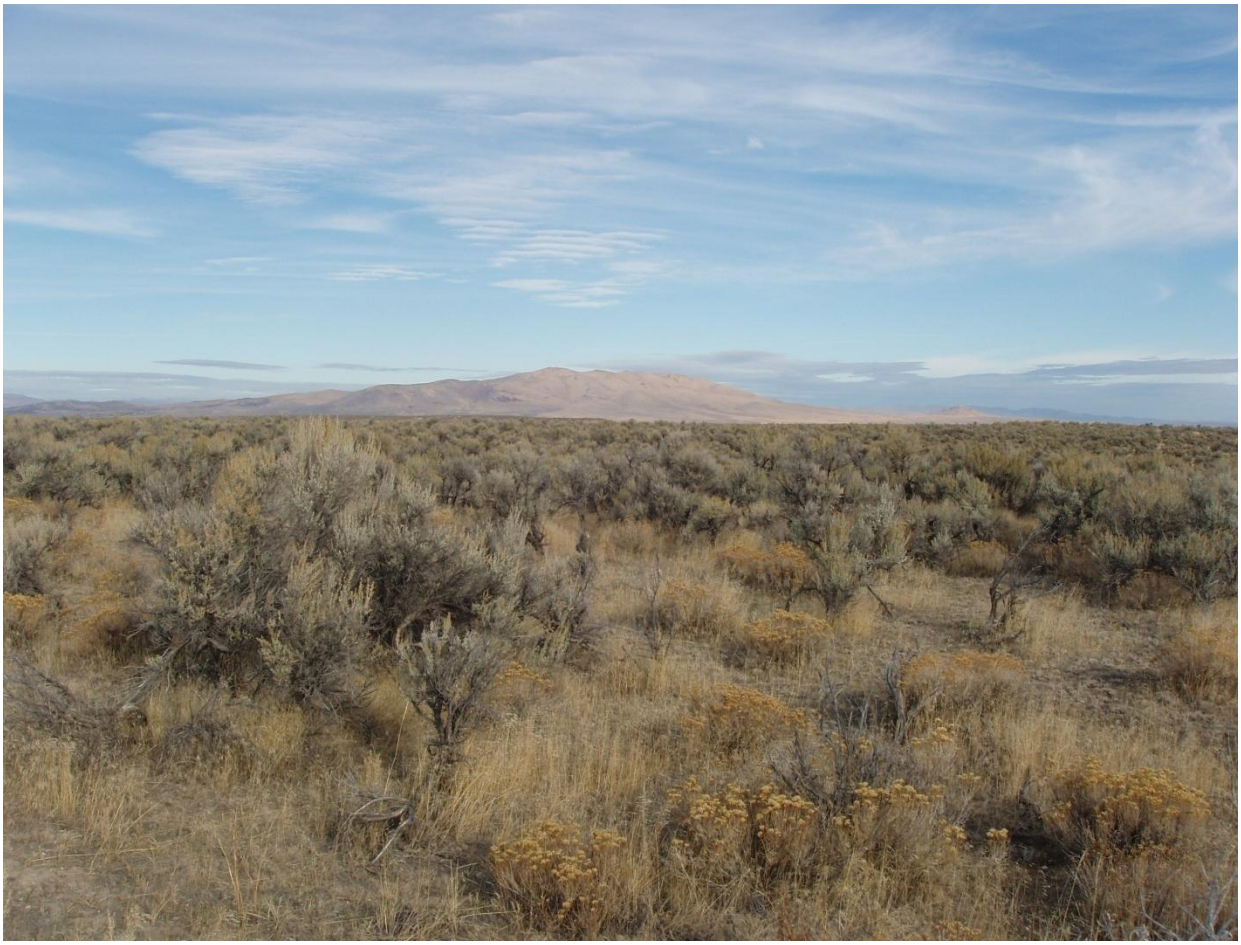
Hog Tommy Allotment

Grazing Permit Renewal

ENVIRONMENTAL ASSESSMENT



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BLM

Elko District Office, Nevada

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1 INTRODUCTION

The Bureau of Land Management (BLM), Tuscarora Field Office proposes to renew the grazing permit for the Hog Tommy Allotment in Elko County, Nevada (Map 1). The grazing permit would provide an updated grazing plan and terms and conditions for continued grazing on the allotment.

This Environmental Assessment (EA) has been prepared for compliance with the National Environmental Policy Act (NEPA). This EA tiers to the Environmental Impact Statement (EIS) for the 1987 Elko Resource Management Plan (RMP), and incorporates by reference relevant portions of the Allotment Evaluation and resulting Allotment Evaluation Summary Report. These documents are available for review at the BLM Elko District Office, 3900 E. Idaho Street, Elko, NV 89801 775-753-0200.

In 2009 the BLM issued a Draft Standards and Guidelines for Rangeland Health Assessment for the Hog Tommy Allotment (BLM 2009). Results and conclusions of that document are discussed further in this EA. Livestock grazing was determined to not be a causal factor in non attainment of any standard. This EA analyzes actions that could result in changes to terms and conditions of the permit for the Hog Tommy Allotment.

1.1 Purpose and Need

The purpose of the action is to fully process the term grazing permit (Authorization Number 2703265) for use on the Hog Tommy Allotment in accordance with all applicable laws, regulations, and policies and in accordance with Title 43 CFR § 4130.2(a) which states, "Grazing permits or leases 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 grazing permit needs to be renewed, with terms and conditions for grazing use that would meet, or make significant progress toward meeting, the Standards and Guidelines for Rangeland Health, Resource Management Plan, and other pertinent multiple use objectives for the allotment.

The decision to be made is to determine the conditions and limitations necessary to issue a grazing permit that will comply with the BLM's statutory obligations as outlined in 43 CFR § 4130.2 (a) and multiple use mandate specified in Federal Land Policy and Management Act (FLPMA) of 1976, and conform to the Fundamentals of Rangeland Health (43 CFR § 4180).

1.2 Relationship to Laws, Policies and Land Use Plans

The Federal Land Policy and Management Act of 1976 (FLPMA) requires an action under consideration be in conformance with the applicable BLM land use plan, and be

consistent with other federal, state, local and tribal policies to the maximum extent possible.

The proposed action and alternatives conform to the following decisions of The Elko Resource Management Plan (RMP), as approved March 11, 1987. They are further consistent with allotment specific objectives from the Elko Rangeland Program Summary dated July 23, 1987.

Elko Resource Management Plan

1. Livestock Grazing (Elko RMP Record of Decisions, pages 20, 23-29)
    a. Maintain or improve the condition of the public rangelands to enhance productivity for all rangeland values.
    b. Implement rangeland monitoring program to determine if management objectives are being met and adjust grazing management systems and livestock numbers as required.
2. Wildlife (Elko RMP Record of Decision, pages 29-33)
    a. Conserve and enhance terrestrial, riparian and aquatic wildlife habitat.
    b. Monitor the interaction between wildlife habitat conditions and other resource uses and make adjustments in season of use for livestock to improve or maintain essential and crucial wildlife habitats.

Elko Rangeland Program Summary

1. Livestock Grazing
    a. In the long-term, provide forage to sustain 198 AUMs for livestock grazing and improve ecological status from mid to late on 400 acres. In the short-term, maintain or enhance native vegetation with utilization levels not to exceed 50% on the key species.

The proposed action and alternatives would also continue to or provide for attainment or significant progress towards attaining the following Standards for Rangeland Health for the Northeastern Great Basin Area of Nevada approved on February 12, 1997.

1. <u>Upland Sites:</u> Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and land form.
2. <u>Riparian and Wetland Sites:</u> Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria.
3. <u>Habitat:</u> Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water, meet the life cycle requirements of threatened and endangered species.
4. <u>Cultural Resources:</u> Land use plans will recognize cultural resources within the context of multiple use.

The proposed action is further consistent with other Federal, State and local land use policies and plans to the maximum extent possible, including the Elko County Public Lands Policy Plan (2008), which states "Agricultural production is necessary to help

maintain the historical, cultural and economic viability of Elko county". Elko County encourages the federal agency use of the 2006 Elko County Grazing Economic Impact study, or updated studies in all environmental analysis on livestock grazing related decisions (p. 28). The plan then provides nine specific policy statements supporting agriculture and grazing on the public lands.

In Nevada, the BLM has recognized that generally lower moisture regimes prevail throughout the majority of Nevada's sagebrush ecosystem. Therefore, BLM developed a set of sage grouse management guidelines consistent with the Western Association of Fish and Wildlife Agencies (WAFWA) guidelines, yet adapted to Nevada to provide interim guidance to BLM field managers without restricting options being explored for local sage grouse conservation planning. The Nevada BLM Guidelines apply the most current sage grouse science to BLM activities, within the context of a multiple use mandate. Since they are consistent with the WAFWA guidelines and more specific to Nevada, the Elko District Office would continue to consider the Nevada guidelines, together with the WAFWA guidelines, in managing resources and planning projects to enhance sage grouse and/or sagebrush habitat. Nevada BLM Guidelines specific to Fire Management, Emergency Fire Rehabilitation, and Vegetation Treatments have been incorporated into the *Elko* and *Wells RMPs Fire Management Amendment* as standard operating procedures (BLM 2003).

The following table identifies elements of the human environment that are regulated by a statutory or regulatory authority that would be affected and are analyzed in chapter 3 of this EA, as well as those that BLM determined would not be affected.

Table 1: Review of Statutory Authorities

ELEMENT/RESOURCE	PRESENT?	AFFECTED?	COMMENT
Air Quality	Yes	No	
Area of Critical Environmental Concern	No	No	
Cultural Resources	Yes	Yes	See Cultural Resources discussion in section 3.2.6 of this document.
Environmental Justice	No	No	No low income or minority population would be disproportionately affected by any alternative outlined in this document.
Farm Land -Prime/Unique	No	No	
Floodplains	No	No	
Human Health & Safety	No	No	
Special Status Species, Migratory Birds, and other Wildlife	Yes	Yes	See discussion for Wildlife, Special Status Species and Migratory Birds in section 3.2.5 of this document.
Native American Religious Concerns	No	No	
Invasive Non-Native Species	Yes	Yes	See discussion for Vegetation

ELEMENT/RESOURCE	PRESENT?	AFFECTED?	COMMENT
			and Non-Native Invasive and Noxious Species in section 3.2.2 of this document.
Vegetation	Yes	Yes	See discussion for Vegetation in section 3.2.1 of this document.
Livestock Grazing	Yes	Yes	See discussion for Livestock Grazing in section 3.2.3 of this document.
Threatened/Endangered Species	No	No	(May be addressed in a section on Special Status Species)
Soil Resources	Yes	Yes	See discussion for Soils in section 3.2.4 of this document.
Water Quality (Surface/Ground)	No	No	
Wastes, Hazardous/Solid	No	No	
Wetlands, Riparian Zones	No	No	
Wild & Scenic Rivers	No	No	
Wilderness	No	No	
Visual Resource Management	Yes	No	

2 ALTERNATIVES

This chapter describes the Proposed Action and No Action alternatives along with alternatives considered but eliminated from further consideration.

2.1 Alternative 1 - No Action

Under this alternative, the BLM would issue a new 10-year term permit for the Hog Tommy Allotment under the current terms and conditions of the existing permit and future livestock grazing authorizations would be issued the same as past authorizations. Active permitted use would remain at 211 AUMs. See the Affected Environment portion of the Livestock Grazing analysis (3.2.3) for the current authorized kinds of livestock, periods of use, AUMs, etc, and Appendix 1, Map 2 for existing pastures and improvements.

2.1.1 Current Terms and Conditions of the Grazing Permit

- Authorized grazing use will be in accordance with the Hog Tommy Allotment Evaluation Final Multiple Use Decision dated 11/29/99.

- Livestock numbers may vary from those listed depending on period of use provided that the total number of AUMs of specified livestock grazing for the allotment is not exceeded.

- There are no historic suspended AUMs within the Hog Tommy Allotment.

2.2 Alternative 2 – Proposed Action

Under this alternative, the BLM is proposing to renew grazing permit authorization number 2703265 for the Hog Tommy Allotment for a term of 10 years.

This Proposed Action would replace the November 1999 Final Multiple Use Decision for the Hog Tommy Allotment.

The active permitted use would remain at 211 AUMs for cattle use.

Additionally, under the Proposed Action a deferment of grazing use in each pasture would be implemented with the grazing management provisions below:

The permittee would submit a grazing application to the BLM annually for review prior to grazing use to ensure planned use is consistent with treatment dates, active permitted use for pastures (stated in Table 5, page 13 in the Livestock Grazing section of the Affected Environment), and provisions described in Table 2 below.

Table 2. Provisions for Grazing Management

Provision 1:	Grazing treatments on the Hog Tommy Allotment would occur from April 15 through October 31.
Provision 2:	The BLM may authorize livestock use in both the North and South Pastures from turnout (April 15) until the start of the critical growing season of the key perennial grasses (mid May) to target use on cheatgrass.
Provision 3:	Grazing use would be deferred during the critical growing period (mid May – mid/late July) for the North and South Pasture one year out of two consecutive years, or two years out of four consecutive years.
Provision 4:	In the event of a wildfire and a temporary closure of pastures/portions of pastures to livestock grazing is necessary, the BLM and the Livestock Grazing Permittee during this interim closure period would plan grazing strategies that would achieve objectives and maintain and/or improve resource conditions.

Provision 5:	During low forage production years, the BLM may authorize use in the late use pasture prior to the end of the critical growing season of the key perennial grasses in order to prevent excessive use in the early use pasture. The BLM may also require a reduction in the numbers of livestock and/or a shortened period of use so as not to exceed the utilization objective.
Provision 6:	Temporary nonrenewable (TNR) use (i.e. livestock use above current active grazing privileges) may be authorized when excess forage is available. TNR use would be limited so as not to exceed the utilization objectives for the key perennial grasses, and must be compatible with attainment of the standards for rangeland health and multiple use objectives. TNR use in the allotment would not be authorized during the sage grouse nesting period from April 15 through June 1.
Provision 7:	The permittee would be allowed 5 days of flexibility before and after the pasture use dates specified on the annual grazing application to accommodate livestock movements and removing livestock from pastures, provided that this extended use does not exceed authorized number of AUMs.

1. The utilization objective on native key grass species would be a maximum of 50 percent utilization of current year's growth in any given year to be measured at the end of the scheduled use period or growing season whichever occurs later.

2. Should these objective levels be exceeded in any pasture of the allotment, future grazing applications will be adjusted as warranted based on the degree of use, period of use, and duration of use relative to past use and future plans for grazing use, and the effects of the utilization on rangeland health and other multiple use objectives.

2.3 Proposed Terms and Conditions Applicable to all Alternatives

- Grazing use will be in accordance with the Final Permit Renewal Decision for the Hog Tommy Allotment dated_____ (To Be Determined).

- Planned use would be outlined in a grazing application that is submitted by the permittee to the BLM for final approval prior to turn out. The numbers of cattle may vary during the authorized periods of use. The permittee must inform the BLM of any changes to planned use prior to the change occurring.

- Actual use data on all pastures must be submitted to this office within 15 days from the last day of use. The grazing bill will be prepared after the grazing season based on actual use data.

- Should the utilization objective levels be exceeded in any pasture of the allotment, future grazing authorizations will be adjusted as warranted based on the degree of use, period of use, and duration of use relative to past use and future plans for

grazing use, and the effects of the utilization on rangeland health and other multiple use objectives.

- Supplemental feeding is limited to salt, mineral and/or protein supplements in block, granular or liquid form. Such supplements must be placed at least ¼ mile from live waters (springs, streams), troughs, wet or dry meadows, and aspen stands.

- All riparian exclosures, including spring development exclosures, are closed to livestock use unless specifically authorized in writing.

- Pursuant to 43 CFR 10.4 (G), the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.

- The Terms and Conditions of your permit may be modified if additional information indicates that revision is necessary to conform with 43 CFR 4180.

2.4 Alternatives Eliminated from Further Analysis

No Grazing Alternative

Under this alternative no grazing would be authorized in the Hog Tommy Allotment. The term grazing permit would not be renewed. This EA tiers to the analysis in the 1986 EIS for the ELKO RMP, which analyzed five livestock use alternatives. The BLM is required to authorize only those actions that conform to the RMP as approved in the Elko Record of Decision (ROD). The Elko RMP establishes, among other things, that the Hog Tommy Allotment is to provide for livestock grazing use, and that livestock grazing use is to be managed so that resource management objectives will be achieved. The Elko RMP and Range Program Summary (RPS) established objectives for livestock grazing and provides for the establishment of a rangeland monitoring program to determine if management objectives are being met and to adjust grazing management systems and livestock numbers as required. Elimination of livestock grazing in lieu of making changes to the grazing systems and adjusting livestock numbers through monitoring is an action not in conformance with the RMP and RPS and is not considered by BLM to be a reasonable alternative for the analysis in this EA. In addition, monitoring data shows that Standards and Guidelines for Rangeland Health have been met on the allotment.

3 AFFECTED ENVIRONMENT/EFFECTS OF ALTERNATIVES

This chapter characterizes the resources and uses that have the potential to be affected by the Proposed Action and alternatives, followed by an analysis of the direct, indirect, and cumulative impacts on those resources. Direct effects are caused by the action and occur

at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Cumulative impacts result from the incremental impacts of the 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.

The Hog Tommy Allotment is located approximately 10 miles east of Elko, NV (Map 1). Elevations in the allotment range from 5,500 to 5,700 feet above sea level. Topography in the allotment is generally flat, with low ridges and shallow swales. The allotment contains approximately 2,000 acres of land, almost all of which are public. The allotment is divided into two pastures (Map 2). The North Pasture and South Pastures are both vegetated with native shrub/perennial grass and shrub/introduced annual grass plant communities. The entire allotment is described as summer sage grouse habitat.

The only water in the Hog Tommy Allotment was historically located in the South Pasture that included a trough fed by a pipeline from private land. In 2009 a new water development was installed on private land east of the allotment boundary that now provides water to both the North and South Pastures. The historical water trough is no longer functioning. The permittee is planning to install an additional watering trough on private land that would allow for livestock to water on private land while utilizing the South Pasture.

3.1 Scope of Analysis

The Hog Tommy Allotment is in a portion of Elko County known as the Lamoille Valley. The area affected by the proposed action varies by resource, but is generally bounded to the east by Rabbit Creek, Spring Creek subdivisions to the south and west, and the Elko Hills to the north.

The geographic extent of resources and uses cumulatively affected by the proposed action varies by the type of resource and impact, as noted below.

Table 3. Cumulative Effects Study Areas (CESA)

Section #	Element/Resource/Use	Study Area Name
3.2.5	Special Status Species, Migratory Birds, and Other Wildlife	Lamoille Valley
3.2.1/3.2.2/3.2.4/3.2.6	Vegetation/Invasive , Nonnative Species, Soil Resources, and Cultural Resources	Hog Tommy Allotment
3.2.3	Livestock Grazing	Elko County

3.2 Effects of the Alternatives

3.2.1 Vegetation

Affected Environment
The vegetation in the allotment is dominated by a canopy of Basin big sagebrush (*Artemisia tridentata* ssp. *tridentata)* and Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis)*. In the South Pasture, Sandbergs bluegrass (*Poa secunda*), cheatgrass (*Bromus tectorum*), and thickspike wheatgrass (*Agropyron dasystachyum*) are common and well distributed along with lesser amounts of squirreltail (*Sitanion hystrix*) and Great Basin wildrye (*Elymus cinereus)*. In the North Pasture, Sandbergs bluegrass and cheatgrass are common in the area just north of the pasture fence with Thurber needlegrass (*Achnatherum thurberianum*), bluebunch wheatgrass (*Agropyron spicatum*), and thickspike wheatgrass common in the areas farther north and in the far western portion of the pasture along with patches of Great Basin wildrye.

Within the Hog Tommy Allotment there has been some recent loss of sagebrush due to aroga moth infestations, and cheatgrass has become well established in portions of the allotment. These factors are not affecting the stability of the sites, and vegetative cover required to stabilize soils and ensure appropriate infiltration and permeability rates is being maintained in the allotment.

Additional monitoring information was collected in 2009 that was not included in the July 2009 Draft Standards and Guidelines Assessment. The information that was not included in that document is discussed in detail and summarized below:

Key Management Area Utilization
According to the utilization data displayed in the July 2009 Draft Standards and Guidelines Assessment and the utilization data summarized in Table 4 below, the utilization levels of thickspike wheatgrass has averaged 17 percent (Slight Use, 1-20%) for the years of utilization measured from 1986 through 2009, and 12 percent for the Sandberg's bluegrass in the South Pasture. The average utilization for the perennial key species in the North Pasture was 17 percent for thickspike wheatgrass and 16 percent for Sandberg's bluegrass and 21 (Light Use, 21-40%) percent for Thurber's needlegrass for the years of utilization measured from 1989 through 2009. The utilization objective for the native perennial grasses was not to exceed 50 percent on key species. The attainment of the utilization objectives have resulted in healthy, vigorous and stable native plant communities in the allotment.

Table 4.

Utilization Data Not Included in the 2009 Draft Standards and Guidelines Assessment			
Key Area	Pasture	Key Species	October 2009
#1	South	AGDA, POSE	38%, NA
#2	North	AGDA, POSE, STTH2	9%,NA, 21%

Direct and Indirect Effects of Alternatives

Alternative 1 - No Action
The No Action Alternative would result in a new 10-year grazing permit issued with the same grazing terms and conditions as are currently in effect. Livestock grazing would continue at current seasons of use. Under this alternative no deferment of either pasture would be implemented.

Alternative 2 – Proposed Action
Implementing the proposed grazing management provisions described in Table 2 would further the improvement of the rangeland health standards, and other multiple use objectives. Light (21-40%) to low moderate (41% - 50%) forage utilization is expected to continue under this alternative. Infiltration rates and hydrologic functions are likely to remain stable and satisfactory amounts of litter and sediment are likely to be observed. The proposed grazing management provisions would provide rest for key grass species during the critical growing period from grazing in the both pastures one out of two consecutive years or two out of every four consecutive years. Allowing the key forage perennial grasses to reach seedripe and disseminate seed would increase plant vigor of the native species and increase their competitive advantage against invasive annual species.

Cumulative Impacts
The CESA for vegetation resources is the Hog Tommy Allotment. Both alternatives (1 & 2) analyzed with consideration to the PPRFFA's are likely to result in positive benefits to vegetation resources; therefore, there are no cumulative impacts of concern.

3.2.2 Invasive Non-Native Species

Affected Environment
The BLM defines an invasive weed as, "a non-native plant that disrupts or has the potential to disrupt or alter the natural ecosystem function, composition and diversity of the site it occupies. Its presence deteriorates the health of the site, it makes efficient use of natural resources difficult and it may interfere with management objectives for that site. It is an invasive species that requires a concerted effort (manpower and resources) to remove from its current location, if it can be removed at all" (BLM National List of Invasive Weed Species of Concern). Invasive and non-native plant species may spread from infested areas by people, equipment, livestock, wildlife, and winds. They often exhibit aggressive growth and have the potential to seriously degrade the economic and ecological values of natural resources. Under Executive Order 13112, it is the policy of the land management agencies to prevent introduction of noxious weeds and invasive non-native species and to control their impact (EO 13112, 1999). Nevada Revised Statute 555.005 defines noxious weeds as plants which are likely to be "detrimental or destructive and difficult to control or eradicate."

Category A Weeds
These weeds are not found or are limited in distribution throughout the state; actively excluded from the state and actively eradicated wherever found; actively eradicated from nursery stock dealer premises; and control is required by the state in all infestations (NDOA 2005).

There are no known Category A Weeds within the Hog Tommy Allotment.

Category B Weeds
These weeds are established in scattered populations in some counties of the state; actively excluded where possible; actively eradicated from nursery stock dealer premises; and control is required by the state in areas where populations are not well established or previously unknown to occur (NDOA 2005). Leafy spurge (*Euphorbia esula*) is known to exist in the Hog Tommy Allotment. Most current GIS records indicate that there are two infestations within the South Pasture.

Category C Weeds
These weeds are currently established and widespread in many counties of the state with abatement at the discretion of the state quarantine officer (NDOA 2005).

There are no known Category C Weeds within the Hog Tommy Allotment.

Cheatgrass is present in the uplands where it intermixes with the native vegetation communities in the South Pasture, and dominates patches on the southern portion of the North Pasture. Cheatgrass is a highly invasive undesirable species that thrives across the Great Basin due to its competitive nature and ability to create monocultures and less diversity in the landscape, and increase the fire return interval. The shallow root systems are not as effective as deeper rooted perennial grasses in capturing and storing moisture which reduces watershed health and function. Cheatgrass negatively impacts critical wildlife habitat because it can outcompete native forbs desired for foraging needs of wildlife.

BLM is currently implementing a monitoring and weed treatment program in the Hog Tommy Allotment. Inventory of noxious weeds would be documented by the BLM, and would include application of BLM-approved herbicides by a certified applicator.

Direct and Indirect Effects of Alternatives

Alternative 1 - No Action
The No Action Alternative would have minimal effects on current noxious and invasive species populations as long as current grazing management practices are continued. However, the no action alternative does not provide safeguards for maintaining current livestock management practices and could potentially lead to an increased risk in the spread and establishment of invasive and noxious weed populations.

There would be little indirect effect on invasive or noxious species populations under the no action alternative if current management strategies are maintained. However, if grazing intensifies on the allotment, effects on soil and vegetation could have negative impacts on invasive and noxious species management.

Alternative 2 – Proposed Action
The effects of the Proposed Action are similar to the No Action Alternative; however, the Proposed Action will also provide periodic growing season deferment that should allow the native plants to produce and disseminate more seed that will help them expand into areas that are not yet fully occupied. In addition, the grazing system may also help perennial grasses, such as thickspike wheatgrass, to spread their underground rootstocks into some of the areas currently dominated by cheatgrass and reduce the density of cheatgrass.

Cumulative Impacts
The CESA for invasive non-native species resources is the Hog Tommy Allotment. The Proposed Action could allow native perennial grasses to expand which could reduce the areas where cheatgrass might otherwise invade and/or dominate. This would be a positive cumulative effect.

3.2.3 Livestock Grazing

Affected Environment
Livestock Grazing – Grazing of domestic cattle, sheep and horses has occurred on public and private lands in the area since at least the 1860's. The allocation of forage for livestock use on public lands in the area initially occurred in the 1940s and again in the 1960s. Grazing is presently dispersed and seasonal on BLM and U.S. Forest Service-administered public lands grazing allotments. The area is part of approximately 100,000 acres that have been type-converted, in part, to crested wheatgrass seeding areas from the Lamoille Valley (to the north) to Huntington Valley in the 1950's to 1960's period. It is anticipated that levels of livestock grazing would remain consistent at or near present levels on public lands within the study area. Numbers of livestock on private lands could increase or decrease at the landowner's discretion. Decisions to temporarily close pastures and allotments to livestock grazing have occurred in areas burned by wildfires.

Agriculture – Agriculture activities, primarily the cultivation of hay crops for livestock, occur on private lands on or near water courses. It is anticipated that agriculture activities would remain at present levels.

The Hog Tommy Allotment contains approximately 2,000 acres of Public Land, and is made up of two fenced pastures. Both pastures are comprised of Basin and Wyoming big sagebrush with perennial and annual grassland vegetation types. The total permitted use for the Hog Tommy Allotment is 211 AUMs of Active use. The allotment is grazed by one permittee (Permit Authorization No. 2703265). The authorized season of use on the allotment is shown in Table 5.

Table 5. Hog Tommy Allotment (Allotment #05426) Grazing Permit Authorization

Permit Authorization No.	*Pasture*	*Number*	*Kind*	*Begin*	*End*	*Percent Public Land (PPL)*	*Active Preference AUMs*
2703265	North and South	32	Cattle	4/15	10/31	100	211

Livestock grazing is an important economic activity in Elko County. A 2003 study identified 142 economic sectors within the Elko County economy. Cattle ranching recorded $53.8 million in output value, which ranked this industry 8th out of the 142 sectors; the sector employed 482 people, representing 2.53% of the total workforce, which ranked this sector 9th out of the 142 sectors; the industry realized $43.5 million in export sales, representing 5.77% of Elko County's total exports, which ranked this sector 4th out of the 142 sectors.

Total economic impact of the industry to Elko County amounted to $96.6 million dollars, with a total direct and indirect payroll of 905 jobs representing $14.4 million in income (Alevy, Jonathan, et. al., 2007; Riggs, William et. al, 2002; Fadali, Elizabeth, et. al., 2009; Fadali, Elizabeth, and Thomas R. Harris., 2006; Harris, Thomas R., et. al., 2007).

Elko County has a land base of just less than eleven million acres, of which 71.5% is in Federal ownership. Private farm and rangelands occupy another 26% of the county's land base, with the remaining 2.5% of the land base occupied by other uses. Hay is the principle crop raised on the private farmlands. The 1997 Census of Agriculture counted 402 farms and ranches in the county, with an aggregate cow herd ranking Elko County fourth in the nation in terms of animal numbers. Approximately 68% of all Elko County beef cow operations held federal grazing permits. The average Elko county ranch derives 49% of its annual forage requirements from public lands. Each Animal Unit Month utilized on public lands in Elko County is estimated to have a total production value of $38 and a total economic impact of $68. In 2006 an estimated 152,000 cows grazed within the county.

As stated above, the only permittee for the Hog Tommy Allotment is permitted for 211 Active Preference AUM's, which represents a total annual impact of $14,348 to the Elko County Economy.

Livestock normally turn out onto public land in April and are removed to private land by October or November. Livestock are normally fed hay and held on private land through the winter. The current livestock operation usually grazes one herd, consisting of a cow/calf herd operation. The sale of culled cows and weaned yearling steers provides the majority of the ranch income.

Indirect/Direct Effects of Alternatives

Alternative 1 - No Action

Under this alternative, Active Permitted Use for the allotment would remain at 211 AUM's which would represent neither an increase nor decrease in an annual economic

impact to Elko County (private land excluded). A 10-year grazing permit under the existing terms and conditions would be issued.

Alternative 2 – Proposed Action
The grazing permit would be issued for a 10-year term and the Active Permitted Use would remain at 211 AUMs. The grazing permit would be issued for a 10-year term and the active permitted use would remain at 211 AUMs. Livestock management would essentially be the same as the No Action alternative with the exception that TNR use may be authorized. The economic impact to the permittee and Elko County under the Proposed Action could increase if additional forage is consumed under TNR authorizations. For example, grazing additional AUMs could benefit the permittee if the TNR use results in the permittee not having to pay for other pasture and/or purchase extra hay that tends to be more expensive, or graze and then sell some additional cattle. Total economic impact to Elko County could also be positive with, for example, 75 AUMs of additional use creating a total economic impact of $5,100.

Cumulative Impacts
The CESA for Livestock Grazing analysis is the Hog Tommy Allotment. The direct and indirect impacts of the Proposed Action are expected to be beneficial to livestock grazing and therefore there are no cumulative impacts of concern. Under the No Action Alternative livestock grazing would be authorized the same as it has historically been authorized; there are no cumulative impacts of concern.

3.2.4 Soil Resources

Affected Environment
There are two major soil mapping units within the Hog Tommy Allotment. These are the Hunnton-Wieland-Hunnton gravelly association (HWH) which is located in the North and East portion of the allotment, and the Enko-Zevadez-Puett association (EZP) which is located in the Southwest portion. Both soil types are positioned on fan piedmont remnants and composed of mixed alluvium influenced by loess and volcanic ash. Major soils have a loam or fine sandy loam texture. Hazard of erosion by wind is slight for HWH soils and moderate for EZP soils. Hazard of erosion by water is moderate for HWH soils and slight for EZP soils. It is not known whether or to what extent biological soil crusts are present within the allotment. According to the U.S. Natural Resource Conservation Service Nevada site description, the approximate vegetative ground cover of native vegetation appropriate for the Loamy 8 to 10” precipitation zone ecological site ranges between 20% to 30%.

Monitoring data and analysis summarized in the July 2009 Draft Standards and Guidelines Assessment (BLM 2009) for the Hog Tommy Allotment indicated that soils on this allotment are meeting standards of rangeland health. A rangeland health evaluation completed in 2008 concluded that departure from natural conditions were in the none to slight range. Other monitoring such as key grass species utilization revealed that average utilization was observed in the light use category. These factors are indicators that soil quality is good in the Hog Tommy Allotment.

Indirect/Direct Effects of Alternatives
Grazing and related activities can potentially impact soil resources by altering physical soil properties, and through removal of vegetation. Direct impacts include compaction, hoof sheer, and other physical impacts which cause soils to lose cohesiveness increasing the likelihood of erosion by wind and water. Similar impacts occur indirectly as a result of vegetation removal. A decrease in vegetative cover can increase exposure of soils to erosion from rainfall impact. A decrease in vegetative vigor due to grazing stress and increased susceptibility to weed establishment can increase the hazard of erosion.

Alternative 1 - No Action
Under this alternative soil conditions would likely remain the same as described above.

Alternative 2 - Proposed Action
Changes to grazing management and additional critical growing period deferment within the allotment could result in some improvement of soil quality. Improvements could come indirectly as a result of increased vegetative cover, frequency, and vigor. Direct physical impacts to soils would be expected to be the same as the No Action Alternative.

Cumulative Impacts
The CESA for Soils is the Hog Tommy Allotment. PPRFFAs along with wildfire and other natural conditions have not and are not expected to result in poor soil quality. The No Action Alternative in conjunction with PPRFFA's would not likely result in substantive cumulative impacts. Since the Proposed Action Alternative could lead to some improvement of soil quality in the long term, there are no cumulative impacts of concern.

3.2.5 Special Status Species, Migratory Birds, and Other Wildlife

Affected Environment
This allotment provides habitat for many wildlife species, including mule deer, pronghorn, and numerous species of upland game birds, meso-carnivores, small mammals, passerine birds, waterfowl, raptors, amphibians, reptiles, and invertebrates. The July 2009 Draft Standards and Guidelines Assessment concluded that the Habitat Standard (#3) was met.

Big Game Species
The entire allotment has been identified as mule deer crucial summer range and pronghorn summer range. Mule deer depend upon healthy, diverse, and productive plant communities, adequate horizontal screening cover, and readily available browse. While pronghorn are less dependent upon cover and browse than mule deer, cover is important while raising young. Pronghorn depend upon a healthy, diverse, and productive herbaceous component to the plant community for forage.

Special Status Species

Special status species include species that are listed or proposed for listing as threatened or endangered (T&E) under the Endangered Species Act (ESA), species that are candidates for listing under the ESA, species that are listed by the State of Nevada, and/or species that are on Nevada BLM's list of Sensitive Species as of July 29, 2003. No threatened, endangered, or proposed species are known to exist on the Hog Tommy Allotment; however, one candidate species, the greater sage-grouse, is known to exist here. Greater sage-grouse were designated as a candidate species by the U.S. Fish and Wildlife Service on March 5, 2010. Late summer brood rearing habitat for greater sage-grouse is present throughout the allotment. A detailed discussion of greater sage-grouse habitat and seasonal ranges can be found in the July 2009 Draft Standards and Guidelines Assessment. The Columbian spotted frog, a candidate species, has been documented within 2 miles of the allotment boundary, but no suitable habitat currently exists within the allotment. Special status species likely to exist within the allotment are listed in Table 6 below. For this analysis, sensitive species were grouped based upon common habitat components in order to avoid unnecessary repetition.

On July 9, 2007, the bald eagle was removed ("de-listed") from the list of threatened and endangered species. BLM is coordinating with the Nevada Department of Wildlife (NDOW) to ensure compliance with state regulations regarding the bald eagle. As of August 30, 2007, BLM policy is to consider the bald eagle as a BLM Sensitive Species. After de-listing, bald eagles will continue to be protected under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act. Both of these laws prohibit killing, selling or otherwise harming eagles, their nests, or their eggs. In May 2007, the Service clarified its regulations implementing the BGEPA and published the National Bald Eagle Management Guidelines. The Service has established a permit program under the BGEPA that would authorize limited take of bald and golden eagles consistent with the purpose and goal of the BGEPA. The Service has also prepared a draft post-delisting bald eagle monitoring plan. These documents and more information about the bald and golden eagle are available on the Service's website at http://www.fws.gov/migratorybirds/baldeagle.htm. Year-round habitat for golden eagles is present in the Hog Tommy Allotment. Bald eagles likely use this allotment for occasional winter foraging.

Table 6. Sensitive species with potential to exist on the Hog Tommy Allotment. (from Appendix G of the 2009 Hog Tommy Allotment Standards and Guidelines Assessment)

COMMON NAME	SCIENTIFIC NAME
Federally Threatened or Endangered Species	
(None)	(None)
Federally Proposed Threatened or Endangered Species	
(none)	(none)
Federal Candidate Species	
Greater Sage Grouse	*Centrocercus urophasianus*
Nevada BLM Sensitive Species	

Table 6. Sensitive species with potential to exist on the Hog Tommy Allotment. (from Appendix G of the 2009 Hog Tommy Allotment Standards and Guidelines Assessment)

COMMON NAME	SCIENTIFIC NAME
Birds	
Northern Goshawk	*Accipiter gentiles*
Ferruginous Hawk	*Buteo regalis*
Golden Eagle	*Aquila chrysaetos*
Prairie falcon	*Falco mexicanus*
Columbian Sharp-tailed Grouse	*Tympanuchus phasianellus*
Mountain Quail	*Oreortyx pictus*
Burrowing Owl	*Athene cunicularia*
Loggerhead shrike	*Lanius ludovicianus*
Juniper Titmouse	*Baeolophus ridgwayi*
Vesper sparrow	*Poocetes gramineus*
Black-rosy finch	*Leucosticte atrata*
Mammals	
Prebles shrew	*Sorex pleblei*
Pallid Bat	*Antrozous pallidus*
Townsend's big-eared bat	*Corynorhinus townsendii*
Big Brown Bat	*Eptesicus fuscus*
Spotted bat	*Euderma maculatum*
Silver-haired Bat	*Lasionycteris noctivagans*
Western Red Bat	*Lasiurus blossevillii*
Hoary Bat	*Lasiurus cinereus*
California Myotis	*Myotis californicus*
Western Small-footed Myotis	*Myotis ciliolabrum*
Little Brown Myotis	*Myotis lucifugus*
Fringed myotis	*Myotis thysanodes*
Long-legged myotis	*Myotis volans*
Yuma myotis	*Myotis yumanensis*
Western Pipistrelle	*Pipistrellus hesperus*
Brazilian Free-tailed Bat	*Tadarida brasiliensis*
Pygmy rabbit	*Brachylagus idahoensis*
River Otter	*Lontra canadensis*
Reptiles	
Short-horned Lizard	*Phrynosoma douglassi*

Other Migratory Birds

In addition to those protections offered to certain migratory birds that are considered Nevada BLM Sensitive Species, all migratory birds are offered certain protections under the Migratory Bird Treaty Act and Migratory Bird Executive Order. This Executive

Order was signed by President Clinton on January 11, 2001. It outlines the responsibilities of Federal agencies to protect migratory birds and directs executive departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act. A list of the migratory birds affected by the Executive Order is contained in 50 CFR 10.13.

Direct and Indirect Effects of Alternatives

Alternative 1 - No Action

This alternative would allow cattle grazing to continue under the terms and conditions of the current permit. Grazing management over the past decade has resulted in stable (good) mule deer habitat quality according to the July 2009 S&G Assessment. It is expected that under this alternative perennial grass and forb composition and cover would exhibit a stable trend, unless the severity of the cheatgrass infestation greatly increases. Horizontal cover for mule deer will likely increase as big sagebrush recovers from the recent aroga moth infestation, but this is not likely to be greatly affected one way or the other by the grazing system.

Under this alternative, habitat quality for sensitive species including greater sage-grouse is expected to remain stable. Under the current grazing system, adequate canopy cover is provided by shrubs and herbaceous species, however an infestation of cheatgrass may limit further improvement. The big sagebrush die-off due to an aroga moth infestation has negatively impacted sage-grouse habitat quality. However, winter use areas, which would have been most impacted by this die-off are not present on this allotment. Again, it is unlikely that grazing management would have an effect on sagebrush height and canopy cover.

Sensitive species and non-sensitive migratory birds that rely upon upland habitats generally require a diversity of structures and forages. These species would likely see overall stable trends in habitat quality under this alternative for the reasons stated above.

Alternative 2 – Proposed Action

The primary differences between the no action alternative and this alternative is that under this alternative, grazing use would be deferred during the critical growing period (mid May – mid/late July) for the North and South Pasture one year out of two consecutive years, or two years out of four consecutive years . Because of this, grasses would have a chance to set seed 2 out of every 4 years, and be more able to transport nutrients back to the roots during the other years, compared to the current grazing system. This would increase the health of the herbaceous component of the plant community. A result of this is an expected increase in mule deer and pronghorn habitat quality as grass and forb composition and cover increase.

The resulting impacts on non-game wildlife from this alternative would be positive overall. Habitat quality for sensitive species including greater sage-grouse is expected to increase due to the improvement of herbaceous plant health and vigor. Periodic early grazing under this alternative may result in long-term reductions in cheatgrass abundance

and allow perennial herbaceous species to regain their former dominance. As with the no action alternative, big sagebrush is expected to return, increasing habitat quality for greater sage-grouse and other shrub-dependent species. Utilization levels of slight to light use are expected to continue to occur during critical periods for nesting migratory birds (5/15 – 7/15). This would result in providing quality lateral nesting cover for migratory birds. Although this area is not identified as sage grouse nesting habitat, authorizing TNR after nesting season (6/15) is likely to result in slight to light use on native vegetation and would allow sufficient cover for any incidental sage grouse nesting that could occur in the allotment. Implementing provisions that would allow no livestock use in one of the pastures from mid-May to mid-late July would result in less direct disturbance from livestock during nesting and a portion of brooding for migratory birds and sage grouse.

Sensitive species and non-sensitive migratory birds that rely upon upland habitats generally require a diversity of structures and forages. These species would likely see overall increasing trends in habitat quality under this alternative for the reasons stated above.

Cumulative Effects
The CESA for analysis for wildlife is the Lamoille Valley.

No negative impacts were identified for the No Action Alternative. Therefore, there are no cumulative impacts to disclose.

3.2.6 Cultural Resources

Affected Environment
Cultural Resources – Because BLM issues permits for grazing within allotments, this activity is an undertaking that requires compliance with Section 106 of the National Historic Preservation Act, as implemented in Nevada using the current Protocol between the BLM and State Historic Preservation Office. Compliance with the NHPA requires the BLM to determine whether historic properties (i.e., cultural resources eligible for listing on the National Register of Historic Places) will be affected by the undertaking and to minimize the effects, usually through avoidance.

The density of cultural resources is relatively low based on prior cultural resource inventories within the adjacent allotment. Few historic properties (i.e., sites eligible for the National Register of Historic Places) are known or presumed to exist within the Allotment. The few cultural resource inventories within the Allotment have not located any archaeological sites. A 2008 reconnaissance, involving walking most of the existing roads, fences, wells and other range improvements within the Allotment, failed to find any historic properties. However, historic properties may still exist in unexamined portions of the Allotment.

Indirect/Direct Effects of Alternatives

Alternative 1 – No Action
Grazing would continue to impact undocumented cultural resources within the Allotment.

Alternative 2 – Proposed Action
Grazing would continue to impact undocumented cultural resources within the Allotment, but grazing stipulations and requirements could be used to decrease the impacts of grazing upon cultural resources.

Cumulative Impacts
CESA has been identified as the Hog Tommy Allotment. Overall the Proposed Action would have positive effects on cultural resources, but impacts are likely to occur to undocumented cultural resources. The No Action Alternative has slightly negative effects, resulting over the long-term in more severe impacts upon cultural resources.

3.3 Monitoring

Rangeland monitoring data would continue to be collected for the Hog Tommy Allotment to determine if the livestock management practices as authorized by this permit renewal are conforming to the Standards and Guidelines for Rangeland Health and other multiple use objectives for the allotment. Monitoring and data collection may continue in the form of establishing key areas, measuring utilization levels, ecological condition, vegetative cover, frequency trend, actual use reports, climate studies, professional observation, photos, and compliance checks.

The BLM would continue to implement a monitoring and weed treatment program in the Hog Tommy Allotment.

4 CONSULTATION AND COORDINATION

4.1 Persons, Groups or Agencies Consulted

BLM mailed the Draft Standard and Guidelines for Rangeland Health Assessment to all members of the public interested in livestock grazing management on the Hog Tommy Allotment in July 2009. BLM requested input from the public to help develop management strategies and alternatives. In response to the issuance of the 2009 Assessment, the BLM received an email from Western Watersheds Project (WWP) on July 20, 2009. The comments from WWP were reviewed by the BLM through an interdisciplinary process and it was concluded that no additional studies or analysis were needed. No additional comments were received from other entities identified as “Interested Public” interested in livestock grazing on the Hog Tommy Allotment. The BLM worked with the Livestock Grazing Permittee to develop grazing management.

4.2 Preparers

Jerrie Bertola, Project Lead, Livestock Grazing and Vegetation
Karl Scheetz, Livestock Grazing and Vegetation
William B. Fawcett, Cultural Resources
Derrick Holdstock, Special Status Species, Migratory Birds and Other Wildlife
Mark Dean, Soil Resources
Tyson Gripp, Invasive Non-Native Species
Kirk Laird, Planning & Environmental Coordinator

4.3 Distribution

Prior to issuance of any decision to implement the action alternatives and proposed range improvements, this EA will be available for comment on the BLM public web site at:

http://www.blm.gov/nv/st/en/fo/elko_field_office/blm_information/nepa.html

A notice of availability and/or hard copies of the EA will be sent to those individuals or organizations who have identified themselves as "Interested Public" and have requested to be involved in management decisions for the Hog Tommy Allotment.

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Appendix 1

Allotment Detail Maps

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