

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

Environmental Assessment

DOI-BLM-NV-L010-2011-0010-EA

March, 2011

**Term Grazing Permit Renewal for Authorization #2702980 on the Big Indian Creek (00410)
and Middle Steptoe (00411) Grazing Allotments**

PREPARING OFFICE

U.S. Department of the Interior
Bureau of Land Management
Egan Field Office
HC 33 Box 33500
Ely, NV 89301
775-289-1800



**Environmental Assessment:
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0010-EA**

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Chapter 1. Introduction

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This document identifies issues, analyzes alternatives, and discloses the potential environmental impacts associated with renewing the proposed term grazing permit for the permittee with Authorization #2702980 on the Big Indian Creek (00410) and Middle Steptoe (00411) Grazing Allotments ([Appendix A](#)). The Bureau of Land Management (BLM) Egan Field Office proposes to fully process and issue a term grazing permit for the permittee with authorization 2702980 and authorize grazing on the Big Indian Creek and Middle Steptoe Grazing Allotments. Changes to the existing permit are recommended to achieve the Standards and Guidelines for Nevada’s Northeastern Great Basin Area as established by the Northeastern Great Basin Area Resource Advisory Council (RAC), approved in 1997.

Monitoring data were reviewed and an assessment of the rangeland health was completed in 2010 during the term permit renewal process through a Standards Determination Document (SDD) for the Big Indian Creek and Middle Steptoe Allotments ([Appendix B](#)). The following is a summary of the Big Indian Creek and Middle Steptoe Allotments SDD for achievement of the standards.

Table 1. Summary of the SDD by allotment for achievement of the standards.

Allotment	STANDARD 1 Upland Sites	STANDARD 2 Riparian and Wetland Sites	STANDARD 3 Habitat
Big Indian Creek (00410)	Achieving the Standard	Achieving the Standard	Not achieving the Standard, but making significant progress towards achieving the Standard; Livestock are not a contributing factor; Additional factors include climatic conditions in combination with altered natural disturbance regimes, and historic livestock overgrazing.
Middle Steptoe (00411)	Achieving the Standard	Achieving the Standard	Not achieving the Standard, but making significant progress towards achieving the Standard; Livestock are not a contributing factor; Additional factors include climatic conditions in combination with altered natural disturbance regimes, and historic livestock overgrazing.
<p>Definitions per the BLM Manual H-4180-1 – Rangeland Health Standards (1/19/01)</p> <p>Significant Progress: Movement toward meeting standards and conforming to guidelines that is acceptable in terms of rate and magnitude. Acceptable levels of rate and magnitude must be realistic in terms of the capability of the resource, but must also be as expeditious and effective as practical.</p> <p>Significant Factor: Principal causal factor in the failure to achieve the land health standard(s) and conform with the guidelines. A significant factor would typically be a use that, if modified, would enable an area to achieve or make significant progress toward achieving the land health standard(s). To be a significant factor, a use may be one of several causal factors contributing to less-than-healthy conditions; it need not be the sole causal factor inhibiting progress towards the standards.</p>			

Current management practices on the Big Indian Creek Allotment and the Middle Steptoe Allotment consist of one permittee, authorization #2702980. The current term permit is issued for the period 07/01/2006 - 06/30/2011. These allotments are both authorized for cattle use with a total grazing preference of 179 Animal Unit Months (AUMs) on the Big Indian Creek Allotment and 315 AUMs on the Middle Steptoe Allotment. For the Big Indian Creek Allotment, 99 AUMs are active and 80 AUMs are suspended nonuse, with the current term permit authorizing approximately 25 head of cattle with a season of use from 07/01 to 10/19. For the Middle Steptoe Allotment, 173 AUMs are active and 142 AUMs are suspended nonuse, with the current term permit authorizing approximately 50 head of cattle with a season of use from 07/01 to 10/07. [Table 1](#) summarizes the current permit.

Table 2. Summary of the Current Grazing Permit for Authorization #2702980

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land ^a	Type Use	AUMs ^b
Big Indian Creek (00410)	25 Cattle	07/01–10/19	100	Active	91
Middle Steptoe (00411)	50 Cattle	07/01–10/07	100	Active	163
Allotment AUMs Summary					
Allotment Name	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PERMITTED USE		
Big Indian Creek	99	80	179		
Middle Steptoe	173	142	315		

^a% Public Land is the percent of public land for billing purposes.

^bAUMs may differ from Active Permitted Use due to a rounding difference with the number of livestock and the period of use.

1.1. Identifying Information:

1.1.1. Title, EA number, and type of project:

Term Grazing Permit Renewal for authorization #2702980, DOI-BLM-NV-L010-2011-0010-EA

1.1.2. Location of Proposed Action:

This grazing permit area occurs within White Pine County, Nevada and is situated approximately 25-35 miles north of Ely, Nevada. These allotments are located in Steptoe Valley and in the legals T 22N, R 63E, Sec. 25, 26, 35, 36, T 22N, R 64E, Sec. 28, 29, 30, 31, 32 and T21N, R64E Sec. 9, 10, 15, 16, 21, 22, 27, 28, 33, 34, T21N, R64E Sec. 1, 2, 3. These allotment occur in the Steptoe Valley Watershed.

1.1.3. Name and Location of Preparing Office:

Lead Office - Egan FO, LLNVL01000

1.1.4. Applicant Name:

Authorization #2702980

1.2. Purpose and Need for Action:

The purpose and need is to authorize and manage livestock grazing use on the Big Indian Creek (00410) and Middle Steptoe (00411) Allotments in a manner and at levels consistent with multiple uses, sustained yield, and watershed function and health (Ely RMP, 2008) (p. 85, 86) of the public lands in accordance with all applicable laws, regulations, policies and land use plan by renewing the term grazing permit for authorization #2702980 with new terms and conditions for grazing use that conform to guidelines and achieve rangeland health standards for Nevada's Northeastern Great Basin Area.

1.3. Scoping, Public Involvement and Issues:

The term grazing permit renewal proposal for authorization #2702980 was internally scoped by the Egan Field Office ID Team/Resource Specialists on December 6, 2010 to identify any relevant issues.

A letter notifying the permittee of the term permit renewal was sent on December 7, 2010.

Tribal Coordination Letters were sent out December 29, 2010 for this project notifying the tribes of a 30-day comment period. No comments were received.

A letter notifying interested public of this term permit renewal was sent on December 16, 2010. This project proposal was posted on the Ely District website on January 21, 2011. No public scoping comments were received.

This environmental assessment (EA), with the Big Indian Creek and Middle Steptoe Allotments SDD (see Appendix B), is being provided for a thirty-day external review/public comment period.

Chapter 2. Proposed Action and Alternatives

2.1. Description of the Proposed Action:

The purpose for the action is to fully process and renew the term grazing permit for Authorization #2702980 on the Big Indian Creek (00410) and Middle Steptoe (00411) Allotments. The Big Indian Creek Allotment encompasses approximately 6,144 public land acres and the Middle Steptoe Allotment encompasses approximately 2,361 public land acres. Changes to the permit are recommended to achieve the Standards and Guidelines for Nevada's Northeastern Great Basin Area on the Big Indian Creek and Middle Steptoe Allotments ([Appendix B](#)).

Proposed term permit

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

The proposed term permit for authorization #2702980 and terms and conditions are as follows:

This would be a cattle permit with a total permitted use grazing preference of 179 Animal Unit Months (AUM's) with the season of use October 1 to February 28 on the Big Indian Creek Allotment. Of the 179 total AUMs, 99 would be Active Use and 80 would be Suspended Non-use. On the Middle Steptoe Allotment, the total permitted use grazing preference would be 315 AUMs and the season of use March 1 to February 28. Of the 315 AUMs, 173 AUMs would be Active Use and 142 AUMs would be Suspended Non-use.

Changes to “Mandatory Terms and Conditions Specific to Each Allotment,” “Other Terms and Conditions,” and “Additional Stipulations Common to All Grazing Allotments” have been made as described below. Recommended changes within the SDD have been brought forward within the proposed term permit. Changes include a change in the season of use on both allotments (see Proposed term permit).

Table 3. Summary of Proposed Grazing Permit for Authorization #2702980

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land ^a	Type Use	AUMs ^b
Big Indian Creek (00410)	20 Cattle	10/01–02/28	100	Active	99
Middle Steptoe (00411)	14 Cattle	03/01–02/28	100	Active	168
Allotment AUMs Summary					
Allotment Name	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PERMITTED USE		
Big Indian Creek	99	80	179		
Middle Steptoe	173	142	315		

^a% Public Land is the percent of public land for billing purposes.

^bAUMs may differ from Active Permitted Use due to a rounding difference with the number of livestock and the period of use.

Mandatory Terms and Conditions Specific to Each Allotment:

Big Indian Creek Allotment (00410):

1. The total active AUM's on the Big Indian Creek Allotment is 99 Animal Unit Months (AUM's).
2. The Season of use for the Big Indian Creek Allotment is 20 cattle from 10/01 to 02/28 and 99 AUM's.
3. Maximum utilization levels will be established as follows:
 - Perennial native grasses: 50% current year's growth.

This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) to contribute to litter cover, and 3) develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover.
 - Perennial shrubs and half-shrubs: 50% use on current annual production.

This use level is necessary to allow desirable perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use.
 - Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.
4. Wildlife escape ramps would be installed and maintained by the permittee at each trough used on the allotment (permanent or temporary).

Middle Steptoe Allotment (00411):

1. The total active AUMs on the Middle Steptoe Allotment is 173 AUMs.
2. The Season of use for the Middle Steptoe Allotment is from 03/01 to 2/28 with the following stipulations:
 - The Middle Steptoe Allotment cannot be grazed in the spring (3/1 to 6/30) in 2 consecutive years. The season of use would to be as follows:
 - **Even Years:** 14 Cattle from 3/1 to 2/28 and 168 AUMs.
 - **Odd Years:** 21 Cattle from 7/1 to 2/28 and 168 AUMs.
3. Maximum utilization levels will be established as follows:
 - Perennial native grasses: 50% current year's growth.

This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) to contribute to litter cover, and 3) develop

roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover.

- Perennial shrubs and half-shrubs: 50% use on current annual production.

This use level is necessary to allow desirable perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use.

Other Terms and Conditions:

1. Livestock numbers are flexible as long as permitted use (i.e. AUM's) is not exceeded during the authorized season of use.
2. Permittee will move livestock to another authorized pasture or from the allotment no later than 5 days following attainment of maximum utilization levels. Any deviation in livestock movement will require authorization from the authorized officer.
3. Salt and/or mineral supplements for livestock must be located at least 1/2 mile from water sources, riparian areas, winterfat bottoms, sensitive sites, and cultural resource sites. Such supplements may be used to encourage livestock distribution. However, feeding of forage products on public rangelands is prohibited.
4. Water hauling may be needed to maintain proper livestock distribution. The location of water hauling sites will be determined by the authorized officer in cooperation with the livestock permittee.
5. Water haul site must be at least 1/2 mile from Winterfat dominated sites, known riparian areas, cultural sites and special status species locations.

Additional Stipulations Common to All Grazing Allotments:

1. Livestock numbers identified in the Term Grazing Permit are a function of seasons of use and permitted use. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the allotment.
2. Deviations from specified grazing use dates will be allowed when consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.
3. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.
4. Grazing use will be in accordance with the Standards and Guidelines for Grazing Administration. The Standards and Guidelines have been developed by the respective Resource Advisory Council and approved by the Secretary of the Interior on February 12,

1997. Grazing use will also be in accordance with 43 CFR Subpart 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.

5. If future monitoring data indicates that Standards and Guidelines for Grazing Administration are not being met, the permit will be reissued subject to revised terms and conditions.
6. Pursuant to 43 CFR 10.4 (G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.
7. The permittee must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of any hazardous or solid wastes as defined in 40 CFR Part 261.
8. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.
9. When necessary, control or restrict the timing of livestock movement to minimize the transport of livestock-borne noxious weed seeds, roots, or rhizomes between weed-infested and weed-free areas.
10. The placement of mineral or salt supplements will be a minimum distance of ½ mile from known water sources, riparian areas, winterfat dominated sites, sensitive sites, populations of special status plant species, and cultural resource sites. Mineral and salt supplements will also be one mile from active sage-grouse leks. Placing supplemental feed (i.e. hay, grain, pellets, etc.) on public lands without authorization is prohibited.

2.1.1 Invasive, Non-Native Species and Noxious Weeds

A Weed Risk Assessment was completed for this project. The measures listed in the Weed Risk Assessment will be followed when grazing occurs on the allotment to minimize the spread of weeds (see [Appendix D](#)).

2.2. Description of Alternatives Analyzed in Detail:

2.2.1 No Action Alternative

The No Action Alternative represents the status quo – the current permit would be renewed without establishment of allowable use levels or modifications to the permit terms and conditions.

*Chapter 2 Proposed Action and Alternatives
2.1.1 Invasive, Non-Native Species and
Noxious Weeds*

Table 4. Summary of the Current Grazing Permit for Authorization #2702980

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land ^a	Type Use	AUMs ^b
Big Indian Creek (00410)	25 Cattle	07/01–10/19	100	Active	91
Middle Steptoe (00411)	50 Cattle	07/01–10/07	100	Active	163
Allotment AUMs Summary					
Allotment Name	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PERMITTED USE		
Big Indian Creek	99	80	179		
Middle Steptoe	173	142	315		

^a% Public Land is the percent of public land for billing purposes.

^bAUMs may differ from Active Permitted Use due to a rounding difference with the number of livestock and the period of use.

Mandatory Term and Conditions

1. Permitted use on the Middle Steptoe Allotment (00411) is 173 AUMs of cattle use. The season of use is from July 1 to October 7.
2. Permitted use on the Big Indian Creek Allotment (00410) is 99 AUMs of cattle use. The season of use is from July 1 to October 19.

Other Terms and Conditions

1. Grazing use will be in accordance with 43 CFR Subpart 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.
2. Livestock numbers identified in the Term Grazing Permit are a function of seasons of use and permitted use. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the allotment.
3. Deviations from specified grazing use dates will be allowed when consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.
4. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.
5. The payment of grazing fees is due on or before the date specified in the grazing bill. This date is generally the opening date of the allotment. If payment is not received within 15 days of the due date, you will be charged a late fee assessment of \$25 or 10 percent of the grazing bill, whichever is greater, not to exceed \$250. Payment with Visa, Mastercard or American Express is accepted. Failure to make payment within 30 days of the due date may result in trespass action.
6. Pursuant to 43 CFR 10.4 (G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the

immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.

7. If future monitoring data indicates that Standards and Guidelines for Grazing Administration are not being met, the permit will be reissued subject to revised terms and conditions.

2.3. Alternatives Considered but not Analyzed in Detail

The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November, 2007) analyzes five alternatives of livestock grazing (p.4.16-1 to 4.16-15.). One of the alternatives was brought forward as being considered but was then dismissed from further analysis in this document.

1. Alternative D, no grazing alternative

The no grazing alternative does not meet the purpose and need for the action. In addition, this action is not consistent with existing regulation policies, and would not meet the goal for the Ely District RMP, which states, "Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health." In addition, "To allow livestock grazing to occur in a manner and at levels consistent with multiple use, sustained yield, and the standards for rangeland health (p 85-86)." The SDD for the Big Indian Creek and Middle Steptoe Allotments did not identify any resource concerns or recommendation in which alternative D would be a reasonable alternative to progress towards or achieve the rangeland health standards while still achieving the Ely district goals.

A study done by 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. Where differences did occur, total vegetation cover was greater inside the exclosures while density was greater outside the exclosures. Protection from grazing failed to prevent the expansion of cheatgrass and was generally more dense inside exclosures than outside. The current habitat conditions would likely continue with the possibility of temporary improvements due to favorable precipitation (Courtois et al. 2004) (West et al. 1984).

The design features of the proposed action could accomplish the goal for the Ely District by allowing sustainable livestock grazing while progressing towards or achieving rangeland health standards which would also maintain and restore watershed function and health.

2.4. Conformance

The proposed action and the no action alternative are in conformance with the Ely District Record of Decision and Approved Resource Management Plan signed August 20, 2008, which states, "Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health." In addition, "To allow livestock grazing to occur in a manner and at levels consistent with multiple use, sustained yield, and the standards for rangeland health (p 85-86)." Management Action LG-1 states, "Make approximately 11,246,900 acres and 545,267 animal unit months available for

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

1. **Relationship to Other Plans**

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

- White Pine County Portion (Lincoln/White Pine Planning Area) Sage-grouse Conservation Plan (2004)
- State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada Historic Preservation Office (2009)
- Northeastern Great Basin Area Resource Advisory Council (RAC) Standards and Guidelines (1997)
- Wilderness Act – 1964
- Migratory Bird Treaty Act (1918 as amended) and Executive Order 13186 (1/11/01)
- White Pine County Land Use Plan (2007)
- White Pine County Elk Management Plan (2007 revision)

2. **Tiering**

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

Chapter 3. Affected Environment:

3.1. Project Area Description

The project area is defined by the Big Indian Creek and Middle Steptoe Allotments boundaries (see [Appendix A](#) and [Figure 1](#)). This area is typical of the Great Basin with elevations ranging from approximately 6,000 feet in the valley bottoms to approximately 8,000 feet in the mountain range. Precipitation ranges from five to over 12 inches varying largely with elevation.

3.2. Resources/Concerns Considered for Analysis

The following items have been evaluated for the potential for significant impacts to occur, either directly, indirectly, or cumulatively, due to implementation of the proposed action. Consideration of some of these items is to ensure compliance with laws, statutes or Executive Orders that impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general and to the Ely BLM in particular.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Air Quality	No	The State of Nevada assessed air quality in White Pine County and found inhalable coarse particulate matter to be sufficiently below standard levels to warrant discontinuing monitoring. Particulate matter in White Pine County is considered “unclassifiable”. The proposed project would not affect the status of air quality in the County and any coarse particulate materials mobilized during livestock trailing would be an ephemeral and localized introduction of dust and would be expected to settle back to the ground in a short time.
Areas of Critical Environmental Concern (ACEC)	No	No ACECs occur within or adjacent to the project area.
Cultural Resources	No	A Cultural Needs Assessment (NV04–FY08–77) was prepared. Under the BLM/SHPO Protocol, Appendix F:K.A.7 process it was determined that there are no adverse effects with the renewal of this permit. Within the Middle Steptoe and Big Indian Creek allotments (approximately 10,000 acres) only four hundred acres (3%) have been inventoried for cultural resources. There were eleven sites recorded of which five of those sites were isolates. Of the remaining six sites there was only one site potentially eligible to the National Register of Historic Places. Site 26Wp7126 is the Northern Nevada Railway which will not be impacted by grazing practices. There will be no adverse effects to cultural resources by the issuance of this permit renewal.
Forest Health	No	Resource is not present within project area.
Rangeland Health	Yes	Analyzed in EA.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Migratory Birds	No	While overgrazing can lead to detrimental changes in nesting habitat for migratory birds, or nests can be trampled, the proposed changes in the permitted grazing practices outlined in this document may reduce the likelihood of these things occurring. Insofar as the proposed action works to move sagebrush community conditions toward those described in the Standards and Guidelines for Nevada's Northeastern Great Basin Area and the Ecological Site Descriptions, it would also benefit migratory birds. A list of bird species which are likely to occur in these allotments can be found in Appendix C .
Native American Religious Concerns and other concerns	No	All applicable tribal consultation requirements have been complied with and no issues were identified. No traditional or religious site were identified within or adjacent to the project area.
FWS Listed or proposed for listing Threatened or Endangered Species or critical habitat.	No	Resource not known to be present.
Wastes, Hazardous or Solid	No	The Proposed Action or alternatives would not result in the creation of hazardous or solid wastes.
Water Quality, Drinking/Ground	No	The proposed action or alternatives would not affect surface or groundwater quality. No water quality limited waters are located within the analysis area.
Wilderness	No	No Wilderness occurs within or adjacent to the project area. No further analysis is necessary.
Environmental Justice	No	Resource concern not present.
Floodplains	No	The project analysis area is not included on the White Pine County flood maps. The resource is not present in the analysis area.
Wetlands/Riparian Zones	Yes	Effects to this resource are analyzed in this EA.
Noxious and Invasive Weed Management	No	Musk thistle, Russian knapweed and hoary cress occur within the project area along roads. Although improper grazing can increase the populations of the noxious and invasive weeds already present in the permitted area, the design features of the Proposed Action, including setting utilization levels of native species, would help to prevent weeds from establishing or spreading. The no action alternative would be similar to the proposed action, except it lacks the design features of the proposed action to prevent weeds. No further analysis is necessary.
Special Status Plant Species, other than those listed or proposed by the FWS as Threatened or Endangered	No	Resource not known to be present.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Wild Horses	No	The project area is not within a Wild Horse Herd Management Area (HMA).
Soil Resources	Yes	Effects to this resource are analyzed in this EA.
Prime and Unique Farmlands	No	No unique farmlands exist in the State of Nevada. No prime farmlands occur in the project analysis area. The resource is not present in the analysis area.
Visual Resource Management (VRM)	No	The proposed action and no action alternative are consistent with the VRM classification III, and IV for the area, therefore no direct or cumulative impacts to visual resources would occur.
Special Status Animal Species, other than those listed or proposed by the FWS as Threatened or Endangered	Yes	Impacts to sage-grouse are analyzed in chapter 4 . The pygmy rabbit (<i>Brachylagus idahoensis</i>) is not currently known to occur within either allotment but there is potential habitat in both allotments, particularly in the Big Indian Creek Allotment. Suitable habitat for the pygmy rabbit is found in areas with relatively tall sagebrush growing in deep soils which are friable and suitable for digging burrows. The US Fish and Wildlife has found that there is not enough information available at the current time to propose the species for listing. While there is not enough information available on the effects of grazing on the rabbit, keeping the amount of grazing at appropriate levels may help to prevent degradation of pygmy rabbit habitat. Therefore, further analysis will not be conducted in this EA.
Fish and Wildlife	No	There is none crucial habitat for elk (<i>Cervus canadensis</i>), mule deer (<i>Odocoileus hemionus</i>) and pronghorn antelope (<i>Antilocapra americana</i>) as well as a number of predator species, small mammals, and reptiles in the two allotments. There are no Bighorn Sheep populations within or adjacent to either of the allotments. Impacts from livestock grazing on Fish and Wildlife were analyzed on pages 4.6-10 through 4.6-11 in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). General habitat could be maintained or improved by the changes to grazing season and livestock management practices in the proposed action.
Lands and Realty	No	There are no conflicting Right-of-Ways within project area.
Recreation Uses	No	The proposed action or the no action alternative would not impact recreational activities.
Paleontological Resources	No	Currently there are no identified resources within this allotment.
Mineral Resources	No	No mineral operations occur within the project area.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Vegetative Resources	No	The proposed action is expected to have an effect on vegetative resources as follows: grazing of vegetation, primarily grasses and winterfat, and occasional trampling of vegetation as livestock move through it. The impacts to vegetation by grazing or trampling based on the proposed action with the design features would result in maintaining or improving plant health, reproduction, diversity, and composition by allowing the plants to maintain and continue photosynthetic processes to initiate regrowth for recovery and grow adequately for reproduction. The no action alternative would be similar to the proposed action, but lacks the design features to improve plant health. No further analysis is necessary.
Wild and Scenic Rivers	No	No Wild and Scenic Rivers occur within or adjacent to the project area.

3.3. Affected Environment

3.3.1. Rangeland Health

The Big Indian Creek and Middle Steptoe Allotments occur within the Northeastern Great Basin Area Resource Advisory Council (RAC) area. The Standards and Guidelines reflect the stated goals of improving rangeland health while providing for the viability of the livestock industry, all wildlife species, and wild horses and burros in the Northeastern Great Basin Area. Standards are expressions of physical and biological conditions required for sustaining rangelands for multiple uses. Guidelines point to management actions related to livestock grazing for achieving the Standards. For each grazing permit renewal, BLM conducts an allotment evaluation and standards determination analysis in the form of a Standards Determination Document (SDD) to determine if the current livestock grazing management practices in place are achieving the Standards and conforming to the Guidelines. If the Standards assessed are not achieved, a determination is made if significant progress is being made towards Standard achievement and if livestock are a contributing factor to not achieving the standard. The results of these assessments are summarized in [Table 1](#) and [Appendix B](#), Big Indian Creek and Middle Steptoe SDD. The SDD provided recommendations to continue livestock grazing on both allotments as well as to establish allowable use levels and stipulations regarding the placement of salt/mineral supplements. In addition, a season of use change was recommended for both allotments to progress towards or achieve rangeland health standards as well as to allow flexibility for the grazing operation.

Generally, major plant communities across the project area show a tendency for shrub dominance with a limited herbaceous understory. This is believed to be a stable state for these plant communities. The transition into this state was due largely to heavy grazing that occurred throughout the west in the early 20th century (pre-Taylor Grazing Act). Altered natural disturbance regimes (fire cycles, etc.) and climate conditions also have played a role in this transition. Over the past 100 years, livestock grazing has been significantly reduced to current levels. Current grazing management is focused on improving conditions to meet or make progress towards the standards for rangeland health while providing for multiple use, sustained yield, and watershed function and health.

3.3.2. Special Status Species

Greater Sage Grouse

The greater sage-grouse (*Centrocercus urophasianus*) is a high-profile Sensitive Species that has been determined to be warranted for listing but which is precluded by other species of higher priority. (Federal Register /Vol. 75, No. 55 /Tuesday, March 23, 2010). It has been identified as an “umbrella” species by the Ely District BLM, and chosen to represent the habitat needs of the sagebrush (*Artemisia* spp.) obligate or sagebrush/woodland dependent guild (BLM 2007; p. 4.7-10).

There are no known sage grouse lek sites within either the Big Indian Creek or Middle Steptoe allotments boundaries. There is one active sage grouse lek with 3 miles of the north boundary of the Big Indian Creek Allotment and 3 lek sites within 3 miles of the Middle Steptoe Allotment, 2 of which are active and 1 is inactive. Sage grouse often nest in suitable habitat within three miles of a lek site. The sage grouse strutting and nesting period is generally considered to be March 15 through May 31. The brood rearing period is generally considered to be June 1 through October 31. The wintering period is generally considered to be November 1 through March 14. All of the project area is located within the Butte Valley Population Management Unit (PMU). Under the sage-grouse guidelines, the herbaceous component (grass and forb combined) should comprise at least 15% of the vegetative community by cover, and sagebrush should comprise at least 15-25% of vegetative cover (Connelly et al. 2000). Sagebrush habitats were evaluated against the Connelly Guidelines in the SDD (Appendix B). The Big Indian Creek Allotment is not meeting the herbaceous understory and sagebrush requirements set forth within the sage-grouse guidelines as well as the Middle Steptoe Allotment. Both allotments do currently support sage grouse which have been noted to use the areas. The allotments are meeting the vegetative recommendations for wildlife habitat in sagebrush plant communities set forth in the Ely District Approved Resource Management Plan.

3.3.3. Wetlands/Riparian Zones

Proper Functioning Condition assessments performed on lentic and lotic systems in the analysis area by BLM teams found the riparian systems were all functioning with most functioning properly. One system was found to be functioning with a risk factor that some streambanks were not adequately covered with riparian vegetation but the system was found to be trending upward towards proper functioning condition. The riparian systems found in the analysis area are dominated by sedge, rush, and grass plant communities that possess deep and hardy root systems that stabilize riparian streambanks and soils from wind and water erosion processes.

3.3.4. Soil Resources

Soils in the analysis area are loams which range from fine-textured silt loams to coarser gravelly sandy loams. The valley bottom locations possess the finer soils where the silt loam textures are found. Fan piedmont benches are a bit coarser and typically possess sandy loam to gravelly loam textures. The higher bench locations in the analysis area have the coarsest soils typified by high gravel content. The upper bench location possess the lowest clay component class with the valley bottom having the highest clay content, roughly 7 and 18 percent, respectively.

Chapter 4. Environmental Effects:

4.1. Direct and Indirect

4.1.1. Rangeland Health

1. Proposed Action

The proposed action is based largely on the recommendations of the Standards Determination Document completed for the Big Indian Creek and Middle Steptoe Allotments. The proposed action is designed to allow for continued achievement of or progress towards Standards for Rangeland Health. The effects of the proposed action on Rangeland Health would be expected to improve conditions. The proposed action would have a fall to winter season of use (10/01–02/28) on the Big Indian Creek Allotment and a year round season of use (03/01–02/28) on the Middle Steptoe Allotment. Spring grazing, when plants are most susceptible to grazing impacts, is allowed under the proposed action on the Middle Steptoe Allotment with mandatory terms and conditions in regards to the grazing schedule which alternates grazing use to every other year in the critical growing season. The season of use on both allotments allows for greater flexibility in the grazing operation based on annual range conditions (i.e. forage availability, snow cover, water, etc.). In addition, research has shown that grazing during the fall and winter, when grasses are dormant, does not discourage growth during the following growing season. Utilizing shrubs during the winter removes photosynthetic material, slowing resource (e.g. water, nutrients) acquisition by shrubs the following spring. In response, grasses and forbs are able to acquire additional resources, promoting grass production (McGinty et al. 2009; Anderson and McCuiston. 2008; Milchunas, 2006), Since very little grasses exist at sagebrush dominated sites and the salt desert shrub sites, opening up and promoting use during the winter season could encourage grass production and a better compositional balance and thus, help in progressing towards or achieving the rangeland health standards.

The proposed action also incorporates maximum allowable use levels. Allowable use levels allow for desirable key species to retain above ground biomass to continue photosynthetic processes and develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover as well as to contribute to litter cover and organic matter for soil protection and health. It has been suggested that the amount of forage removed is not nearly as important as the amount of residue that remains to permit photosynthesis, plant recovery and soil protection (McGinty et al. 2009). These levels allow for flexibility to accommodate annual range conditions, prevent overgrazing, and safe-guard residual forage for wildlife habitat, plant recovery and productivity, litter and watershed function. The establishment of these levels also allows for better management of rangeland resources because they are tied to forage availability rather than a set AUM amount. A stipulation regarding the removal of livestock when allowable use levels have been met would be added to the permit to ensure these levels are not exceeded. In addition, specific stipulations regarding the placement of livestock supplements would be added to this permit to improve distribution and protect sensitive ecological sites and riparian areas from over use and trampling which could also assist in the overall achievement of the Standards for Rangeland Health.

The proposed action would allow native plant communities to maintain or improve their health as well as protect and maintain healthy, productive soils and riparian sites. These management practices would provide a good opportunity to achieve and make significant

progress toward achieving Standards for Rangeland Health by maintaining or improving key ecological processes and native vegetative composition.

2. **No Action Alternative**

The current status of rangeland health would likely continue because no changes would be made to the current permit. The current permit would have a summer to fall season of use, July to October on both allotments. The current permit would not include establishing allowable use levels on forage or stipulations regarding the placement of salt/mineral supplements on either allotment. The current impacts to vegetation, soils and riparian areas by grazing or trampling based on the current permit would likely continue at the current levels. Riparian and other sensitive ecological sites may not receive additional protection from grazing or trampling because stipulations regarding the placement of salt/mineral supplements would not be added.

The current permit was designed to achieve or progress towards rangeland health standards, but does not employ all of the available tools to improve rangeland health conditions to the degree which could result from the proposed action. The overall vegetative, soil and riparian health conditions would likely continue at the current levels and would not likely be improved to the degree which could result from the proposed action. The no action alternative (current permit) would likely not provide as good of an opportunity to achieve and make significant progress toward achieving Standards for Rangeland Health as would the proposed action.

4.1.2. **Special Status Animal Species: Sage Grouse**

1. **Proposed Action**

The proposed action is expected to maintain or improve habitat condition for sage-grouse. The proposed action would have a fall to winter season of use (10/01–02/28) on the Big Indian Creek Allotment and a year round season of use (03/01–02/28) on the Middle Steptoe Allotment. Spring grazing is allowed on the Middle Steptoe Allotment under the proposed action with mandatory terms and conditions regarding the grazing schedule which limits grazing use to every other year during the critical growing season. The deferment of grazing until mid to late summer, fall, or winter can maintain or enhance habitat by increasing the abundance and quality of forb and grass species in sagebrush communities (McGinty et al. 2009). Additionally, a deferral of grazing also benefits the sage grouse by reducing conflict between grazing livestock and sage grouse during breeding and nesting season (Anderson and McCuiston, 2008).

The proposed action establishes allowable use levels on all allotments which would be beneficial in providing perennial grass, forb and shrub cover for habitat. Allowable use levels allow for desirable key species to retain above ground biomass to continue photosynthetic processes and develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover as well as to contribute to litter cover and organic matter for soil protection and health (McGinty et al., 2009). A stipulation regarding the removal of livestock when allowable use levels have been met would be added to the permit to ensure these levels are not exceeded. In addition, specific stipulations regarding the placement of livestock supplements would be added to the permit on all allotments to

improve distribution and protect sensitive ecological sites and riparian areas from over use and trampling, which could also assist in maintaining or improving riparian habitat.

It has been documented that historic overgrazing has contributed to current habitat conditions (Beck and Mitchell, 2000; Crawford et al, 2004), and that poorly managed livestock grazing can lead to poor habitat conditions (USDOI, Fish and Wildlife Service, 2010). Research has also demonstrated that properly designed and managed grazing plans can maintain and improve sage grouse habitat (Anderson and McCuiston, 2008; Vavra, 2005; USDOI, Fish and Wildlife Service, 2010). Light to moderate grazing (30%–50% utilization) can increase forb quality and quantity and properly timed grazing can delay forb maturation and extends the availability of high quality forage throughout the season (Anderson and McCuiston, 2008). A light to moderate stocking rate can help maintain the grassy understory used by the sage grouse for cover while also maintaining the sagebrush that is needed for nesting, cover and forage (Anderson and McCuiston, 2008; Vavra, 2005; USDOI, Fish and Wildlife Service, 2010). Grazing has been found to be compatible with sage grouse if grazing occurs at levels that left sagebrush plants intact as well as leaving herbaceous understory (Anderson and McCuiston, 2008; USDOI, Fish and Wildlife Service, 2010).

Insofar as the proposed action works to move sagebrush community conditions toward those described in the Standards and Guidelines for Nevada's Northeastern Great Basin Area and the Ecological Site Descriptions, it would also benefit sage grouse. The management practices presented in the proposed action would provide a good opportunity to achieve and make significant progress toward achieving Standards for Rangeland Health by maintaining or improving key ecological processes and native vegetative composition which would also improve sage grouse habitat.

2. **No Action Alternative**

The current impacts to special status animal species would likely continue. The current permit does not establish allowable use levels or stipulations regarding the placement of salt/mineral supplements which could result in excessive grazing or trampling of perennial grasses, forbs, sage brush and riparian habitat from poor livestock distribution and forage utilization. In addition, the current season of use would remain a summer to fall, July to October, season on both allotments.

The current permit was designed to achieve or progress towards rangeland health standards and maintain or improve habitat conditions, but does not employ all of the available tools to improve habitat conditions to the degree which could result from the proposed action. The no action alternative would likely not provide as good of an opportunity to achieve and make significant progress toward achieving Standards for Rangeland Health or improve habitat conditions as would the proposed action.

4.1.3. Wetlands/Riparian Zones

1. Proposed Action

General impacts from livestock grazing on Water Resources and Vegetation Resources (Riparian) were introduced and discussed in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) and in the Big Indian Creek and Middle Steptoe SDDs. The proposed action should maintain current conditions or

slightly improve conditions on both the Big Indian Creek and Middle Steptoe allotments. The change of season of use to a fall to winter season, along with the terms and conditions regarding the placement of salt/mineral supplements 1/2 mile away from water sources, should assist in the maintenance or improvement of the riparian areas. The riparian areas on the Middle Steptoe allotment would likely continue to receive some grazing pressures (grazing and trampling) but livestock numbers, season of use and salt/mineral placement stipulations would likely reduce or minimize these effects and allow the riparian soil and vegetation to recover and maintain their functionality. The riparian areas on the Big Indian Creek allotment are not easily accessible by livestock and should not receive grazing pressures from livestock and are expected to remain this way.

2. **No Action Alternative**

Impacts to riparian areas from the current permit were discussed in the Big Indian Creek and Middle Steptoe SDD. The current conditions would likely continue since livestock grazing was not found to be significantly detrimental to riparian areas on both the Big Indian Creek and Middle Steptoe allotments. In addition, the current permit does not have terms and conditions regarding the placement of salt/mineral supplements near water sources. Although the current permit has maintained proper functioning riparian areas, it does not employ all the tools available to maintain or improve riparian areas or provide the opportunities to improve current conditions.

4.1.4. **Soil Resources**

1. **Proposed Action**

Impacts from livestock grazing on Soil Resources were introduced and analyzed on page 4.4-4 in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) as well as in the Big Indian Creek and Middle Steptoe SDD. Direct impacts to soils based on the proposed action are expected to be minimal. It is expected that there would likely be localized soil compaction and displacement from trailing and concentration near watering sites. This would likely cause lower infiltration rates at these areas. The proposed action establishes a stipulation regarding the placement of salt/mineral supplements 1/2 mile away from water sources which draws livestock away from these concentration sites. The proposed action also establishes allowable use levels on both allotments which would be beneficial in providing perennial grass, forb and shrub cover and allow for desirable key species to retain above ground biomass as well as to contribute to litter cover and organic matter for soil protection and health (McGinty et al., 2009). Increasing vegetative cover and plant productivity can reduce the detrimental impacts of soil compaction by improving soil organic matter (USDA NRCS, 2001).

2. **No Action Alternative**

Impacts to soils from the current permit were discussed in the Big Indian Creek and Middle Steptoe SDD. The current conditions would likely continue since livestock grazing was not found to be significantly detrimental to soils on both the Big Indian Creek and Middle Steptoe allotments. In addition, the current permit does not have terms and conditions regarding the placement of salt/mineral supplements near water sources or allowable use levels. Although the current permit has maintained soil resources, it does not employ all the

tools available to maintain or improve soil health or provide the opportunities to improve current conditions.

4.2. Cumulative Effects

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 by management, the public and others during scoping that are of major importance.”

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

The Cumulative Effects Study Area (CESA) on rangeland health and special status animal species including sage-grouse is defined as the Big Indian Creek and Middle Steptoe Allotments.

1. Past Activities

Livestock grazing has a long history in the region dating back to the late 1800’s. Throughout its history, livestock grazing has been characterized by localized areas of intense use. Range improvements have occurred on the allotment to improve grazing management and include fencing and stockwater developments. Hunting, trapping, wildlife viewing, OHV use and other recreational activities have also occurred on these allotment year round.

2. Present Activities

Currently, the allotments are authorized for cattle grazing use by one livestock operator, authorization #2702980. The North Steptoe sheep trail passes through the Big Indian Creek allotment and may contribute light grazing use from sheep while sheep are trailed through the allotment. Maintenance of range improvements is ongoing. Hunting, trapping, wildlife viewing, OHV use and other recreational activities currently occur on the allotments year round.

3. Reasonably Foreseeable Future Activities (RFFA)

Transportation activities, including existing road maintenance, and livestock grazing use would likely continue within the CESA. Wildfires could also occur within the allotments. Recreational activities such as hunting, trapping, wildlife viewing, OHV use and other activities will likely occur in the CESA year round. Maintenance of range improvements would be ongoing. New range improvement projects are considered on an annual basis and analyzed separately on a site specific basis.

4.3. Cumulative Effects Summary

4.3.1. Rangeland Health

1. Proposed Action

The proposed action, in combination with any RFFA, is expected to continue to achieve or progress towards meeting rangeland health standards within the CESA. As the proposed action works to continue to achieve or progress toward the rangeland health standards, it would maintain soil, vegetative and riparian resources as well as possibly improving conditions within the CESA and assist in improving rangeland health.

2. No Action Alternative

The no action alternative, in combination with any RFFA, would likely maintain the current status of rangeland health with very limited opportunities to improve conditions.

4.3.2. Special Status Animal Species: Sage Grouse

1. Proposed Action

The proposed action, in combination with any RFFA, is designed and expected to continue to achieve or progress towards meeting rangeland health standards which would also benefit sage grouse habitat within the CESA. The proposed action in combination with the RFFA are not anticipated to have any cumulative effects on sage grouse.

2. No Action Alternative

The combined effects of the current permit and the RFFA to sage grouse habitat would likely remain the same as those currently existing in the CESA and no improvements to habitat would likely be made.

4.3.3. Wetlands/Riparian Zones

1. Proposed Action

The proposed action, in combination with any RFFA, is designed to continue to achieve or progress toward the rangeland health standards and is expected to maintain or improve riparian areas by maintaining adequate riparian vegetative cover and protecting riparian soils.

2. No Action Alternative

The no action alternative, in combination with any RFFA, would likely maintain the current status of riparian areas with very limited opportunities to improve conditions.

4.3.4. Soil Resources

1. Proposed Action

The proposed action, in combination with any RFFA, is designed to continue to achieve or progress toward the rangeland health standards and is expected to maintain or improve soil resources by maintaining adequate vegetative cover which, in turn, protects the soil from accelerated erosion and contributes to litter cover and organic matter for soil protection and health and establish the stipulation regarding the placement of salt/mineral supplements which would distribute livestock away from water sites or other concentration sites and reduces soil compaction. Research has demonstrated that soils high in organic matter, with high soil aggregate stability and containing a large quantity and density of roots, can resist compaction pressures and recover more quickly from impacts associated with livestock grazing (Southorn and Cattle, 2004).

2. **No Action Alternative**

The no action alternative, in combination with any RFFA, would likely maintain the current status of soil resources with very limited opportunities to improve conditions.

Chapter 5. Tribes, Individuals, Organizations, or Agencies Consulted:

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

Permittees

Authorization #2702980

Nevada Department of Wildlife

Curt Baughman

Tribal Consultation

Tribal Coordination Letters were sent out December 29, 2010 for this project notifying the tribes of a 30-day comment period. No comments were received.

Public Notice of Availability

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, 2010, have requested additional information regarding rangeland related actions or programs within the South Butte and South Butte Seeding Allotments:

- University of Nevada cooperative Extension, Dan R. Nelson
- Nevada Department of Wildlife, Alan Jenne
- Nevada Department of Wildlife, Curt Baughman
- Duckwater Shoshone Tribe
- Thelora Warr
- Western Watersheds Project
- U.S. Fish and Wildlife Service, Jill Ralston
- Jacob Carter
- N-4 Grazing Board
- Eastern Nevada Landscape Coalition, Betsy Macfarlan
- Nevada State Clearinghouse (electronic copy only)

The above interested persons and organizations on the Ely District Rangeland Management Interested Public List will be mailed a copy of the preliminary EA with the draft South Butte and South Butte Seeding Allotments SDD for review and comment.

Chapter 6. List of Preparers

Table 6.1. List of Preparers

Name	Title	Responsible for the Following Section(s) of this Document
TJ Mabey	Natural Resource Specialist	Rangeland Health/Project Lead
Mark D'Aversa	Hydrologist/Soil Scientist	Soils/Riparian & Wetlands/Air Quality/Water Quality/Flood Plains/Prime & Unique Farmland
Mindy Seal	Natural Resource Specialist	Vegetative Resources/Noxious and Invasive weeds
Lisa Gilbert	Archeologist Technician	Archeological/Paleontological Resources
Ruth Thompson	Wild Horse Specialist	Wild Horses
Marian Lichtler	Wildlife Biologist	Wildlife/Migratory Birds/Special Status Plants & Animals
Erin Rajala	Outdoor Recreation Planner	Recreation Use/VRM
Miles Kreidler	Geologist	Minerals
Melanie Peterson	Environmental Protection Specialist	Hazardous Waste
Gina Jones	Ecologist/NEPA Coordinator	Environmental Justice

Chapter 7.

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Appendix A. Maps

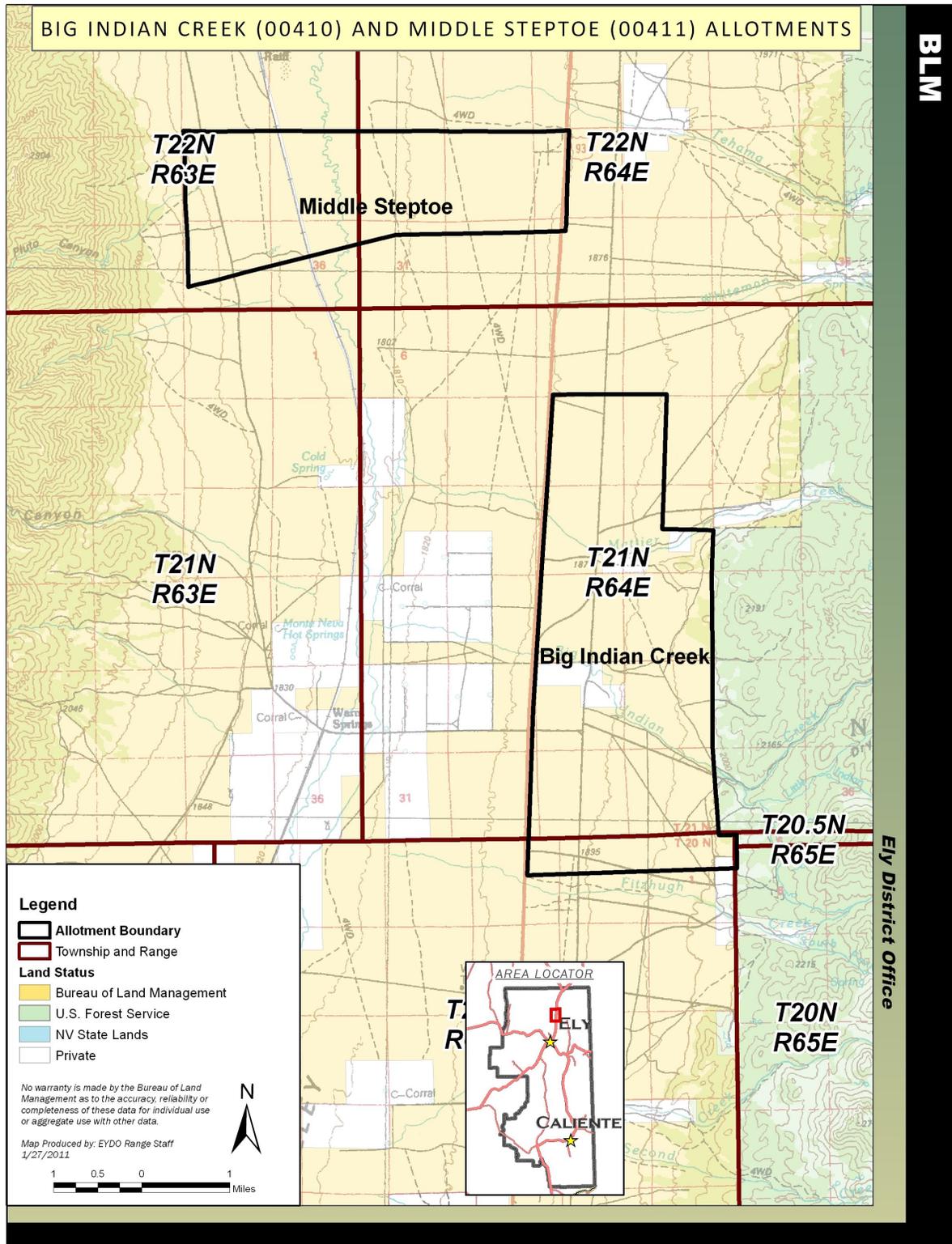


Figure 1. Big Indian Creek and Middle Steptoe Alltments

Appendix B. Standards Determination Document

See the [Big Indian Creek and Middle Steptoe SDD](#) document.

Appendix C. Migratory Birds

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.

No survey blocks or incidental sightings occur within in these allotments. Survey blocks with similar vegetation as these allotments, located near them, contained the following bird species:

Middle Steptoe and Big Indian Creek Allotments

Common Name	Scientific Name
Lazuli Bunting	<i>Passerina amoena</i>
Mountain Chickadee	<i>Poecile gambeli</i>
Morning Dove	<i>Zenaida macroura</i>
Northern Flicker	<i>Colaptes auratus</i>
Northern Goshawk	<i>Accipiter gentilis</i>
Pine Siskin	<i>Carduelis pinus</i>
Red-Breasted Nuthatch	<i>Sitta canadensis</i>
Red-Naped Sapsucker	<i>Sphyrapicus nuchalis</i>
Rufous Hummingbird	<i>Selasphorus rufus</i>
Sharp-Shinned Hawk	<i>Accipiter staitus</i>
Warbling Vireo	<i>Vireo gilvus</i>
Western Scrub-Jay	<i>Aphelocoma californica</i>
Western Tanager	<i>Piranga ludoviciana</i>
Brewer's Sparrow	<i>Spizella breweri</i>
Common Raven	<i>Corvus corax</i>
Horned Lark	<i>Erimophila alpestris</i>
Lark Sparrow	<i>Chondestes grammacus</i>
Sage Thrasher	<i>Oreoscoptes montanus</i>
Vesper Sparrow	<i>Pooecetes gramineus</i>

Appendix D. WEED RISK ASSESSMENT

Term Grazing Permit Renewal for Authorization #2702980 on the Big Indian Creek & Middle Steptoe Allotments, White Pine County, Nevada

On April 13, 2011 a Noxious & Invasive Weed Risk Assessment was completed for term grazing permit renewal for authorization #2702980 on the Big Indian Creek and Middle Steptoe Allotments. The Bureau of Land Management (BLM) Egan Field Office proposes to fully process and issue a term grazing permit. This would be a cattle permit with a total permitted use grazing preference of 179 Animal Unit Months (AUM's) with the season of use October 1 to February 28 on the Big Indian Creek Allotment. Of the 179 total AUMs, 99 would be Active Use and 80 would be Suspended Non-use. On the Middle Steptoe Allotment, the total permitted use grazing preference would be 315 AUMs and the season of use March 1 to February 28. Of the 315 AUMs, 173 AUMs would be Active Use and 142 AUMs would be Suspended Non-use. The proposed action also requires that stipulations identified in this Weed Risk Assessment be followed. Details of the permit are included in the proposed action of the EA.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. This area was last inventoried in 2007. The following species are found within the boundaries of the Big Indian Creek and Middle Steptoe Allotments:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Lepidium draba	Hoary cress

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

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Lepidium draba	Hoary cress
Onopordum acanthium	Scotch thistle

Monitoring data collected by range staff has documented the following non-native invasive weeds along main county roads, some two track roads and in native range of the permitted area: cheatgrass : cheatgrass (*Bromus tectorum*) and halogeton (*Halogeton glomeratus*).

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

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.

Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the factor rates as Moderate (4) at the present time. 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. All three noxious weed species within the allotment can be spread by livestock. As part of a good grazing plan, the establishment of utilization levels of desirable forages is integral to the weed management program. Desirable forage that emerges during the growing season should be managed to increase its competitiveness. The design features of the proposed action including the utilization levels of native plants will help prevent weeds from establishing or spreading; and improve native vegetation.

Table D.2. 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 (5) at the present time. Within the allotments, watering and salting locations are of particular concern for new weed infestations due to the concentration of livestock around those sites and the amount of ground disturbance associated with that. If new weed infestations establish within the allotments, this could have an adverse impact on those native plant communities. An increase of cheatgrass could alter the fire regime in the area.

Table D.3. 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 (20) This indicates that the project can proceed as planned as long as the following measures are followed:

*Appendix D WEED RISK ASSESSMENT
Term Grazing Permit Renewal for Authorization
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- 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 Program for treatment.

Reviewed by:

/s/Mindy Seal

Mindy Seal
Natural Resource Specialist

4/13/2011

Date

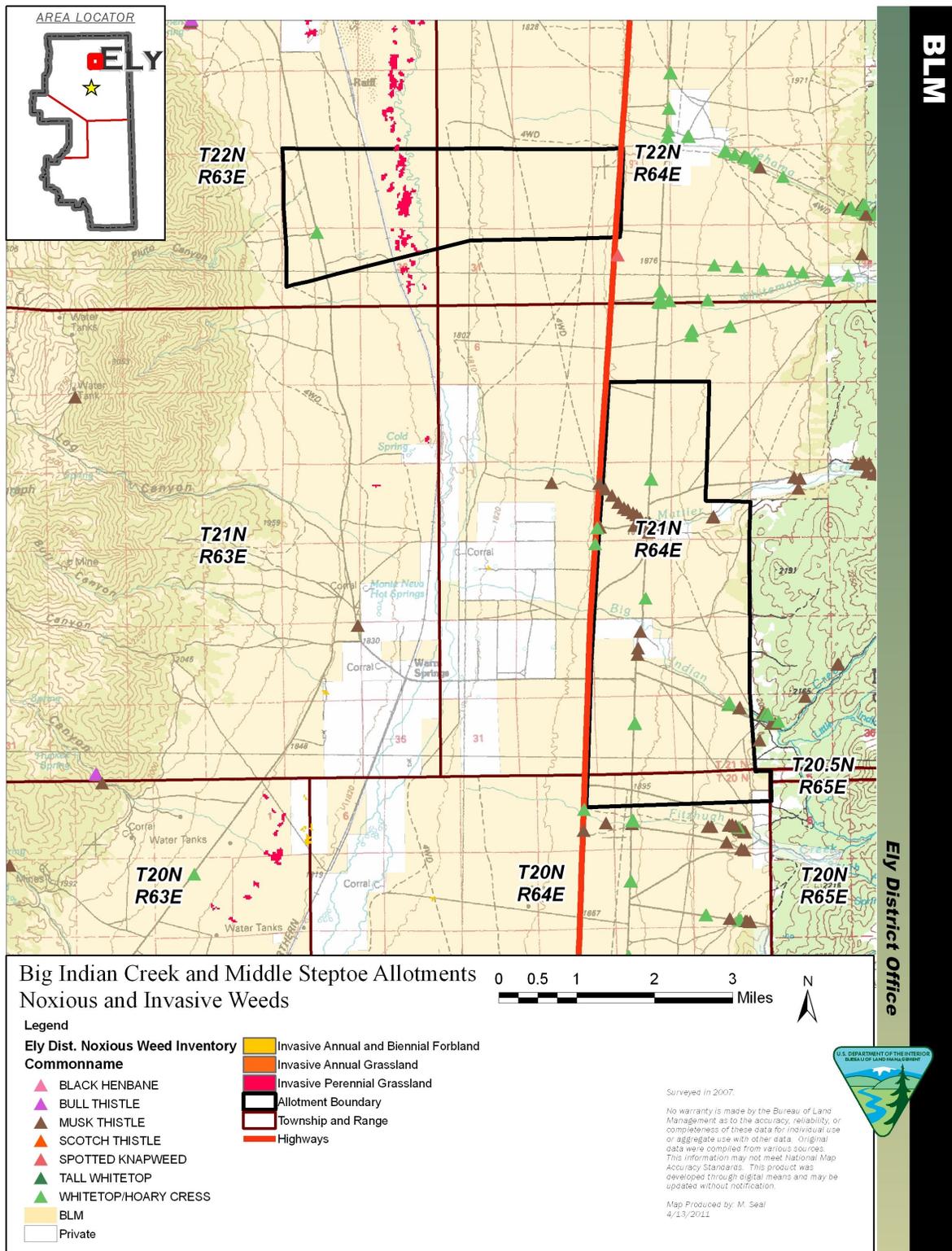


Figure 2. Big Indian Creek and Middle Steptoe Allotments Noxious and Invasive Weeds Map

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