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Final Environmental Assessment
Term Grazing Permit Renewal
for Operator (#2703864) on the Little Smoky Valley Use Area
of the Duckwater Allotment (0701)

Location: ***Nye County, NV***

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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 #2703864 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) 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 grazing 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 173,000 acres of public land, is located entirely within Nye County; approximately 60 to 70 miles west of Ely, Nevada (see Map Figure 1). Currently cattle are the authorized kind of livestock. The new permit would be for a period of 5 years. The base property for the permit is the Willow Creek Ranch (160 acres) and an additional private 40 acres in the valley. These private lands occur in both Eureka and Nye Counties, Nevada. The permit area occurs within the North Little Smoky Valley, Central Little Smoky Valley, Park Range, and South Little Smoky Valley Watersheds.

The current grazing permit #2703864, which has been issued for the period 10/01/2012 to 11/01/2015, 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

A base property sale and grazing permit transfer from VW Land & Cattle Company LLC (operator 2702915) to Borba Land & Cattle LLC (operator 2703864) was completed in October, 2012 and a 3 year grazing permit was issued and signed to Borba Land & Cattle LLC on October 25, 2012. At the time of transfer and the new permit, grazing administration of the permit was transferred from the Mt. Lewis Field Office, Battle Mountain District BLM, to the Egan Field Office, Ely District BLM.

Previous to the transfer from VW Land & Cattle Company LLC to Borba Land & Cattle LLC, a term permit was issued to Vince Ferreira Roping Cattle for the period 4/1/2006 to 1/22/2016 (2702915). This permit was issued under the appropriations language of BLM's regulations. 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. 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.

The Full Force and Effect Final Multiple Use Decision (FMUD) was issued for the Duckwater Allotment on June 5, 1995. This decision established 12 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 #2703864 (Borba) 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 in Little Smoky Valley 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 FMUD for the Duckwater Allotment. Current cattle grazing management practices have been similar for the 5 years that this grazing authorization was 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 Standards Determination Document (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 (VW Land & Cattle) 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 #2703864 (Borba Land & Cattle) 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 sheep management and 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. Both of these permits have been fully processed and renewed through environmental assessment and public consultation within the last two years through the Egan Field Office.

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 SDD that is associated with this term permit renewal EA. 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 ranged from 426 to 1151 AUMs and 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 ranged from 426 to 596 AUMs and has averaged 543 AUMs for the four year period, or about 22% of the current active authorization. Active cattle use in 2010 was 78 AUMs. Active cattle use in 2011 was 704 AUMs.

Table 1-1 Summarized Standard Determination for the Little Smoky Valley Use Area of the Duckwater Allotment

ALLOTMENT/ PASTURE	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 singleleaf pinyon and Utah 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 #2703864 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 of 5 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 #2703864 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 173,000 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 (pp. 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)
- Taylor Grazing Act of 1934, as amended
- IM-2000-022 Change 1, Compliance with the National Environmental Policy Act (NEPA) – Addressing Alternatives for Livestock Grazing Permit Renewals; reauthorized by IM-2010-063

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)
- IM-2012-043 Greater Sage-Grouse Interim Management Policies and Procedures

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)

The Proposed Action also complies with Nevada BLM Instruction Memorandums (IM) No. NV-2012-043 and 2012-044 which provide interim conservation policies and procedures to the BLM field officials to be applied to ongoing and proposed authorizations and activities that affect the greater sage grouse and its habitat.

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 permit #2702915 (Ferreira) 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 4 years to 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 #2702915 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 in regard to grazing management of the use area.

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

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, since the southwestern portion of the use area contains the Park Range Wilderness Study Area. Comments were requested February 8, 2010. No comments were received from the Wilderness mailing list.

During 2010, a draft preliminary EA was forwarded twice to resource specialists from the Mt. Lewis Field Office BLM (Battle Mountain District) for review and comment. The associated

SDD was forwarded once. Submitted comments have been incorporated into the EA. 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 U.S Fish and Wildlife Service prior to the July 26 deadline, indicating they supported the proposed action. On August 9, 2011 Vince Ferreira (permittee #2702915) 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 or 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 conversion of cattle AUMs to sheep AUMs and an authorization of a small sheep or goat permit may be feasible, in part based on the analysis in the SDD showing that the range has transitioned to a more shrub dominant plant community. BLM determined 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 key shrubs 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 or 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 Mark Lowrie (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 or 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.

A cover letter with a revised EA and SDD that included a new proposed action of a reduced cattle grazing permit in combination with a winter sheep or goat permit was issued for public review with a 30 day comment period on December 16, 2011. Three comments were received from the public in response to the revised EA. The U.S. Fish & Wildlife Service (1/20/2012) stated that they would not need to comment to the EA since there were no listed species in the

area. Western Watersheds Project (1/20/2012) submitted several comments indicating opposition to grazing in Little Smoky Valley. Vince Ferreira sent a hand written letter (1/5/2012) objecting to the reduction in AUMs and the new season of use. He also made comments related to wild horse grazing in the area.

Comment response documents were completed in regards to the comments received from Mr. Ferreira and WWP for the administrative file. As a result of the hand written comments received from Mr. Ferreira, a term and condition of the permit regarding the season of use was changed to allow cattle grazing until March 31 when joint monitoring of the vegetative condition showed adequate forage availability, and based upon approval of the BLM authorized officer. No other changes were made to the Proposed Action for the permit renewal as a result of the comment letters.

The Little Smoky Valley Use Area occurs in both preliminary priority (PPH) and preliminary general (PGH) sage grouse habitat. The Nevada Department of Wildlife (NDOW) was notified via e-mail of the proposed action to renew the grazing permit on March 13 and 14, 2012. A conference call regarding sage grouse issues was then held on July 5, 2012 with NDOW and BLM. During the call NDOW made a request to close to livestock grazing an area of known sage grouse activity in sagebrush range in the west central portion of the use area in the vicinity of the Snowball Ranch (see Map Figure 3). This area included approximately 6,888 acres within the Ely District BLM and 3,216 acres within the Battle Mountain District BLM. NDOW indicated that further monitoring is needed in this area to determine the extent of sage grouse activity. As a result of NDOW input, the Egan Field Office informed NDOW that a term and condition could be included in the proposed action for the permit renewal closing the area to cattle or sheep/goat grazing for the duration of the permit, and that tours with the grazing permittees would be conducted to identify the area prior to the 2012 start dates for grazing. NDOW then concurred that the proposed activity (permit renewal) with associated mitigation measures would cumulatively maintain or enhance Greater Sage-grouse habitat. The Egan Field Office manager and Nevada BLM State Office personnel subsequently reviewed the proposed action and both determined the proposed activity is in compliance with Instruction Memorandum (IM) 2012-043 and can proceed.

The Proposed Decision for the Borba Land and Cattle LLC grazing permit renewal was issued for a 15 day protest period and 30 day appeal period on December 17, 2012. Timely protests were received from the grazing permittee and 6 other interested publics between January 22 and 24, 2013. Written protests were received from Kevin Borba, Western Watersheds Project, the Eureka County Board of Commissioners, the Nevada Cattlemen's Association, the N-4 Grazing Board, the Nevada Farm Bureau, and the Little/Paris Sheep Company. David Little and Pete Paris also met with BLM staff and presented a verbal protest on January 16, 2013. The protests were reviewed and protest response documents were written and reviewed, which were then placed in the administrative record. The primary protest points concerned the sage grouse closure area in regards to livestock management, the reduction in AUMs to cattle, wild horse management, vegetation management, coordination between the BLM and grazing permittee, and the reinstatement of suspended sheep AUMs to other sheep permittees in the Duckwater Allotment. In addition, during a telephone conversation on 1/28/2013, Kevin Borba indicated he wanted to keep the sheep or goat permit as part of the decision to renew his permit. During the

same conversation Mr. Borba indicated he was taking total voluntary non-use on the cattle grazing in Little Smoky Valley during the current winter season.

On February 12, 2013, BLM held another conference call with NDOW to discuss the protests regarding the sage grouse closure area (see "Proposed Activities in Greater Sage-Grouse Preliminary Habitat Areas" 3/21/2013 in the administrative file). BLM indicated to NDOW that they wanted to seek a new solution to sage grouse management in the area without implementing the closure. New terms and conditions of sheep grazing were examined as a way of addressing both agencies' concerns. Due to new information about an existing fence in the 6,888 acre area of known sage grouse activity in the Ely District BLM, a new area of concern of 3,000 acres was identified in preliminary priority habitat in Little Smoky Valley.

As a result of the conference call, NDOW gave verbal concurrence to issuing a final decision that removes the closure area but that includes new terms and conditions of sheep grazing that would cumulatively maintain or enhance Greater Sage-grouse habitat, particularly in the new 3,000 acre area of concern. The Egan Field Manager and Nevada BLM State Office personnel subsequently reviewed the new proposed action and both determined the proposed activity is in compliance with Instruction Memorandum (IM) 2012-043 and can proceed.

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 issue a new term grazing permit #2703864 to 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. 775 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 use area would be completely rested from cattle grazing one in every four 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. Sheep or goat grazing could occur every year. Special terms and conditions of sheep grazing use are proposed in order to maintain or enhance an area of approximately 3,000 acres of preliminary priority habitat for sage grouse in the west central portion of the Little Smoky Valley Use Area in the vicinity of the Snowball Ranch (see Map Figure 4). 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 #2703864 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

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 #2703864 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 2017 grazing year. The range will be rested from cattle grazing from October 15, 2017 to March 15, 2018. The next non-use year would be the 2021 grazing year. The range will be rested from October 15, 2021 to March 15, 2022. Sheep or goat grazing can occur every winter, but not both sheep and goats in any one winter.

3. Stocking levels and season of use will be determined through coordination by BLM and the grazing permittee 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. Cattle grazing is permitted to occur until March 31 when cooperative BLM/permittee monitoring data shows adequate forage is available, and to be approved by the authorized officer. Active use still cannot exceed 700 AUMs. If coordination by BLM and the permittee 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 to allotments administered by the Mt. Lewis Field Office or Tonopah Field Office 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 and two track 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 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, noxious weeds, etc. per the Resource Program Best Management Practices (Ely District BLM ROD/RMP – August, 2008) Livestock Grazing pp. A. 1-8 and 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 located 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. Herding of the sheep/goat band would be required 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 BLM.

9. No sheep/goat bedding will occur in the area identified as preliminary priority habitat for the greater sage-grouse, an area of approximately 3,000 acres in the west central portion of the Little Smoky Valley Use Area in the vicinity of Snowball Ranch (see Map Figure 4). Sheep/goat camps will be located a minimum of ½ mile from this area. This area is defined by a two track road. The permittee would become familiar with the road and priority habitat. NDOW, BLM, and the grazing permittees will continue to monitor this area for sage grouse activity.

10. 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, Nine Mile Allotment (Mt. Lewis Field Office Area), Morey Allotment (Tonopah Field office Area), or other allotments or use areas that border the Little Smoky Valley Use Area. Much of the allotment boundary between these areas is currently unfenced.

11. 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.

This new grazing permit establishes proper utilization levels for key forage species on the Little Smoky Valley Use Area of the Duckwater Allotment for permit #2703864 (see Allowable Use Levels below). Specific key forage species use levels were not included on the previous ten year grazing permit.

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 (see CFR 4130.2(d) (4)). 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 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. The grazing permittee will be encouraged to participate in the monitoring. Monitoring will also be conducted to evaluate the status of the 775 AUMs held in voluntary non-use for the Little Smoky Valley Use Area. Following the 5 year period of the permit, cattle and sheep or goat stocking levels in the use area will be evaluated associated with achievement of the rangeland health standards to determine if stocking levels need further modification, or if other changes in the terms and conditions of the permit may be needed.

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 or goats authorized by the new permit.

During the period of this permit renewal NDOW, BLM, and the grazing permittee will monitor the preliminary priority sage grouse area of 3,000 acres in Little Smoky Valley to determine sage grouse presence and activity in the area.

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 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 and carried forward through a Final Multiple Use Decision issued 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. There would be no new management considerations for sage grouse. The current permit is summarized in table format as follows:

The current grazing permit #2703864 (Borba), which has been issued for the period 10/01/2012 to 11/01/2015, authorizes cattle grazing use in the Little Smoky Valley Use Area as follows:

Table 2.2.1 – Operator #2703864 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	Permitted Use
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 Reduced Grazing Alternative

According to the Reduced Grazing Alternative, the new permit would 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. As for the proposed action, special terms and conditions of sheep grazing use are proposed in order to maintain or enhance an area of approximately 3,000 acres of preliminary priority habitat for sage grouse in the west central portion of the Little Smoky Valley Use Area in the vicinity of the Snowball Ranch (see Map Figure 4).

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 Reduced Grazing Alternative on the Little Smoky Valley Use Area of the Duckwater Allotment:

Table 2.2.2 Reduced Grazing Alternative

Allotment/ Pasture	Livestock Number & Kind	Period of Use	Permitted Use (AUMs)	Type Use
Duckwater (0701) Little Smoky Valley	110 Cattle*	10/15 – 03/15	550	Active
	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. Sheep or goat numbers are flexible, not to exceed the active permitted use of 1006 AUMs.
The allotment summary as it would appear on the Reduced Grazing Alternative grazing permit is as follows:

Allotment Summary (AUMs)

Allotment	Active AUMs	Suspended AUMs	Voluntary Non-use	Permitted Use
00701 Duckwater	1556	3393	925	5874

In accordance with 43 CFR 4130.3-2, the following terms and conditions of the Reduced Grazing Alternative would be included in the grazing permit for #2703864 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 Reduced Grazing Alternative grazing permit would be the same as those listed above on pages 13-15 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 Reduced Grazing 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
Reduced Grazing 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.

2.2.4 Alternatives Considered but Not Analyzed in Detail

2.2.4.1 Proposed Resource Management Plan Alternatives

The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (RMP/FEIS - November, 2007) analyzes the Proposed RMP and four alternatives of livestock grazing (p.4.16-1 to 4.16-15.), including a no-grazing alternative (D). No further analysis is necessary in this EA for alternatives B and C. Alternative D was brought forward as being considered and presented below but was dismissed from detailed analysis. Alternative A, the no action alternative, is additionally analyzed in this EA. The Proposed RMP and four 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 following 2 sections of information are provided for the Proposed RMP and Alternative D:

Proposed RMP
The Proposed RMP 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 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, 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 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 #2703864. 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. Also, 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 of this EA. Alternative D 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. Alternative D 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 (section 1.01 of this EA). Alternative D 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 in the long-term which would provide litter, plant structure, and ground cover but would provide limited new annual production and sustained forage value (nutrition) 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 allow 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, four-wing 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 or Tonopah Field Office Areas, 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. Based on this information this alternative is not technically feasible, 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.

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 1,081 wild horses prior to the 2013 foal crop.

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

Nevada Basin and Range Area. MLRAs are broad landscape designations developed by the Natural Resources Conservation Service (NRCS) that map areas with similar soils, climate, vegetation.

The permitted area is located within the Monitor Sage Grouse *(Centrocercus urophasianus)* Population Management Unit (PMU). Nevada Department of Wildlife (NDOW) has divided sage-grouse habitat in Nevada into PMUs to facilitate management by the NDOW wildlife biologists. Both preliminary priority (PPH) and preliminary general (PGH) sage grouse habitat occur in Little Smoky Valley. 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 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.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
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). A cultural resources inventory needs assessment (NV 04-FY10/12-45) has been completed and signed for this permit renewal. Nine potentially eligible sites have been identified for monitoring. These identified sites need to be continuously monitored for impacts and mitigation and treatment will be applied as concerns are identified during the 5 year permit renewal period.
Environmental Justice	No	No environmental justice issues are present at or near the project area. No minority or low income populations would be disproportionately affected by the Proposed Action or the alternatives. Detailed analysis is not required.
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. 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 the Proposed Action or the reduced grazing alternative. Detailed analysis is not required.
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 make minimal use of the woodlands during the fall/winter grazing period. Detailed analysis is not required.
Migratory Birds	No	The potential for the Proposed Action or the reduced grazing alternative to negatively affect migratory birds is discounted because of the low density of

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		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. Detailed analysis is not required.
Native American Religious Concerns and other concerns	No	No concerns or impacts were identified through Native American coordination letters sent on January 8, 2010. Detailed analysis is not required.
Noxious and Invasive Weed Management	Yes	The Proposed Action and the alternatives pose potential differences in effects to Noxious and Invasive Weeds. Thus a detailed analysis is provided in section 4.1 of the EA.
Paleontological Resources	No	No known resources are currently identified in the project area. Resource not present.
Prime or Unique Farmlands	No	There are no prime and unique farmlands in the Little Smoky Valley Use Area. Resource not present.
Rangeland Standards and Health	Yes	Since the Proposed Action and the 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 in section 4.2 of the EA.
Recreation Uses	No	The project 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, etc. Implementing the Proposed Action or alternatives would not result in measurable impacts to recreation uses.
Social and Economic Values	Yes	Implementing the Proposed Action or the other alternatives would have differing effects to the permittee's livestock operation and/or Nye County. Detailed analysis provided in section 4.3 of the EA.
Soil Resources	Yes	Implementing the Proposed Action or other alternatives would have differing effects to Soil Resources. A detailed analysis is provided in section 4.4 of the EA.
Special Status Animal Species other than those listed or proposed by the FWS as Threatened or	Yes	The Proposed Action and the other alternatives pose differing environmental effects to most Special Status Species, thus a detailed analysis for most Special Status Species is provided in section 4.3 of the EA.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Endangered		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).
Special Status Plant Species	No	No Special Status Plant species are known to occur within the project area. Resource not present.
FWS Listed or proposed for listing Threatened or Endangered Species or critical habitat.	No	Threatened, Endangered, or Proposed species are not known to be present in the project area.
Vegetative Resources	Yes	Vegetation was also analyzed in the SDD. The Proposed Action and the alternatives pose potential differences in the effects to Vegetative Resources. A detailed analysis for Vegetative Resources together with Rangeland Standards and Health is provided in section 4.1 of the EA.
Visual Resource Management (VRM)	No	The Little Smoky Valley Use Area occurs within Visual Resource Management (VRM) Classes I, II, III, and IV, 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 objectives. Detailed analysis is not required.
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 EIS presented the effects of livestock grazing on Water Resources. The Proposed Action or the alternatives would not affect current water use, distribution, or quantity. Detailed analysis is not reqired.
Wetlands/Riparian Areas	No	There are no wetlands or riparian areas in that portion

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		of Little Smoky Valley grazed by cattle or sheep/goats. Resource not present.
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. 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 analysis is not required.
Lands with Wilderness Characteristics (LWC)	No	Other than the 30,000 acres of the park Range WSA (see above), no Lands with Wilderness Characteristics occur within the project area. Resource not present.
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 and alternatives pose potential differences in effects to wild horses, thus a detailed analysis is provided in section 4.4 of the EA.
Wild and Scenic Rivers	No	There are no wild and scenic rivers within the project area. Resource not present.

A detailed analysis is presented below for Noxious and Invasive Weed Management, Rangeland Standards and Health/Vegetative Resources, Social and Economic Values, Soil Resources, 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 Noxious and Invasive Weed Management

4.1.1 Affected Environment – Noxious and Invasive Weed Management

The Risk Assessment for Noxious and Invasive Species (Appendix II) provides detail on the noxious weed species present in the grazing permit renewal area. Several invasive species occur in the term permit renewal area, including halogeton, Russian thistle, cheatgrass, bur buttercup,

European stickseed, and annual mustards. 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. Annual mustards can also be dense in portions of the grazing area, depending on the year, and can compose all or a great percentage of the vegetation cover.

In still other portions of the grazing area, invasive species are lighter in density and occur mixed with native shrubs, grasses, and forbs. The production and frequency of occurrence of invasive species varies with annual climate conditions such as snowpack and the amount and periodicity of rainfall. For example, in moist years cheatgrass can be very productive, provide abundant and nutritious green and/or cured feed, and pose a significant fire hazard. On dry years cheatgrass is typically less dense, provides little green feed, and may grow to a height of only 3 inches.

4.1.2 Environmental Effects – Noxious and Invasive Weed Management

Proposed Action – Environmental Effects
The design features of the Proposed Action would help to prevent weeds from establishing or spreading. This alternative is designed to make native plant communities more resilient and resistant to noxious or invasive species spread. This alternative provides the flexibility in grazing management for the targeted use of cheatgrass during early spring before cheatgrass goes to seed, or in fall or winter, to control the cured growth of cheatgrass, which provides a forage opportunity while helping prevent fine fuels build up and wildfire.

No Action Alternative – Environmental Effects
This alternative would allow the highest stocking level for cattle grazing, would allow grazing every year, and would permit the longest season of use, thus would be the most likely alternative to allow noxious or invasive weeds to spread. This alternative would not result in native plant communities that are resilient and resistant to invasive species spread. This alternative also provides for the targeted use of cheatgrass during spring, before cheatgrass goes to seed, or in fall or winter, to control the cured growth of cheatgrass, which provides a forage opportunity while helping prevent fine fuels build up and further wildfire.

Reduced Grazing Alternative – Environmental Effects
The design features of the reduced grazing alternative, which authorizes the lowest stocking level of the grazing alternatives, would also help to prevent weeds from establishing or spreading. This alternative is also designed to make native plant communities more resilient and resistant to noxious or invasive species spread. This alternative also provides for the targeted use of cheatgrass during spring, before cheatgrass goes to seed, or in fall or winter, to control the cured growth of cheatgrass, which provides a forage opportunity while helping prevent fine fuels build up and further wildfire.

4.2 Rangeland Standards and Health/Vegetative Resources

4.2.1 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. 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 listed below. The information comes from the NRCS ecological site descriptions (ESD). Note that the potential vegetative community is listed.

Key Areas DW-15, DW-19, and DW-55 are located within the Silty 8-10" ecological site (Eula5/Orhy – 028BY013NV). This is a salt desert shrub plant community. 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). This is a sagebrush plant community. 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, annual mustards, European stickseed, and bur buttercup are also 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. The actual current vegetative conditions and plant communities are very different from the potential ecological sites as described above.

4.2.2 Environmental Effects - Rangeland Standards and Health/Vegetative Resources

Proposed Action – Environmental Effects

Cattle and sheep or 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 land areas and plant communities 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. Water hauling would also distribute livestock and could help maintain moderate or less forage utilization. Water hauling could also increase use in areas not as accessible to livestock in the past. Without appropriate water, snow conditions can cause cattle to drift to unauthorized allotments and areas.

Cattle would be expected to continue to graze the key species winterfat, Indian ricegrass, sickle saltbush, and needleandthread lightly (21-40%) and moderately (41-60%) during the fall/winter grazing period. Sheep or goats would be expected to graze the key shrub black sagebrush or

other desert shrubs moderately or less during the same period. Sheep or 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. New growth would be allowed in native range for the entirety of the 1 in 4 years of complete rest. 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. 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 or 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).

No Action Alternative – 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. 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 key forage utilization objectives 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 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. 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). Cattle management practices would 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). Essentially, the No Action Alternative would not meet the purpose and need for the action (section 1.2 of the EA).

Reduced Grazing Alternative – Environmental Effects
Cattle and sheep or 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. Water hauling would also distribute livestock and could help maintain moderate or less forage utilization. Water hauling could also increase use in areas of vegetation not as accessible to livestock in the past. With available snow, both cattle and sheep or goats tend to disperse more, however snow conditions have caused cattle at times to drift to unauthorized allotments and areas.

Significant progress towards achievement of the Upland Sites and Habitat Standards would be expected according to the reduced grazing 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 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 reduced grazing alternative provides the least amount of

flexibility for the grazing operation. The permittee would not have the option of taking advantage of a grazing opportunity to graze 700 AUMs on a good productive year, as he would with the proposed action. In this sense 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).

4.3 Social and Economic Values

4.3.1 Affected Environment – Social and Economic Values

The farming and ranching life style and economy is important to 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 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 (November, 2007).

The permittee owns approximately 1320 acres of base property in Antelope Valley known as the Kitchen Meadows Ranch. 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. The permittee owns approximately 200 acres of base property in Little Smoky Valley known as the Willow Creek Ranch and "the private 40" in the middle of the valley. These are the base lands for permitted grazing in the Little Smoky Valley Use Area.

4.3.2 Environmental Effects – Social and Economic Values

Proposed Action - Environmental Effects

The proposed action would maintain the viability, stability, flexibility, efficiency, and economic value of the overall grazing operation. There would be 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 reduced grazing alternative. 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 reduced grazing alternative, which limits the stocking level. Grazing receipts accrued by BLM with a portion redistributed to Nye County would be expected to stay the same or increase under the proposed action, with AUM activation expected for both cattle and sheep/goat grazing.

No Action Alternative – Environmental Effects

This alternative would provide the most stability, flexibility, and economic value of the overall

grazing permit, and would facilitate livestock management 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. 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 be expected to decline in the long term.

Reduced Grazing Alternative - Environmental Effects
This alternative would provide the least amount of flexibility, stability, efficiency, and economic value 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. There would be less opportunity to choose to graze the Little Smoky Valley Use Area or the Fish Creek Ranch Allotment than under the Proposed Action. 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 or goat AUMs are activated.

4.4 Soil Resources

4.4.1 Affected Environment – Soil Resources
Soil is a dynamic resource that supports plants. Rangeland health and soil functionality or soil quality are interdependent. Soils in the project area are typical of those found in the Great Basin Area and Major Land Resource Area 028B (Central Nevada Basin and Range). Soils in the project area have been described extensively and in detail by the Natural Resources Conservation Service (NRCS). Soil resources were analyzed in the SDD for the grazing permit renewal in relationship to the Standards and Guidelines for Rangeland Health and in the RMP/FEIS for livestock grazing effects on Soil Resources. There are many soil mapping units (SMU) and soil associations in the grazing permit renewal area. Soils are diverse and vary in terms of soil texture and soil mineral particles (sand, silt, clay), soil productivity, depth, permeability, organic matter content, water holding capacity, risk of erosion, and other factors. The soils in the project analysis area are always 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 some degree to compaction and disturbance commonly associated with livestock, wild horse, and wildlife trampling near water sources, concentration areas, or trailing areas. Those soils with a diverse and healthy component of native vegetation function normally to capture and release water and maintain water quality, recycle nutrients, and store energy to grow productive native plants. Those soils with a shrub dominant canopy or invasive species dominant canopy are less likely to function normally and are at a higher risk of erosion.

4.4.2 Environmental Effects – Soil Resources

Proposed Action - Environmental Effects

The proposed action would be expected to result in appropriate vegetation cover and ground cover (biotic crusts, rocks, litter) to protect soils. The Proposed Action is not expected to lead to increased erosion, soil disturbance, or loss of proper soil functionality or soil quality. 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 allows for soils resiliency to grazing effects, and would provide for appropriate water infiltration, permeability, availability of water and nutrients for plant growth, and seedling germination and establishment.

No Action Alternative – Environmental Effects
The no action alternative would be the most likely grazing system to cause increased potential for erosion, soil disturbance or compaction, and loss of proper soil functionality or soil quality. Because of the high stocking level and longer season of use, this alternative would be less likely to result in appropriate vegetation and ground cover to protect soils, and would likely not allow for soils resiliency to grazing effects, including appropriate water infiltration, permeability, availability of water and nutrients for plant growth, and seedling germination and establishment.

Reduced Grazing Alternative – Environmental Effects
The reduced grazing alternative would also be expected to result in appropriate vegetation cover and ground cover (biotic crusts, rocks, litter) to protect soils. This alternative allows for soils resiliency to grazing effects, and would provide for appropriate water infiltration, permeability, availability of water and nutrients for plant growth, and seedling germination and establishment. This alternative is not expected to lead to increased potential for erosion, soil disturbance, or loss of proper soil functionality or soil quality. 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 grazing area wide scale.

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

4.5.1 Affected Environment – Sage Grouse (*Centrocercus urophasianus*)

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 is one known active sage grouse lek within the Little Smoky Valley Use Area of the Duckwater Allotment, or within 3 miles of the use area boundary. Preliminary General Habitat (PGH) for sage grouse has been identified by NDOW on approximately 60% of the Use Area while Preliminary Priority Habitat (PPH) has been identified in the northwestern portion on approximately 4% of the use area. In addition, NDOW has identified an area of approximately 3,000 acres (Ely District BLM) in the west central portion of Little Smoky Valley near the Snowball Ranch where sage grouse activity has been observed. It is known that considerable numbers of sage-grouse use or have previously used the private alfalfa fields or wet meadow/riparian areas near or on the Snowball Ranch during summer. The Snowball Ranch is located from 0.25 to 1 mile west of the western

boundary of the use area within the Battle Mountain District BLM lands. While this area is not within the allotment, it is close enough to warrant attention.

A few sage grouse have been observed in other portions of the project area by BLM personnel from time to time, but not near the PPH designation. 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 (Lowrie, personal observation). About 10 sage grouse have also been observed once during summer on Moody Mountain (about 1995), in the east portion of the use area (Lowrie, personal observation). 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. Sage grouse have been documented to select and prefer sagebrush habitat with an appropriate component of grasses and forbs in the sagebrush understory for nesting sites.

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 occured in the Little Smoky Valley Use Area at that time.

Three of the primary threats to sage grouse as identified in the White Pine County Sage Grouse Conservation Plan (April, 2004) are not present in Little Smoky Valley, those being tree encroachment on sagebrush range, wildfires that have not recovered well, or human development that fragments habitat.

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 (*Ovis canadensis*) 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). Sheep or goat grazing authorized by the Proposed Action or any of the alternative actions would occur in Little Smoky Valley well outside of the 9 mile buffer area for the occupied habitat. Thus there is both effective distance and topographic separation of domestic sheep or 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. 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 within the Ely District. There are no known ferruginous hawk (*Buteo regalis*) or golden eagle (*Aquila chryscetos*) nests in Little Smoky Valley. A northern goshawk (*Accipiter gentilis*) nest and a prairie falcon (Falco mexicanus) nest were mapped in Little Smoky Valley in 1992. The sites have not been checked recently.

4.5.2 Environmental Effects - Special Status 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 or goats is expected in Wyoming sagebrush rangelands, which are preferred by sage grouse for nesting cover and winter habitat. Only distributed, managed grazing would be expected to occur in the identified sage grouse area of 3,000 acres of preliminary priority habitat. Both cattle and sheep or goat grazing would end in this area on March 31. 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 and herbaceous cover. Appropriate habitat and forage would be maintained or enhanced 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, implementation of maximum allowable use levels, and special terms and conditions of sheep winter use to protect preliminary priority habitat, are designed to improve or maintain vegetative community conditions, particularly for the herbaceous understory of native grasses and forbs. 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 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.

No Action Alternative – Environmental Effects – Sage Grouse

Grazing could continue in the identified preliminary priority habitat for sage grouse or in the identified area of concern near the Snowball Ranch without new terms and conditions to protect sage grouse habitat. 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 likely not be appropriate for any sage grouse that might be present in the Little Smoky Valley Use Area.

No Action Alternative – Environmental Effects – other Special Status 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.

Reduced Grazing Alternative – Environmental Effects - Sage Grouse

According to the reduced grazing 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 this 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 this 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 appropriate to ecological site potential. According to this alternative, appropriate habitat and forage would be maintained or enhanced for any sage grouse that may be present in Little Smoky Valley.

Reduced Grazing Alternative – Environmental Effects – Other Special Status Species

There would be no effect to desert bighorn sheep as a result of the reduced grazing 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. Other effects of the reduced grazing alternative on other special status animal species are similar to those of the proposed action on page 37 above.

4.6 Wild Horses

4.6.1 Affected Environment – Wild Horses

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. The estimated population was approximately 1,081 wild horses prior to the 2013 foaling season.

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.

4.6.2 Proposed Action – Environmental Effects – Wild Horses

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 wells 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/goats and wild horses would generally be expected to be within acceptable utilization limits according to the Proposed Action.

No Action Alternative - Environmental Effects – Wild Horses

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.

Reduced Grazing Alternative – Environmental Effects – Wild Horses

The reduced grazing 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 wells

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 reduced grazing alternative.

5.0 Cumulative Impacts

The Cumulative Effects Study Area (CESA) for this permit renewal for all effects exclusive of sage grouse 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, forming a unique topographic area, totaling about 200,000 acres. The Cumulative Effects Study Area (CESA) for sage grouse is defined as the Monitor Sage Grouse Population Management Unit (PMU), which consists of 3,224,066 acres, covered by the South-Central Nevada Conservation Plan.

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 or afterwards are Noxious and Invasive Weed Management, Rangeland Standards and Health/Vegetative Resources, Social and Economic Values, Soils, Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered, and Wild Horses. These issued 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. 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. 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 January and February, 2012.

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. Wild horse census data shows that the wild horse population has been consistently above the AML range from 1996 to the present time. 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.

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. The Monitor Sage Grouse PMU has not been thoroughly analyzed yet, but there were an estimated 73 leks known in 2004. One lek was discovered in the Little Smoky Valley in April, 2013. 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) has been fully processed

through the Egan Field Office BLM. A Grazing Decision has been issued for this permit, and the permit has been signed and is in effect. The Segura Ranches Holdings LLC (formerly 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 winters of 2010 – 2011 or 2011-2012. 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 1,081 wild horses following the 2012 gather, prior to the 2013 foal crop. The 2012 gather was conducted in accordance with the Nevada State Office gather schedule. 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, and these are works in progress. 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. 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. A new "pilot program" has been initiated by BLM beginning in 2012 to monitor waters and vegetation within the Pancake HMA, focusing on the effects of wild horse grazing on the waters and vegetation.

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

Noxious and Invasive Weed Management

The Proposed Action or the reduced 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 help to prevent weeds from establishing or spreading and would minimize the risk for weed spread. These alternatives are designed to make native plant communities more resilient and resistant to noxious or invasive species spread. The Proposed Action or the reduced grazing alternative in combination with the current situation regarding management of wild horses (see Rangeland Standards and Health section below) may not be effective in preventing weeds from establishing or spreading or reducing the risk of weed spread.

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 that maintain AML or the current wild horse management situation would not prevent weeds from establishing or spreading and would not reduce the risk of invasive species spread.

Rangeland Standards and Health

The Proposed Action or the reduced 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 1,081 animals following the 2012 gather, prior to the 2013 foaling season, which equates to over 4 times the lower end of the AML of 240 animals for the entire Pancake HMA (over 5 times this AML following the 2012 foaling season). Wild horse populations over the last 16 years have consistently been far above the appropriate management level in Little Smoky Valley. Thus the Proposed Action or the reduced 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 that maintain AML or the current wild horse management situation would not achieve or make progress towards achievement of the Rangeland Standards and Health.

Social and Economic Values

The Proposed Action or the reduced grazing alternative in combination with the recent 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 reduced 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 recent sheep grazing permit renewals and regular wild horse gathers may provide the cattle operation some flexibility in the short term, however there would 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 decline.

Soil Resources

The Proposed Action or the reduced 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 appropriate vegetation cover and ground cover (biotic crusts, rocks, litter) to protect soils. Cumulatively these actions would allow for soils resiliency to grazing effects, and would provide for appropriate water infiltration, permeability, availability of water and nutrients for plant growth, and seedling germination and establishment.

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 inadequate vegetation cover and ground cover (biotic crusts, rocks, litter) to protect soils. Cumulatively these actions would not allow for soils resiliency to grazing effects, and would not provide for appropriate water infiltration, permeability, availability of water and nutrients for plant growth, and seedling germination and establishment.

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

The Proposed Action or the reduced 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 reduced grazing alternative in combination with the recent sheep permit renewals and the current situation regarding wild horse management (1, 081 wild horses prior to the 2013 foaling season – 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 reduced 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 reduced grazing alternative in combination with the recent sheep grazing permit renewals and the current situation regarding wild horse management 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 reduced 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 reduced grazing alternative in combination with the recently renewed sheep permits and the current situation regarding wild horse management (1, 081 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

Establish long-term vegetation cover studies including photo points within that portion of the Little Smoky Valley Use Area identified by NDOW as Preliminary Priority Habitat (PPH), or within the 3,000 acre area identified by NDOW in the west central portion of the use area near the Snowball Ranch. The BLM would work with the Great Basin Institute (GBI) to implement these studies in the summer of 2013 or 2014.

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 #2703864 has a strong interest in this term permit renewal.

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

●Permittees

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

●Nevada Department of Wildlife

- •Steve Foree
- •Alan Jenne
- •Tom Donham

●Other Individuals

- •Thomas Darrington (Battle Mountain BLM)
- •Michele McDaniel (Battle Mountain BLM)
- •Jason Spence (Battle Mountain BLM)
- •Casey Johnson (Battle Mountain BLM)
- •Craig Burbank
- •Kevin Borba

●Tribal Consultation

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

8.2 Public Notice of Availability

The Finding of No Significant Impact (FONSI) and EA for the grazing term permit renewal # 2703864 on the Little Smoky Valley Use Area of the Duckwater Allotment as updated for the final grazing decision will be sent to interested persons and organizations on the Ely District Rangeland Management Interested Public List. These documents will be sent to the same interested public list as the proposed decision.

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 16, 2011, 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)

Kevin and Susan Borba	7012 0470 0001 8319 4922
Nevada Division of Forestry	7012 0470 0001 8319 4915
Nevada Land and Resource Company	7012 0470 0001 8319 4908
White Pine Conservation District	7012 0470 0001 8319 4892
Alan Jenne	7012 0470 0001 8319 4885
Eureka County Dept. of Natural Resources	7012 0470 0001 8319 4878
Steven Carter	7012 0470 0001 8319 4359
Western Watersheds Project	7012 0470 0001 8319 4366
Frank Reid	7012 0470 0001 8319 4373
R.W.D. Currant Creek, LLC	7012 0470 0001 8319 4380
U.S. Fish and Wildlife Service (Jill Ralston)	7012 0470 0001 8319 4397
Nevada Department of Wildlife (Brad Hardenbrook)	7012 0470 0001 8319 4403
Nevada Department of Wildlife (Curtis Baughman)	7012 0470 0001 8319 4410
Pescio Brothers	7008 1300 0001 8821 0814
Joe McGloin	7011 0470 0002 1096 3799
Jacob Carter	7011 0470 0002 1096 3782
Sustainable Grazing Coalition	7011 0470 0002 1096 3775
John Uhalde & Co.	7011 0470 0002 1096 3768
Eastern Nevada Landscape Coalition	7011 0470 0002 1096 3812
Ellen Gardner	7011 0470 0002 1096 3591
Duckwater Shoshone Tribe	7011 0470 0002 1096 3751
Duckwater Cattle Company	7011 0470 0002 1096 3744
The Little Paris Sheep Company	7011 0470 0002 1096 3737
Mt. Lewis Field Office BLM	7011 0470 0002 1096 3713
Blue Diamond Oil Corporation	7011 0470 0002 1096 3706
Norma Bradshaw	7011 0470 0002 1096 3690
Craig C. Downer	7011 0470 0002 1096 3683

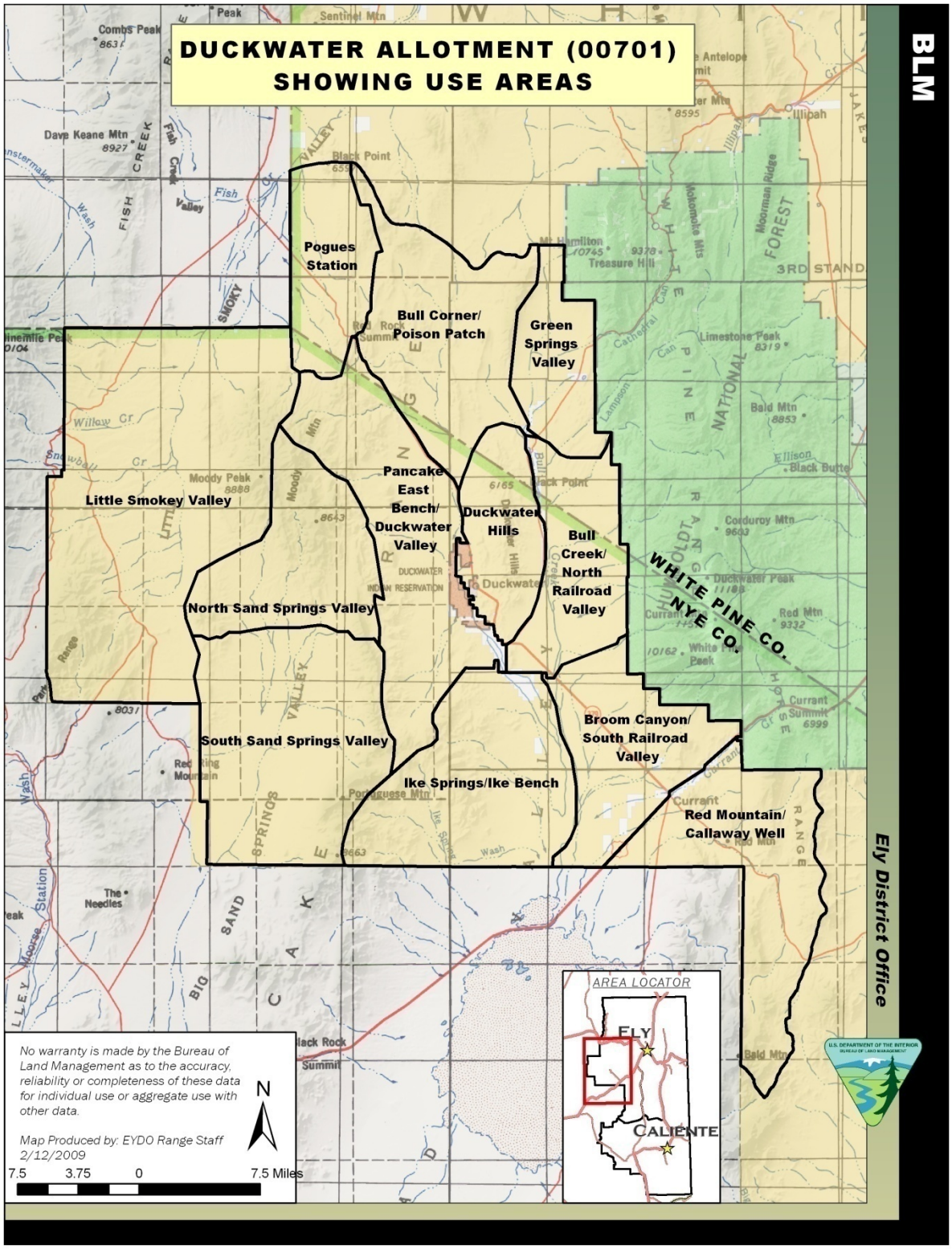
Edward D. Koch	7011 0470 0002 1096 3607
Elko County NRMAC	7011 0470 0002 1096 3676
N-4 Grazing Board	7011 0470 0002 1096 3669
Nevada Cattlemen's Association	7011 0470 0002 1096 3638
Tom Allen	7011 0470 0002 1096 3645
White Pine Community & Economic Development	7011 0470 0002 1096 3621
Doug D. Robison	7011 0470 0002 1096 3614
Cathy Barcum	7011 0470 0002 1096 3584

Nevada State Clearinghouse (electronic copy only)
Kathy Gregg (electronic file only)

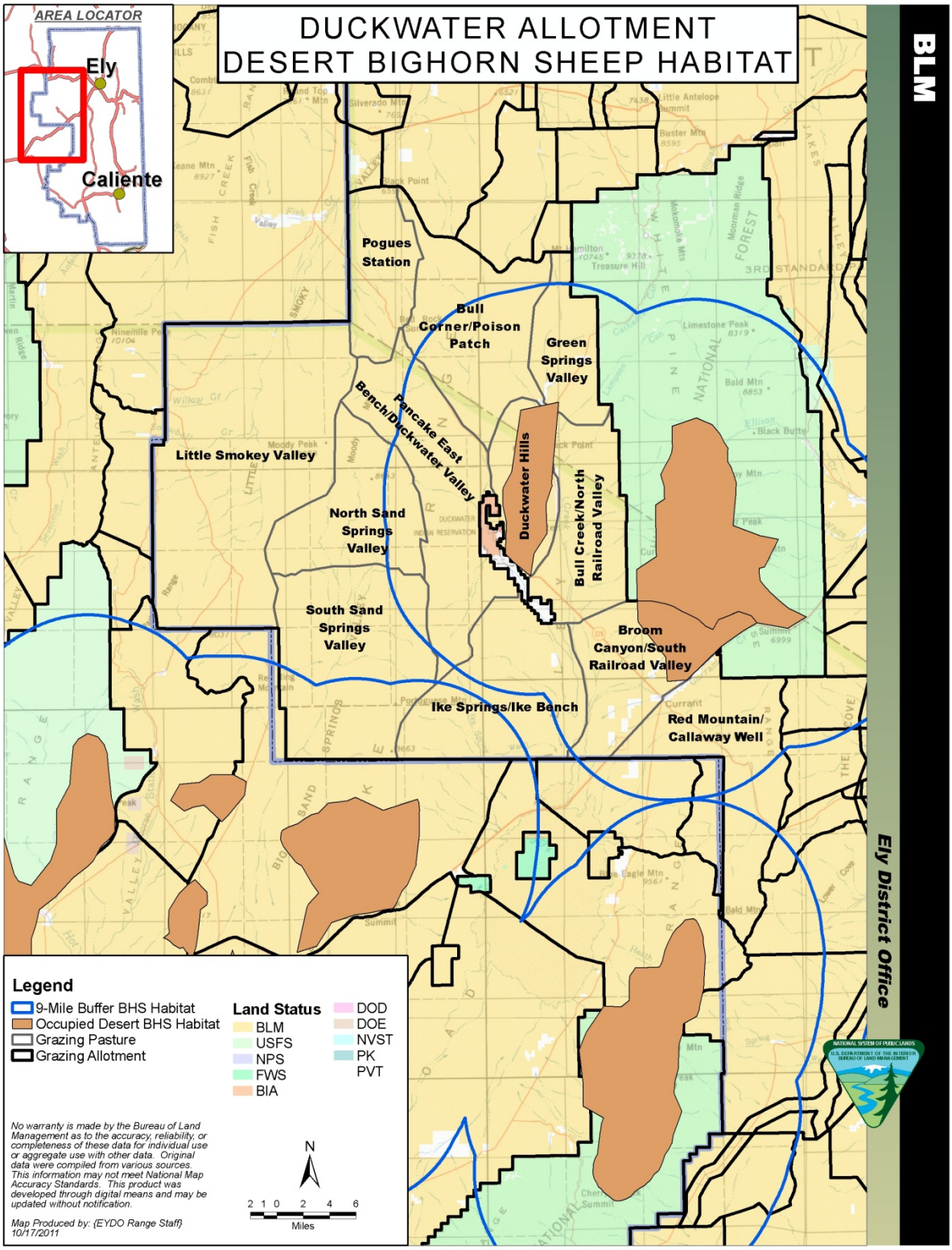
8.3 List of Preparers - BLM Egan Field Office Resource Specialists

Mark Lowrie	Rangeland Resources/Project Lead
Gina Jones	Ecology/NEPA Coordination
Mindy Seal	NEPA Coordination/ 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
Emily Simpson	Wilderness
Erin Rajala	Recreation, Visual Resources
Stephanie Trujillo	Lands
Dave Davis	Geology and Mineral Resources
Melanie Peterson	Hazardous and Solid Waste
Elvis Wall	Native American Concerns

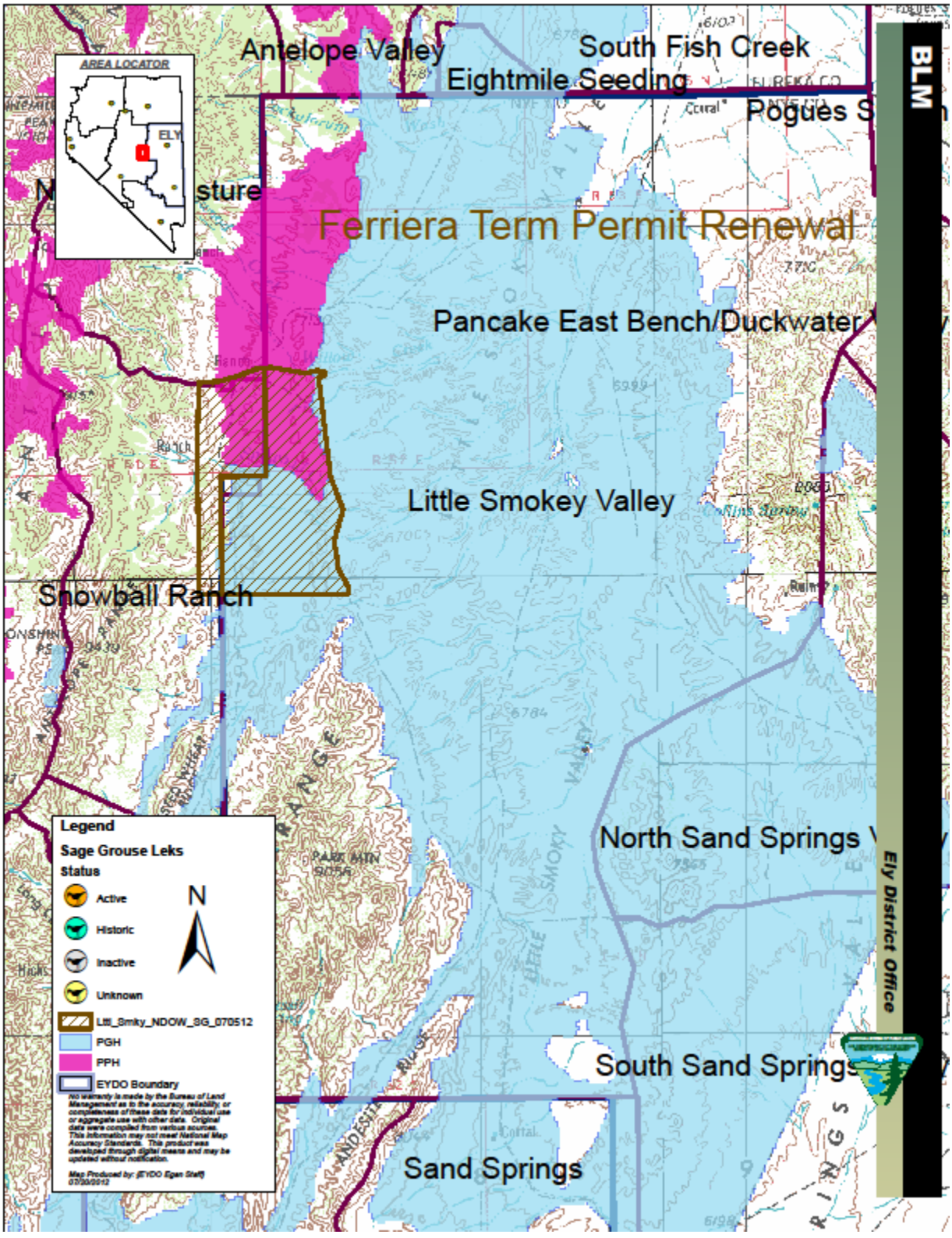
Maps – Figure 1



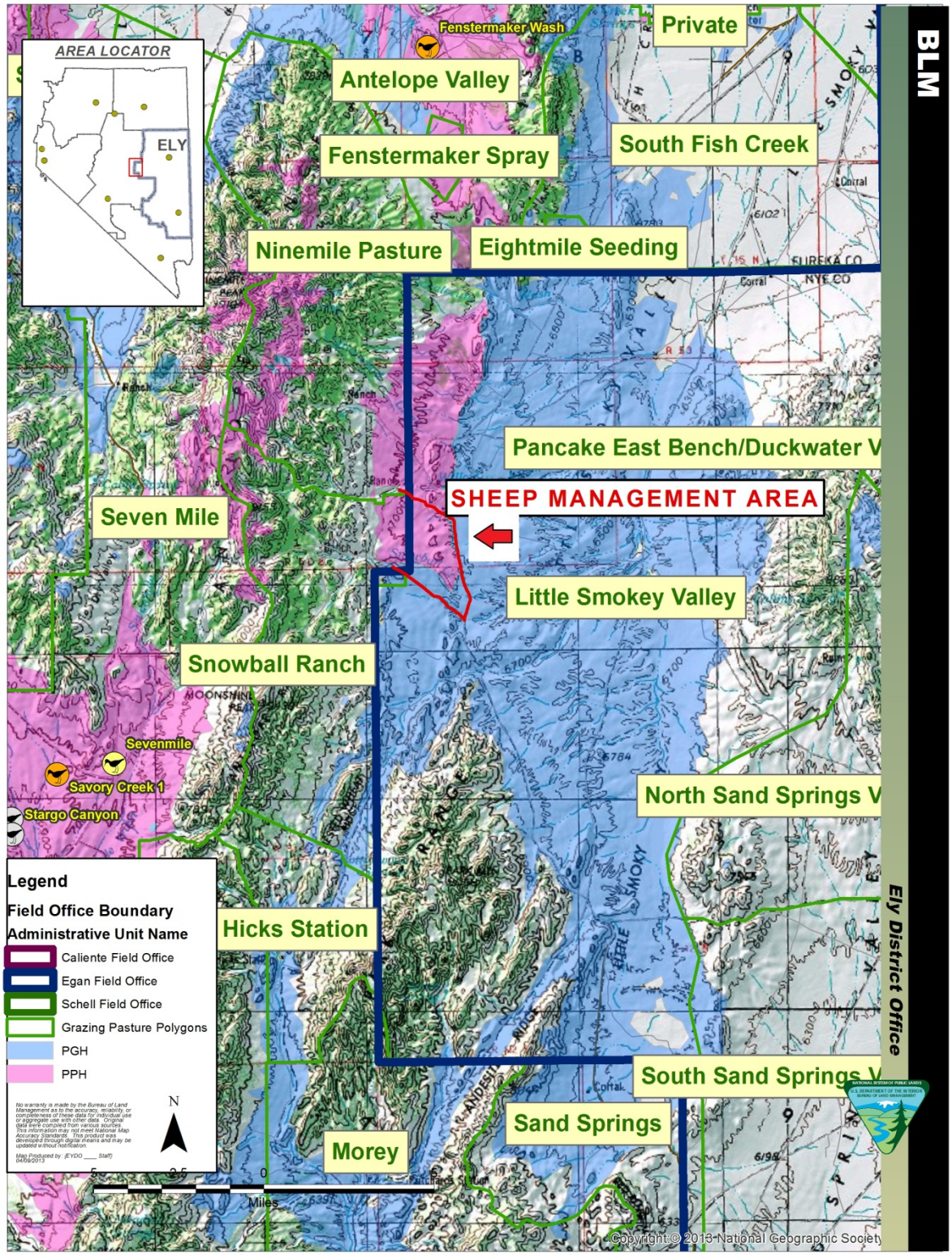
Maps – Figure 2



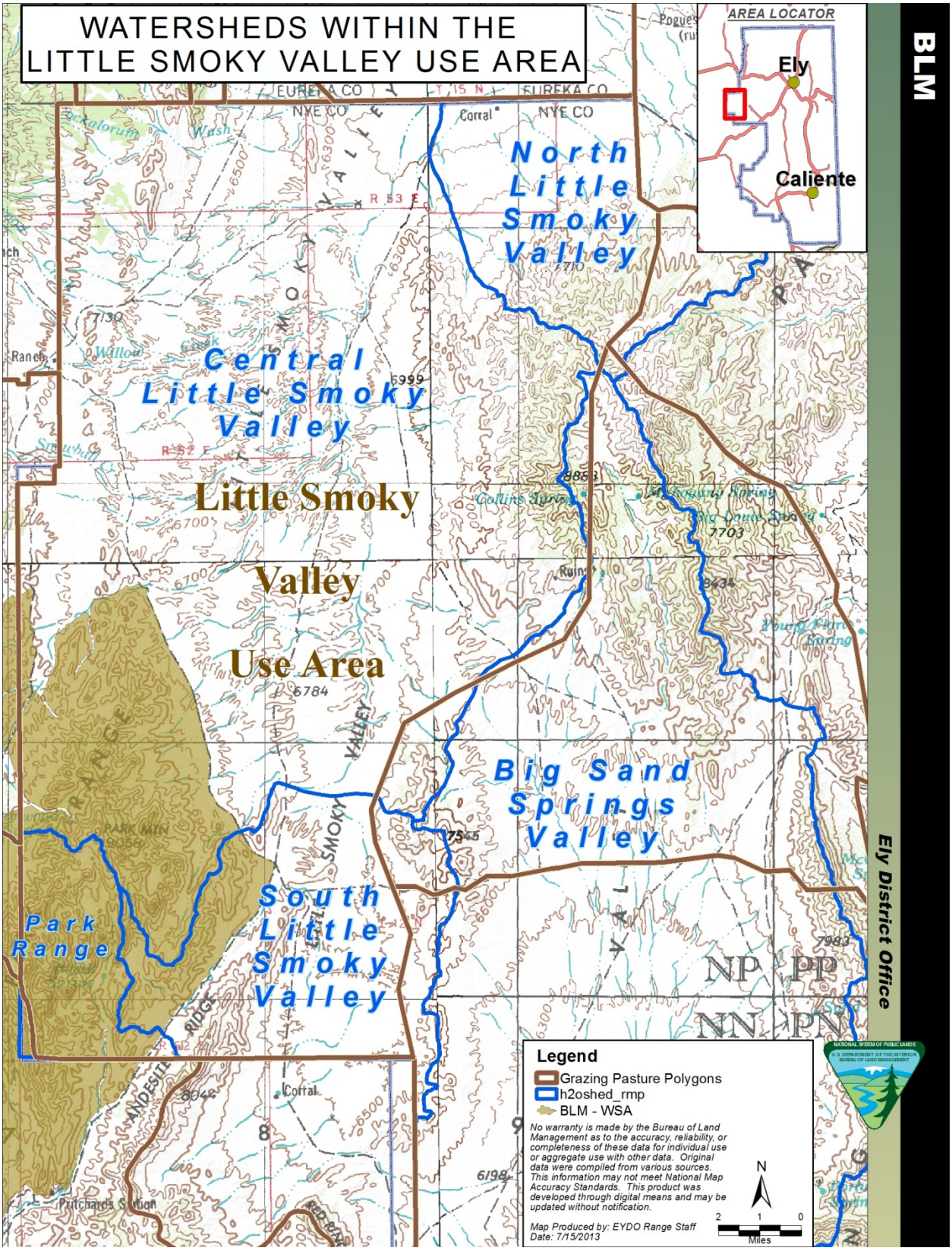
Maps – Figure 3



Maps – Figure 4



Maps – Figure 5



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.

Works Cited

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

Little Smokey Valley Use Area; Duckwater Allotment

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

* = 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

	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.

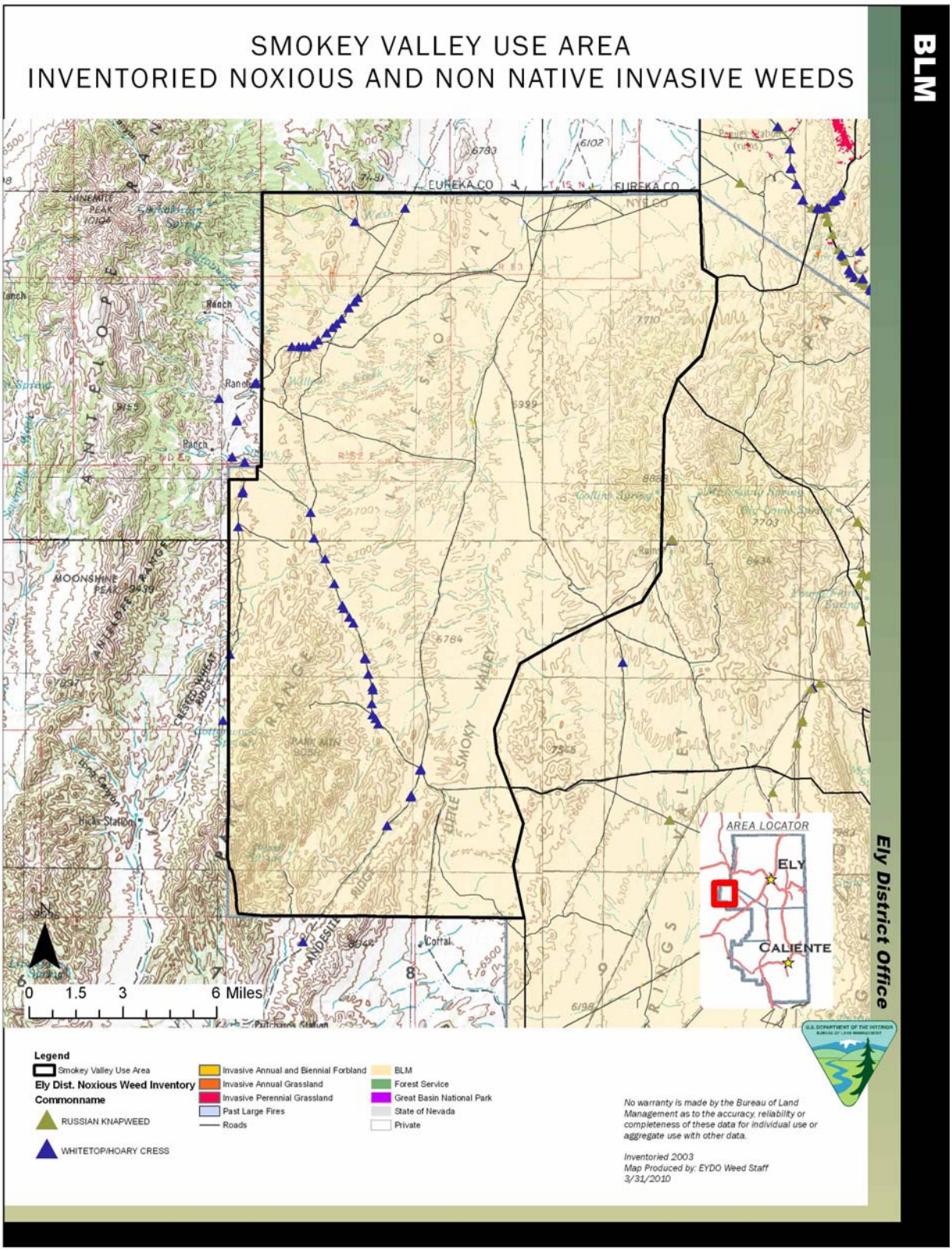
None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive 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* 3/31/2010

Mindy Seal Date
Natural Resource Specialist


SMOKEY VALLEY USE AREA
INVENTORIED NOXIOUS AND NON NATIVE INVASIVE WEEDS
BLM
Ely District Office
EUREKA CO
NYE CO
Ranch
Hicks Station
Corral
MOONSHINE PEAK
ANTELOPE RANGE
SMOKY VALLEY
RANGE
AREA LOCATOR
ELY
CALIENTE
0 1.5 3 6 Miles
Legend
Smokey Valley Use Area
Ely Dist. Noxious Weed Inventory
Commonname
RUSSIAN KNAPWEED
WHITETOP/HOARY CRESS
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
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

APPENDIX III – REFERENCES

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