspended AUMs	Voluntary Non-use	Grazing Preference
00701 Duckwater	1556	3393	925	5874

In accordance with 43 CFR 4130.3-2, the following terms and conditions of the Actual Use Alternative would be included in the grazing permit for Vince Ferreira in the Little Smoky Valley Use Area of the Duckwater Allotment:

1. Active permitted use for this permit is 1556 AUMs. Active use may be less than, but not exceed, 550 AUMs for cattle grazing. Active use may be less than, but not exceed, 1,006 AUMs for sheep or goat grazing. Flexibility in cattle or sheep/goat numbers will be allowed, not to exceed the active AUMs.

2. The Little Smoky Valley Use Area is permitted to be grazed by cattle or sheep/goats every year.

Other terms and conditions beginning with #3 that would be included in the Actual Use Alternative grazing permit would be the same as those listed above on pages 10-12 for the Proposed Action.

Allowable Use Levels - Little Smoky Valley Use Area - Duckwater Allotment – all herbivores
The allowable use levels as listed for the Proposed Action would also be appropriate for the Actual Use Alternative.

2.2.3 Grazing Alternatives Comparison Table

The following Table 2.2.3 presents a summary of those grazing alternatives that authorize grazing to facilitate a comparison. Footnotes provide information on cattle or sheep/goat numbers and allowable use levels established by the different alternatives.

Table 2.2.3 Grazing Alternatives Comparison Table

	Allotment/Pasture	Livestock Number & Kind	Period of Use	Active Use (AUMS)
Proposed Action	Duckwater Allotment/ Little Smoky Valley Use Area	140 cattle* 1000 sheep* or goats	10/15 – 3/15 10/28-3/31	700 AUMs 1006 AUMs
Actual Use Alternative	Duckwater Allotment/ Little Smoky Valley Use Area	110 cattle* 1000 sheep* or goats	10/15 – 3/15 10/28-3/31	550 AUMs 1006 AUMs
No Action Alternative	Duckwater Allotment/ Little Smoky Valley Use Area	415 cattle 413 cattle	10/1 – 2/28 3/1 – 3/31	2060 AUMs 421 AUMs

* Cattle or sheep/goat numbers would be flexible, not to exceed the active permitted use. Allowable use levels for the Proposed Action and the Actual Use Alternative are the same, as follows:

- Spring (3/1 – 4/15) – Krla – 35%
- Spring (3/1 – 5/31) – Achy, Heco26, Agsp, Sihy - 40%
- Spring (3/1 – 5/31) – Krla, Atfa, Arno4, Atca – 50%

- Yearlong (3/1 – 2/28) - Achy, Heco26, Agsp, Sihy - 50%
- Yearlong (3/1 – 2/28) - Krla, Atfa, Arno4, Atca – 60%

Allowable use levels for the No Action Alternative are as follows:

Growing season – Krla – 30%

By end of winter dormancy – Krla – 50%

Along stream riparian areas & mesic meadows – perennial grasses & grass-like
Species – 45%

Krla = winterfat. Achy = Indian ricegrass. Heco26 = needleandthread. Agsp = Bluebunch
wheatgrass. Sihy = bottlebrush squirreltail. Atfa = sickle saltbush. Arno4 = black sagebrush.
Atca = Four wing saltbush.

2.2.4 Alternatives Considered but Not Analyzed in Detail

2.2.4.1 Resource Management Plan Alternatives

The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (RMP/FEIS - 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 Proposed RMP primarily is based on Alternative E presented in the Draft RMP/EIS (July, 2005) and on changes to management actions in response to public and internal comments received on the Draft. **The Proposed RMP** alternative **goal** is to manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health. **The Proposed RMP** alternative **objective** is to allow livestock grazing to occur in a manner and at levels consistent with multiple use, sustained yield, and the standards for rangeland health. According to the Proposed RMP alternative, Management Action LG-1 states, “Make approximately 11,246,000 acres and 545,267 animal unit months available for livestock grazing on a long term basis.” The Proposed Action in this EA is consistent with the **Proposed RMP**.

Alternative A is the continuation of existing management in the decision area and is called the “No Action Alternative” per NEPA regulations. This alternative would continue present management based on existing land use plans and other decision documents. Approximately 11,247,000 acres are available for livestock grazing subject to modification associated with disposal actions. The “No Action Alternative” in this EA is consistent with **Alternative A**.

Alternative B would emphasize the maintenance of those systems that are functioning and healthy and the restoration of ecological systems and their historic mosaic patterns that have been degraded or altered. Approximately 7,651,900 acres would be available for livestock grazing consistent with maintaining and restoring watershed function and health subject to modification associated with disposal actions. The remainder of the desert tortoise habitat within

the Mojave Desert (approximately 522,010 additional acres) would be unavailable. The “Actual Use Alternative” in this EA is a reduced grazing option and is consistent with **Alternative B**.

Alternative C would emphasize commodity production and production of food, fiber, minerals, and services, including provisions for several types of recreation. Approximately 11,240,600 acres would be available for livestock grazing subject to modification associated with disposal actions.

Alternative D

According to **Alternative D**, the No Grazing Alternative, livestock grazing use would not be authorized and the term grazing permit would not be renewed for operator #2702915. Cattle grazing would cease upon issuance of a final grazing decision or upon determination on appeal.

The RMP/FEIS concluded that the No Grazing Alternative D would not be consistent with current regulations and BLM policies regarding the livestock grazing program and would require congressional approval. The RMP/FEIS stated that Alternative D would not be consistent with the goals and objectives for the grazing program as stated above in the Relationship to Planning section 1.4 on page 6 of this EA. The No Grazing Alternative would not meet the RMP/FEIS objective of allowing livestock grazing to occur in a manner and at levels consistent with multiple use, sustained yield, and the standards for rangeland health. The No Grazing Alternative would not meet the Standards and Guidelines stated goal of improving rangeland health while providing for the viability of the livestock industry, all wildlife species, and wild horses and burros in the Nevada Northeastern Great Basin Area (p.2 of this EA). The No Grazing Alternative does not meet BLM’s mandate to manage the public lands for multiple uses (Taylor Grazing Act and the Federal Land Policy and Management Act).

The No Grazing Alternative would have substantial impacts to the grazing permittee. There would be far less flexibility in the grazing operation. The permittee would not have grazing opportunities in this use area, and would be limited during the winter period to cattle use on his Battle Mountain District, Mt. Lewis Field Office grazing permit, or would have to seek grazing opportunities in other areas or on private lands. This alternative would reduce the stability, efficiency, and economic value of the overall grazing operation. This alternative would result in a reduction in grazing revenues that are distributed to range improvement funds or to Nye County.

The broad analysis of livestock grazing in relationship to the No Grazing Alternative D in the RMP/FEIS reflects the current site specific grazing situation in Little Smoky Valley. Twenty years of rangeland monitoring in the Little Smoky Valley Use Area (Lowrie, personal observation, 2011) show that the landscape is suitable for grazing uses and that forage is available for combined use by cattle, sheep, wild horses, and wildlife. In terms of vegetation effects, key forage species production, cover, and structure would improve in the short term as a consequence of the No Grazing Alternative, however this alternative could result in the most amount of cured, wolfy, ungrazed grasses or shrubs which would provide litter, plant structure, and ground cover but would provide limited annual production and sustained forage value for all animals in the use area. A literature review by Anderson (1993) found that after a period of time, ungrazed herbaceous, fibrous rooted plant species become decadent and stagnant. This results in

reduced annual above ground growth and a reduction in essential features of vegetational cover, including the replacement of soil organic matter and surface residues, and optimum capture of precipitation.

The absence of grazing would remove an important management tool for vegetation manipulation, including weed control, which reduces the risk for uncontrolled wildfires. Allowing native plant species to grow without livestock herbivory can accomplish only part of what is needed to keep areas from transitioning across a threshold to a woody, shrubby dominated state with little resistance to later transitioning to a weedy state. Courtois et al. (2004) found that 65 years of protection from grazing on 16 exclosures at different locations across Nevada resulted in relatively few differences between vegetation inside the exclosures and those exposed to moderate grazing outside the exclosures. Protection from grazing failed to prevent the expansion of cheatgrass which was generally denser inside exclosures than outside.

2.2.4.2 Partial Summer Grazing Alternative

One alternative considered, but not analyzed in detail was to permit some portion of the permit as summer grazing for cattle in the Little Smoky Valley Use Area. The grazing permittee has requested this alternative. However rangeland monitoring over a period of twenty years has shown that there are no significant acreages of Wyoming sagebrush rangelands or other sagebrush rangelands with even a fair component of key forage bunchgrass such as Indian ricegrass or needleandthread in this use area that would be suitable for summer cattle grazing. The rangelands are extremely shrub dominant. There is no forage base of native perennial bunchgrasses for a summer grazing permit. In winter cattle graze the key half shrub winterfat, sickle saltbush, whatever native grass may be available, and other lower value species. Cattle grazing in this use area during summer would result in cow drift into unauthorized allotments in the Mt. Lewis Field Office Area, where there are sensitive riparian systems to manage for, or cow drift into other unauthorized use areas of the Duckwater Allotment. Also, cattle grazing practices should be in accordance with the recommendations of the State and Transition Model for winterfat dominant ecological sites that are in a shrub dominant state. Recommendations are that grazing should occur primarily during the winter, dormant season. Thus this alternative was eliminated from further analysis.

No further analysis is necessary in this document. No other alternatives are needed to address unresolved conflicts concerning alternative uses of available resources.

3.0 Description of the Affected Environment and Associated Environmental Effects

3.1 Allotment Information

The Little Smoky Valley Use Area of the Duckwater Allotment encompasses approximately 173,000 public land acres, and occurs from 60 to 70 miles west of Ely, Nevada (see Map 1). The area is fairly remote and isolated. The use area occurs entirely within Nye County. The use area is fenced on the north and south boundaries, and partially fenced on the west boundary. Cockalorum Wash, Snowball Wash, and Big Fault Wash are prominent geographic features in

the valley. The Park Range Mountains and Moody Mountain are also prominent features. The main Little Smoky Valley bottom drains north. Elevations in the area range from about 6,000 feet on the valley bottoms to about 8,500 feet in the mountains. Average annual precipitation is 6 – 12 inches. Salt desert shrub 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.

The Little Smoky Valley Use Area is located within greater sage grouse, deer, elk, and antelope habitat. Approximately 30,000 acres in the southwest portion of the use area are located within the Park Range Wilderness Study Area. The entire use area occurs within the Pancake Wild Horse Herd Management Area (HMA), which was previously named as the Sand Springs East and Monte Cristo HMAs. The Pancake HMA has an appropriate management level (AML) of from 240 – 493 wild horses year-long. This population range is based on in-depth analysis of habitat suitability and monitoring data to maintain healthy wild horses and rangelands over the long-term and established through the Record of Decision (ROD) and Approved Ely District Resource Management Plan. Currently the wild horse population is approximately 1,653 wild horses following the 2011 foal crop; this estimate is based off the May 2011 flight inventory.

The use area occurs in the Central Little Smoky Valley (122), the South Little Smoky Valley (176), and Park Range (175) Watersheds. A large majority of the Little Smoky Valley Use Area is located within the Major Land Resource Area 028B, the Central Nevada Basin and Range Area. A small portion of the use area is located within Major Land Resource Area 029, the Southern Nevada Basin and Range Area.

The permitted area is located within the Monitor Sage Grouse (*Centrocercus urophasianus*) Population Management Unit (PMU). There are no known active sage-grouse leks in or near this use area. The Little Smoky Valley Use Area contains year round pronghorn antelope (*Antilocapra americana*), year-long and seasonal mule deer (*Odocoileus hemionus*) habitat, and deer migration corridors.

The Little Smoky Valley Use Area includes several types of rangeland ecological sites. Salt desert shrub range sites occur in the valley bottoms, former lake bed terraces, and lower elevations. Winterfat (*Krascheninnikovia lanata*) sites are an important salt desert shrub type. Black sagebrush (*Artemisia nova*), Wyoming big sagebrush (*Artemisia tridentate ssp. Wyomingensis*) or big sagebrush (*Artemisia tridentate*) range sites occur on the piedmont fans (benches). Singleleaf pinyon pine (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*) woodlands occur at the higher elevations.

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 on December 7, 2009. 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 resources/concerns is to ensure compliance with laws, statutes or Executive Orders that impose certain requirements upon all Federal actions. Other resources have been identified as issues or

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 rationale 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 or identified grazing alternatives would contribute to ambient dust in the air due to cattle or sheep/goat trailing or 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.
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 continuously 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.
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 or the alternatives.
Fish and Wildlife	No	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. Detailed analysis is not required. There is mule deer year-long and winter range and deer migration corridors in Little Smoky Valley. There is also

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		antelope year-long habitat. Due to limited perennial water sources in this area, numbers of big game species are limited. Other wildlife common to the intermountain great basin area are also present. It is expected that wildlife habitat would be maintained or enhanced by appropriate native vegetation and ground cover and a better quantity & availability of forage resulting from primarily winter cattle or sheep/goat grazing, distribution of grazing, and revised utilization standards as implemented by the proposed action or the actual use alternative. The no action alternative would be the least likely alternative to contribute to appropriate wildlife habitat.
Floodplains	No	No floodplains have been identified by HUD or FEMA within Little Smoky Valley. Resource not present.
Forest Health	No	Pinyon-juniper woodlands occur in the Little Smoky Valley Use Area. However cattle or sheep/goats make minimal use of the woodlands during the fall/winter grazing period. Detailed analysis is not required.
Grazing Uses	No	Grazing has been a common activity in eastern Nevada since the late 1800s. The Little Smoky Valley Use Area is currently permitted for sheep and cattle grazing (see page 3 above). Historically the area 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, and personal testimonies of grazing permittees all indicate the area has been grazed heavily from the late 1800s up until the Grazing Decision of 1995. Under the proposed action and actual use alternative, forage resources would be maintained to sustain grazing uses in the Little Smoky Valley Use Area. 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, indirect, 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 according to the Migratory Bird Treaty Act of 1918. 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 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 or alternatives encourage progress towards the RAC rangeland health standards, it will aid in achieving the future desired condition of habitat. The potential for the proposed livestock grazing or actual use grazing alternative to negatively affect migratory birds is discounted because of the low density of livestock, dispersed grazing within the allotment, revised utilization standards, and the primarily winter season of use. A list of bird species found within or near the allotment can be found at Appendix I.
Mineral Resources	No	There would be no modifications to mineral resources through the Proposed Action or alternatives, therefore no direct, indirect, or cumulative impacts would occur to minerals.
Native American Religious Concerns and other concerns	No	No concerns were identified through coordination letters sent on January 8, 2010. Direct impacts and cumulative impacts would not occur because there were no identified concerns through coordination.
Noxious and Invasive Weed Management	No	<p>The noxious species hoary cress occurs within the use area along roads. The invasive species halogeton is found as both a monoculture that has displaced all native vegetation on salt desert shrub range sites, and mixed with salt desert shrub vegetation. Salt from the soil can accumulate in the halogeton plant tissues and leach from dead plants and roots back onto the soil surface increasing salinity and favoring establishment of halogeton over other species. Other invasive species present in the permit renewal area include cheatgrass, Russian thistle, and annual mustards.</p> <p>Although improper grazing can increase the populations of the noxious and invasive weeds already within the permitted area, the design features</p>

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		of the Proposed Action or the Actual Use Alternative would help to prevent weeds from establishing or spreading. Either of these alternatives is designed to make native plant communities more resilient and resistant to noxious or invasive species spread. Under the no action alternative weeds would be more likely to spread due to the potential lack of native plant vigor and production. No additional analysis is needed.
Paleontological Resources	No	No known resources are currently identified in the project area.
Prime or Unique Farmlands	No	There are no prime and unique farmlands in the Little Smoky Valley Use Area. The proposed action or grazing alternatives 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 or other grazing alternatives to renew the grazing permit would result in impacts to recreation uses that are essentially not measurable. 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

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		(OHV) exploration.
Social and Economic Values	Yes	The farming and ranching life style has been and continues to be important in Nye County and the State of Nevada. The local economy of Nye County has been dependent on farming and ranching activity. Taxes generated from agricultural activity benefit the county. General impacts to Social and Economic Values have 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 and/or Nye County. Detailed analysis provided.
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. The soils in the project analysis area are susceptible to erosion from wind and water (overland flow) forces especially during periods of high wind velocities and/or intense precipitation events. All soils in the project area are susceptible to compaction and disturbance commonly associated with livestock, wild horse, and wildlife trampling near water sources and trailing.</p> <p>The proposed action or actual use grazing alternative are not expected to lead to increased erosion, soil disturbance, or loss of proper soil functionality. The intensity, duration, and frequency of livestock grazing or trailing and use of water and vegetation resources is not expected to lead to measureable changes in soil disturbance along trails, at or near water sources, and especially at the use area wide scale. The proposed action or the actual use alternative allows for soils resiliency to grazing effects. The no action alternative would be the most likely grazing regime to cause erosion, soil disturbance, or loss of proper soil functionality. No further analysis is needed.</p>
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

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		and the other grazing alternatives pose differing environmental effects to most Special Status Species, thus a detailed analysis for most Special Status Species is provided below. Both cattle and sheep/goat grazing authorized by the Proposed Action or any of the other grazing alternative actions would occur in Little Smoky Valley well outside the 9 mile buffer area for the Desert Bighorn Sheep occupied habitat. Thus there is effective separation of domestic sheep grazing and occupied big horn sheep habitat that includes topographic barriers (mountain ranges). Thus a detailed analysis for the Special Status Species Desert Bighorn Sheep is not included.
Special Status Plant Species	No	No Special Status Plant species are known to occur within the project area. A population of Eastwood milkweed (<i>Asclepias eastwoodiana</i>) is known from within three miles to the northeast. Because the resource is not present in the use area, no detailed analysis is required.
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.
Visual Resource Management (VRM)	No	Visual Resource Management provides a way to identify and evaluate scenic values to determine the appropriate levels of management. The Little Smoky Valley Use Area occurs within Visual Resource Management (VRM) Classes I, II, III, and IV. The allotment occurs in an area typical of the intermountain great basin landforms. No direct, indirect, or cumulative impacts to visual resources would occur. The project meets the VRM Class

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		objectives.
Wastes, Hazardous or Solid	No	No hazardous or solid wastes are known to exist in the Little Smoky Valley Use Area nor would any be introduced by the proposed action or alternatives.
Water Quality, Drinking/Ground	No	The proposed action or alternatives do 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.
Watershed Management	No	By improving livestock management practices, the Proposed Action or Actual Use Alternative are expected to improve watershed function and health by improving the vegetative attributes of cover, production, composition, vigor, structure, diversity, litter, and seed production in the identified watersheds. The No Action Alternative would be the least likely alternative to result in improved watershed function and health. 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.
Wetlands/Riparian Areas	No	There are no wetlands or riparian areas in that portion of Little Smoky Valley grazed by cattle or sheep/goats. There are no jurisdictional wetlands in the proposed action area. Impacts from livestock grazing on riparian areas were analyzed on pp 4.5-9 of the Ely Proposed Resource management Plan/Final Environmental Impact Statement (November 2007).
Wilderness/WSA	No	Approximately 30,000 acres of the Park Range Wilderness Study Area (WSA) occur in the southwest portion of the Little Smoky Valley Use Area. Very minor use of cool season native perennial bunchgrasses during winter could occur in the area by cattle or minor use of desert shrubs could occur by sheep/goats. This would not impair the suitability of the area for preservation as wilderness. Detailed

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		analysis is not required.
Lands with Wilderness Characteristics (LWC)	No	A portion of the Little Smoky Valley Use Area was designated as a WSA in 1980. The remaining grazing use areas in the Duckwater Allotment were determined to not possess LWC. The Proposed Action and the Actual Use Alternative would not preclude preservation of Lands with Wilderness Characteristics should they be found to be present (outside the existing WSA) in the future. By reducing stocking levels and implementing other new terms and conditions of grazing use, it is expected that Naturalness would be improved under those two alternatives. Naturalness would likely not be improved according to the No Action Alternative. There are no anticipated impacts to Size, Solitude or Primitive forms of recreation from the proposed action or other grazing alternatives.
Special Designations other than Designated Wilderness	No	No Special Designations occur within the Little Smoky Valley Use Area.
Wild Horses	Yes	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 proposed action or actual use alternative would be expected to benefit forage condition for wild horses and promote wild horse distribution throughout the Pancake HMA. The no action alternative would not be expected to result in appropriate forage condition for wild horses and would not promote wild horse distribution throughout the HMA. Effects analyzed in this EA.
Wild and Scenic Rivers	No	There are no wild and scenic rivers within the project area. Resource not present.

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

A detailed analysis is presented below for Rangeland Standards and Health/Vegetative Resources, Social and Economic Values, Special Status Species Animal Species other than those listed or proposed by the FWS as Threatened or Endangered), and Wild Horses, which were assigned a “yes” in Table 3.2 above.

4.0 ENVIRONMENTAL EFFECTS – DETAILED ANALYSIS

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

The Little Smoky Valley Use Area of the Duckwater Allotment occurs entirely within the northern portion of Nye County, Nevada. The Little Smoky Valley Use Area is located primarily within the Major Land Resource Area 028B, the Central Nevada Basin and Range Area. A small portion of the use area occurs within Major Land Resource Area 029, the Southern Nevada Basin and Range Area. Rangeland ecological sites and native plant communities are those typically found within the Northeastern Great Basin RAC Area. Thus, although The Little Smoky Valley Use Area of the Duckwater Allotment occurs entirely in Nye County, in the Nevada Mojave Southern Great Basin Area, rangeland health will be assessed using the Nevada Northeastern Great Basin Area RAC Standards and Guidelines.

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 Nevada 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.

In the case of the permit #2702915 renewal on the Little Smoky Valley Use Area of the Duckwater Allotment, the Upland Sites Standard is not achieved, the Riparian/Wetlands Sites Standard is not applicable, and the Habitat Standard is not achieved. Significant progress is not being made towards achievement of the Upland Sites or Habitat Standard. Current cattle grazing management practices are one of several contributing factors to not achieving the Upland Sites and Habitat Standards. Failure to achieve the standard is also related to other issues or conditions, including wild horses, drought, historical heavy livestock grazing prior to 1990, and possibly 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. Rangeland monitoring over a period of 20 years in the Little Smoky Valley Use Area indicates that the land area is still suitable for grazing and that forage availability is present to sustain grazing use by cattle, sheep/goats, wild horses, and wildlife. The soils and rangeland ecological sites within the Little Smoky Valley Use Area of the Duckwater Allotment have been described, classified, and studied by the Natural Resource Conservation Service (NRCS).

The three most prevalent ecological sites in the Little Smoky Valley Use Area are as follows:

Key Areas DW-15, DW-19, and DW-55 are located within the 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. Normal year plant community production is about 500 lbs. per acre (air dry weight). Potential composition is about 30% grasses, 5% forbs, and 65% shrubs.

Study Sites SS-2 and SS-3 are located within the 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. Normal year plant community production is about 450 lbs. per acre (air dry weight). Potential composition is about 50% grasses, 5% forbs, and 45% shrubs.

The Loamy 8-10” ecological site is very prevalent in Little Smoky Valley (Artrw/Achy-Heco26 – 028BY010NV). Wyoming big sagebrush, Indian ricegrass, and needleandthread dominate the plant community. Approximate ground cover (basal and crown) is 10 to 20 percent. Normal year plant community production is about 600 lbs. per acre (air dry weight). Potential composition is about 50% grasses, 5% forbs, and 45% shrubs.

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 Wyoming sagebrush, black sagebrush, Indian ricegrass, needleandthread grass, winterfat, sickle saltbush, Bailey’s greasewood, fourwing saltbush, galleta grass, globemallow, prince’s plume, and basin wild rye. The invasive annual species halogeton occurs throughout Little Smoky Valley. The invasive annual grass cheatgrass is present in the term permit renewal area in low densities. Other non-native invasive plants including Russian thistle and annual mustards are present in the area.

Much of the Little Smoky Valley Use Area is severely depleted. There are vast acreages of land dominated by invasive annual species, particularly halogeton. Much of the use area is also sagebrush dominant with very little herbaceous understory of native grasses and forbs present.

Rangeland Standards and Health/Vegetative Resources

Proposed Action – Environmental Effects

According to the proposed action, the cattle permit would be authorized at 140 cattle for 700 AUMs active permitted use, with a new season of use in fall/winter as 10/15 to 03/15. The use area would be rested from cattle use one year out of every four years. Sheep/goat grazing would be authorized at 1,000 animals from 10/28 to 3/31, or 1006 AUMs, with grazing to occur every year. Livestock numbers would be flexible, not to exceed the active permitted use. Other grazing terms and conditions would apply to the grazing permit, for example new allowable utilization levels, movement or removal of cattle or sheep/goats from the allotment upon reaching utilization levels, water hauling requirements, and terms and conditions related to sheep/goat trailing and herding. The permittee might be expected to continue to coordinate with BLM to license cattle use at about the four year average of 543 cattle AUMs per year, depending on annual climate conditions, wild horse populations, and the needs of his operation. The

Proposed Action maintains the option of grazing up to 700 cattle AUMs on a good, productive year.

Cattle and sheep/goat use in fall and winter is expected to be dispersed across the use area and would not be concentrated in any one area. Grazing use would be rotated to different areas within the use area, and would occur in both sagebrush and salt desert shrub ecological sites. With available snow, both cattle and sheep/goats tend to disperse more. Cattle would be expected to continue to graze the key species winterfat and Indian ricegrass lightly (21-40%) and moderately (41-60%) during the fall/winter grazing period. Sheep/goats would be expected to graze the key shrub black sagebrush or other desert shrubs moderately or less during the same period. Sheep/goat forage preference during winter would primarily consist of shrubs, and goats would also select for several kinds of weedy species during this grazing period. Utilization by all herbivores on key forage species would be expected to be lighter when wild horse populations are low and heavier when wild horse populations are high. It is possible that local areas of over-utilization of key forage plants could result from combined use by cattle, sheep/goats and wild horses, especially during drought years or years when wild horse numbers are high. By implementing a new cattle grazing end date of March 15, and a sheep/goat ending date of March 31, new growth of native herbaceous grasses and forbs would be allowed in native ranges during a majority of the critical growing period, which in this area can be designated as 3/15 to 5/15 most years. The amount of new growth would vary depending on drought and the amount of combined utilization by livestock, wild horses, and wildlife. When combined with proper utilization, the new growth would strengthen the herbaceous native plant component of grasses and forbs relative to the current shrub dominance and halogeton dominance, thus improving plant composition and making the range more resilient and resistant to invasive species spread. Growth of winterfat would be allowed in salt desert shrub range. Residual, standing forage would be left for dormant or winter season grazing by livestock, wildlife, and wild horses. The new utilization levels implemented by the proposed action would allow key forage 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.

The Proposed Action would be expected to lead to beneficial vegetation impacts such as maintained or improved composition, cover, structure, and vigor, appropriate production and forage availability, and a stable to improved rangeland condition and trend. The vegetative response would be more appropriate to ecological site potential than under the No Action Alternative. By making primarily winter use and by making light use or less in spring, grazing would allow native herbaceous grasses and forbs to be productive and produce seed. During many recent drought years native plants have not produced much seed.

Significant progress towards achievement of the Upland Sites and Habitat Standards would be expected according to the Proposed Action. Cattle and sheep/goat management practices would be in conformance to the Guidelines, and consistent with ROD/RMP (August, 2008) Best Management Practices for winterfat ecological sites (see 2.1.2 p.11). The range would be rested from grazing for almost all of the growing season and would be rested completely from cattle grazing one year in four. Native herbaceous grasses and forbs would be allowed a complete growing cycle. Key forage utilization would be expected to be in compliance with RMP

utilization objectives and the allowable use levels as established by the grazing decision to renew this grazing permit, thus leaving appropriate cured forage available for fall/winter grazing, and leaving appropriate forage and nesting cover for any sage grouse that may be present in the area. The Proposed Action would meet the Standards and Guidelines stated goal of improving rangeland health while providing for the viability of the livestock industry, all wildlife species, and wild horses and burros in the Nevada Northeastern Great Basin Area (p.2 of this EA).

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 with no changes to the current grazing permit, which was renewed through a grazing decision in 1995. The stocking level, kind of livestock, season of use, area of use, allowable use levels, or other terms and conditions of the grazing permit would not change. The grazing permit would authorize up to 414 cattle for 2,481 active AUMs on the Little Smoky Valley Use Area, with the season of use remaining at 10/1 to 3/31. Grazing use could occur every year. Although the permittee might be expected to continue to license use at about the 4 year average of about 543 AUMs, he or a successive permit holder would have the option of licensing full active use of the 2,481 AUMs and grazing until March 31. It is reasonable to predict that utilization of key native grasses and winterfat or other key shrubs would be expected to be heavy (61-80%) or severe (81-100%) for this alternative, for both the spring or yearlong grazing periods, depending on annual climate conditions and wild horse populations. This would result in vegetation production, cover, composition, structure, diversity, vigor, litter and seed production that are inappropriate to ecological site potential. This use would exceed the Ely District RMP use objectives and the allowable use levels as implemented by this permit renewal, and would not leave adequate vegetation available for sage grouse nesting cover and forage, wild horses, or wildlife. Drought and wild horse numbers above the AML would magnify the expected heavy and severe use levels that would result from this alternative. Key native perennial grasses and winterfat would not receive as much rest during the spring critical growing period as they would with other grazing alternatives.

It is expected that authorizing the full active 2,481 AUMs according to the No Action Alternative would not promote achieving or making progress towards achievement of the Standards for Rangeland Health and would not sustain healthy Special Status Species, wild horse, and wildlife habitat. Cattle management practices would likely not be in conformance to the Guidelines, and not consistent with ROD/RMP (August, 2008) Best Management Practices for winterfat ecological sites (see 2.1.2 p.11). The No Action Alternative would not meet the Standards and Guidelines stated goal of improving rangeland health while providing for the viability of the livestock industry, all wildlife species, and wild horses and burros in the Nevada Northeastern Great Basin Area (p.2 of this EA). The No Action Alternative would provide the permittee the option of licensing up to 2,481 AUMs on a good, productive year or a year when use in this allotment fits in with the operational needs of the permittee. Essentially, the No Action Alternative would not meet the purpose and need for the action.

Rangeland Standards and Health/Vegetative Resources

Actual Use Alternative – Environmental Effects

According to the Actual Use Alternative, the cattle permit would be authorized at 110 cattle for 550 AUMs active permitted use, with a season of use in fall/winter as 10/15 to 03/15. Cattle grazing could occur every year. Sheep/goat grazing would be authorized at 1,000 animals from 10/28 to 3/31, or 1006 AUMs, and could also occur every year. Livestock numbers would be flexible, not to exceed the active permitted use. As with the proposed action, other grazing terms and conditions would apply to the grazing permit, for example new allowable utilization levels, movement or removal of livestock from the allotment upon reaching utilization levels, water hauling requirements, and terms and conditions related to sheep/goat trailing and herding. The permittee might be expected to continue to coordinate with BLM to license cattle use at about the four year average of 543 AUMs per year, depending on annual climate conditions, wild horse populations, and the needs of his operation. The Actual Use Alternative maintains no option of grazing up to 700 cattle AUMs on a good, productive year (Proposed Action), thus this limits the flexibility to change grazing practices annually as the livestock operation needs change.

The environmental effects of the Actual Use Alternative would be much the same as those described in the second paragraph of the Proposed Action effects above. Significant progress towards achievement of the Upland Sites and Habitat Standards would be expected according to the Actual Use Alternative. Grazing management practices would be in conformance to the Guidelines, and consistent with ROD/RMP (August, 2008) Best Management Practices for winterfat ecological sites (see 2.1.2 p.11). The range would be rested from grazing for almost all of the growing season every year. Native herbaceous grasses and forbs would be allowed a complete growing cycle. Key forage utilization would be expected to be in compliance with RMP utilization objectives and the allowable use levels as established by the grazing decision to renew this grazing permit, thus leaving appropriate cured forage available for fall/winter grazing, and leaving appropriate forage and nesting cover for any sage grouse that may be present in the area. In the sense that the Actual Use Alternative provides the least amount of flexibility for the grazing operation, this alternative may not meet the Standards and Guidelines stated goal of improving rangeland health while providing for the viability of the livestock industry, all wildlife species, and wild horses and burros in the Nevada Northeastern Great Basin Area (p.2 of this EA).

4.2 Social and Economic Values **Affected Environment**

The farming and ranching life style and economy is important to Nye County. Taxes generated from agricultural activity benefit the county and local residents. Cattle and sheep operations have been a way of life in the area since the 1870s. There is a potential impact to farm or ranch income and local economies as a result of different livestock grazing levels authorized on public lands. Also, grazing receipts that accrue to BLM generate payments to range improvement funds and payments to counties of origin (Nye 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.

The permittee has leased his base property in Antelope Valley (Kitchen Meadows Ranch) to

Winter Grazing Lands, LLC. This is the base property for 2,513 active cattle AUMs in the Fish Creek Ranch Allotment (Antelope Valley Use Area), administered out of the Battle Mountain District BLM. The season of use for this permit is 11/1 to 3/31. This cattle authorization was previously permitted to Vince Ferreira (now VW Land and Cattle, LLC).

Social and Economic Values

Proposed Action - Environmental Effects

The Proposed Action would provide a moderate amount of flexibility in the overall grazing operation, especially during the fall/winter period, and would facilitate livestock management and a livestock operation. There would be some opportunity to choose to change livestock management practices based on the annual needs of the operation. The proposed action provides flexibility of choice in how the permittee grazes this allotment in relation to grazing his other permitted allotments. The permittee would be able to use the Little Smoky Valley Use Area when good, productive years present grazing opportunities. There would be an opportunity to graze cattle AUMs above the 550 level, which is the actual use alternative grazing alternative. However, the use area would be rested one year out of every four years from cattle grazing. In general, there would be greater opportunity to choose to graze the Little Smoky Valley Use Area or the Fish Creek Ranch Allotment than under the actual use grazing alternative. The proposed action would maintain the viability, stability, efficiency, and economic value of the overall grazing operation. Grazing receipts accrued by BLM would be expected to stay the same or increase under the proposed action, with AUM activation expected for both cattle and sheep/goat grazing.

Social and Economic Values

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

This alternative would provide the most amount of flexibility in the grazing operation in the short term. The permittee would initially be able to use the Little Smoky Valley Use Area when good years present grazing opportunities. There would be more opportunity to choose to graze the area based on the needs of the operation. This alternative would provide the most stability and economic value of the overall grazing permit, and would facilitate livestock management in the short term. Grazing receipts accrued by BLM and distributed to range improvements funds or Nye County could also increase in the short term according to this alternative, with AUM activation expected for both cattle and sheep/goat grazing. In the long term, with the expected decline in vegetative condition expected from the No Action Alternative, the viability, stability, and flexibility of the livestock operation would decline and the opportunity to choose to graze different allotments or areas would also decline. Grazing receipts accrued by BLM earmarked for range improvement funds or Nye County would also be expected to decline in the long term.

Social and Economic Values

Actual Use Alternative - Environmental Effects

This alternative would provide the least amount of flexibility and stability in the grazing operation. The permittee would not have the opportunity to use cattle AUMs above the 550 level

when good, productive years present grazing opportunities or when wild horse populations are low. This alternative could generally reduce the stability, efficiency, and economic value of the overall grazing operation. This alternative could also result in an increase in grazing receipts that are distributed to range improvement funds or to Nye County if both cattle and sheep/goat AUMs are activated.

4.3 Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered
Affected Environment – Sage Grouse (*Centrocercus urophasianus*)

Impacts from livestock grazing on selected Special Status Species were discussed on pages 4.7-28 through 4.7-32 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). The greater sage-grouse is a high-profile Sensitive Species currently considered to be warranted for listing by the U.S. Fish and Wildlife Service as Threatened or Endangered, but for which listing is precluded by other species of higher priority (USDI 2010). There are no known active sage grouse leks within the Little Smoky Valley Use Area of the Duckwater Allotment, or within 3 miles of the use area boundary. A few sage grouse have been observed in the valley from time to time. Four sage-grouse females were observed approximately 1.5 miles east of the Little Smoky Valley Use Area during early November, 2008, in the North Sand Springs Use Area which contains sagebrush habitat contiguous with that in the Little Smoky Valley Use Area. There is an abundance of Wyoming sagebrush habitat in the valley. There are broad acreages of Wyoming sagebrush monocultures with little to no understory of native perennial grasses and forbs.

The Little Smoky Valley Use Area of the Duckwater Allotment is entirely within the Monitor Sage Grouse Population Management Unit (PMU), which consists of 3,224,066 acres, covered by the South-Central Nevada Conservation Plan. The PMU has not been thoroughly analyzed yet, but there were an estimated 73 leks known in 2004, none of which occur in the Little Smoky Valley Use Area.

Affected Environment – Other Special Status Species – Desert Bighorn Sheep, Pygmy Rabbits, Dark Kangaroo Mouse, Ferruginous Hawks, Golden Eagles, Northern Goshawks, and Prairie Falcons

Desert Bighorn Sheep occupied habitat occurs in the Duckwater Hills area to the east of Little Smoky Valley and in the Battle Mountain District BLM area to the south of Little Smoky Valley (see Maps –Figure 2 in the Appendix). Both cattle and sheep/goat grazing authorized by the Proposed Action or any of the grazing alternative actions would occur in Little Smoky Valley well outside of the 9 mile buffer area for the occupied habitat. Thus there is effective separation of domestic sheep grazing and occupied big horn sheep habitat and no special terms and conditions of sheep/goat grazing have been included in the proposed action related to desert bighorn sheep. There is both effective distance and topographic separation of domestic sheep/goat grazing and Desert Bighorn Sheep occupied habitat.

Based on a general merging of soil and vegetation types known to be preferred by pygmy rabbits (*Brachylagus idahoensis*), the Little Smoky Valley Use Area does not contain any potential

habitat. This information has not been ground truthed (verified). However, no sightings have been documented within the project area. The dark kangaroo mouse (*Microdipodops megacephalus*) has recently been recognized as a Sensitive Species both state-wide and on the Egan Field Office area. There are no known ferruginous hawk or golden eagle nests in Little Smoky Valley. A northern goshawk nest and a prairie falcon nest were mapped in Little Smoky Valley in 1992. The sites have not been checked recently.

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

Proposed Action – Environmental Effects - Sage Grouse

According to the Proposed Action, limited fall/winter use by cattle or sheep/goats is expected in Wyoming sagebrush rangelands, which are preferred by sage grouse for nesting cover and winter habitat. Cattle or sheep/goats would be expected to continue to graze the key species winterfat lightly (21-40%) and moderately (41-60%) and Indian ricegrass moderately during the fall/winter grazing period. Utilization would vary according to climate conditions, wild horse population levels, and other factors. Complete new growth of native herbaceous grasses and forbs important as sage grouse cover and forage would be allowed during the critical growing period in the Little Smoky Valley Use Area according to the winter grazing system ending 3/15 for cattle and 3/31 for sheep/goats implemented by the Proposed Action. Combined with proper utilization levels during fall and winter, this would strengthen the herbaceous native plant component relative to the current shrub dominance, thus improving plant composition. Appropriate habitat would be maintained for any sage grouse that may be present in Little Smoky Valley.

Features of the Proposed Action, including a reduction in authorized AUMs, a change in season of use, a rotation that includes total rest from cattle grazing periodically, and implementation of maximum allowable use levels, are designed to improve or maintain vegetative community conditions, particularly for the herbaceous understory. These changes should benefit any greater sage grouse that may occur within the project area.

Proposed Action – Environmental Effects – Other Special Status Species

There would be no effect to desert bighorn sheep as a result of the Proposed Action. Insofar as the proposed action works to move sagebrush community conditions toward those described in the Ecological Site Descriptions, it would also benefit any potential populations of pygmy rabbits and dark kangaroo mouse within the project area. The main effect grazing would have on the dark kangaroo mouse, is competition for seeds and vegetation. This competition could be lessened by the proposed changes to the grazing management practices. Because the Proposed Action implements changes in livestock management designed to improve vegetative conditions, the small mammal species upon which the Ferruginous hawk depends on for food should also benefit. Because of the widespread distribution of ferruginous hawks (*Buteo regalis*) within eastern Nevada, and the winter grazing season of use, the proposed action is not expected to affect ferruginous hawk populations at a regional or local level. The stated goal of improving the herbaceous native grass/forb component and the production, cover, and structure of native vegetation could help to improve habitat for the small mammal prey base of raptors in general.

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

No Action Alternative – If Full Active Permitted Use Were Licensed – Environmental Effects – Sage Grouse

According to the No Action Alternative, the grazing permit would not change and cattle would be authorized at 2,481 active AUMs on the Little Smoky Valley Use Area with the season of use remaining at 10/1 to 03/31. Up to 414 cattle would be licensed. As previously mentioned, this alternative would result in heavy and severe use of key forage species, especially during drought years or when wild horse populations are above AML, and vegetative attributes such as production, cover, composition, vigor, structure, seed production, and diversity would not be appropriate to ecological site potential. Forage, cover, and nesting cover would not be appropriate for any sage grouse that might be present in the Little Smoky Valley Use Area.

No Action Alternative – If Full Active Permitted Use Were Licensed – Environmental Effects – other Special Status Animal Species

There would be no effect to desert bighorn sheep as a result of the No Action Alternative. The stated goal of improving the herbaceous native grass/forb component and the production, cover, and structure of native vegetation would be least likely to occur according to this alternative. If the habitat were to remain the same it is unlikely that any improvement to the small mammal prey base would occur.

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

Actual Use Alternative – Environmental Effects - Sage Grouse

According to the Actual Use Alternative, limited fall/winter use by cattle and sheep/goats is expected in Wyoming sagebrush rangelands, which are preferred by sage grouse for nesting cover and winter habitat. Under the Actual Use Alternative, cattle and sheep/goats would be expected to continue to graze the key species winterfat lightly (21-40%) and moderately (41-60%) and Indian ricegrass moderately during the fall/winter grazing period. Utilization would vary according to climate conditions, wild horse population levels, and other factors. Complete growth of native herbaceous grasses and forbs important as sage grouse cover and forage would be allowed during the critical growing period in the Little Smoky Valley Use Area according to the winter grazing system implemented by the Actual Use Alternative. Combined with proper utilization levels during fall and winter, this would strengthen the herbaceous native plant component relative to the current shrub dominance, thus improving plant composition. Vegetative attributes such as plant production, cover, composition, structure, vigor, seed production, and diversity would be more appropriate to ecological site potential under the No Action Alternative. According to this alternative, appropriate habitat would be maintained for any sage grouse that may be present in Little Smoky Valley.

Actual Use Alternative – Environmental Effects – Other Special Status Animal Species

There would be no effect to desert bighorn sheep as a result of the Actual Use Alternative. The stated goal of improving the native grass/forb component could help to improve habitat for the small mammal prey base of raptors in general.

4.4 Wild Horses

Affected Environment

The 2008 Ely District Record of Decision (ROD) and Approved Resource Management Plan (RMP) combined two existing Herd Management Areas (HMAs - Monte Cristo and Sand Springs East) into the Pancake Wild Horse Herd Management Area (HMA). The Decision to combine all or portions of the two HMAs was due to the historical interchange of wild horses between the two HMAs and was also based on an in-depth analysis of habitat suitability and monitoring data as set forth in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement, Table 3.8-2 and Page 4.8-2. The 2007 EIS evaluated each HMA for five essential habitat components and herd characteristics: forage, water, cover, space, and reproductive viability. Through this analysis and the subsequent Final RMP and ROD, the boundaries of the Pancake HMA were established to ensure sufficient habitat for wild horses, and an AML was reviewed and set that would achieve a thriving natural ecological balance and rangeland health. The Pancake HMA is approximately 855,000 acres with an AML of 240-493 wild horses. Current estimated population is approximately 1,653 wild horses following the 2011 foal crop.

Wild horses use all portions of the Little Smoky Valley Use Area, however they are known to prefer the northeast portion of the valley where winterfat and halogeton occur on a broad alluvial fan, in and around Moody Mountain or the Park Range Mountains, and in Snowball Wash and Big Fault Wash.

Wild Horses

Proposed Action – Environmental Effects

The Proposed Action, by reducing the cattle stocking level, limiting the winter season of use, limiting growing season use, providing for complete rest from cattle grazing every fourth year, and distributing cattle or sheep/goat use through water developments or water hauls, is expected to improve vegetative attributes, forage availability and habitat condition for wild horses. This is especially important for wild horses during the winter grazing period, and/or when wild horse populations are at peak levels. Wild horses would be less likely to concentrate their activity in areas they favor with an improvement in forage availability and habitat condition over the use area as a whole. Combined utilization by cattle, sheep and wild horses would generally be expected to be within acceptable utilization limits according to the Proposed Action.

Wild Horses

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

Under the No Action Alternative, the permit would not be changed and new allowable use levels would not be implemented. Livestock management practices would be expected to be similar to the practices employed since 2006, however the permittee or successor permittee would have the option of activating up to 2,481 AUMs and maintaining the season of use as 10/1 to 3/31. This would result in heavy and severe key forage utilization, inappropriate ecological condition and

vegetative attributes, inappropriate soils, and a higher risk of annual invasive species spread. This would not leave appropriate forage availability and habitat condition for wild horses, particularly during hard winters or when wild horse populations are high. Wild horses would continue to concentrate their activity in areas they favor, resulting in further range deterioration. Additional severely depleted rangelands are most likely to result according to this alternative.

Wild Horses

Actual Use Alternative – Environmental Effects

The Actual Use Alternative, by reducing the cattle stocking level, limiting the winter season of use, limiting growing season use, and distributing cattle or sheep/goat use through water developments or water hauls, is expected to improve vegetative attributes, forage availability and habitat condition for wild horses. Other effects to wild horses would be much the same as those described above for the Proposed Action. Additional severely depleted rangelands would not likely result according to the Actual Use Alternative.

5.0 Cumulative Impacts

The Cumulative Effects Study Area (CESA) for this permit renewal is defined as the Little Smoky Valley Use Area and adjoining lands within the Central Little Smoky Valley (122), Park Range (175) and South Little Smoky Valley (176) Watersheds. These are lands in Nye County, Nevada, generally between the Antelope Mountain Range in the west and the Pancake Mountain Range in the east, totaling about 200,000 acres.

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 guidance 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).

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

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

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, Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered, and Wild Horses. 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 CESA for this permit renewal. The permit renewal area is fairly remote and isolated. Historical mineral mining has not occurred in the CESA. Oil exploration has been very limited in the area and has not resulted in any producing wells within 15 miles of the permitted grazing area. Two or three small gravel pits have been authorized in the CESA over the years. Hunting, camping, trapping, wildlife viewing, off highway vehicle (OHV) use, and other recreational activities have been common but not frequent in the area. Woodcutting and pinyon nut gathering have been infrequent. Small two track roads associated with these activities are not extensive and have not altered the landscape. Wildlife use has been dispersed and not intensive in the area. Wildfires have been infrequent in the area. BLM shape files show no record of wildfires in the CESA. Historical cattle and sheep use from about 1870 to the present time and wild horse use from about the 1960s to the present time have been common in the area. Historic grazing use by livestock and wild horses has been severe in the area. Drought has also been common in the area. Wild horse gathers have occurred regularly. The last wild horse gather of the Pancake HMA occurred in August, 2007.

The Egan (1987) MFP (Ely District) designated the Monte Cristo and Sand Springs East HMAs for the long-term management of wild horses. These HMAs were later combined into the Pancake HMA in the Ely District Record of Decision (ROD) and Approved Resource Management Plan (RMP) in August 2008 due to the interchange between the two HMAs. The HMA is nearly identical in size and shape to the original Herd Areas representing where wild horses were located in 1971. Currently, management of HMAs and wild horse populations are guided by the 2008 Ely District ROD and RMP. The AML range for the Pancake HMA is 240-493 wild horses. Due to laws and subsequent court decisions, integrated wild horse management has occurred in the Pancake HMA. Approximately 3,973 wild horses have been removed from the HMA in the last 25 years.

Range improvements have been developed over the years within the CESA, which include 1 crested wheatgrass seeding of about 1,000 acres, three earth reservoirs, several water wells for grazing, three or four allotment boundary fences, and one or two spring developments.

5.2 Present Actions

Current projects or activities in the CESA are also limited. There is no current mineral mining. There is currently no oil exploration or production and no wind energy testing areas or solar energy testing areas. Hunting, camping, trapping, wildlife viewing, OHV use, woodcutting, pinyon nut gathering, continue to remain common activities in the area yet are dispersed and minimal due to the remote location and relative lack of water sources. Wildlife use is currently dispersed and limited in the area. Some year-long antelope use occurs along with winter and migratory deer use and very minimal elk use. Big game numbers are limited due to limited water

availability. There are few sage grouse known to occupy the CESA. Livestock use is currently far less than active permitted use and is far less than historical stocking levels. The Little/Paris Sheep Company sheep grazing permit in the Duckwater Allotment and other allotments (operator # 2704538) is currently being fully processed through the Egan Field Office BLM. A Final Multiple Use Grazing Decision (FMUD) has been issued for this permit, and has been appealed. The Tom and Ellen Gardner sheep grazing permit on the Duckwater Allotment has also recently been fully processed, signed, and is in effect. This permit was not activated during the winter of 2010 – 2011. Each of these sheep permits are authorized to graze in Little Smoky Valley and several other use areas of the Duckwater Allotment as well as other BLM allotments.

Currently the Pancake HMA has an estimated population of 1,653 wild horses following 2011 foal crop. Wild horses have been identified as contributing factors to not achieving rangeland health standards for the Little Smoky Valley Allotment Use Area.

No range improvements are currently being constructed in the CESA. No power lines occur within the CESA and none are proposed.

5.3 Reasonably Foreseeable Future Actions

Few public lands actions are planned for the CESA area in the reasonably foreseeable future. There are no anticipated or expected applications or proposals for renewable energy projects or power lines. Exploration work has begun for a potential Vanadium Mine in the western portion of the Little Smoky Valley Use Area. There has also been preliminary discussion for a proposed Vanadium Mine in the southern portion of the Fish Creek Ranch Allotment, approximately 2.5 miles west of the Duckwater Allotment boundary (Battle Mountain District BLM). A Plan of Operations is anticipated for this project. Land has been identified in Little Smoky Valley for oil leasing, however no applications for permits to drill (APDs) have been filed with BLM. There are no anticipated increases in recreational activities. The grazing permittee has applied with BLM and the Natural Resources Conservation Service (NRCS) to upgrade one or two water wells in the CESA to solar systems. Wild horses are expected to continue to use the CESA in about the same manner and scope as they have in the past. A new Director's wild horse and burro management strategy is currently in draft form for the wild horse and burro program. A wild horse gather is currently anticipated for fiscal year 2012 in accordance with the Nevada State Office BLM gather schedule. Future wild horse management in the BLM's Ely District would focus on an integrated ecosystem approach with the basic unit of analysis being the watershed. Wild Horses would continue to be a component of the public lands, managed within a multiple use concept.

Broad watershed assessment and evaluation of the Little Smoky Valley and Park Range Watersheds is expected to be completed by BLM within the next 10 years. The watershed assessments will determine if further changes in livestock management practices are needed to conform to the Standards and Guidelines for Rangeland Health. The assessments may also recommend sagebrush restoration treatments or other vegetation treatments such as tree thinning or prescribed fire to improve ecological health.

It is reasonable to expect that the grazing permit as proposed by this EA would become approved and cattle and sheep/goats would be permitted to graze the Little Smoky Valley Use Area during winter. Other sheep permits are expected to continue to use the CESA, primarily during the winter grazing period.

5.4 Cumulative Effects Summary

Rangeland Standards and Health

The Proposed Action or the Actual Use Grazing Alternative in combination with the recent sheep grazing permit renewals and regular wild horse gathers that maintain wild horses at or near the AML range of from 240 to 493 wild horses in the Pancake HMA would be expected to achieve or to make significant progress towards achievement of the Standards for Rangeland Health. The wild horse population estimate has been projected to be about 1,653 animals following the 2011 foaling season, which would equate to over 6 times the lower end of the AML of 240 animals for the entire Pancake HMA. Wild horse populations over the last 16 years have consistently been far above the appropriate management level in Little Smoky Valley (see page 36). Thus the Proposed Action or the Actual Use Grazing Alternative in combination with the current situation regarding management of wild horses may not result in achievement or significant progress towards achievement of the Standards and Guidelines for Rangeland Health.

The No Action Alternative would authorize the highest and most unreasonable stocking level for cattle. This alternative in combination with the recent sheep grazing permit renewals and either regular wild horse gathers or the current wild horse management situation would in no way achieve or make progress towards achievement of the Rangeland Standards and Health.

Social and Economic Values

The Proposed Action or the Actual Use Grazing Alternative in combination with current sheep grazing permit renewals and regular wild horse gathers would be expected to provide some stability and flexibility to the overall grazing operation and permit. Grazing receipts that accrue to BLM and are distributed to counties of origin or range improvement funds would likely be maintained or increase. The Proposed Action or the Actual Use Grazing Alternative in combination with current sheep grazing permit renewals and the current situation regarding wild horse management would provide less stability and less opportunity for the cattle permit holder to graze in Little Smoky Valley, and grazing receipts could decline.

The No Action Alternative in combination with the current sheep grazing permit renewals and regular wild horse gathers may provide the cattle operation some flexibility in the short term, however there could be heavy and severe utilization of the forage resource and little forage availability were the permittee to choose to license full active permitted use of 414 cattle for 2,481 AUMs. This would not be a stable economic situation in the long-term. The No Action Alternative in combination with the current situation regarding wild horse management would essentially provide no stability or flexibility and would result in devastating effects to the already

impoverished and depleted rangelands. In the long-term grazing receipts that accrue to BLM and are distributed to counties of origin or range improvement funds would likely decline.

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

The Proposed Action or the Actual Use Grazing Alternative in combination with the recent sheep grazing permit renewals and regular wild horse gathers that maintain wild horses at or near the AML range of from 240 to 493 wild horses in the Pancake HMA would be expected to result in more appropriate vegetative conditions and habitat for any sage grouse that may be present in the area. The Proposed Action or the Actual Use Grazing Alternative in combination with the recent sheep grazing permit renewals and the current situation regarding wild horse management (1, 653 wild horses – far above the AML range of from 240 to 493 wild horses in the HMA) would be expected to result in vegetative conditions and habitat that is not appropriate for any sage grouse that may be present in the area.

The No Action Alternative in combination with the recent sheep grazing permit renewals and either regular wild horse gathers or the current situation regarding wild horse management would be expected to result in vegetative conditions and habitat that are not appropriate for any sage grouse that may be present in the area.

Vegetative Resources

The Proposed Action or the Actual Use Grazing Alternative in combination with the recent sheep grazing permit renewals and regular wild horse gathers that maintain wild horses at or near the AML range of from 240 to 493 wild horses in the Pancake HMA would be expected to result in utilization that achieves resource objectives and positive vegetative attributes such as plant production, composition, cover, vigor, diversity, seed production, structure, and litter that are appropriate to ecological site potential. The Proposed Action or the Actual Use Grazing Alternative in combination with the recent sheep grazing permit renewals and the current situation regarding wild horse management (1, 653 wild horses – far above the AML range of from 240 to 493 wild horses in the HMA) would be expected to result in inappropriate utilization and vegetative attributes.

The No Action Alternative in combination with the recent sheep grazing permit renewals and either regular wild horse gathers or the current situation regarding wild horse management could result in devastating effects to the already impoverished and depleted vegetative resources, especially if drought continues.

Wild Horses

The Proposed Action or the Actual Use Grazing Alternative in combination with the recently renewed sheep grazing permits and regular wild horse gathers that maintain wild horses at or near the AML range of from 240 to 493 wild horses in the Pancake HMA would be expected to result in appropriate forage availability and habitat for wild horses. This would be especially

important for those years when wild horse populations are high or when hard winters force wild horses to concentrate their use at lower elevations where there are severely depleted rangelands. The Proposed Action or the Actual Use Grazing Alternative in combination with the recently renewed sheep grazing permits and the current situation regarding wild horse management (1,653 wild horses – far above the AML range of from 240 to 493 wild horses in the HMA) would be expected to result in inappropriate utilization, vegetative attributes, forage availability, and habitat for wild horses.

The No Action Alternative in combination with the recent sheep grazing permit renewals and either regular wild horse gathers or the current situation regarding wild horse management could result in devastating cumulative effects to the already impoverished and depleted vegetative resources and would not result in appropriate forage availability and habitat for wild horses.

6.0 Proposed Mitigation Measures

The design features of the Proposed Action or the grazing alternatives are sufficient. 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 recommended by the interdisciplinary team at this time.

8.0 Tribes, Individuals, Organizations, or Agencies Consulted

8.1 Public interest and record of contacts

There is general public interest in the proper grazing management of public lands. Operator #2702915 has a strong interest in this term permit renewal.

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

•Permittees

- Operator #2702915
- Operator #2703175
- Operator #2704538

•Nevada Department of Wildlife

- Steve Foree
- Alan Jenne

•Other Individuals

- Thomas Darrington (Battle Mountain BLM)
- Michele McDaniel (Battle Mountain BLM)

●**Tribal Consultation**

- Tribal Coordination Letters were sent January 8, 2010. No concerns were identified through coordination.

8.2 Public Notice of Availability

The preliminary EA and SDD for the Vince Ferreira grazing term permit renewal on the Little Smoky Valley Use Area of the Duckwater Allotment will be sent to interested persons and organizations on the Ely District Rangeland Management Interested Public List.

The Ely District Office mails an annual Consultation, Cooperation, and Coordination (CCC) Letter to individuals and organizations that have expressed an interest in rangeland management related actions. Those receiving the annual CCC Letter have the opportunity to request from the Field Office more information regarding specific actions. The following individuals and organizations, who were sent the annual CCC letter on December 22, 2009 or in December, 2008, have requested additional information regarding rangeland related actions or programs within the Duckwater Allotment:

cc:

Interested Publics Mailing List (Name Only)

Nevada Division of Forestry
 Nevada Land and Resource Company
 White Pine Conservation District
 Alan Jenne
 Eureka County Dept. of Natural Resources
 Steven Carter
 Western Watersheds Project
 Frank Reid
 R.W.D. Currant Creek, LLC
 U.S. Fish and Wildlife Service (Jill Ralston)
 Nevada Department of Wildlife (Brad Hardenbrook)
 Nevada Department of Wildlife (Curtis Baughman)
 Pescio Brothers
 Thelora Warr
 Joe McGloin
 Jacob Carter
 Sustainable Grazing Coalition
 John Uhalde & Co.
 Eastern Nevada Landscape Coalition
 Ellen Gardner
 Duckwater Shoshone Tribe
 Duckwater Cattle Company
 The Little Paris Sheep Comapny

Vince Ferreira
Mt. Lewis Field Office BLM (Thomas Darrington, Jason Spence)
Blue Diamond Oil Corporation
Norma Bradshaw

Nevada State Clearinghouse (electronic copy only)

All of these individuals or groups will be mailed a copy of the EA and SDD for review and comment.

8.3 List of Preparers - BLM Egan Field Office Resource Specialists

Mark Lowrie	Rangeland Resources/Project Lead
Gina Jones	Ecology/NEPA Coordination
Mindy Seal	Vegetation, Noxious and Invasive, Non-native Species
Mark D'Aversa	Vegetation, Soil, Water, Air, Wetlands and Riparian
Marian Lichtler	Wildlife, Special Status Species, Migratory Birds
Ruth Thompson	Wild Horse and Burro Resources
Lisa Gilbert	Cultural Resources
Chris Mayer	Supervisory Rangeland Management Specialist
Dave Jacobson	Wilderness
Emily Simpson	Wilderness
Erin Rajala	Recreation, Visual Resources
Doris Metcalf	Lands
Dave Davis	Geology and Mineral Resources
Melanie Peterson	Hazardous and Solid Waste
Elvis Wall	Native American Concerns

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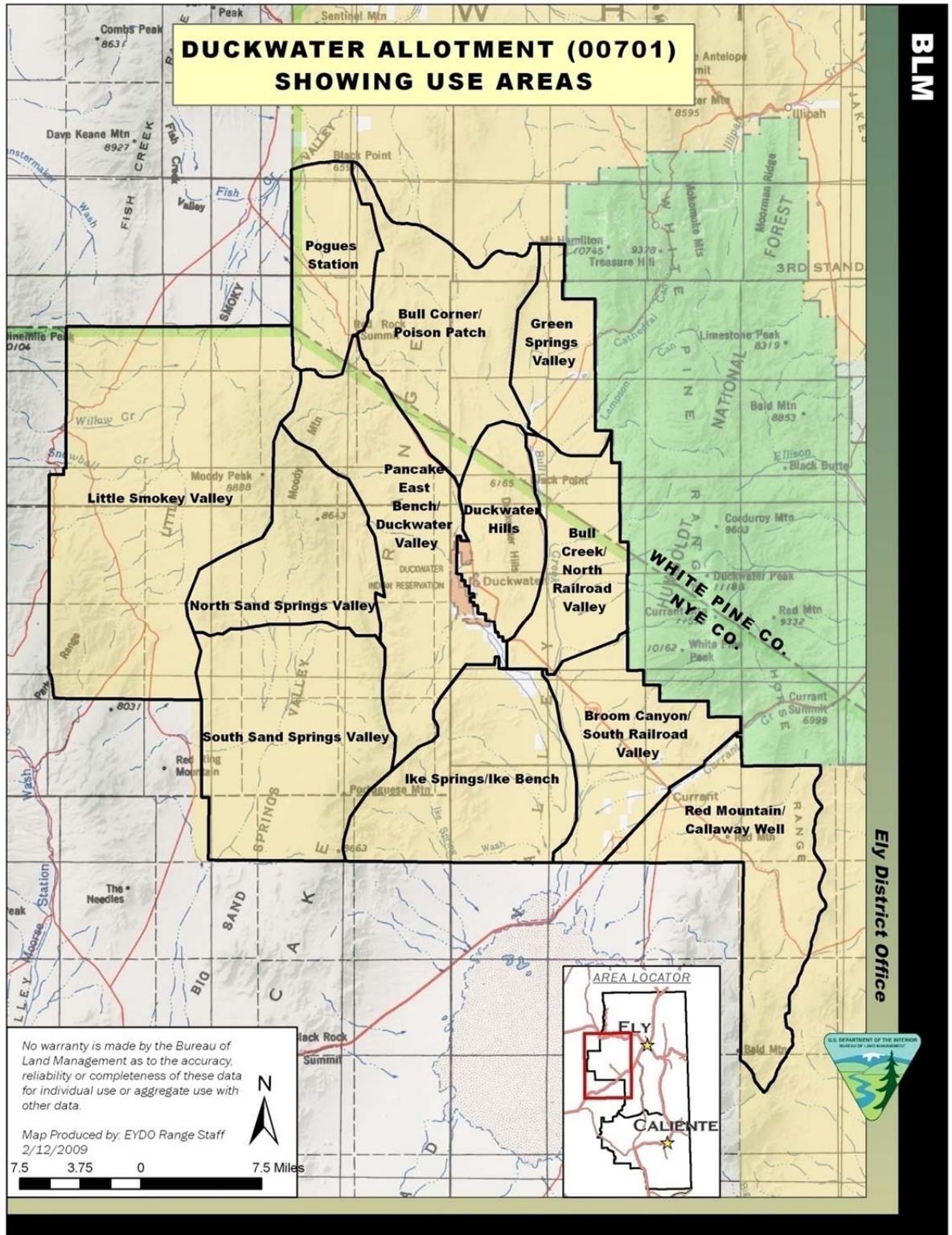
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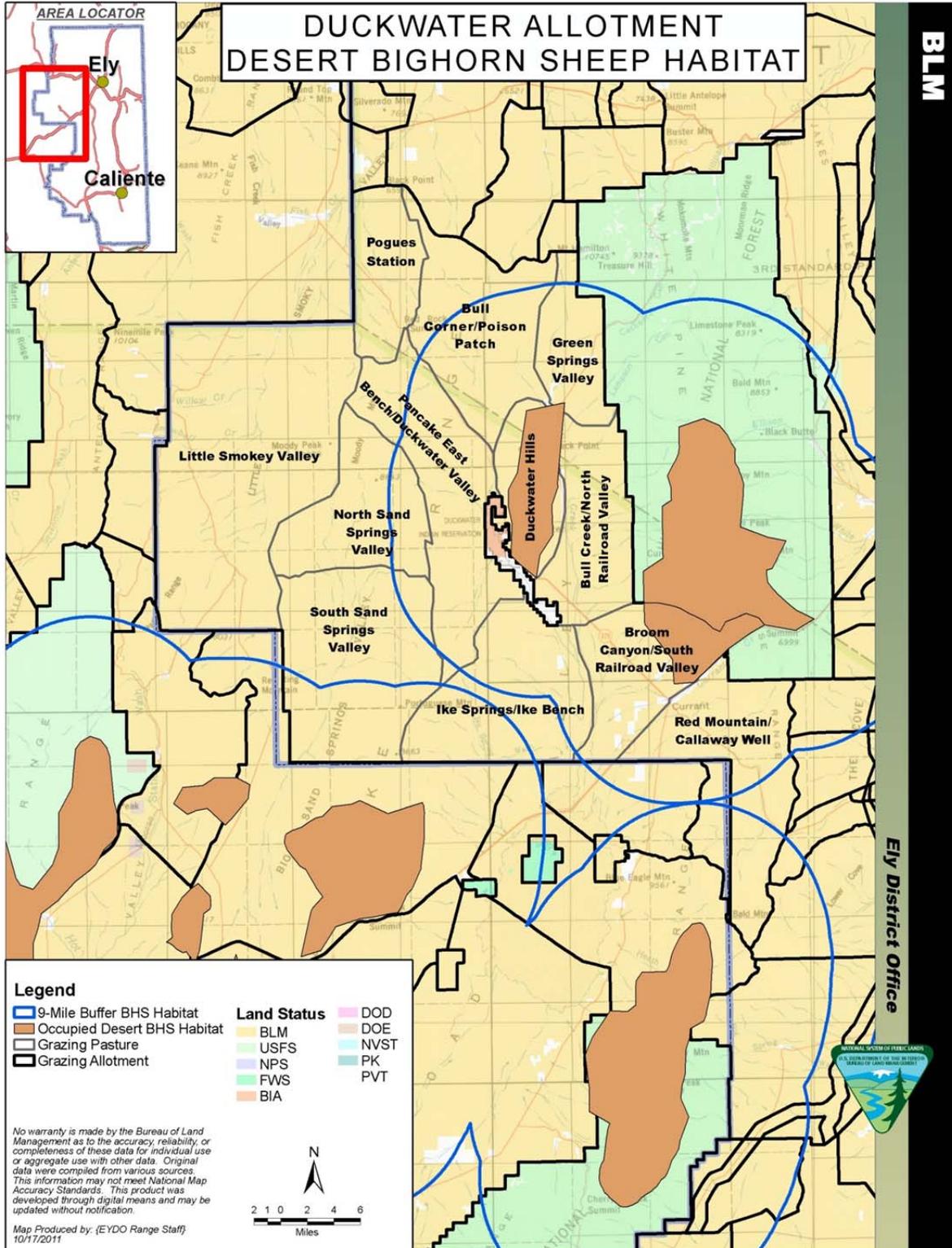
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Maps - Figure 1



Maps – Figure 2



APPENDIX I

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

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Little Smokey Valley Use Area; Duckwater Allotment

COMMON NAME	SCIENTIFIC NAME
American kestrel	(<i>Falco sparverius</i>)
Bewick's wren	(<i>Thryomanes bewickii</i>)
blue-gray gnatcatcher	(<i>Polioptila caerulea</i>)
*Brewer's sparrow	(<i>Spizella breweri</i>)
black-throated gray warbler	(<i>Dendroica nigrescens</i>)
broad-tailed hummingbird	(<i>Selasphorus platycercus</i>)
black-throated sparrow	(<i>Amphispiza bilineata</i>)
bushtit	(<i>Psaltiriparus minimus</i>)
Cassin's finch	(<i>Carpodacus cassinii</i>)
chipping sparrow	(<i>Spizella passerina</i>)
common raven	(<i>Corvus corax</i>)
green-tailed towhee	(<i>Pipilo chlorurus</i>)
horned lark	(<i>Eremophila alpestris</i>)
juniper titmouse	(<i>Baeolophus ridgwayi</i>)
*loggerhead shrike	(<i>Lanius ludovicianus</i>)
mountain bluebird	(<i>Sialia currucoides</i>)
mountain chickadee	(<i>Poecile gambeli</i>)
northern flicker	(<i>Colaptes auratus</i>)
*pinyon jay	(<i>Gymnorhinus cyanocephalus</i>)
rock wren	(<i>Salpinctes obsoletus</i>)
red-tailed hawk	(<i>Buteo jamaicensis</i>)
sage sparrow	(<i>Amphispiza belli</i>)
*sage thrasher	(<i>Oreoscoptes montanus</i>)
spotted towhee	(<i>Pipilo maculatus</i>)
white-breasted nuthatch	(<i>Sitta carolinensis</i>)
western scrub jay	(<i>Aphelocoma californica</i>)

* = Sensitive or species of concern

Appendix II
RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

**Term Grazing Permit Renewal for Authorization #2702915
for the Little Smoky Valley Use Area of the Duckwater Allotment (0701)
Nye County, Nevada**

On March 31, 2010 a Noxious & Invasive Weed Risk Assessment was completed for the term grazing permit renewal for #2702915 for the Little Smoky Valley Use Area of the Duckwater Allotment. The Bureau of Land Management (BLM) Egan Field Office proposes fully process and issue and a new term grazing permit with fundamental changes to the current terms and conditions of the cattle grazing permit are proposed regarding stocking level and season of use. This proposed action establishes also utilization levels for key forage species on the Little Smoky Valley Use Area of the Duckwater Allotment.

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	Type Use
Duckwater (0701) Little Smoky Valley	140 Cattle	10/15 – 03/15	700	Active

Allotment Summary (AUMs)

Allotment	Active AUMs	Suspended AUMs	Voluntary Non-use	Grazing Preference
00701 Duckwater	700	3393	1781	5874

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 boundary of the Smokey Valley Use Area:

Lepidium draba Hoary cress

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

Acroptilon repens Russian knapweed
Lepidium draba Hoary cress

Monitoring data collected by range staff has documented that although no cheatgrass (*Bromus tectorum*) was present at any data site, halogeton (*Halogeton glomeratus*) is common throughout the area both combined with native plants and occurring as pure halogeton areas on completely degraded former salt desert shrub winterfat dominant areas. Halogeton invasion is extensive over thousands of acres in this use area. Halogeton has been estimated to be producing 50% of the current annual growth by weight of the plant community at Key Area DW-55 (Cockalorum Wash). The invasive, annual weeds Russian thistle (*Salsola kali*) and bur buttercup (*Ceratocephala testiculata*) also occur 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
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	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 (6) at the present time. The grazing can increase the populations of the noxious and invasive weeds already within the permitted areas and could aid in the introduction of weeds from surrounding areas. However the design feature of the proposed action would help to prevent weeds from establishing or spreading.

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

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

This project rates as Moderate (7) at the present time. If new weed infestations establish within the permitted areas this could have an adverse impact those native plant communities however, since the proposed management plan includes measures to increase native plants this would help to prevent weeds from establishing. Also salt from the soil accumulates in the halogeton plant tissues and leaches from dead plants and roots back onto the soil surface increasing salinity and favoring establishment of halogeton over other species. Soil nutrient levels change significantly under halogeton cover.

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 (36). This indicates that the project can proceed as planned as long as the following measures are followed:

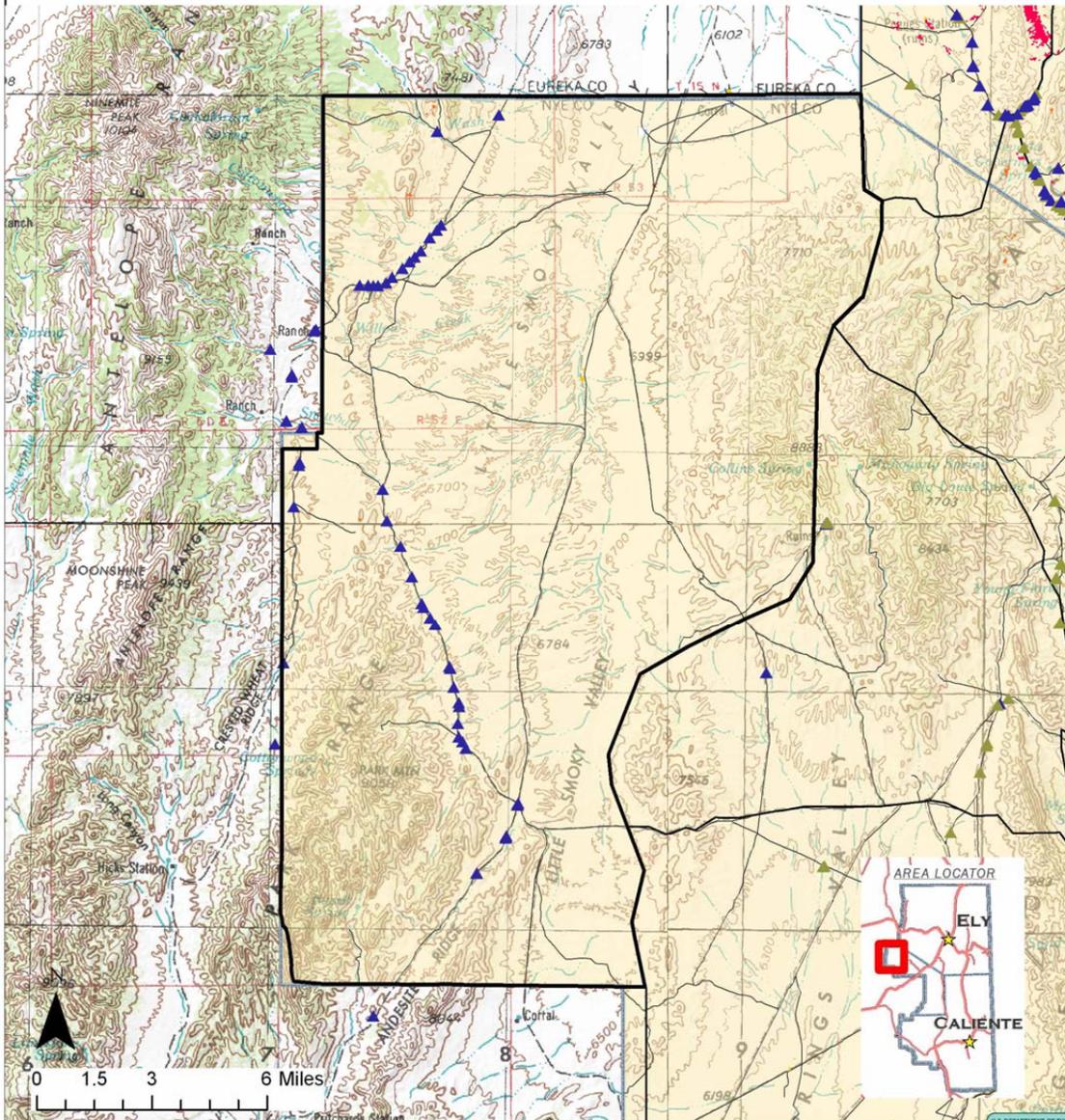
- To eliminate the introduction of noxious weed seeds, roots, or rhizomes all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for feed or bedding will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely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

3/31/2010
Date

SMOKEY VALLEY USE AREA INVENTORIED NOXIOUS AND NON NATIVE INVASIVE WEEDS

BLM



- Legend**
- Smokey Valley Use Area
 - Invasive Annual and Biennial Forbland
 - Invasive Annual Grassland
 - Invasive Perennial Grassland
 - Past Large Fires
 - Roads
 - BLM
 - Forest Service
 - Great Basin National Park
 - State of Nevada
 - Private
 - ▲ RUSSIAN KNAPWEED
 - ▲ WHITETOP/HOARY CRESS

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

Inventoried 2003
Map Produced by: EYDO Weed Staff
3/31/2010



Ely District Office