

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

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**Environmental Assessment**

**Term Grazing Permit 2700102 Renewal on the Forest Moon (01010)  
Allotment (DOI-BLM-NV-L010-2011-0008-EA)**

**July, 2011**

**Location: Nye County, Nevada**

**PREPARING OFFICE**

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# 1. Introduction

This document identifies issues, analyzes alternatives, and discloses the potential environmental impacts associated with the proposed term grazing permit 2700102 renewal on the Forest Moon (01010) Allotment.

## 1.1 Background

Current livestock management practices for 2700102 have been implemented since the 2000 Grazing Permit Renewal and Livestock Conversion Environmental Assessment and the 1996 Final Multiple Use Decision for the Forest Moon Allotment. This grazing preference was also transferred to the current permittee in 2004. This grazing preference is currently being used in conjunction with a U.S. Forest Service summer grazing permit and a winter grazing lease with the State of Nevada as well as private lands. The Forest Moon Allotment is being grazed in late spring and fall by cattle. Prior to acquiring the State grazing lease, this allotment was also used as winter range. The sheep and goat grazing portions of this authorization have been in non-use for several years. Past cattle use has been variable from complete non-use in 2003 to 1,014 AUMs (90 percent of active) in 2008. Annual variation in livestock use has occurred for several reasons including various business decisions of the permittees, competition with wild horses and other herbivores, and annual forage availability.

Monitoring data were reviewed and an assessment of the rangeland health for this allotment was completed in the 2011 Forest Moon Allotment Standards Determination Document (SDD). The Soils Standard, the Ecosystem Components Standard, and the Habitat and Biota Standard are being achieved with current livestock grazing management on the Forest Moon Allotment.

### 1.1.1 Location of Proposed Action

The Forest Moon Allotment encompasses approximately 108,273 public land acres (*Appendix A—Maps* (p. 24)). The grazing permit area occurs entirely within Nye County, and is situated approximately 40 miles southwest of Lund, Nevada. The western portion of this allotment borders the Battle Mountain BLM District and Forest Service lands while the eastern portion borders the Wayne E. Kirch Wildlife Management Area. The area stretches from the Grant Mountain Range in the west out into the White River Valley. This allotment occurs largely in the White River Central Watershed with a small portion in the Garden Valley Watershed. The White River Sheep Trail also crosses the Forest Moon Allotment.

## 1.2 Purpose and Need for Action

The purpose and need for this proposal is to manage livestock grazing on public lands to provide for a level of grazing consistent with multiple use, sustained yield, and watershed function and health; to authorize grazing use in accordance with applicable laws, regulations, policies, and land use plans; and to improve conditions on the allotment in order to continue to meet or make progress towards the standards for rangeland health.

Additionally, there is a need to fully process and renew permit 2700102 as it expires on December 31, 2011.

## 1.3 Scoping, Public Involvement and Issues

The term permit 2700102 renewal proposal was internally scoped by the Egan Field Office Interdisciplinary (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 November 19, 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 wilderness interested parties of the proposed action was sent on January 7, 2011.

A letter notifying interested public of this term permit renewal was sent on December 16, 2010. This project proposal was posted on the National NEPA Register website on February 1, 2011. No public scoping comments were received.

Concerns were expressed by the ID Team that the proposed action and/or alternatives may have impacts on special status species habitats and rangeland health.

This EA, with the Forest Moon Allotment SDD, is being provided for a thirty-day external review/public comment period.

## 2. Proposed Action and Alternatives

### 2.1 Description of the Proposed Action

The BLM proposes to issue and fully process a new term grazing permit 2700102 and authorize livestock grazing on the Forest Moon Allotment. The renewal of this 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, a new term permit would be issued for the remainder of this 10 year term.

Allowable use levels would be established which require that only a set amount of available forage be used by livestock and that livestock be removed once these limits are reached. This allows for management of livestock based on annual forage conditions and prevents overgrazing of forage resources.

To allow for continued achievement of the rangeland health standards, the proposed term permit 2700102 and terms and conditions are as follows:

**Table 1. Summary of the Proposed Grazing Permit 2700102 for the Forest Moon Allotment**

Allotment Name and Number	Livestock Number/ Kind	Grazing Period Begin End	% Public Land <sup>a</sup>	Type Use	AUMs <sup>b</sup>
Forest Moon 01010	113 Cattle	06/01 to 03/31	100	Active	1131
Forest Moon 01010	570 Sheep	01/01 to 03/31	100	Active	341
Forest Moon 01010	570 Sheep	08/16 to 10/15	100	Active	229
Forest Moon 01010	570 Goats	01/01 to 03/31	100	Active	341
Forest Moon 01010	570 Goats	08/16 to 10/15	100	Active	229
<b>Allotment AUMs Summary</b>					
Allotment Name	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PERMITTED USE		
Forest Moon	2263	47	2310		

<sup>a</sup>% Public Land is the percent of public land for billing purposes.

<sup>b</sup>AUMs may differ from Active Permitted Use due to a rounding difference with the number of livestock and the period of use.

#### Other Terms and Conditions:

1. When sheep and goats are authorized during any one year, authorized use shall not exceed 566 AUMs of sheep use and 566 AUMs for goat use. Sheep and goat use is limited to the western portion of the Forest Moon Allotment
2. If the entire preference for sheep and goat use is not applied for, cattle use can be applied for up to a total of 2,263 AUMs.

3. Maximum utilization levels on the Forest Moon Allotment are as follows:
  - a. Perennial native grasses: 50% of current year's growth
  - b. Perennial shrubs and half-shrubs: 50% use on current annual production
  - c. 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. No motorized access is permitted within the designated Riordan's Well Wilderness Study Area without approval of the District Manager. Motorized access may be permitted for emergency situations, or where practical alternatives for reasonable grazing management needs are not available and such motorized use would not have an adverse impact on the natural environment.

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 are consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.
2. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.
3. 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.
4. 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.
5. 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.
6. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.
7. 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.
8. 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 grazing permit renewal on June 29, 2011 (*Appendix B—Weed Risk Assessment* (p. 26)). The measures listed in the Weed Risk Assessment would be followed when grazing occurs on the Forest Moon Allotment to minimize the spread of weeds.

### **2.1.2 Monitoring**

The Ely District Approved Resource Management Plan (August 2008) identifies monitoring to include, “Monitoring to assess rangeland health standards will include records of actual livestock use, measurements of forage utilization, ecological site inventory data, cover data, soil mapping, and allotment evaluations or rangeland health assessments. Conditions and trends of resources affected by livestock grazing will be monitored to support periodic analysis/evaluation, site-specific adjustments of livestock management actions, and term permit renewals. Monitoring will determine when grazing will be authorized in burned areas, and will contribute to the selection of prescribed burn treatments or other types of treatments based on attainment of resource objectives” (pg. 88).

## **2.2 Description of Alternatives Analyzed in Detail**

### **2.2.1 No Grazing Alternative**

Grazing permit 2700102 would not be renewed, therefore would expire on December 31, 2011. Livestock grazing on the Forest Moon Allotment would be eliminated. Also see Alternative D throughout the Ely RMP/EIS.

### **2.2.2 No Action Alternative**

The no action alternative for livestock grazing permit renewals is defined as “continuing to graze under current terms and conditions” by IM-2000–022, Change 1 (reauthorized by IM-2010–063). The current grazing permit 2700102 is the same as the proposed action without the allowable use levels defined.

## **2.3 Conformance**

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

Management Action LG-1 states, “Make approximately 11,246,900 acres and 545,267 animal unit months (AUMs) 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.”

### **2.3.1 Teiring**

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

### 3. Affected Environment and Environmental Effects

#### 3.1 Project Area Description

The project area is defined by the Forest Moon Allotment Boundary (see *Appendix A—Maps* (p. 24) and the section called “1.1.1 Location of Proposed Action” (p. 1)). This area is typical of the southern Great Basin with elevations ranging from approximately 7,000 feet in the Grant Range to approximately 5,100 feet in White River Valley. Precipitation ranges from about six inches in the valley bottom to over 14 inches in the mountains.

#### 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.

<b>Resource/Concern Considered</b>	<b>Issue(s)</b>	<b>Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis</b>
Air Quality	No	The proposed or alternative actions would not affect the air quality of Nye County, Nevada
Areas of Critical Environmental Concern (ACEC)	No	A portion of the White River Valley ACEC is within the project area. This ACEC was designated for the protection of BLM sensitive plant species. The management prescription identified in the Ely RMP (page 119) for this ACEC allows for livestock grazing. Also see the section called “3.4 Special Status Plant Species” (p. 12).
Cultural Resources	No	A Cultural Needs Assessment (NV04–FY11–055) was completed for this allotment. 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. Currently there are no sites eligible to the National Register of Historic Places within the allotment.
Forest Health	No	Resource not present
Rangeland Health	Yes	Rangeland Health requires a detailed analysis to make a reasoned choice between alternatives, see the section called “3.3 Rangeland Health” (p. 10).
Migratory Birds	No	There is habitat for a number of migratory bird species within the project area. The grazing management practices outlined in the proposed and alternative actions would minimize any potential for effects to migratory bird habitats.

<b>Resource/Concern Considered</b>	<b>Issue(s)</b>	<b>Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis</b>
Native American Religious Concerns and other concerns	No	No traditional religious or cultural sites of importance identified during tribal coordination.
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	Resource not present
Water Quality, Drinking/Ground	No	No effect to ground water; no surface water in the project area is used for human drinking water; and no impaired waters of the State of Nevada are present in the project area.
Wilderness	No	Grazing is an allowable action within the Riordian's Well Wilderness Study Area and would not impact the wilderness character.
Environmental Justice	No	No disproportionately high adverse human health or environmental effects to minority or low-income populations
Floodplains	No	Resource not present
Wetlands/Riparian Zones	No	Riparian areas were considered in the Forest Moon SDD and found to be meeting the standards for rangeland health. Continued achievement of these standards would contribute to the proper functioning of riparian areas.
Noxious and Invasive Weed Management	No	The measures listed in the WRA ( <i>Appendix B—Weed Risk Assessment</i> (p. 26)) are incorporated into the proposed action (the section called “2.1.1 Invasive, Non-Native Species and Noxious Weeds” (p. 5)). Site specific examination of the project area did not reveal concerns above those addressed by the WRA or in the Ely RMP/EIS on pages 4.21–4 and 4.21–10.

Resource/Concern Considered	Issue(s)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Special Status Plant Species, other than those listed or proposed by the FWS as Threatened or Endangered	Yes	Sunnyside green gentian ( <i>Frasera gypsicola</i> ), Tiehm blazingstar ( <i>Mentzelia tiehmii</i> ), Eastwood milkweed ( <i>Asclepias eastwoodiana</i> ), Charleston grounddaisy ( <i>Townsendia jonesii</i> var. <i>tumulosa</i> ) and White River catseye ( <i>Cryptantha welshii</i> ) are known to occur in the project area and require a detailed analysis to determine environmental effects, see the section called “3.4 Special Status Plant Species” (p. 12).
Wild Horses	No	The project area is within a portion of the Golden Gate Wild Horse Herd Area (HA) and adjacent to the White River Wild Horse HA. Site specific examination of the project area did not reveal any concerns above those addressed in the Ely RMP/EIS on page 4.8–6 and 4.8–14.
Soil Resources	No	Site specific examination of the project area did not reveal any concerns above those addressed in the Ely RMP/EIS on pages 4.4–4 and 4.4–12.
Prime and Unique Farmlands	No	There are approximately 287 acres of prime farmland in the project area. Livestock grazing would not impact prime farmland characteristics.
Special Designations other than Designated Wilderness and ACEC	No	Resource not present
VRM	No	No effect to visual resources
Special Status Animal Species, other than those listed or proposed by the FWS as Threatened or Endangered	Yes	Greater sage-grouse ( <i>Centrocercus urophasianus</i> ) and pygmy rabbit ( <i>Brachylagus idahoensis</i> ) habitat require a detailed analysis to determine environmental effects, see the section called “3.5 Sage-Grouse Habitat” (p. 13) and the section called “3.6 Pygmy Rabbit Habitat” (p. 14). No effect is expected to desert bighorn sheep ( <i>Ovis canadensis nelsoni</i> ) because the habitat is unoccupied. These species are BLM Sensitive Species.

<b>Resource/Concern Considered</b>	<b>Issue(s)</b>	<b>Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis</b>
Fish and Wildlife	No	There is habitat for elk ( <i>Cervus canadensis</i> ), mule deer ( <i>Odocoileus hemionus</i> ), some crucial winter; and pronghorn antelope ( <i>Antilocapra americana</i> ) within the allotment along with a variety of other predators, small mammals, and reptiles. Livestock compete with wildlife, particularly the large herbivores, for available forage used as food and cover. Site specific examination of the project area did not reveal any concerns above those addressed in the Ely RMP/EIS pages 4.6–10 to 4.6–13 and 4.6–31.
Lands and Realty	No	No effect to lands and realty
Recreation Uses	No	No effect to recreational uses
Paleontological Resources	No	Currently there are no identified resources within the project area.
Mineral Resources	No	No effect to mineral resources
Vegetative Resources	No	Site specific examination did not reveal any concerns above those addressed in the Ely RMP/EIS on pages 4.5–9 and 4.5–27 and under the section called “3.3 Rangeland Health” (p. 10).
Wild and Scenic Rivers	No	Resource not present

### **3.3 Rangeland Health**

#### **3.3.1 Affected Environment**

A rangeland health assessment was completed for the Forest Moon Allotment as a Standards Determination Document (SDD). This assessment determined all three standards for rangeland health are being achieved on the Forest Moon Allotment. The SDD provides recommendations to continue livestock grazing which would provide for the continued achievement of rangeland health standards.

The Forest Moon Allotment is in a shrub dominated state. There has been very little change in the vegetative composition since the late 1970s indicating that this is a stable state on this allotment. Given the long-standing stability of these conditions, they likely represent the potential of this vegetative state of the respective ecological sites. 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 across the region has been significantly reduced to current levels.

### **3.3.2 Environmental Effects**

Also see Section 4.16 of the Ely RMP/EIS

#### **3.3.2.1 Proposed Action**

The proposed action is based on the recommendations from the SDD completed for this allotment. This alternative is designed to allow for continued achievement of Standards for Rangeland Health. The proposed action calls for grazing rest during the critical spring growing period when plants are most susceptible to grazing impacts. Under proper grazing management, timing, intensity, duration, and frequency can successfully manage vegetation to maintain desired vegetation states (Ely RMP/EIS page 4.5–9).

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 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). The establishment of these levels allows for better management of rangeland resources because they are tied to forage availability rather than a set AUM amount. These levels allow for flexibility to accommodate annual range conditions; prevent overgrazing; and safeguard residual forage for wildlife habitat, plant recovery and productivity, and watershed function.

#### **3.3.2.2 No Grazing Alternative**

The no grazing alternative allows these grazing permits to expire and associated grazing use to cease. 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 that exposed to moderate grazing outside the exclosures. Where differences occurred, total vegetation cover was greater inside the exclosures while density was greater outside the exclosures. Protection from grazing failed to prevent expansion of cheatgrass into the exclosures (Ely RMP/EIS page 4.5–27). Another literature review by Anderson (1993) suggests that after a period of time, ungrazed herbaceous, fibrous-rooted plant species become decadent and stagnant. This results in reduced annual above-ground growth and a reduction in essential features of vegetational cover, including the replacement of soil organic matter and surface residues, and optimum capture of precipitation (Anderson 1993). Therefore, this alternative would not benefit rangeland health over the long-term.

#### **3.3.2.3 No Action Alternative**

The no action alternative continues current grazing management under this permit. Current grazing management is achieving the standards for rangeland health. Therefore, this alternative would allow for continued achievement of the standards for rangeland health. Rangeland health environmental effects of the no action alternative would be similar to those described under the proposed action, except maximum allowable use levels would not be spelled out.

## 3.4 Special Status Plant Species

### 3.4.1 Affected Environment

Special status plant species are located in the eastern portion of the project area and were last inventoried in 2005 and 2007 (see Figure 3, “Forest Moon Allotment Special Status Species Habitat Map” (p. 25)).

#### Sunnyside Green Gentain

The Nevada Natural Heritage Program (NNHP) has 10 documented occurrences of the Sunnyside green gentian in Nevada (2010), one of which is on the Forest Moon Allotment. However, the 2005 and 2007 plant surveys did not report this species in the project area. This species is found in open, dry, whitish, alkaline, often salt-crustured and spongy silty-clay soils. Habitat includes calcareous flats and barrens and cushion-plant associations surrounded by sagebrush, greasewood, and occasionally barberry and swamp cedar vegetation. The statewide population is estimated at over 203,000 individuals (Morefield 2001). Conflicting reports suggest that cattle may graze on this species.

#### Tiehm Blazingstar

Several occurrences of the Tiehm blazingstar have been documented on the Forest Moon Allotment. The current condition of these populations is unknown. This species is found mostly on white calcareous knolls and bluffs with scattered perennials. It is endemic to Nevada and the statewide population is estimated at over 14,000 individuals (Holmgren and Holmgren 2002). The NNHP has seven documented occurrences of the Tiehm blazingstar in Nevada (2010).

#### Eastwood Milkweed

Several occurrences of the Eastwood milkweed have been documented on the Forest Moon Allotment. The current condition of these populations is unknown. This species is found in open areas with basic soils generally barren and lacking competition. Habitats include calcareous clay knolls, sand, carbonate or basaltic gravels, or shale outcrops. This species is frequently found in small washes or other moisture-accumulating microsites, in the shadscale, mixed-shrub, sagebrush, and lower pinyon-juniper zones. Major threats to this species includes trampling by cattle and habitat loss to mining and road construction. It is endemic to Nevada and the statewide population is estimated at over 1,475 individuals (Morefield 2001). The NNHP has 32 documented occurrences of this species in Nevada (2010).

#### Charleston Grounddaisy

Several occurrences of the Charleston grounddaisy have been documented on the Forest Moon Allotment. The current condition of these populations is unknown. Its habitat is open, sparsely vegetated calcareous areas, on shallow gravelly carbonate soils on slopes and exposed knolls. Habitat areas include knolls of white, alkaline, calcareous, silty lacustrine deposits in the upper shadscale/mixed-shrub and lower sagebrush zones. It is endemic to Nevada and, statewide, covers over 17.8 acres (Moorfield 2001). The NNHP has 45 documented locations of this species in Nevada (2010).

#### White River Catseye

Several occurrences of the White River catseye have been documented on the Forest Moon Allotment. The current condition of these populations is unknown. This species is found in dry, open, sparsely vegetated outcrops often knolls or gravelly hills. Habitat includes sandy to silty or clay soils, whitish calcareous or carbonate deposits, and adjacent habitats. The species appears to tolerate or even increase with transient disturbances within its habitat, such as animal trampling

and roadside maintenance. It is endemic to Nevada and the statewide population is estimated at over 44,000 individuals (Morefield 2001). The NNHP has 42 documented occurrences of the White River catseye in Nevada (2010).

### **3.4.2 Environmental Effects**

#### **3.4.2.1 Proposed Action**

##### Sunnyside Green Gentain

The location of this population of the Sunnyside green gentian is greater than two miles from a livestock watering source, therefore would rarely receive grazing use under the proposed action.

##### Tiehm Blazingstar

Little is known about the possible effects of grazing on the Tiehm blazingstar. Given the persistence of this species with the past and present grazing use, the proposed action would allow for the continuation of this species with little to no effect.

##### Eastwood Milkweed

Little is known about the possible effects of grazing on the Eastwood milkweed, however trampling by cattle has been identified as a major threat to this species. Since the proposed action does not increase livestock concentration and given the persistence of this species with the past and present grazing use, the proposed action would allow for the continuation of this species with little to no effect.

##### Charleston Grounddaisy

Little is known about the possible effects of grazing on the Charleston grounddaisy. Given the persistence of this species with the past and present grazing use, the proposed action would allow for the continuation of this species with little to no effect.

##### White River Catseye

The White River catseye appears to tolerate or even increase with transient disturbances including animal trampling (Morefield 2001). The proposed action would likely allow for the persistence of this species.

#### **3.4.2.2 No Grazing Alternative**

Under the No Grazing Alternative, special status plant species would not be subjected to livestock grazing and any potential effects would not occur.

#### **3.4.2.3 No Action Alternative**

Environmental effects of the no action alternative on special status plant species would be similar to those described under the proposed action.

### **3.5 Sage-Grouse Habitat**

#### **3.5.1 Affected Environment**

The Greater Sage-Grouse is a high-profile, sensitive species currently considered to be warranted for listing as Threatened or Endangered but listing is precluded by other species of higher priority (USDI 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 (Ely RMP/EIS page 4.7-10).

The Forest Moon Allotment lies within the Quinn Sage-Grouse Population Management Unit (PMU). One sage-grouse lek, of unknown status, is located in the northeastern portion of the allotment (Figure 3, “Forest Moon Allotment Special Status Species Habitat Map” (p. 25)). Most of the allotment has been identified as nesting, summer (brood-rearing), and winter habitat for the birds. This area is in the extreme southern portion of the range for these birds, therefore only provides marginal habitat.

Sage-grouse often nest in suitable habitat within three miles of a lek site. The sage-grouse breeding and nesting period is generally considered to be approximately 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.

General guidelines for managing sage-grouse habitats recommend maintaining at least 15 percent herbaceous cover and 15 to 25 percent sagebrush cover. Due to the high variability among sagebrush habitats, these guidelines are not realistic in all cases (Connelly et al. 2000). When compared to sage-grouse habitat monitoring data collected on the Forest Moon Allotment, these guidelines are generally not being met due to high sagebrush cover and limited understory. Sage-grouse in this area likely use habitat on the adjacent Kirch Wildlife Management Area as well.

### **3.5.2 Environmental Effects**

Also see Ely RMP/EIS page 4.6–11 and 4.7–30

#### **3.5.2.1 Proposed Action**

The proposed action has the greatest potential to affect sage-grouse nesting habitat. Maximum allowable use levels included in the proposed action would ensure that adequate residual forage remains for nest concealment as well as maintaining or improving long term productivity of the plant communities. Also, continued achievement of rangeland health standards (including habitat) would improve sage-grouse habitat across the project area.

#### **3.5.2.2 No Grazing Alternative**

The no grazing alternative would eliminate livestock grazing in project area therefore eliminate any potential effect on sage-grouse habitats (Ely RMP/EIS page 4.6–31 and 4.7–80).

#### **3.5.2.3 No Action Alternative**

The no action alternative would have effects similar to the proposed action, except that maximum allowable use levels would not be spelled out.

## **3.6 Pygmy Rabbit Habitat**

### **3.6.1 Affected Environment**

Pygmy rabbits have not been documented on the Forest Moon Allotment, however potential habitat for this species occurs across the allotment. Pygmy rabbit habitat is defined by areas with dense, tall sagebrush for food and cover and deep, loose soils for digging burrows. On the Forest Moon Allotment, the Kunzler soil and Parisa soil have a high suitability rating for pygmy rabbit habitat. This rating is a general guide considering the soil and plant composition characteristics that influence pygmy rabbit habitat from soil survey data. The high rating indicates that there are no restrictions in these characteristics and potential habitat is favorable (NRCS 2011). The current condition of this habitat is unknown.

## **3.6.2 Environmental Effects**

Also see Ely RMP/EIS page 4.6–11 and 4.7–30

### **3.6.2.1 Proposed Action**

The tall, dense sagebrush habitat will serve to protect borrows from potential trampling by livestock. The grazing management practices outlined in the proposed action are designed to maintain the vegetative conditions to meet dietary habitat needs of the pygmy rabbit and the standards for rangeland health (including habitat). This alternative would therefore maintain or improve wildlife habitat and have no effect upon or may help to benefit pygmy rabbit habitat within the project area.

### **3.6.2.2 No Grazing Alternative**

The no grazing alternative would eliminate livestock grazing in the project area therefore eliminate any potential effect on pygmy rabbit habitats (Ely RMP/EIS page 4.6–31 and 4.7–80).

### **3.6.2.3 No Action Alternative**

The no action alternative would have effects similar to the propose action, except that maximum allowable use levels would not be spelled out.

## 4. Cumulative Effects

### 4.1 Introduction

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 in section 4.28 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (2007).

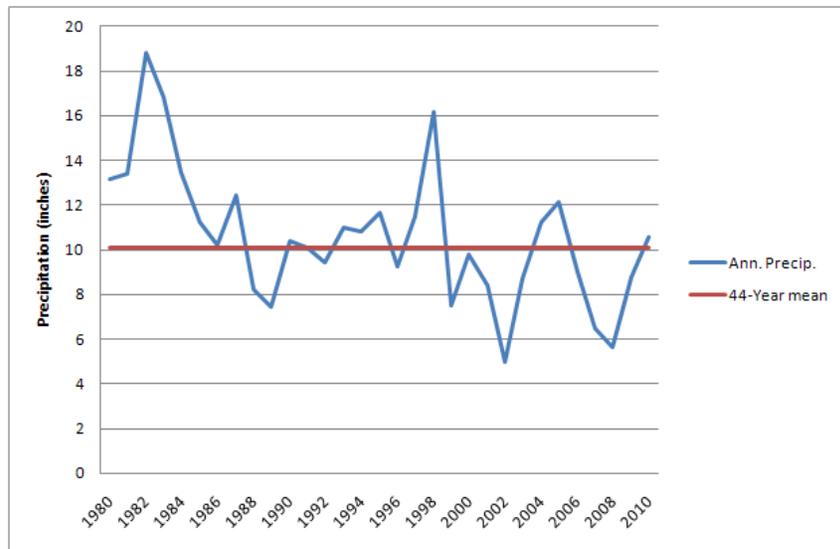
The Cumulative Effects Study Area (CESA) is defined by the Forest Moon Allotment Boundary. Privately owned lands occur within this CESA. The temporal scope of this cumulative effects analysis is ten years (life of the proposed grazing permit).

#### 4.1.1 Past Actions

Livestock grazing operations in eastern Nevada developed during the mid- to late-1800s. The Ely RMP/EIS summarizes livestock grazing history in the region on pages 3.16–1 to 3.16–3. Stockwater developments have been implemented on the allotment to improve grazing management, including spring developments and a ditch and reservoir system.

The Ely RMP/EIS summarizes wild horse history in the west, specifically on the Ely District, on pages 3.8–1 to 3.8–7. Wild horse use has occurred throughout the project area since the 1800s.

Nevada is subject to variable precipitation with frequent drought periods. The most recent drought period occurred in 2007–2008. Figure 1, “Precipitation Data (1970-2010) from Western Regional Climate Center at Lund, NV” (p. ) depicts the precipitation history of the area.



**Figure 1. Precipitation Data (1970-2010) from Western Regional Climate Center at Lund, NV**

Periodic fire events occur in the area of the Horse Spring Hills and along the benches of the Grant Range. In 2006, the Horse Fire (58 acres) and a portion of the Sherwood Fire (about 700 acres) burned in the Forest Moon Allotment. Both of these burned areas were re-seeded during post-fire rehabilitation and stabilization. An unnamed fire in 1986 (985 acres) occurred entirely within the Forest Moon Allotment and portions of the 1999 Sellem Fire (about 15 acres), the 1997 Cold Creek Fire (about 60 acres), and an unnamed fire in 1984 (about 200 acres) also burned into the allotment.

The Golden Gate, Seaman Range, and White River HAs wild horse gather was completed in 2009 to remove excess wild horses from the area.

The Wayne E. Kirch Wildlife Management Area (KWMA) is located adjacent to the Forest Moon Allotment in White River Valley. This area was established in 1968. KWMA is composed of a total of 14,815 acres, including five major reservoirs. The area has a mosaic of habitats and supports extremely diverse populations of wildlife (NDOW, unpublished).

The White River Valley ACEC was designated for the protection of special status plant species in the area. The management prescription from the Ely RMP for this area limits land uses for the protection of these species.

Oil and gas exploration has occurred throughout White River Valley, however no wells have gone into production. The Ely RMP/EIS summarizes the history of oil and gas exploration on pages 3.18–7 to 3.18–9.

The Forest Home Gravel Pit was recently construct along the main county road in the central portion of the allotment. This small gravel pit (less than five acres) is to provide a gravel source for county road maintenance.

## **4.1.2 Present Actions**

Approximately 26 miles of the White River Sheep Trail crosses the Forest Moon Allotment. Three grazing permits authorize 1,505 AUMs of sheep trailing on this 60 mile trail.

The Little Spring Riparian Project is planned for construction in 2011 or 2012. This project is to install a riparian protection fence and off-site stockwater to enhance riparian values at Little Spring.

Occasional wild horse use continues on the Forest Moon Allotment.

Oil and gas leasing is on-going in the area. One exploration well is planned to be drilled in 2011.

The Southwest Intertie Project (SWIP) power line corridor crosses the Forest Moon Allotment. This corridor is 0.5 miles wide with one power line currently under construction.

Recreational activities in the CESA are mostly dispersed and include hunting, trapping, wildlife viewing, and off-highway vehicle use. The adjacent Kirch Wildlife Management Area provides camping and fishing recreation sites.

## **4.1.3 Reasonably Foreseeable Future Actions**

Sheep trailing on the White River Trail will continue under existing grazing permits. Grazing permits will be considered for renewal as they expire.

Further oil and gas leasing and exploration are expected in the area.

Occasional wildfires are likely to occur in the CESA.

Authorizing power lines within the SWIP corridor would likely continue through subsequent NEPA.

Dispersed recreation is expected to continue in the CESA.

## **4.2 Rangeland Health**

### **4.2.1 Proposed Action**

Other livestock grazing permits in the CESA and wild horse use also affect the overall rangeland health of the area. All livestock grazing permits are designed to allow for progress towards or achievement of rangeland health standards. If existing livestock grazing management practices are found to be a significant factor in failing to achieve the standards for rangeland health, appropriate action is taken as soon as practicable or no later than the start of the next grazing season (43 CFR 4180.2(c)). Currently the standards for rangeland health are being achieved. Since wild horses were gathered in 2009, effects to rangeland health from wild horses is minimal. The proposed action, in combination with these actions, would cumulatively benefit rangeland health.

### **4.2.2 No Grazing Alternative**

The no grazing alternative, in combination with interrelated projects, would have no cumulative effect on rangeland health.

### **4.2.3 No Action Alternative**

Same cumulative effect as the proposed action.

### **4.3 Special Status Plant Species**

The proposed action, the no grazing alternative, and the no action alternative, in combination with interrelated projects, would have no cumulative effect to special status plant species in the CESA.

### **4.4 Sage-Grouse and Pygmy Rabbit Habitats**

#### **4.4.1 Proposed Action**

The proposed action, other livestock grazing permits, and wild horse management across the CESA are all designed to promote rangeland health and improve wildlife habitat, including sage-grouse and pygmy rabbit habitats. Other interrelated projects are designed to minimize impacts to special status species habitats. The proposed action, in combination with these actions, would cumulatively have minimal effect to special status species habitats.

#### **4.4.2 No Grazing Alternative**

The no grazing alternative, in combination with interrelated projects, would have minimal effect to special status species habitats.

#### **4.4.3 No Action Alternative**

Same cumulative effect as the proposed action.

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

This preliminary EA is being provided for public review and comment via web posting. Notification letters are being sent to those parties on the Ely District Range Management Interested Public List for the Forest Moon Allotment.

Tribal Coordination Letters were sent December 29, 2010.

**Table 2. List of Persons, Agencies and Organizations Consulted**

<b>Name</b>	<b>Purpose &amp; Authorities for Consultation or Coordination</b>	<b>Findings &amp; Conclusions</b>
Denny Larson	Proponent	Provided input throughout
Duckwater Shoshone Tribe	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Skull Valley Band of Goshutes	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Ely Shoshone Tribe	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Las Vegas Paiute Tribe	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Confederated Tribes of the Goshute Indian Reservation	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Battle Mountain Band Council	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Paiute Indian Tribe of Utah	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Te-Moak Tribes of the Western Shoshone Indians of Nevada	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Indian Peaks Band	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Wells Band Council	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Shivwits Band of Paiutes	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
South Fork Band Council	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments

<b>Name</b>	<b>Purpose &amp; Authorities for Consultation or Coordination</b>	<b>Findings &amp; Conclusions</b>
Cedar City Band of Paiutes	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Elko Band Council	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Kaibab Band of Paiutes Indians	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Yomba Shoshone Tribe	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Moapa Band of Paiutes	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Winnemucca Indian Colony of Nevada	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Lovelock Paiute Tribe	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments
Duck Valley Shoshone-Paiute Tribe	Executive Order 13175: Consultation and Coordination with Indian Tribal Governments	No comments

## 6. List of Preparers

**Table 3. List of Preparers**

Name	Title	Responsible for the Following Section(s) of this Document
Amanda Anderson	Rangeland Management Specialist/Project Lead	Alternatives, Rangeland Resources
Mark D'Aversa	Hydrologist	Soil, Water, Riparian/Wetland Areas
Mindy Seal	Natural Resource Specialist	Vegetation; Invasive, Non-native Species
Lisa Gilbert	Archeological Technician	Archeological, Historic, and Paleontological Resources
Ruth Thompson	Wild Horse Specialist	Wild Horses
Marian Lichtler	Wildlife Biologist	Wildlife, Migratory Birds, Special Status Species
Dave Jacobson	Wilderness Planner	Wilderness Values
Erin Rajala	Outdoor Recreation Planner	Recreation, VRM
Miles Kreidler	Geologist	Minerals
Elvis Wall	Native American Coordinator	Native American Religious Concerns, Tribal Coordination
Gina Jones	Ecologist/Planning & Environmental Coordination	Environmental Justice, Land Use Planning, NEPA Compliance
Chris Mayer	Supervisory Rangeland Management Specialist	

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# Appendix A—Maps

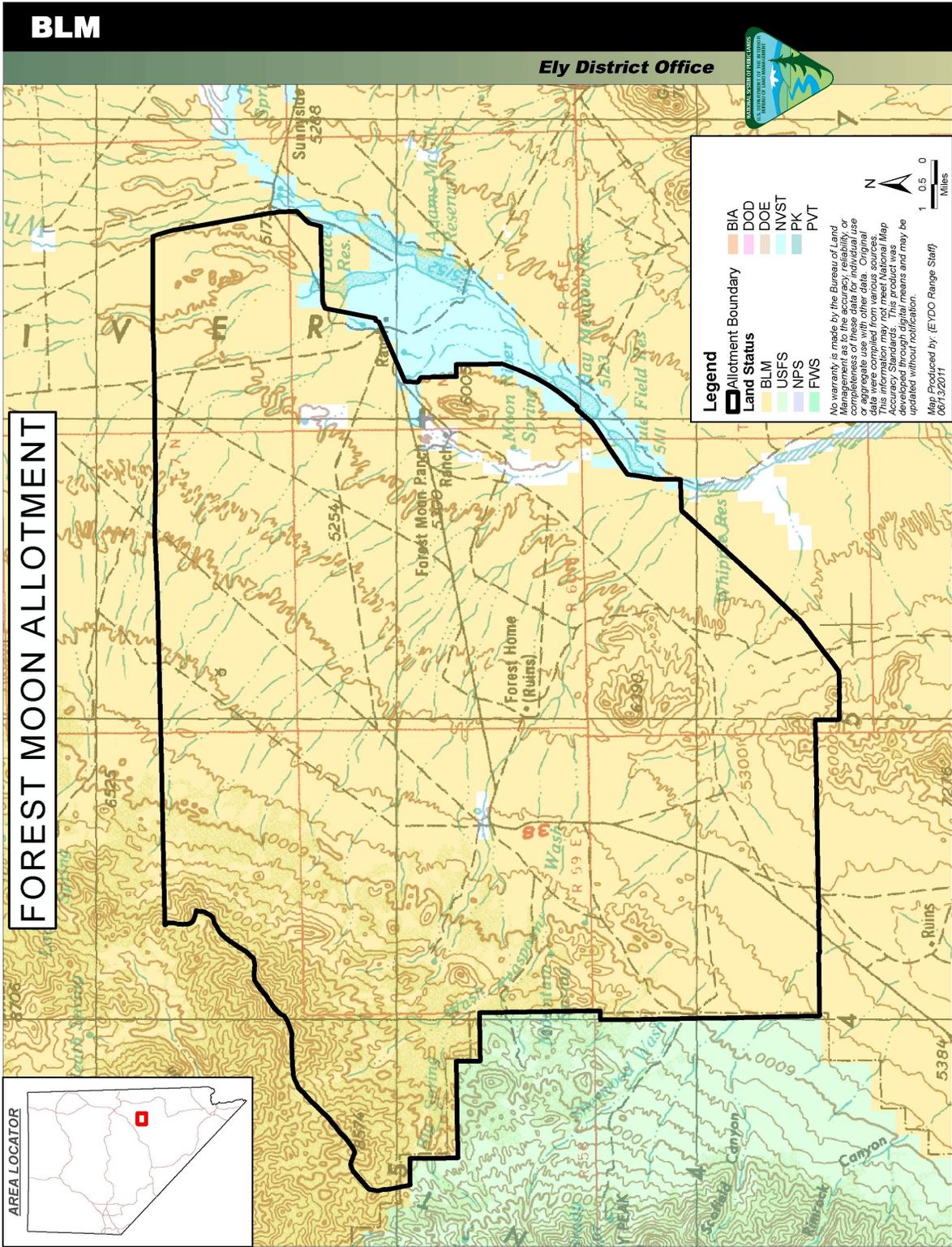


Figure 2. Forest Moon Allotment Map

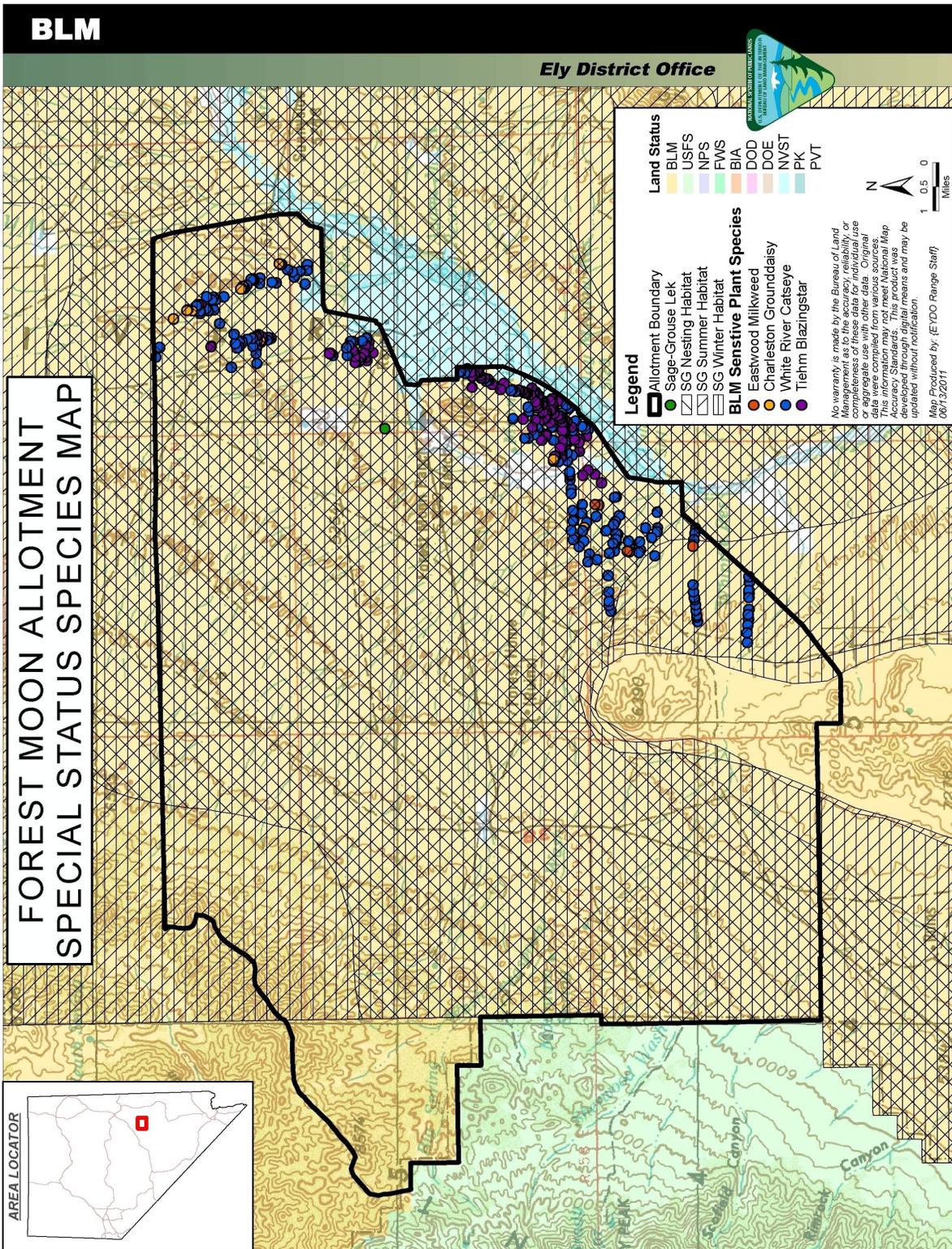


Figure 3. Forest Moon Allotment Special Status Species Habitat Map

# Appendix B—Weed Risk Assessment

## Term Grazing Permit Renewals for #2700102

### Forest Moon Allotment

#### Nye County, Nevada

The BLM proposes to issue and fully process a new term grazing permit 2700102 and authorize livestock grazing on the Forest Moon Allotment. The renewal of this 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, a new term permit would be issued for the remainder of this 10 year term.

Allowable use levels would be established which require that only a set amount of available forage be used by livestock and that livestock be removed once these limits are reached. This allows for management of livestock based on annual forage conditions and prevents overgrazing of forage resources.

Other alternatives analyzed include the no grazing alternative and the no action alternative. Details of the permit are included in the proposed action and alternatives in the EA.

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

<i>Acroptilon repens</i>	Russian knapweed
<i>Centaurea stoebe</i>	Spotted knapweed
<i>Cirsium vulgare</i>	Bull thistle
<i>Lepidium latifolium</i>	Tall whitetop
<i>Lepidium draba</i>	Hoary cress
<i>Onopordum acanthium</i>	Scotch thistle
<i>Tamarix spp.</i>	Salt cedar

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

<i>Acroptilon repens</i>	Russian knapweed
<i>Cirsium vulgare</i>	Bull thistle
<i>Lepidium latifolium</i>	Tall whitetop
<i>Lepidium draba</i>	Hoary cress

The Forest Moon Allotment was last inventoried for noxious weeds in 2005. While not officially documented the following non-native invasive weeds probably occur in or around the allotment: cheatgrass (*Bromus tectorum*), field bindweed (*Convolvulus arvensis*), halogeton (*Halogeton glomeratus*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

<b>Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.</b>	
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. 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. Factor 1 would also be the same for the no grazing alternative, since other large herbivores, such as wild horses, deer and antelope would continue to graze this allotment and have similar impacts to spreading weeds and impacting native vegetation.

<b>Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.</b>	
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. If new weed infestations establish within the permitted areas this could have an adverse impact on those native plant communities however, the proposed action includes measures to increase native plants and to help prevent weeds from establishing. If new weed infestations establish within the permitted area this could have an adverse impact to those native plant communities including reducing productive rangeland by outcompeting desirable forage species. Also, an increase of cheatgrass would increase the likelihood of an increased fire frequency cycle, which could lead to a cheatgrass monoculture and a loss of native species. Factor 2 would be the same for no grazing alternative.

<b>The Risk Rating is obtained by multiplying Factor 1 by Factor 2.</b>	
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:

- 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:**

<i>/s/ Mindy Seal</i>	6/29/2011
Mindy Seal	Date
Natural Resource Specialist	

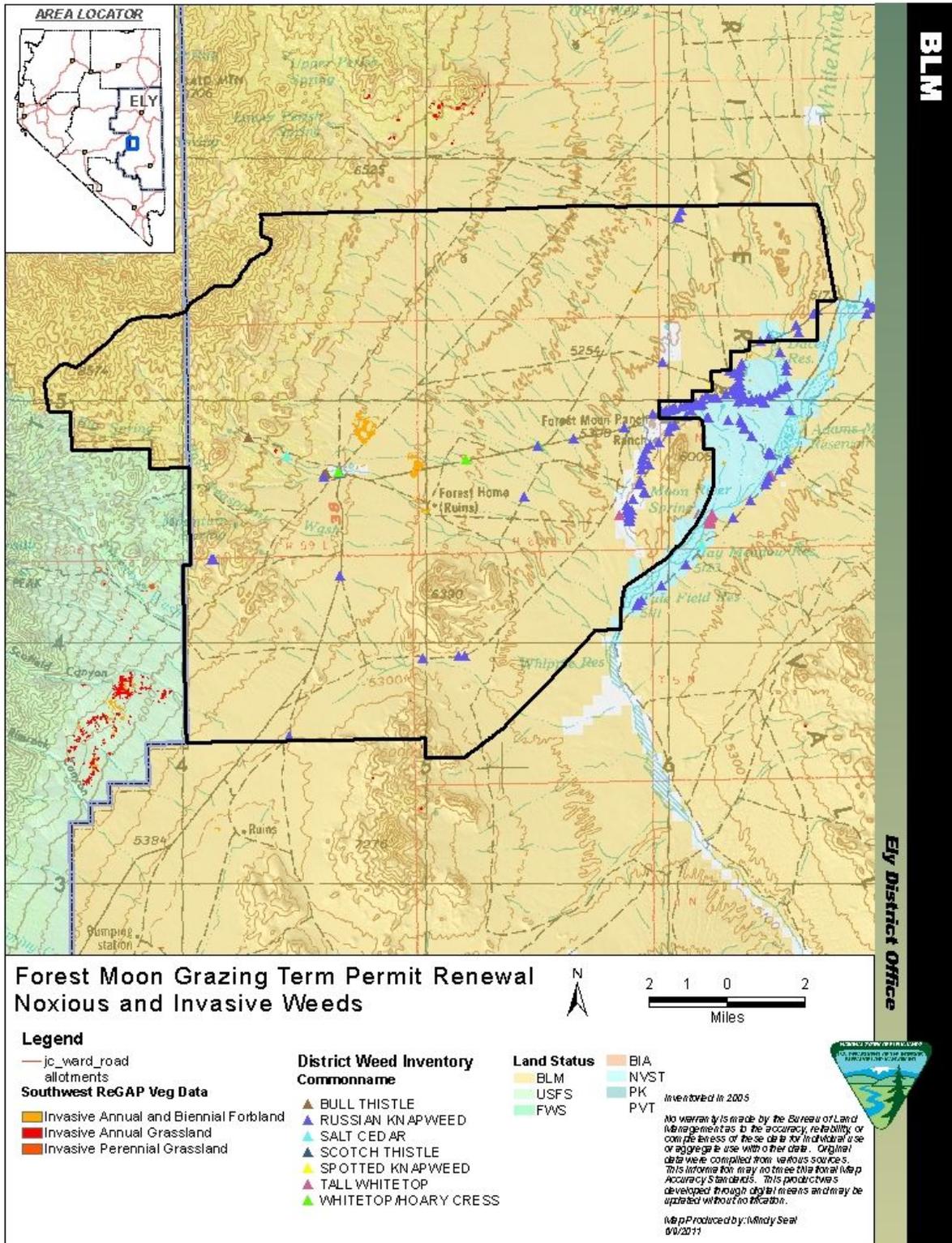


Figure 4. Forest Moon Allotment Noxious and Invasive Weeds