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

Environmental Assessment
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Roger J. Dieleman (2705069) and National Mustang Association Inc. (2705049) Term Grazing Permit Renewals for the Clover Creek Allotment (21015)
and
Roger J. Dieleman Term Grazing Permit Renewal for the Mustang Flat Allotment (01048)

Location: Lincoln County, NV

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BLM

1.0 Introduction: Need for Action

This document identifies issues, analyzes alternatives, and discloses the potential environmental impacts associated with the proposed term grazing permit renewals for Roger J. Dieleman (2705069) on the Clover Creek (21015) and Mustang Flat (01048) allotments and National Mustang Association Inc. (2705049) on the Mustang Flat allotment. The Clover Creek allotment is located beginning approximately one mile east of Caliente, NV, and the Mustang Flat allotment is situated directly south of and adjacent to the Clover Creek allotment, beginning approximately five miles southeast of Caliente, Nevada (Appendix I; Figure 1). Both allotments are located entirely within Lincoln County.

The legal description of the allotments is as follows:

T4S R67E Section: SE9, S10, all 11-15, E16, NE21, all 22-27, SE28, E33, all 34-36

T4S R68E Section: W3, all 4-9, SE10, S11, SW12, W13, all 14-23, W24, W25, all 26-35, W36

T5S R67E Section: all 1-2, E3, all 10-12, N13, N14, N15

1.0.1 Background

The current terms and conditions of the grazing permits have been in place since the last permit renewals for these allotments, which were signed in April 2004 for Roger J. Dieleman and in July 2005 for National Mustang Association Inc.

1.1 Introduction of the Proposed Action

The Bureau of Land Management (BLM), Ely District, Caliente Field Office proposes to issue and fully process term grazing permits for Roger J. Dieleman (Permit No. 2705069) and National Mustang Association Inc. (Permit No. 2705049) on the Clover Creek and Mustang Flat allotments and institute a detailed plan for livestock grazing management on both allotments. Changes to the existing permits are recommended to achieve the Standards and Guidelines for Nevada's Mojave-Southern Great Basin Area as established by the Nevada Mojave-Southern Great Basin Resource Advisory Council (RAC), approved 1997. Rangeland monitoring data were reviewed and assessments of the rangeland health of each allotment were produced in 2008-2009 during completion of Standards Determination Documents (SDD; Appendix II and Appendix III). See Table 1 for a summary of achievement of the Standards from the SDDs by allotment.

Table 1. Summary of achievement of rangeland health standards as determined through the Standards Determination process, Clover Creek and Mustang Flat allotments, Lincoln County, Nevada, 2008.

Allotment	Standard 1 Soils	Standard 2 Ecosystem Components	Standard 3 Habitat and Biota
Clover Creek (21015)	Standard not achieved	Standard achieved	Standard not achieved
Mustang Flat (01048)	Standard not achieved	Standard not applicable	Standard not achieved

1.2 Need for the Proposed Action

The need for the Proposed Action is to provide for legitimate multiple uses of the public lands by renewing the term grazing permit for Roger J. Dieleman and National Mustang Association Inc. on the Clover Creek and Mustang Flat allotments. The Proposed Action contains new terms and conditions for grazing use that are consistent with guidelines intended to move the vegetative communities toward achieving Standards for Nevada's Mojave-Southern Great Basin Area in accordance with all applicable laws, regulations, and policies. The Proposed Action and terms and conditions contained within are in accordance with Title 43 CFR 4130.2(a) which states, "Grazing permits or leases authorize use on the public lands and other BLM-administered lands that are designated in land use plans as available for livestock grazing."

1.3 Objectives for the Proposed Action

1.3.1. To renew the grazing term permit for Roger J. Dieleman and National Mustang Association Inc. and authorize grazing in accordance with applicable laws, regulations, and land use plans on approximately 28,773 acres of public land.

1.3.2. To improve vegetative health, productivity, and composition conditions on the allotments and continue to meet or make progress towards achieving the Standards and Guidelines for rangeland health as approved and published by Nevada's Mojave-Southern Great Basin RAC (USDI BLM 1997).

1.4 Relationship to Planning

The Proposed Action is in conformance with the goals and objectives of the Ely District Record of Decision and Approved Resource Management Plan (RMP) (USDI BLM 2008a), 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." Furthermore, the RMP states the following objective: "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-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" (p 87; USDI BLM 2008).

1.4.1 Relationship to other plans

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

- Lincoln County Sage Grouse Conservation Plan (2004).
- State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada Historic Preservation Office (1999).
- Mojave-Southern Great Basin RAC Standards and Guidelines (1997).

1.4.2 Tiering

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

1.5 Relevant Issues and Internal Scoping/Public Scoping

The proposal to renew term permits was scoped by resource specialists during an interdisciplinary (ID) team meeting on December 16, 2008 in the Ely District, Caliente Field Office to identify any relevant resource concerns. Potential issues identified with this proposal were possible conflict with mule deer (*Odocoileus hemionus*) on summer and winter ranges, and on migration routes, with elk (*Cervus elaphus*), with migratory birds, introduction of noxious and invasive weed species, wetland/riparian zones, and the BLM Sensitive Species Arizona Toad (*Bufo microscaphus*) and Needle Mountains milkvetch (*Astragalus eurylobus*).

Letters notifying interested publics of these term permit renewals were sent on November 20, 2008. No public scoping comments were received. Letters notifying Roger J. Dieleman and National Mustang Association Inc. of the term permit renewals were sent on December 23, 2008. Both proposals were posted on the Ely District Grazing Permit Renewal website on December 30, 2008. The SDDs for both allotments are provided for public comment with this environmental assessment (EA; Appendix III).

2.0 Alternatives Including the Proposed Action

2.1 Proposed Action

The BLM proposes to issue and fully process term grazing permits for Roger J. Dieleman (2705069) and National Mustang Association Inc. (2705049) on the Clover Creek and Mustang Flat allotments and institute a detailed plan for livestock grazing management on both

allotments. Changes to the existing permits are recommended to achieve the Standards and Guidelines for Nevada's Mojave-Southern Great Basin Area as established by the Nevada Mojave-Southern Great Basin Resource Advisory Council (RAC), approved 1997.

On both the Clover Creek and Mustang Flat allotments, changes to the permits are recommended to achieve the Standards and Guidelines for Nevada's Mojave-Southern Great Basin Area. No changes in the kind of livestock are proposed. However, the permittees have agreed to voluntary non-use of their currently active Animal Unit Months (AUMs) until such time as rangeland monitoring data demonstrates that adequate forage is available for cattle grazing and progress is being made toward achieving the Standards, and that reintroduction of cattle grazing at the allowable use level would not detrimentally affect that progress. This would depend heavily upon the planned reduction of wild horse populations within the allotments and surrounding areas. When vegetative community conditions are again deemed suitable for reintroduction of livestock grazing by the authorized officer, there would be no change in the number of active AUMs. However, changes to the season of use are proposed. The season of use for the Clover Creek Allotment would change from 11/01-04/30 to 09/01-12/31. The season of use for the Mustang Allotment would change from 05/01-10/31 to 09/01-12/31. Because the proposed season of use is two months shorter than the historic and current season of use, the total number of cattle allowed to graze would increase. The proposed change in the season of use would eliminate grazing pressure on the severely depleted herbaceous understory within both allotments during the critical spring/summer growth season.

2.1.1 Current permits

Table 2. Details of current term grazing permit for Roger J. Dieleman (2705069) on Clover Creek and Mustang Flat allotments, Lincoln County, Nevada.

Allotment	Livestock Number/Kind	Grazing Period	Percent Public Land*	Active AUMs	Suspended AUMs	Permitted Use
Clover Creek (21015**)**	74 cattle	11/01 to 04/30	100	447	357	804
Mustang Flat (01048)	25 cattle	05/01 to 10/31	100	147	658	805

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

Table 3. Details of current term grazing permit for National Mustang Association Inc. (2705049) on Clover Creek allotment, Lincoln County, Nevada.

Allotment	Livestock Number/Kind	Grazing Period	Percent Public Land*	Active AUMs	Suspended AUMs	Permitted Use
Clover Creek (21015**)**	28 cattle	11/01 to 04/30	100	166	137	303

2.1.2 Proposed term permits

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

The proposed term permit for Roger J. Dieleman and terms and conditions are as follows:

Table 4. Details of proposed term grazing permit for Roger J. Dieleman (2705069) on Clover Creek and Mustang Flat allotments, Lincoln County, Nevada.

Allotment	Livestock Number/Kind	Grazing Period	Percent Public Land*	Non-use AUMs**	Suspended AUMs	Permitted Use
Clover Creek (21015**)**	110 cattle	9/1 to 12/31	100	447	357	804
Mustang Flat (01048)	36 cattle	9/1 to 12/31	100	147	658	805

*% Public Land is the percent of public land for billing purposes.
**Subject to the stipulations set forth in PART 4 – Recommendations, in SDD (Appendix III).

Terms and Conditions

Livestock Management Practices - Terms and Conditions

Roger J. Dieleman has agreed to voluntary non-use of his currently active Animal Unit Months (AUMs) until such time as rangeland monitoring data demonstrates that adequate forage is available for cattle grazing and progress is being made toward achieving the Standards, and that reintroduction of cattle grazing at the allowable use level would not detrimentally affect that progress. This will depend heavily on the planned reduction of wild horse populations within the allotments and surrounding areas. There would be no change in the number of active AUMs. However, because the proposed season of use is two months shorter than the historic and current season of use, the total number of cattle would increase to 110 and 36 on the Clover Creek and Mustang Flat allotments, respectively.

In accordance with 43 CFR §4130.3 and §4130.3-2 the following terms and conditions shall be included in the term grazing permit for Roger J. Dieleman for the Clover Creek and Mustang Flat allotments:

1. To improve livestock distribution the placement of mineral blocks or salt blocks will be a minimum distance of ½ mile from water.

2. Maximum allowable use levels will be established as follows:
   Perennial native grasses: 50% current year's growth
   Perennial shrubs and half-shrubs: 50% use on current annual production.
3. 447 currently active AUMs will be placed in non-use status until such time as the authorized officer determines that rangeland monitoring data demonstrates adequate forage for cattle is available, progress is being made toward achieving the Standards, and that reintroduction of

cattle grazing at the allowable use level during the described season of use will not detrimentally affect that progress.

Additional stipulations common to all grazing allotments:

1. Livestock numbers identified in the Term Grazing Permit are a function of seasons of use and permitted use. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the allotment.
2. Deviations from specified grazing use dates will be allowed when consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.

3. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.

4. The payment of your grazing fees is due on or before the date specified in the grazing bill. This date is generally the opening date of your allotment. If payment is not received within 15 days of the due date, you will be charged a late fee assessment of $25 or 10 percent of the grazing bill, whichever is greater, not to exceed $250. Payment with Visa, MasterCard or American Express is accepted. Failure to make payment within 30 days of the due date may result in trespass action.

5. Pursuant to 43 CFR 10.4 (G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.

6. Grazing use will be in accordance with the Mojave-Southern Great Basin Standards and Guidelines for grazing administration as developed by the Mojave-Southern Great Basin 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 Sub-part 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.

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

8. 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.

9. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.

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

The proposed term permit for National Mustang Association Inc. and terms and conditions are as follows:

Table 5. Details of proposed term grazing permit for National Mustang Association Inc. (2705049) on Clover Creek allotment, Lincoln County, Nevada.

Allotment	Livestock Number/Kind	Grazing Period	Percent Public Land*	Non-use AUMs**	Suspended AUMs	Permitted Use
Clover Creek (21015**)**	36 cattle	9/1 to 12/31	100	167	137	303

*% Public Land is the percent of public land for billing purposes.
**Subject to the stipulations set forth in PART 4 – Recommendations, in SDD (Appendix III).

Terms and Conditions

Livestock Management Practices - Terms and Conditions

National Mustang Association has agreed to voluntary non-use of its currently active Animal Unit Months (AUMs) until such time as rangeland monitoring data demonstrates that adequate forage is available for cattle grazing and progress is being made toward achieving the Standards, and that reintroduction of cattle grazing at the allowable use level would not detrimentally affect that progress. This would depend heavily on the planned reduction of wild horse populations within the allotments and surrounding areas. There would be no change in the number of active AUMs. However, because the proposed season of use is two months shorter than the historic and current season of use, the total number of cattle would increase to 36 on the Clover Creek allotment.

In accordance with 43 CFR §4130.3 and §4130.3-2 the following terms and conditions shall be included in the term grazing permit for National Mustang Association Inc. for the Clover Creek allotment:

1. To improve livestock distribution the placement of mineral blocks or salt blocks will be a minimum distance of ½ mile from water.

2. Maximum allowable use levels will be established as follows:
    a. Perennial native grasses: 50% current year's growth
    b. Perennial shrubs and half-shrubs: 50% use on current annual production.
3. 167 currently active AUMs will be placed in non-use status until such time as the authorized officer determines that rangeland monitoring data demonstrates adequate forage for cattle is available, progress is being made toward achieving the Standards, and that reintroduction of

cattle grazing at the allowable use level during the described season of use will not detrimentally affect that progress.

Additional stipulations common to all grazing allotments:

1. Livestock numbers identified in the Term Grazing Permit are a function of seasons of use and permitted use. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the allotment.
2. Deviations from specified grazing use dates will be allowed when consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.

3. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.

4. The payment of your grazing fees is due on or before the date specified in the grazing bill. This date is generally the opening date of your allotment. If payment is not received within 15 days of the due date, you will be charged a late fee assessment of $25 or 10 percent of the grazing bill, whichever is greater, not to exceed $250. Payment with Visa, MasterCard or American Express is accepted. Failure to make payment within 30 days of the due date may result in trespass action.

5. Pursuant to 43 CFR 10.4 (G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.

6. Grazing use will be in accordance with the Mojave-Southern Great Basin Standards and Guidelines for grazing administration as developed by the Mojave-Southern Great Basin 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 Sub-part 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.

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

8. 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.

9. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.

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

2.1.3 Invasive, Non-Native Species and Noxious Weeds

A Weed Risk Assessment (Appendix II of SDD) was completed on December 10, 2008 for the Roger J. Dieleman and National Mustang Association term grazing permit renewals on Clover Creek and Mustang Flat allotments. The following stipulations listed in the Weed Risk Assessment will be followed when livestock grazing occurs on the allotments to minimize possible effects of weeds:

- 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.
- 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.
- 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.
- Any newly established populations of noxious/invasive weeds discovered will be communicated to the Ely District Noxious and Invasive Weeds Coordinator for treatment.
    - 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.

2.1.4 Monitoring

The Ely District Approved Resource Management Plan (USDI BLM 2008a) 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" (p 88).

2.2 No Action Alternative

The No Action Alternative represents the status quo. The permit would be renewed without changes to grazing management or modifications to the permit terms and conditions (Table 2).

2.3 Alternatives Considered but Eliminated from Further Analysis

The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (USDI BLM 2007) analyzes five alternatives of livestock grazing (p 4.16-1 to 4.16-15.), including a no-grazing alternative (D). No further analysis is necessary in this EA.

- The Proposed RMP
- Alternative A, The Continuation of Current Existing (No Action alternative)
- Alternative B, the maintenance and restoration of healthy ecological systems
- Alternative C, commodity production
- Alternative D, conservation alternative (no-grazing alternative)

3.0 Description of the Affected Environment and Associated Environmental Consequences.

3.1 Allotment Information

The Clover Creek allotment encompasses approximately 22,786 public land acres. The grazing permit area occurs entirely within Lincoln County, and is situated beginning approximately one mile east of Caliente, Nevada (Appendix I; Figure 1). The permit area occurs primarily within the Clover Creek and Miller Flat Herd Areas (HA), with a small portion of the Clover Creek allotment overlapping with the Little Mountain HA. The estimated population of wild horses (*Equus caballus*) within Clover Creek HA is 8, but adjacent Clover Mountain HA contains an estimated 94 wild horses which often move into the Clover Creek HA during winter (Ely District Wild Horse and Burro Specialist, personal communication, 12/2008). The Miller Flat HA contains an estimated 14 horses, and Little Mountain HA contains another 9. The Appropriate Management Level is zero for all of these Herd Areas (USDI BLM 2008a). Wild horse gathers are tentatively scheduled to begin in the winter of fiscal year 2010 (Ely District Wild Horse and Burro Specialist, personal communication, 3/2009).

The Mustang Flat allotment encompasses 5,987 public land acres and is situated directly south of and adjacent to the Clover Creek allotment, beginning approximately 5 miles southeast of Caliente, Nevada (Appendix I; Figure 1). The permit area occurs entirely within the Clover Creek HA.

The primary vegetation types on both allotments are pinyon-juniper (*Pinus monophylla-Juniperus osteosperma)* woodlands with limited shrub and herbaceous understories. There are no wilderness areas within either allotment. The Arizona toad, a BLM Sensitive Species, is known to occur within the Clover Creek drainage. There are no other documented Special Status Species that occur within either allotment, but both overlap with a portion of the Lower Meadow Valley Wash Area of Critical Environmental Concern (ACEC). The entire permit areas are located within mule deer habitat and the Caliente Special Recreation Permit Area.

3.2 Resources/Concerns Considered for Analysis - Proposed Action

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

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Air Quality	No	Air quality in the affected area is generally good except for occasional dust storms. The Proposed Action would not contribute to ambient dust in the air at all during the voluntary non-use period and only marginally if AUMs are again activated. However, the impact would be temporary and would not approach a level that would exceed any air quality standards. Detailed analysis is not required.
Cultural Resources	No	The goal of the Ely District RMP is to identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations. The BLM conducts field investigations and maintains files of archeological sites on public lands. Analyses of existing documentation indicates that concentrated livestock activities near water sources, along fences, and in areas where livestock seek shelter, could adversely affect cultural resources. The cultural staff will identify cultural properties being impacted by grazing activities to be monitored in order to determine condition, impacts, deterioration, and use of these properties. As necessary, strategies (including mitigation) are developed and implemented in order to reduce threats and resolve conflicts to the property.
Forest Health	No	There are no unique or sensitive forests existing in the allotments that would be affected by livestock grazing.
Rangeland Standards and Health	No	Impacts from livestock grazing on Rangeland Standards and Health are analyzed on pages 4.16-3 through 4.16-4 of the Ely Proposed Resource Management Plan/Environmental Impact Statement (USDI BLM 2007). Beneficial impacts to rangeland standards and health are consistent with the need and objectives for the Proposed Action. An assessment and

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		evaluation of livestock grazing management and its relation to achievement of the standards and conformance to the guidelines was completed in conjunction with this project (Appendix III). No further analysis is necessary.
Migratory Birds	No	The migratory bird species that occur or could occur in or near the project area are listed in Appendix II. Changes to season of use and implementation of voluntary non-use agreements on both allotments are part of the Proposed Action and are included to encourage progress toward the Mojave-Southern RAC standards. This would aid in achieving the future desired condition of habitat for several migratory bird species. No adverse direct or indirect impacts to migratory bird populations would occur as a result of the Proposed Action.
Native American Religious Concerns	No	Tribal Coordination Letters were sent out November 19, 2008 for both term permit renewals notifying the tribes of a 30-day comment period. No concerns were identified. The term permit renewals were presented at the March 19, 2009 Tribal Coordination Meeting in Ely, Nevada. No concerns were identified.
USFWS Listed or proposed for listing Threatened or Endangered Species or critical habitat.	No	Threatened, Endangered, or Proposed species are not known to be present in the project area.
Wastes, Hazardous or Solid	No	No hazardous or solid wastes exist on the permit renewal area, nor would any be introduced by the Proposed Action.
Water Quality, Drinking/Ground	No	Impacts from livestock grazing on Water Resources were analyzed on page 4.3-5 in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (USDI BLM 2007). The Proposed Action does not pose any impacts to groundwater above and beyond those disclosed in the EIS (USDI BLM 2007). No surface water in the project area is used as human drinking water. A detailed analysis is not necessary.
Wilderness	No	No Wilderness occurs within or adjacent to the project area.
Environmental Justice	No	No environmental justice issues are present within or near the project area. No minority or low income populations would be unduly affected by the Proposed Action.
Floodplains	No	No floodplains have been identified within the allotment.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		Floodplains, as defined in Executive Order 11988, may exist in the area, but would not be affected by the Proposed Action.
Watershed Management	No	Impacts from livestock grazing on Watershed Management are analyzed on page 4.19-8 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (USDI BLM 2007). Further changes to livestock management may be recommended through the watershed evaluation process, however no concerns have been identified at this time.
Wetlands/Riparian Zones	No	Impacts from livestock grazing on Water Resources were analyzed in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement on page 4.3-5 (USDI BLM 2007). Nine springs on the Clover Creek allotment were assessed for proper functioning condition (PFC) in since 2004. These springs are considered to be representative of riparian areas across the allotments, and they were all found to be at PFC. Because there has been no livestock grazing within either allotment since 2004, it is not possible to evaluate the impact of the current term permit for livestock grazing on riparian areas. However, the proposed voluntary non-use period would have no effect on riparian areas, and future implementation of grazing under the terms and conditions included within this EA is designed to minimize impacts to riparian areas.
Noxious and Invasive Weed Management	Yes	Changes in the season of use of the permit could result in changes in the impacts to noxious and invasive weeds.
Special Status Species other than those listed or proposed by the FWS as Threatened or Endangered	No	The Nevada Natural Heritage Program identified Arizona toad as present within the Clover Creek allotment and Needle Mountains milkvetch as occurring within 1/4 mile of the northern boundary of Clover Creek allotment (see Appendix III, p. 33 for discussion of these species). Other Special Status Species may occur within appropriate habitat within the allotments. There are no greater sage-grouse leks within or near the allotments. The nearest active lek is 30 miles to the north of the Clover Creek allotment's northern boundary. Sage-grouse would not be expected to use either allotment due to

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		the widespread occurrence of the pinyon-juniper woodland cover type, an unsuitable habitat for greater sage-grouse. Changes to season of use and implementation of voluntary non-use agreements on both allotments are part of the Proposed Action and are included to encourage progress toward the Mojave-Southern RAC standards. Progress toward the RAC standards would aid in maintaining or achieving the desired future condition of habitats for many Special Status Species. No adverse direct or indirect impacts to Special Status Species' populations would occur as a result of the Proposed Action.
Wild Horses	No	Both allotments are primarily within the Clover Creek and Miller Flat Herd Areas (HA), with a small portion of the Clover Creek allotment overlapping with the Little Mountain HA. Impacts from livestock grazing on Wild Horses are analyzed on page 4.8-6 of the Proposed Resource Management Plan/Final Environmental Impact Statement (USDI BLM 2007). Site specific examination of the allotment did not reveal any concerns above those addressed in the EIS (USDI BLM 2007).
Fish and Wildlife	No	Impacts from livestock grazing on Fish and Wildlife are analyzed on pages 4.6-10 through 4.6-11 in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (USDI BLM 2007). Mule deer summer and winter range is present in the allotments, as well as year-round elk range. General habitat would be maintained or improved through implementation of the Proposed Action.
Soil Resources	No	Impacts from livestock grazing on Soil Resources were analyzed on page 4.4-4 in the Ely Proposed resource Management Plan/Final Environmental Impact Statement (USDI BLM 2007). Site specifically, the soils standard is not being achieved within either allotment, however, livestock were not identified as a causal factor (Appendix II).
Special Designations other than Designated Wilderness	No	The Proposed Action is consistent with Management Action SS-20 for Special Status Species (USDI BLM 2008a), which states: "Limit livestock grazing in the Lower Meadow Valley Wash ACEC through terms and conditions and/or season-of-use restrictions on grazing permits in

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		accordance with a site-specific ACEC plan". Design features of the Proposed Action such as changes to season of use and voluntary non-use agreements comply with Management Action SS-20 in the RMP (USDI BLM 2008). There will be no impacts to ACECs. The Proposed Action is also consistent with the Management Prescriptions for ACECs described in the Ely District RMP in that livestock grazing is available within the ACEC and "Livestock grazing is controlled through terms and conditions on the grazing permit" (Table 26, p 115).
Visual Resource Management	No	The Proposed Action is consistent with the VRM classification 3 and 4 for the area therefore no direct or cumulative impacts to visual resources would occur.
Grazing Uses	No	The proposed changes to the grazing management regime on the Clover Creek and Mustang Flat allotments would continue to meet the RMP (USDI BLM 2008a) goals and objectives, including progressing toward meeting the Standards for rangeland health. No further analysis is necessary.
Land Uses	No	There would be no modifications to land use authorizations through the, therefore no impacts would occur. No direct or indirect impacts would occur to access and land use.
Recreation Uses	No	The Proposed Action would not impact recreational activities.
Paleontological Resources	No	No currently identified paleontological resources are present in the project area.
Water Resources	No	There would be no changes to current uses of water resulting from the Proposed Action. Impacts from livestock grazing on Water Resources were analyzed in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (p 4.3-5; USDI BLM 2007). Site specific examination of the allotment did not reveal any concerns above those addressed in the EIS (USDI BLM 2007).
Mineral Resources	No	There would be no modifications to mineral resources resulting from the Proposed Action.
Vegetative Resources	No	Impacts from livestock grazing on Vegetation (including Riparian) Resources were analyzed on page 4.5-9 in the Ely Proposed Resource Management Plan/Environmental Impact Statement (USDI BLM 2007). Site specifically, vegetative resources are described in Standard 3 of the

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		SDD; Appendix II and Appendix III. The Standard is not achieved in the Proposed Action area. Livestock are not a contributing factor to not achieving the standards. Impacts to vegetative resources are consistent with the need and objectives for the Proposed Action. No further analysis is needed.

The resources/concerns that are not present in the Proposed Action within the grazing allotments, are analyzed adequately in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (USDI BLM 2007), or are negligibly or not affected by the Proposed Action and do not require a detailed analysis include the following: air quality, cultural resources, forest health, rangeland standards and health, migratory birds, Native American religious concerns, USFWS listed or proposed for listing Threatened or Endangered species or critical habitat, hazardous or solid wastes, water quality, wilderness, environmental justice, floodplains, watershed management, wetlands and riparian zones, special status plant species, wild horses, fish and wildlife, soil resources, special designations other than designated wilderness, visual resource management, grazing uses, land uses, recreation uses, paleontological resources, water resources, mineral resources, and vegetative resources.

The resource that has potential impacts from the Proposed Action includes noxious and non-native, invasive weeds.

3.2.1 Noxious and Non-native, Invasive Weeds
Affected Environment

No field weed surveys were completed for this project. Instead, the Ely District weed inventory data was consulted. The Mustang Flat allotment currently has no documented weed infestations, but non-native annual mustard species were noted in the eastern portion of the allotment during a field visit in February, 2009. The following species are known to occur within the boundaries of the Clover Creek allotment:

Cirsium vulgare	Bull thistle
Conium maculatum	Poison hemlock
Lepidium draba	Hoary cress
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

The following species are known to occur along roads and drainages leading to both allotments:

Acroptilon repens	Russian knapweed
Ailanthus altissima	Tree of Heaven
Centaurea stoebe	Spotted knapweed

Cirsium vulgare	Bull thistle
Conium maculatum	Poison hemlock
Lepidium draba	Hoary cress
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

These allotments were last inventoried for noxious weeds in 2004. While not officially documented, the following non-native invasive weeds probably occur in or around the allotments: red brome (*Bromus rubens*), cheatgrass (*Bromus tectorum*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

3.2.2 Environmental Consequences

A Noxious and Invasive Weed Risk Assessment was completed for this project and can be found in Appendix IV of the attached SDDs. Reinstatement of livestock grazing subsequent to the voluntary non-use period could increase the populations of noxious and invasive weeds already within the allotments and could aid in the introduction of weeds from surrounding areas. Within the allotments, watering and salt/mineral block sites are of particular concern as a source of new weed infestations due to the concentration of livestock around those sites and the degree of associated ground disturbance. If new weed infestations become established within the allotments, it could have an adverse impact to native plant communities. However, design features incorporated into the Proposed Action are designed to minimize the possibility of introduction and spread of invasive and noxious weed species. The change in season of use, which moves livestock grazing outside of the critical spring growth period, promotes more vigorous native plant communities, thereby enhancing resistance to invasive plant invasion.

3.3 Resources/Concerns Considered for Analysis - No Action Alternative

Impacts to resources/concerns from renewing the permit under the No Action alternative are described as follows:

Impacts to air quality, cultural resources, forest health, rangeland standards and health, migratory birds, Native American religious concerns, USFWS listed or proposed for listing Threatened or Endangered species or critical habitat, hazardous or solid wastes, water quality, wilderness, environmental justice, floodplains, watershed management, wetlands and riparian zones, special status plant species, wild horses, fish and wildlife, soil resources, special designations other than designated wilderness, visual resource management, grazing uses, land uses, recreation uses, paleontological resources, water resources, mineral resources, and vegetative resources are the same as those described under the Proposed Action. Impacts to rangeland standards and health could progress at a reduced rate.

4.0 Cumulative Impacts

Cumulative analysis should be focused on those issues and resource values where the incremental impact of the Proposed Action results in a meaningful change in the cumulative effect from other past, present and reasonably foreseeable future actions within the Cumulative Effects Study Area (USDI BLM 2008b). The Cumulative Effects Study Area is defined as the Clover Creek watershed for noxious and invasive weeds.

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

A comprehensive cumulative impacts analysis that includes livestock grazing can be found on pages 4.28-1 through 4.36-1 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (USDI BLM 2007). Most past and all present and reasonably foreseeable future Federal actions have noxious and invasive weed prevention stipulations and weed treatment requirements associated with each project. This, in combination with the active BLM Ely District Weed Management Program stipulations incorporated into the Proposed Action, will minimize the spread of weeds throughout the Clover Creek watershed.

5.0 Proposed Mitigation and Monitoring

5.1 Proposed Mitigation

Outlined design features incorporated into the Proposed Action are sufficient. No additional mitigation is proposed based on the analysis of environmental consequences.

5.2 Proposed Monitoring

Appropriate monitoring has been included as part of the Proposed Action. No additional monitoring is proposed as a result of the impact analysis.

6.0 Consultation and Coordination

6.1 List of Preparers - BLM Egan Field Office Resource Specialists

Cameron Collins	Wildlife Biologist/Project Lead
Gina Jones	Ecology/Planning and Environmental Coordinator
Bonnie Million	Noxious and Invasive Weeds, Non-native Species
Rick Baxter	Wildlife, Special Status Species, Migratory Birds
Chris Linehan	Recreation, Visual Resources
Nick Pay	Cultural Resources
Mark D'Aversa	Soil, Water, Wetlands and Riparian, Floodplains
Ben Noyes	Wild Horse and Burro Resources
Elvis Wall	Native American Cultural Concerns
Dave Jacobson	Wilderness

Zach Peterson	Forestry
Chris Mayer	Supervisory Rangeland Management Specialist
Melanie Peterson	Hazardous & Solid Wastes
Joseph David	Planning and Environmental Coordinator

6.2 Persons, Groups or Agencies Consulted

Roger J. Dieleman	Permittee
National Mustang Association	Permittee
Steve Foree	Nevada Department of Wildlife

Public Notice of Availability

On November 20, 2008 letters were sent to interested persons and organizations informing them of the Roger J. Dieleman and National Mustang Association Inc. term grazing permit renewals. On November 11, 2008, this grazing permit renewal summary was posted on the BLM Ely District Grazing Permit Renewal website http://www.blm.gov/nv/st/en/fo/ely_field_office.html.

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APPENDIX I

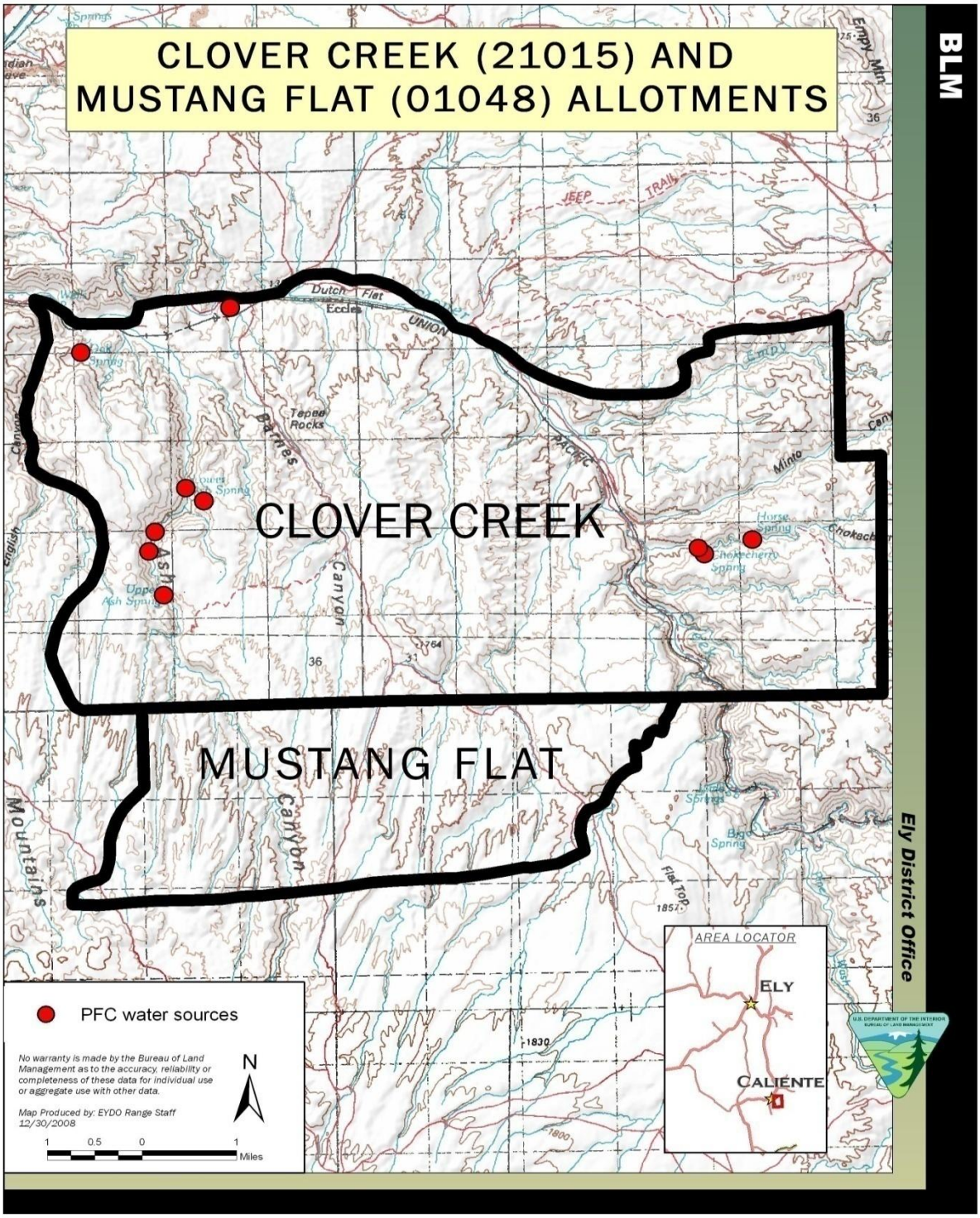

Figure 1. Location of Clover Creek and Mustang Flat allotments, Lincoln County, Nevada.

APPENDIX II

Birds identified in pinyon-juniper and sagebrush habitat type atlas blocks near the Clover Creek and Mustang Flat allotments during bird surveys conducted for the Nevada Breeding Bird Atlas (Floyd et al. 2007).

Breeding status	Alpha code	Common name	Scientific name
Possible	AMKE	American kestrel	*Falco sparverius*
Possible	AMRO	American robin	*Turdus migratorius*
Probable	ATFL	ash-throated flycatcher	*Myiarchus cinerascens*
Possible	AUWA	Audubon's warbler	*Dendroica coronata auduboni*
Possible	BUOW	barn owl	*Tyto alba*
Possible	BCHU	black-chinned hummingbird	*Archilochus alexandri*
Possible	BCSP	black-chinned sparrow	*Spizella atrogularis*
Confirmed	BEWR	Bewick's wren	*Thryomanes bewickii*
Confirmed	BGGN	blue-grey gnatcatcher	*Polioptila caerulea*
Probable	BHCO	brown-headed cowbird	*Molothrus ater*
Possible	BHGR	black-headed grosbeak	*Pheucticus melanocephalus*
Confirmed	BRSP	Brewer's sparrow	*Spizella breweri*
Possible	BTGN	black-tailed gnatcatcher	*Polioptila melanura*
Possible	BTGW	black-throated gray warbler	*Dendroica nigrescens*
Possible	BTHU	Broad-tailed hummingbird	*Selasphorus platycercus*
Possible	BTSP	black-throated sparrow	*Amphispiza bilineata*
Possible	BUOR	Bullock's oriole	*Icterus bullockii*
Probable	BUSH	bushtit	*Psaltriparus minimus*
Possible	CANW	canyon wren	*Catherpes mexicanus*
Confirmed	CHSP	chipping sparrow	*Spizella passerina*
Possible	CONI	common nighthawk	*Chordeiles minor*
Possible	COPO	common poorwill	*Phalaenoptilus nuttallii*
Confirmed	CORA	common raven	*Corvus corax*
Possible	GAQU	Gambel's quail	*Callipepla gambelii*
Possible	GHJU	gray-headed junco	*Junco hyemalis caniceps*
Probable	GRFL	gray flycatcher	*Empidonax wrightii*
Confirmed	GRVI	gray vireo	*Vireo vicinior*
Possible	HAWO	hairy woodpecker	*Picoides villosus*
Probable	HOLA	horned lark	*Eremophila alpestris*
Probable	HOFI	house finch	*Carpodacus mexicanus*
Probable	HOWR	house wren	*Troglodytes aedon*
Possible	JUTI	juniper titmouse	*Baeolophus ridgwayi*
Probable	LASP	lark sparrow	*Chondestes grammacus*
Probable	LAZB	lazuli bunting	*Passerina amoena*

Possible	LOSH	loggerhead shrike	*Lanius ludovicianus*
Confirmed	MOBL	mountain bluebird	*Sialia currucoides*
Possible	MOCH	mountain chickadee	*Poecile gambeli*
Probable	MODO	mourning dove	*Zenaida macroura*
Possible	NOFL	northern flicker	*Colaptes auratus*
Probable	NOMO	northern mockingbird	*Mimus polyglottos*
Probable	PIJA	pinyon jay	*Gymnorhinus cyanocephalus*
Possible	PLVI	plumbeous vireo	*Vireo plumbeus*
Possible	ROWR	rock wren	*Salpinctes obsoletus*
Possible	SAPH	Say's phoebe	*Sayornis saya*
Probable	SPTO	spotted towhee	*Pipilo maculatus*
Possible	STJA	Steller's jay	*Cyanocitta stelleri*
Possible	TUVU	turkey vulture	*Cathartes aura*
Possible	VESP	vesper sparrow	*Pooecetes gramineus*
Possible	VGSW	violet-green swallow	*Tachycineta thalassina*
Possible	WAVI	warbling vireo	*Vireo gilvus*
Confirmed	WEBL	western bluebird	*Sialia mexicana*
Probable	WEKI	western kingbird	*Tyrannus verticalis*
Possible	WEME	western meadowlark	*Sturnella neglecta*
Probable	WESO	western screech owl	*Megascops kennicottii*
Confirmed	WESJ	western scrub jay	*Aphelocoma californica*
Possible	WIWA	Wilson's warbler	*Wilsonia pusilla*
Possible	YBCH	yellow-breasted chat	*Icteria virens*
Possible	ZZ-EMPI	*Empidonax* spp.	*Empidonax* spp.

APPENDIX III

STANDARDS DETERMINATION DOCUMENT

Roger J. Dieleman (2705069) and National Mustang Association Inc. (2705049) Term Permit Renewals for Clover Creek allotment (21015) and Roger J. Dieleman (2705069) Term Permit Renewal for Mustang Flat allotment (01048)

Standards and Guidelines Assessment

The Mojave-Southern Great Basin Standards and Guidelines for grazing administration were developed by the Mojave-Southern Great Basin Resource Advisory Council (RAC) and approved by the Secretary of the Interior on February 12, 1997. Standards and guidelines are likened to objectives for healthy watersheds, healthy native plant communities, and healthy rangelands. Standards are expressions of physical and biological conditions required for sustaining rangelands for multiple uses. Guidelines point to management actions related to livestock grazing for achieving the standards.

This Standards Determination Document evaluates and assesses livestock grazing management achievement of the Standards and conformance with the Guidelines for the Clover Creek and Mustang Flat allotments within the BLM Ely District. This document does not evaluate or assess achievement of the Wild Horse and Burro or the Off Highway Vehicle Standards or conformance to their respective Guidelines.

The standards were assessed for the Clover Creek and Mustang Flat allotments by a BLM interdisciplinary team consisting of a rangeland management specialist, wildlife biologist, weeds specialist, and watershed specialist. Documents and publications used in the assessment process include the Soil Survey of Lincoln County Nevada, Meadow Valley, Ecological Site Descriptions for Major Land Resource Area 29, Interpreting Indicators of Rangeland Health (USDI-BLM et al. 2000), Sampling Vegetation Attributes (USDI-BLM et al. 1996) and the National Range and Pasture Handbook (USDA-NRCS 1997). All are available for public review during normal business hours at the Caliente BLM Field Station. The interdisciplinary team used rangeland monitoring data, professional observations, and photographs to assess achievement of the Standards and conformance with the Guidelines.

The Clover Creek allotment encompasses approximately 22,786 public land acres. The grazing permit area occurs entirely within Lincoln County, and is situated beginning approximately 1 mile east of Caliente, Nevada (Appendix II; Figure 2-1). The permit area occurs primarily within the Clover Creek and Miller Flat Herd Areas (HA), with a small portion of the Clover Creek allotment overlapping with the Little Mountain HA. The estimated population of wild horses (*Equus caballus*) within Clover Creek HA is 8, but adjacent Clover Mountain HA contains an estimated 94 wild horses which often move into the Clover Creek HA during winter (Ely District Wild Horse and Burro Specialist, personal communication, 12/2008. The Miller Flat HA contains an estimated 14 horses, and Little Mountain HA contains another 9. The Appropriate Management Level is zero for all of these Herd Areas (Ely District Record of Decision and Approved Resource Management Plan (USDI BLM 2008a).

The Mustang Flat allotment encompasses 5,987 public land acres and is situated directly south of and adjacent to the Clover Creek allotment, beginning approximately 5 miles southeast of Caliente, Nevada (Appendix II; Figure 2-1). The permit area occurs entirely within the Clover Creek HA.

There are no wilderness areas within either allotment. Neither allotment, nor any portion thereof, is located within desert tortoise (*Gopherus agassizii*) habitat. The Arizona toad (*Bufo microscaphus*) and Needle Mountains milk-vetch (*Astragalus eurylobus*), BLM Sensitive Species, are known to occur within the Clover Creek drainage. There are no other documented Special Status Species occurrences within either allotment, but both overlap with a portion of the Lower Meadow Valley Wash Area of Critical Environmental Concern (ACEC). The entire permit area is located within mule deer (*Odocoileus hemionus*) and elk (*Cervus elaphus*) habitat and the Caliente Special Recreation Permit Area.

The current term permit for Roger J. Dieleman is issued for the period 03/01/2004 to 02/28/2014 for both allotments. This is a cattle permit with an active permitted use of 443 and 151 (Animal Unit Months) AUMs for Clover Creek and Mustang Flat allotments, respectively (Table 1). The current term permit for National Mustang Association Inc. is issued for 12/18/2002 to 12/18/2012 and is a cattle permit consisting of 167 authorized AUMs for Clover Creek allotment only (Table 1). However, National Mustang Association Inc. has not reported any use since at least 1997, and Roger J. Dieleman has not reported any use since 2004, with intermittent use and non-use reported from 1997 to 2004. The issuance of the new term grazing permits could be for a period of up to ten years.

Table 1. Currently authorized Animal Unit Months (AUMs) and associated details for Clover Creek and Mustang Flat allotments, Ely BLM, Caliente Field Office, Lincoln County, Nevada.

Allotment	Permittee	Number of Livestock	Grazing Period	Active AUMs	Suspended AUMs	Permitted AUMs
Clover Creek (21015**)**	Roger J. Dieleman	74 cattle	11/01 to 04/30	447	357	804
Clover Creek	NMA	28 cattle	11/01 to 04/30	166	137	303
Mustang Flat (01048)	Roger J. Dieleman	25 cattle	05/01 to 10/31	147	658	805

The primary vegetation types on both allotments are pinyon-juniper (*Pinus monophylla-Juniperus osteosperma)* woodlands with limited shrub and herbaceous understories. There are five primary ecological sites associated with these vegetation types. Two of these ecological sites are classified as rangeland, and three are woodland. The rangeland sites are 1) Loamy Slope (029XY010NV) domintated by Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*), needle and thread (*Hesperostipa comata*), and Indian ricegrass (*Achnatherum hymenoides*); 2) Shallow Calcareous Loam (029XY008NV) dominated by black sagebrush (*A. nova*), Indian ricegrass, and needle and thread. The woodland ecological sites are 1) PIMO-

JUOS WSG: OR0502 dominated by singleleaf pinyon and Utah juniper (30-50% pinyon canopy cover and 50-70% juniper cover), with Wyoming big sagebrush as the principal understory shrub and muttongrass (*Poa fendleriana*) and Sandberg's bluegrass (*Poa secunda*) as the primary grasses; 2) PIMO-JUOS WSG: 0R0504 dominated by singleleaf-pinyon and Utah Juniper (30-50% juniper cover and 50-70% pinyon cover), with black sagebrush as the principal understory shrub and muttongrass and Sandberg's bluegrass as the principal grasses, and; 3) JUOS WSG: 0R0402 dominated by Utah juniper (95-100% juniper canopy cover), with Wyoming big sagebrush, desert bitterbrush (*Purshia glandulosa*) and/or Stansbury's cliffrose (*P. Stansburiana*) as the dominant understory shrubs, and Indian ricegrass, muttongrass and bottlebrush squirreltail (*Elymus elymoides*) as the dominant grasses.

Key area CC01 on the Clover Creek allotment was established and quantified in 1982 and again in 1995. The associated Ecological Site (029XY065NV) is described as a woodland community dominated by Utah juniper (50-70% overstory canopy composition) and singleleaf pinyon (30-50%) occurring on a Minu-Shroe-Acoma soil association (1190; NRCS 1997). Understory vegetative composition is approximately 30% grasses, 10% forbs, and 60% shrubs and young trees when the overstory canopy is medium (20-35%). Wyoming big sagebrush is the principal understory shrub, with muttongrass and Sandberg's bluegrass being the key grass species. Blue grama (*Bouteloua gracilis*) decreased significantly (p=0.05) at this key area between 1982 and 1995, but no trend was detected (p=0.05) for all other key grass species. In 1998, this key area was deemed unrepresentative of grazing use of the allotment, primarily because it was over 2 miles from water. Therefore, it has not been measured since.

No key areas have been established within the Mustang Flat allotment. Nearly all of the allotment is classified as pinyon-juniper woodland, with a small fraction classified as a black sagebrush ecological site. In 2007, the Barnes Canyon fire burned approximately 958 acres within the allotment. Fencing was completed around most of this burn in 2008 to exclude livestock and wild horses while allowing for seeding and recovery of the area.

PART 1. STANDARD CONFORMANCE REVIEW - CLOVER CREEK ALLOTMENT

Standard 1. Soils

"Watershed soils and stream banks should have adequate stability to resist accelerated erosion, maintain soil productivity, and sustain the hydrologic cycle."

Soil Indicators:

- Ground cover (vegetation, litter, rock, bare ground).
- Surfaces (e.g., biological crust, pavement).
- Compaction/infiltration.

Riparian Soil Indicators:

- Stream bank stability.

All of the above indicators are appropriate to the potential of the ecological site.

Determination:
□ Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards achieving
X Not Achieving the Standard, and not making significant progress toward standard
Causal Factors
□ Livestock are a contributing factor to not achieving the standard.
X Livestock are not a contributing factor to not achieving the standard
X Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
□ In conformance with the Guidelines
X **Not in conformance with the Guidelines**

Conclusion: Not Achieving the Standard, and not making significant progress toward standard

The majority of Clover Creek allotment is classified as a woodland community type. Appropriate values for indicators that meet Standard 1 are not provided for woodland sites. Therefore, objective comparison of monitoring data with target values is not possible. However, vegetation monitoring data and professional observation indicates that the overall vegetative condition on the majority of Clover Creek allotment is mature woodland dominated by Utah juniper and pinyon pine. The overstory tree canopy cover commonly is below or within the range (20-35%) considered appropriate for Potential Native Vegetation for the ecological site. However, the shrub and herbaceous understory within the extensive pinyon-juniper matrix is often lacking or nonexistent. As noted above, there is no objective method to compare these estimates to a Standard within a woodland ecological site, but professional observation suggests that the herbaceous understory is not appropriate to the site potential. Soils do appear stable and no widespread extensive rills or gullies were noted.

Key area CC02 was established on the Clover Creek allotment in 1998 (Appendix I; Table 1-1). It was measured in 1998 and again in 2008. The associated Ecological Site is described as a woodland community type dominated by Utah juniper (95-100% overstory canopy composition) and singleleaf pinyon (<5%) occurring on a Brier-Acoma-Bellehelen association (1210; NRCS 1997). Understory vegetative composition is approximately 15% grasses, 5% forbs, and 80% shrubs and young trees when the canopy cover is medium (20-35%). Wyoming big sagebrush, desert bitterbrush and/or Stansbury's cliffrose are the principal understory shrubs, with Indian ricegrass, muttongrass, and bottlebrush squirreltail as the prevalent key grass forage species. The associated soils are described as shallow to moderately deep, skeletal, and well drained with 30 to over 50% gravels, cobbles or stones by volume. Available water capacity is low with runoff potential ranging from medium to rapid, associated with a moderate to severe potential for sheet and rill erosion depending on the slope.

The line intercept cover estimate for understory vegetation at key area CC02 was 1.7% (Appendix I; Table 3-1) and litter and rock cover was also low (7.1%). It was noted that antelope bitterbrush (*Purshia tridentata*), mormon tea (*Ephedra viridis*), and black sagebrush all had low vigor. Litter was located primarily under trees and shrubs (Figure 1).

Figure 1. Line intercept cover transect at Key Area CC02 within the Clover Creek allotment, Lincoln County, Nevada, 2008.

Line intercept cover data was collected at one additional random study site (CC04) within Clover Creek allotment. The associated Ecological Site (029XY065NV) is described as a woodland community dominated by Utah juniper (50-70% overstory canopy composition) and singleleaf pinyon (30-50%) occurring on a Minu-Shroe-Acoma soil association (1190; NRCS 1997). Understory vegetative composition should be approximately 30% grasses, 10% forbs, and 60% shrubs and young trees when the overstory canopy is medium (20-35%). Wyoming big sagebrush is the principal understory shrub, with muttongrass and Sandberg's bluegrass being the key grass species. The associated soils at this site are skeletal with 35 to over 50% gravels, cobbles or stones by volume. Available soil water is low and runoff potential is medium to rapid, with the potential for moderate to severe sheet and rill erosion depending on slope.

The line intercept cover estimate for understory vegetation at study area CC04 was 4.8% (Appendix I; Table 3-1) and litter and rock cover combined was also low (17.1%). It was noted that there was a lot of standing and large litter (Figure 2).

Figure 2. Line intercept cover transect at study area CC04 within the Clover Creek allotment, Lincoln County, Nevada, 2008.

Three additional sites (CCWS01-CCWS03) within Clover Creek allotment were measured for understory/overstory cover characteristics during the watershed assessment process in 2008. While not key areas or study sites measured as part of the regular range monitoring program, these sites are useful for characterization of the vegetative cover component throughout the woodland community type prevalent across the allotment. CCWS01 occurred on a Stewval-Gabbvally soil association. The associated Ecological Sites (029XY008NV and 029XY010NV) are classified as rangeland sites, dominated by black sagebrush and Wyoming big sagebrush. Understory composition is approximately 45-50% grasses (Indian ricegrass and needle and thread) 5% forbs, and 45-50% shrubs. Soils range from very shallow to moderately deep, and water capacity is low to moderate. Approximate vegetative ground cover (basal and crown) is

described as 15-20%. Cover measured at CCSW01 meets this value (Appendix I; Table 3-1), although it is comprised entirely of shrubs and lacks a grass/forb component.

CCWS02 occurred on a woodland Ecological Site (029XY084NV). Soils are shallow and well drained with 35-60% gravels, cobbles, or stones by volume, distributed throughout their profile. Runoff is rapid and the potential for sheet and rill erosion is moderate to severe depending on slope, which can be steep (15 to over 75%). An overstory canopy of about 30% is assumed to be representative of the Potential Native Vegetation. Understory vegetative composition is about 35% grasses, 10% forbs, and 55% shrubs and young trees when the tree overstory is medium (20-35%). Actual total understory vegetation cover was very low (7.5%), while litter cover was adequate (43.0%, Appendix I; Table 4.1).

CCWS03 occurred on woodland Ecological Sites (029XY069NV and 029XY070NV [described above]). The Ecological Site description for 029XY069NV indicates 30-50% juniper and 50-70% singleleaf pinyon composition. Understory vegetative composition is about 30% grasses, 10% forbs, and 60% shrubs and young trees when the overstory canopy is moderate (20-35%). Overall vegetative understory was adequate (23.0%) at CCWS03, while litter cover was fairly widespread (57%, Appendix I; Table 3-1).

Three additional sites (WS0201-WS0203) were randomly selected and measured as part of the watershed assessment process in 2002 (Appendix I; Table 3-1), and while not particularly useful for characterization of the current herbaceous understory community, they are useful to characterize the overstory tree canopy cover on the associated woodland ecological sites, which ranged from 12.5-28.0%.

In summary, only trace amounts of herbaceous grass/forb cover were present at all five sites measured in 2008, and three of five sites contained only single digit shrub cover percentages. Total understory vegetative cover averaged 11.4%, the majority of which was shrubs (Appendix I; Table 3-1). These cover values are not appropriate to site potentials and the goals of the soils Standard are not being met.

Standard 2. Ecosystem Components

Watersheds should possess the necessary ecological components to achieve State water quality criteria, maintain ecological processes, and sustain appropriate uses.

Riparian and wetlands vegetation should have structural and species diversity characteristic of the stage of stream channel succession in order to provide forage and cover, capture sediment, and capture, retain, and safely release water (watershed function).

Upland Indicators:

- Canopy and ground cover, including litter, live vegetation, biological crust, and rock appropriate to potential of the ecological site.
- Ecological processes are adequate for the vegetative communities.

Riparian Indicators:

- Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows.
- Elements indicating proper functioning condition (PFC) such as avoiding acceleration erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:
    - Width/Depth ratio.
    - Channel roughness.
    - Sinuosity of stream channel.
    - Bank stability.
    - Vegetative cover (amount, spacing, life form).
    - Other covers (large woody debris, rock).
    - Natural springs, seeps and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plan species and cover appropriate to the site characteristics.

Water Quality Indicators:

- Chemical, physical and biological constituents do not exceed the State water quality Standards.

The above indicators shall be applied to the potential of the ecological site.

Determination:
X Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards
□ Not Achieving the Standard, and not making significant progress toward standard

Causal Factors: **Not Applicable**
□ Livestock are a contributing factor to not achieving the standard
□ Livestock are not a contributing factor to not achieving the standard
□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
X In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Standard Achieved

During 2008, Lower Ash Spring and an unnamed perennial stream in a tributary canyon beginning approximately 200 meters upstream from Lower Ash Spring were assessed and found to be at PFC.

Upper Ash Spring, Oak Spring, two additional sites between Lower and Upper Ash Spring, and an unnamed spring at the mouth of Barnes Canyon were assessed by an interdisciplinary team in 2004 and found to be at PFC. Because there has been no livestock use of the allotment since 2004, it is presumed that any potential changes in the functional rating of riparian areas within the allotment since that time would not be due to domestic livestock.

Horse Spring and two sites at Chokecherry Spring were assessed in 1997 and found to be nonfunctional (Horse Spring) or functional at risk with an upward trend (Chokecherry Spring). There was no livestock use reported during 1997, but prior history of use is unknown, therefore it is not known if livestock were identified as a causal factor.

Because all seven riparian areas that were assessed for PFC since 2004 were found to be at PFC, it was concluded that the ecosystem component Standard is being achieved. It is not expected that livestock would make significant use of these areas in the future due to their inaccessibility or because water is available at several other preferred or more convenient locations within the main Clover Creek Canyon drainage. See Appendix I; Table 4-1 for PFC monitoring data.

Standard 3. Habitat and Biota:

Habitats and watersheds should sustain a level of biodiversity appropriate for the area and conducive to appropriate uses. Habitats of special status species should be able to sustain viable populations of those species.

As indicated by:

- Vegetation composition (relative abundance of species);
- Vegetation structure (life forms, cover, height, or age class);
- Vegetation distribution (patchiness, corridors);
- Vegetation productivity; and
- Vegetation nutritional value.

Determination:
□ Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards
X Not Achieving the Standard, not making significant progress toward standard

Causal Factors
□ Livestock are a contributing factor to not achieving the standard.
X Livestock are not a contributing factor to not achieving the standard
X Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
X In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Not achieving the Standard, not making significant progress towards. Livestock are not a contributing factor to not achieving the Standard, failure to meet the standard is related to other issues or conditions.

As part of the BLM watershed assessment process for the South Clover Creek Watershed, line intercept cover data was collected at three sites (WS0201-WS0203) within Clover Creek allotment in October 2002. These sites all occurred on a Minu-Shroe-Acoma association. The associated major Ecological Site (029XY070NV) was described above under Standard 1. Understory vegetative composition within a medium overstory canopy is approximately 15% grasses, 5% forbs, and 80% shrubs and young trees. Understory composition at these three sites averaged 89% shrubs (all sagebrush) and 11% grasses, near the appropriate site potential. The forb component was only 0.2%, likely because the sites were measured during fall and forbs had dessicated. Ecological condition data was also collected at two sites (associated ecological sites 029XY070NV and 029XY065NV) within the allotment during July, 2008. Understory production ranges between 100-450 pounds per acre (029XY070NV) and between 200-500 pounds per acre (029XY065NV) at these sites. Actual total understory production was 70 and 35 pounds per acre at these two sites, respectively, well below what would be expected under a medium density overstory canopy.

Composition estimates at key area CC02 indicate that the shrub component increased substantially while the grass and forb components decreased substantially between 2002 and 2008 (Appendix I; Table 5-1). In addition, the 2008 composition estimates for study site CC04 and watershed assessment site CCSW01/CCWS03 indicate the near complete absence of a grass/forb component.

In summary, monitoring data indicates that the shrub and herbaceous understory is severely reduced within the overall matrix of overstory trees. Biomass production in the understory is well below what is appropriate for the site. Taken collectively, these indicators suggest that the Clover Creek allotment is not meeting the Standard for habitat and requires significant habitat treatment such as prescribed or natural fire to begin to move toward the desired vegetation community and meeting the Standard.

The Arizona toad is the only documented animal Special Status Species known to occur within the permit renewal area. According to the International Union for Conservation of Nature (IUCN), this species is locally very common in suitable habitat within its small range. Within southwestern Utah, its habitat is described as streams and washes bordered by willows (*Salix* spp.) and cottonwoods (*Populus* spp.), and has also been recorded within impounded areas. Occupied habitat within Nevada is presumed to be similar. It lays eggs among gravel, leaves, or sticks, or on mud or clean sand at bottom of flowing or shallow quiet waters of perennial or semi-permanent streams or shallow ponds (Dahl et al. 2000 *in* Hammerson and Schwaner 2004).

The biggest threats to the species have been identified as habitat destruction and/or alteration and interspecific hybridization with the closely related Woodhouse's toad (*B. woodhousii*).

Hybridization is currently much more common than historically occurred due to manmade damming, which can reduce the extent of lotic environments favored by *B. microscaphus* and increase the occurrence of lentic environments favored by *B. woodhousii*. Hybridization is occurring particularly in these areas. Because livestock grazing within the permit renewal area does not contribute to changes in water flow regimes, potentially influencing the prevalence of hybridization within known habitats such as the Clover Creek drainage, any extant populations of *B. microscaphus* are not expected to be impacted through the Proposed Action.

Needle Mountains milkvetch (*Astragalus eurylobus*), a perennial herb and BLM Sensitive Species, has been documented within a quarter mile of the northern boundary of Clover Creek allotment, and could occur within the permit renewal area. Habitat within Nevada is described as deep, barren, sandy, gravelly, or clay soils derived from sandstone or siliceous volcanic, frequently in or along drainages (Nevada Natural Heritage Program 2008; data compiled 2001). Little is known regarding the threats, status, or trend of the species' population within Nevada. In general, *Astragalus* species (also known colloquially as "locoweed") are not preferred forage plants during the growing season due to their toxicity to cattle. Because of this characteristic, renewing the grazing permit within Clover Creek is not likely to adversely affect any potential Needle Mountains milkvetch populations within the allotment.

PART 2. ARE LIVESTOCK A CONTRIBUTING FACTOR TO NOT MEETING THE STANDARDS? SUMMARY REVIEW:

Standard #1: Upland Sites
The Standard is not being achieved.

There has been no domestic livestock grazing use within the allotment since 2004. Causal factors for not meeting the Standard are considered to be drought and lack of wildfire within the woodland community present over much of the allotment. Although not quantitatively evaluated, wild horse utilization may also be a contributing factor to not meeting the Standard, particularly near the limited water sources within the allotment.

Standard #2: Riparian and Wetlands
The Standard is being achieved.

Standard #3: Habitat
The Standard is not being achieved.

Livestock are not a contributing factor toward not achieving the Standard. There has been no domestic livestock grazing use within the allotment since 2004. Failure to meet the standard is related to other issues or conditions, primarily prolonged drought and lack of wildfire within the woodland communities present throughout most of the allotment. Lack of wildfire has allowed an increase in the tree overstory density to the point that much of the allotment may be considered to be in the overmature state. Wild horse use may also be a contributing factor, and

because the appropriate management level for wild horses in this area is zero, any wild horse utilization of forage contributes toward not meeting the Standard.

PART 3. GUIDELINE CONFORMANCE REVIEW AND SUMMARY

The assessment evaluated management actions against the Standards and Guidelines for Nevada's Mojave-Southern Great Basin Area. Current management is not in conformance with Guideline 1.1, but is in conformance with Guideline 1.2. Guidelines 1.3-1.4 are not applicable to this assessment.

The assessment found current management to be in conformance with Guidelines 2.1 and 2.2, but not with Guideline 2.3. Guidelines 2.4-2.8 are not applicable to this assessment.

Current management is not in conformance with Guidelines 3.1, but is in conformance with 3.2. Guidelines 3.3-3.9 are not applicable to this assessment.

PART 4. MANAGEMENT PRACTICES TO CONFORM WITH GUIDELINES AND ACHIEVE STANDARDS

Recommendations:

1. Ensure annual rangeland monitoring of this allotment is implemented to determine compliance with proper allowable use levels.

2. On the Clover Creek allotment, the seasons of use are recommended to change to:
   - 9/01 to 12/31 for cattle use

3. On the Clover Creek allotment, all active use AUMs for both permittees are recommended to be held in voluntary non-use as follows:
   - 443 active AUMs in voluntary non-use for Roger J. Dieleman
   - 167 active AUMs in voluntary non-use for National Mustang Association Inc.

   The permittees have agreed to voluntary non-use of their currently active Animal Unit Months (AUMs) until such time as rangeland monitoring data demonstrates that adequate forage is available for cattle grazing and progress is being made toward achieving the Standards, and that reintroduction of cattle grazing at the allowable use level would not detrimentally affect that progress. This will depend heavily upon the planned reduction of wild horse populations within the allotments and surrounding areas. When vegetative community conditions are again deemed suitable for reintroduction of livestock grazing by the authorized officer, there will be no change in the number of active AUMs. However, because the proposed season of use is two months shorter than the historic and current season of use, the total number of cattle allowed to graze will increase to 110 for Roger J. Dieleman and 36 for National Mustang Association.

4. To move toward conformance with Guideline 1.1 ("Upland management practices should maintain or promote adequate vegetative ground cover to achieve the Standards"), Guideline 2.2 ("Management practices should maintain or promote the physical and biological conditions necessary for achieving surface characteristics and desired natural plant community"), and Guideline 3.1 ("Mosaics of plant and animal communities that foster diverse and productive ecosystems should be maintained or achieved"), it is recommended that the stated goal (USDI BLM 2008) of zero wild horses within the assessment area be vigorously pursued. In addition, land management practices including managed wildfire, prescribed burns, chaining, and/or hand thinning of the dense pinyon-juniper overstory canopy need to be considered to promote recovery of the vegetative understory that is lacking or absent throughout much of the allotment.

5. Maximum utilization levels on the Clover Creek allotment will be established as follows:
   - Perennial native grasses: 50% current year's growth
     This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) to contribute to litter cover, and 3) develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover.
   - Perennial shrubs and half-shrubs: 50% use on current annual production.
     This use level is necessary to allow desirable perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use. Use would be read in April or prior to the spring re-growth. Use during spring contributes to following season's use level.

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Date

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Date

Bonnie Million
Noxious and invasive non-native species

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Rick Baxter
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Gina Jones
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Date

I concur:

Chris Mayer
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Field Manager
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Date

PART 1. STANDARD CONFORMANCE REVIEW – MUSTANG FLAT ALLOTMENT

Standard 1. Soils

"Watershed soils and stream banks should have adequate stability to resist accelerated erosion, maintain soil productivity, and sustain the hydrologic cycle."

Soil Indicators:

- Ground cover (vegetation, litter, rock, bare ground).
- Surfaces (e.g., biological crust, pavement).
- Compaction/infiltration.

Riparian Soil Indicators:

- Stream bank stability.

All of the above indicators are appropriate to the potential of the ecological site.

Determination:
□ Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards achieving
X Not Achieving the Standard, and not making significant progress toward standard

Causal Factors
□ Livestock are a contributing factor to not achieving the standard.
X Livestock are not a contributing factor to not achieving the standard
X Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
X In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Not achieving the Standard, and livestock are not a contributing factor, failure to meet is due to other issues or conditions.

Line intercept cover estimates were collected at random study site MF01 in 2008. The site occurred on an Acoma-Decan-Cath soil association (1180; NRCS 1997) within a woodland community type (029XY065NV). The associated Ecological Site description describes a Utah juniper (50-70% overstory canopy composition) and singleleaf pinyon (30-50% composition) overstory of 20-35% canopy cover in the pristine condition. Wyoming big sagebrush is the principal understory shrub, with muttongrass and Sandberg's bluegrass being the key grass species. The associated soils at this site are skeletal with 35 to over 50% gravels, cobbles or stones by volume. Available soil water is low and runoff potential is medium to rapid, with the potential for moderate to severe sheet and rill erosion depending on slope. Cover data at this site

indicates minimal understory vegetative cover (Appendix 1; Table 8-1), however, litter and rock cover appeared adequate to minimize the risk of soil erosion during heavy rainfall and wind events (Figure 3).

Line intercept cover data was collected at one site in 2002 as part of the Clover Creek South South (212) Watershed Assessment. The site (MF04) occurred within a woodland community type on a Slidymtn-Capsus soil association (1941; NRCS 1997), a gravelly, sandy loam. The associated ecological site (029XY084NV) is classified as a woodland community dominated by pinyon-juniper. Soils are shallow and well drained with 35-60% gravels, cobbles, or stones by volume, distributed throughout their profile. Runoff is rapid and the potential for sheet and rill erosion is moderate to severe depending on slope, which can be steep (15 to over 75%).

MF04 was measured again in 2008 as part of the watershed assessment process. The overstory tree canopy cover exceeds the 35% percent threshold for classifying a woodland site as overmature, and the vegetative understory canopy cover is very sparse (Appendix I; Table 8-1). Two additional random sites (MF02 and MF03) were selected for line intercept cover estimates, but upon arrival were deemed to have overstory tree canopies that were too dense to record understory data, which was sparse (Figure 4 and Figure 5). Professional observation across the allotment bolsters the conclusion that most of the Mustang Flat allotment is dominated by a dense overstory of pinyon-juniper woodland and an understory that is lacking relative to the potential of the site, or nearly absent. The sparse understory can be indicative of an overmature woodland, which in the absence of wildfire or other natural disturbance can severely reduce understory vegetation through competition, shading, etc.

Figure 3. Line intercept cover transect at study site MF01 within the Mustang Flat allotment, Lincoln County, Nevada, 2008.

Figure 4. Random site (MF02) deemed too dense for understory line intercept cover measurement, Mustang Flat allotment, Lincoln County, Nevada, 2008.

Figure 5. Random site (MF03) deemed too dense for understory line intercept cover measurement, Mustang Flat allotment, Lincoln County, Nevada, 2008.

Standard 2. Ecosystem Components

Watersheds should possess the necessary ecological components to achieve State water quality criteria, maintain ecological processes, and sustain appropriate uses.

Riparian and wetlands vegetation should have structural and species diversity characteristic of the stage of stream channel succession in order to provide forage and cover, capture sediment, and capture, retain, and safely release water (watershed function).

Upland Indicators:

- Canopy and ground cover, including litter, live vegetation, biological crust, and rock appropriate to potential of the ecological site.
- Ecological processes are adequate for the vegetative communities.

Riparian Indicators:

- Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows.
- Elements indicating proper functioning condition such as avoiding acceleration erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:
    - Width/Depth ratio.
    - Channel roughness.
    - Sinuosity of stream channel.
    - Bank stability.
    - Vegetative cover (amount, spacing, life form).
    - Other covers (large woody debris, rock).
    - Natural springs, seeps and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plan species and cover appropriate to the site characteristics.

Water Quality Indicators:

- Chemical, physical and biological constituents do not exceed the State water quality Standards.

The above indicators shall be applied to the potential of the ecological site.

Determination:
X Not Applicable
□ Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards
□ Not Achieving the Standard, and not making significant progress toward standard

Causal Factors
□ Livestock are a contributing factor to not achieving the standard
□ Livestock are not a contributing factor to not achieving the standard
□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
□ In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: There are no springs or riparian areas within Mustang Flat allotment suitable for Proper Functioning Condition assessment.

Standard 3. Habitat and Biota:
Habitats and watersheds should sustain a level of biodiversity appropriate for the area and conducive to appropriate uses. Habitats of special status species should be able to sustain viable populations of those species.

As indicated by:

- Vegetation composition (relative abundance of species);
- Vegetation structure (life forms, cover, height, or age class);
- Vegetation distribution (patchiness, corridors);
- Vegetation productivity; and
- Vegetation nutritional value.

Determination:
□ Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards
X Not Achieving the Standard, not making significant progress toward standard

Causal Factors
□ Livestock are a contributing factor to not achieving the standard.
X Livestock are not a contributing factor to not achieving the standard
X Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
X In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion:

Ecological Condition data was collected in 2008 at site MF01. Total estimated understory production was 209 lbs/acre. This value is at the lower end of the range (200-500 lbs/acre) provided in the Ecological Site Description.

According to the ecological site description for MF01, understory vegetative composition should be approximately 30% grasses, 10% forbs, and 60% shrubs and young trees when the overstory canopy is medium (20-35%). Actual understory composition was estimated to be 0% grasses, 19% forbs, and 81% shrubs. The minimal understory production coupled with the skewed understory vegetative composition and professional observations indicate that the habitat and biota Standard is not being met.

The Arizona toad, a BLM Sensitive Species has been documented within the Clover Creek drainage, and could potentially occur within the headwaters of Ash Canyon within the Mustang Flat allotment. According to the IUCN, this species is locally very common in suitable habitat within its small range. Within southwestern Utah, its habitat is described as streams and washes

bordered by willows and cottonwoods, and has also been recorded within impounded areas. Occupied habitat within Nevada is presumed to be similar. It lays eggs among gravel, leaves, or sticks, or on mud or clean sand at bottom of flowing or shallow quiet waters of perennial or semi-permanent streams or shallow ponds (Dahl et al. 2000 *in* Hammerson and Schwaner 2004).

The biggest threats to the species have been identified as habitat destruction and/or alteration and interspecific hybridization with the closely related Woodhouse's toad (*B. woodhousii*). Hybridization is currently much more common than historically occurred due to manmade damming, which can reduce the extent of lotic environments favored by *B. microscaphus* and increase the occurrence of lentic environments favored by *B. woodhousii*. Hybridization is occurring particularly in these areas. Because livestock grazing within the permit renewal area does not contribute to changes in water flow regimes, potentially influencing the prevalence of hybridization within known habitats such as the Clover Creek drainage or potential habitats such as Ash Creek Canyon, any extant populations of *B. microscaphus* are not expected to be impacted through the Proposed Action.

Needle Mountains milkvetch, a perennial herb and BLM Sensitive Species, has been documented within a quarter mile of the northern boundary of Clover Creek allotment, and could occur within the permit renewal area in the Mustang Flat allotment. Habitat within Nevada is described as deep, barren, sandy, gravelly, or clay soils derived from sandstone or siliceous volcanic, frequently in or along drainages (Nevada Natural Heritage Program 2008; data compiled 2001). Little is known regarding the threats, status, or trend of the species' population within Nevada. In general, *Astragalus* species (also known colloquially as "locoweed") are not preferred forage plants during the growing season due to their toxicity to cattle. Because of this characteristic, renewing the grazing permit within Mustang Flat is not likely to adversely affect any potential Needle Mountains milkvetch populations extant within the allotment.

PART 2. ARE LIVESTOCK A CONTRIBUTING FACTOR TO NOT MEETING THE STANDARDS? SUMMARY REVIEW:

Standard #1: Upland Sites
The Standard is not being achieved.

No domestic livestock grazing has occurred within the allotment since 2004. Causal factors for not meeting the Standard are considered to be drought and lack of wildfire within the woodland community present over much of the allotment. Wild horse utilization may also be a contributing factor to not meeting the Standard.

Standard #2: Riparian and Wetlands
The Standard is not applicable.

Standard #3: Habitat
The Standard is not being achieved.

Livestock are not a contributing factor toward not achieving the Standard. There has been no domestic livestock grazing use within the allotment since 2004 (151 AUMs), and grazing was only reported for one other year since 1997 (2002; 30 AUMs). Failure to meet the standard is related to other issues or conditions, primarily prolonged drought and lack of wildfire within the woodland communities present throughout most of the allotment. Lack of wildfire has promulgated an increase in the tree overstory density such that much of the allotment is overmature pinyon-juniper woodland. Wild horse use may also be a contributing factor to the reduced understory, and because the appropriate management level for wild horses in this area is zero, any wild horse utilization of forage contributes toward not meeting the Standards.

PART 3. GUIDELINE CONFORMANCE REVIEW AND SUMMARY

The assessment evaluated management actions against the Standards and Guidelines for Nevada's Mojave-Southern Great Basin Area. Current management is not in conformance with Guideline 1.1, but is in conformance with Guideline 1.2. Guidelines 1.3-1.4 are not applicable to this assessment.

The assessment found current management to be in conformance with Guidelines 2.1 and 2.2, but not with Guideline 2.3. Guidelines 2.4-2.8 are not applicable to this assessment.

Current management is not in conformance with Guidelines 3.1, but is in conformance with 3.2. Guidelines 3.3-3.9 are not applicable to this assessment.

PART 4. MANAGEMENT PRACTICES TO CONFORM WITH GUIDELINES AND ACHIEVE STANDARDS

<u>Recommendations:</u>

1. Ensure annual rangeland monitoring of this allotment is implemented to determine compliance with proper allowable use levels.

2. On the Mustang Flat allotment, the seasons of use are recommended to change to:
   - 09/01 to 12/31 for cattle use.

3. On the Mustang Flat allotment, all active AUMs are recommended to be held in voluntary non-use as follows:
   - 151 active AUMs in voluntary non-use for Roger J. Dieleman.

     The permittee has agreed to voluntary non-use of his currently active Animal Unit Months (AUMs) until such time as rangeland monitoring data demonstrates that adequate forage is available for cattle grazing and progress is being made toward achieving the Standards, and that reintroduction of cattle grazing at the allowable use level will not detrimentally affect that progress. This will depend heavily upon the planned reduction of wild horse populations within the allotments and surrounding areas. When vegetative community conditions are again deemed suitable for

reintroduction of livestock grazing by the authorized officer, there will be no change in the number of active AUMs. However, because the proposed season of use is two months shorter than the historic and current season of use, the total number of cattle allowed to graze would increase to 36.

4. To move toward conformance with Guideline 1.1 ("Upland management practices should maintain or promote adequate vegetative ground cover to achieve the Standards"), Guideline 2.2 ("Management practices should maintain or promote the physical and biological conditions necessary for achieving surface characteristics and desired natural plant community"), and Guideline 3.1 ("Mosaics of plant and animal communities that foster diverse and productive ecosystems should be maintained or achieved"), it is recommended that the stated goal (USDI BLM 2008a) of zero wild horses within the assessment area be vigorously pursued. In addition, land management practices including managed wildfire, prescribed burns, chaining, and/or hand thinning of the dense pinyon-juniper overstory canopy should be considered to promote recovery of the vegetative understory which is lacking or absent throughout much of the allotment.

5. Maximum utilization levels on the Clover Creek allotment will be established as follows:
   - Perennial native grasses: 50% current year's growth
     This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) to contribute to litter cover, and 3) develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover.
   - Perennial shrubs and half-shrubs: 50% use on current annual production.
     This use level is necessary to allow desirable perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use. Use would be read in April or prior to the spring re-growth. Use during spring contributes to following season's use level.

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Date

Reviewed by:

Mark D'Aversa
Soil/water/air/floodplains/riparian/wetlands

Date

Bonnie Million
Noxious and invasive non-native species

Date

Ben Noyes
Wild Horse and Burro Specialist

Date

Rick Baxter
Wildlife/migratory birds/special status animals/plants

Date

Gina Jones
Ecologist

Date

I concur:

Chris Mayer
Supervisory Rangeland Management Specialist
Egan Field Office

Date

Victoria Barr
Field Manager
Caliente Field Office

Date

APPENDIX I
DATA SUMMARY – CLOVER CREEK ALLOTMENT

1. Key Areas and Ecological Sites

A key area is a relatively small portion of a pasture or allotment selected because of its location, use, or grazing value as a monitoring point for grazing use. It is assumed that key areas, if properly selected, will reflect the current grazing management over the pasture or allotment as a whole (NRCS 1997). Key areas represent range conditions, trends, seasonal degrees of use, and resource production and values. An ecological site is a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation at Historic Climax Plant Community (HCPC; NRCS 1997). Ecological Site Descriptions (ESD) are used for inventory, evaluation, and management of native vegetation communities. The ecological site of a key area is determined based on several factors including soils, topography, and plant community. See Table 1-1 for a description of the key area within Clover Creek allotment.

Table 1-1. Description of Key Area within the Clover Creek allotment, Lincoln County, Nevada.

Key Area	Location*	Ecological Site	Dominant Species at HCPC	Soil Mapping Unit
CC-02	0725668 4161107	029XY070NV	Utah juniper/Wyoming big sagebrush/Indian ricegrass	1210-- Brier-Acoma-Bellehelen association

* UTM coordinates, Zone 11, North American Datum 1983

2. Licensed livestock use

Over the grazing seasons from 1997 to 2007, livestock permitted use on the Clover Creek allotment for Roger J. Dieleman was 804 AUMs in a cattle-only operation, with 357 of those suspended for a total of 447 active AUMs. During this same time period, livestock actual use ranged from a high of 388 AUMs in 1999 to a low of 0 AUMs during six of those years. Livestock use has varied dependent upon variable forage resulting from fluctuating growing conditions. Table 2-1 summarizes the licensed actual use data for this time period.

Table 2-1. Grazing use reported by Roger J. Dieleman on the Clover Creek allotment, Lincoln County, Nevada.

Year	Actual use (AUMs)	Percent use of active AUMs
1997	0	0
1998	0	0
1999	388	88
2000	60	13

2001	0	0
2002	178	40
2003	118	26
2004	15	3
2005	0	0
2006	0	0
2007	0	0

Between 1997 to 2007, permitted livestock use on the Clover Creek allotment for National Mustang Association was 303 AUMs in a cattle-only operation. During this period, livestock actual use was reported as non-use in all years.

3. Utilization

Utilization is the estimation of the proportion of annual production consumed or destroyed by animals (Swanson 2006). The general utilization objective for all allotments in the Ely BLM District according to the Ely District Record of Decision and Approved Resource Management Plan (USDI BLM 2008a) is to "Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health" (pp. 85). The Nevada Rangeland Monitoring Handbook provides guidelines to determine the proper use levels by plant category (grasses, forbs, and shrubs) and by grazing season (spring, summer, fall, winter, yearlong).

Because there has been no reported livestock use for Clover Creek allotment since 2004, current utilization data was not collected as part of this assessment. Although wild horse and wildlife utilize forage within the allotment, those elements are beyond the scope of this assessment.

4. Line Intercept Cover

Canopy cover is the percent of ground covered by a vertical projection of the outermost perimeter of the natural spread of foliage, including small openings (Swanson et al. 2006). The Line Intercept Method is a commonly used method of determining the relative percent live foliar or canopy cover of a range site by plant class (tree, shrub, grass, forb, or annual). The method also estimates the percent live foliar cover by plant species. The results are then compared to the appropriate cover for each ecological site as indicated by the Natural Resources Conservation Service Rangeland Ecological Site Descriptions. Results are also compared to general known healthy rangelands.

Line intercept cover was estimated at one key area and four study sites on the Clover Creek allotment in 2008. Table 3-1 summarizes the cover data collected at these areas.

Table 3-1. Line intercept cover data (%) collected within the Clover Creek allotment, Lincoln County, Nevada.

Metric	Key Area 2008	Study Site 2008	Watershed Assessment sites 2008			Watershed Assessment sites 2002		
Site designation	CC02	CC04	CCWS01	CCWS02	CCWS03	WS0201	WS0202	WS0203
Bare ground	NA*	NA	55.5	55.5	42.0	NA	NA	NA
Litter	6.5	15.2	40.5	43.0	57.0	NA	NA	NA
Rock	0.6	1.9	3.0	1.5	1.0	NA	NA	NA
Forb	0.1	0.0	0.0	0.5	0.0	Trace	Trace	Trace
Grass	0.0	0.0	0.0	1.0	1.0	6.7	0.6	0.0
Shrub	1.6	4.8	20.0	6.0	22.0	4.9	10.4	14.2
Tree	NA	NA	1.0	12.5	16.5	28.0	19.0	16.0
Total understory vegetation**	1.7	4.8	20.0	7.5	23.0	11.6	11.0	14.2

*Not Applicable, parameter not measured.

**Grasses, forbs, shrubs and small trees under four feet in height.

5. Proper Functioning Condition of riparian areas

Proper Functioning Condition (PFC) is the method used by the BLM to assess riparian health and functionality. The process is conducted by an interdisciplinary (ID) team. The team considers hydrology, vegetation, and erosion/deposition characteristics of the site to determine if the riparian area is in at PFC, functioning at risk, or nonfunctional.

PFC assessments were completed on nine springs on the Clover Creek allotment for use in this assessment. Table 4-1 summarizes the findings of the ID teams.

Table 4-1. Proper Functioning Condition (PFC) ratings for riparian areas within Clover Creek allotment, Lincoln County, Nevada.

Site	Date	Notes
Lower Ash Spring	11/12/2008	PFC; Some small Tamarisk (*Tamarix* spp.) noted just upstream from Lower Ash Spring. Some horse sign in area, but could have been domestic rather than wild horse.
Unnamed tributary in Ash Canyon	11/12/2008	PFC; perennial stream.
Lower Ash Spring	2004	PFC
Upper Ash Spring	2004	PFC
Oak Spring	2004	PFC
Unnamed tributary in Ash Canyon	2004	PFC
Unnamed spring 1/Ash Canyon	2004	PFC
Unnamed spring 2/Ash Canyon	2004	PFC
Unnamed spring/Barnes Canyon	2004	PFC
Horse Spring	1997	Nonfunctional
Chokecherry Spring	1997	Functional At Risk with upward trend

6. Composition data

Composition data includes relative abundance of species and vegetation type, including shrubs, forbs, and grasses in the understory. Guidelines have been established for proper proportions of each vegetation type and often species for a given ecological site. Table 5-1 summarizes composition data within the Clover Creek allotment.

Table 5-1. Composition (percent) of understory vegetation on Clover Creek allotment, Lincoln County, Nevada, 2002 and 2008.

Transect	Shrub		Forb		Grass	
	2002	2008	2002	2008	2002	2008
CC02	65.1	90.4	18.7	3.0	4.6	0.6

CC04	NA*	100.0	NA	0.0	NA	0.0
WS0201	72.8	NA	0.1	NA	27.2	NA
WS0202/CCWS02	94.5	80.0	0.4	6.7	5.2	13.4
WS0203/ CCWS03	99.8	95.5	0.2	Trace**	0.0	4.5
CCWS01	NA	100.0	NA	0.0	NA	Trace

*Not Applicable, parameter not measured.
** Less than 0.1%.

7. Precipitation data

Annual precipitation greatly influences growing condition of forage species and is often correlated to available forage. Historical climate data from the Western Regional Climate Center at the Caliente, Nevada weather station in concert with BLM raincan data provides an accurate representation of the annual precipitation on and near the Clover Creek allotment. Table 6-1 and Figure 1-1 summarizes annual precipitation data collected since 2000.

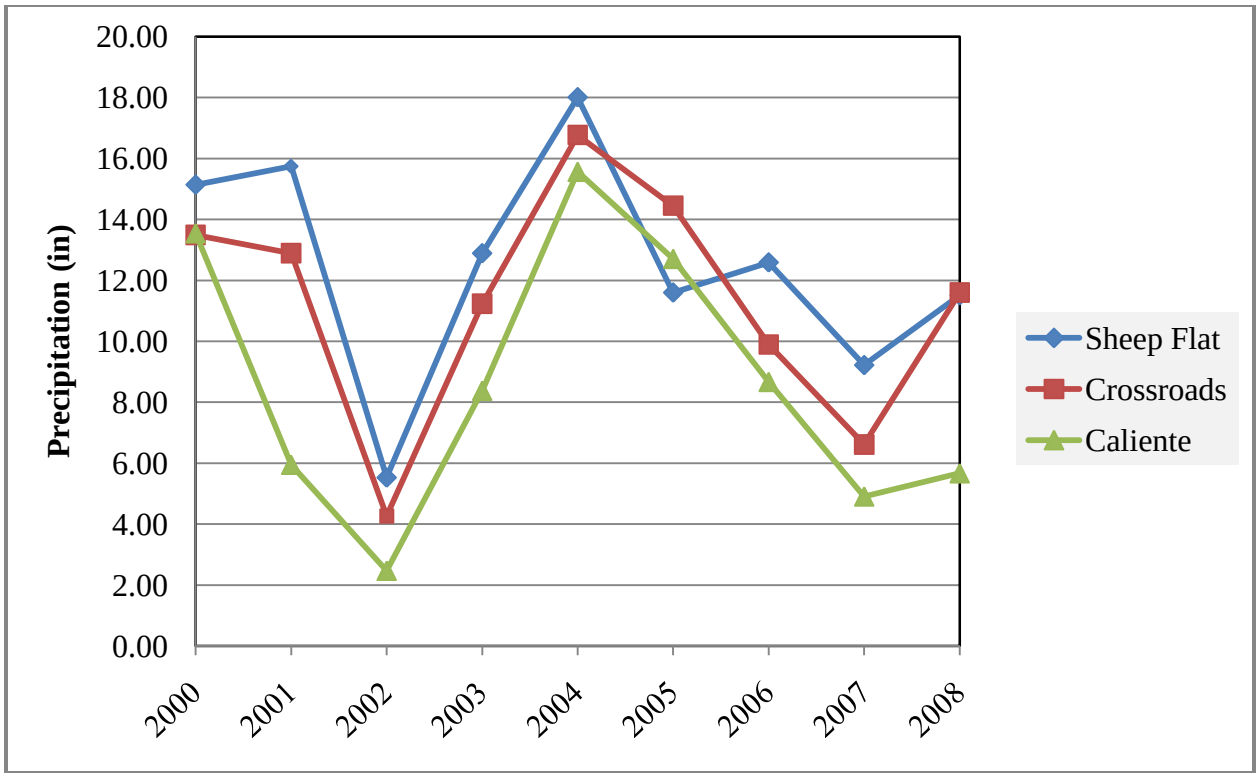

Figure 1-1. Graphic depiction of annual precipitation measured from BLM-monitored raincans on the Sheep Flat and Crossroads allotments adjacent to Clover Creek and Mustang Flat allotments, and from Western Regional Climate Center data in Caliente, Nevada.

Table 6-1. Annual precipitation data from BLM-monitored raincans on the Sheep Flat and Crossroads allotments adjacent to Clover Creek and Mustang Flat allotments, and from Western Regional Climate Center in Caliente, Nevada.

Site	2000	2001	2002	2003	2004	2005	2006	2007	2008
Sheep Flat	15.14	15.75	5.53	12.89	18.01	11.60	12.59	9.22	11.51
Crossroads	13.49	12.89	4.26	11.23	16.77	14.45	9.89	6.61	11.60
Caliente	13.55	5.95	2.47	8.38	15.57	12.71	8.67	4.91	5.67

DATA SUMMARY – MUSTANG FLAT ALLOTMENT

1. Key Areas and Ecological Sites

There are no established key areas within the Mustang Flat allotment. The ecological sites over most of the allotment are classified as pinyon-juniper forestland communities. These communities are not typically preferred for livestock grazing due to their inherently low livestock forage production, and therefore are not monitored through establishment of key areas.

2. Licensed livestock use

Over the grazing seasons from 1997 to 2007, livestock permitted use on the Mustang Flat allotment for Roger J. Dieleman was 805 AUMs in a cattle-only operation, with 658 of those suspended for a total of 147 active AUMs. During this time period, livestock actual use ranged from a high of 151 AUMs in 2002 to a low of 0 AUMs during nine of those years. Livestock use has varied dependent on available forage due to growing conditions. Table 6-1 summarizes the licensed actual use data for this time period.

Table 7-1. Grazing use reported by Roger J. Dieleman on the Mustang Flat allotment, Lincoln County, Nevada.

Year	Actual use (AUMs)	Percent use of active AUMs
1997	0	0
1998	0	0
1999	0	0
2000	No report	NA
2001	0	0
2002	151	103
2003	No report	NA
2004	30	20
2005	0	0
2006	0	0
2007	0	0

3. Utilization

Because there has been no reported livestock use for Mustang Flat allotment since 2004, current utilization data was not collected as part of this assessment. Although wild horse and wildlife utilize forage within the allotment, those elements are beyond the scope of this assessment.

4. Line Intercept Cover

Line intercept cover was estimated at two study sites on the Mustang Flat allotment. Table 7-1 summarizes the cover data collected at these areas.

Table 8-1. Line intercept cover estimates (percent) on the Mustang Flat allotment, Lincoln County, Nevada.

Site	2002	2008
MF01		
Understory vegetation		

Shrubs	NA*	1.8
Forbs	NA	0.4
Grasses	NA	0.0
Litter	NA	18.4
Rock	NA	6.6

MF04

Trees	NA	44.0
Understory vegetation		
Shrubs	2.5	10.0
Forbs	0.0	0.0
Grasses	0.0	0.0
Litter	NA	77.0
Rock	NA	3.5

*Not Applicable, data was not collected.

5. Proper Functioning Condition of riparian areas

There are no riparian areas within the allotment suitable for PFC assessment.

LITERATURE CITED

Swanson, S, B. Bruce, R. Cleary, B. Dragt, G. Brackley, G. Fults, J. Linebaugh, G. McCuin, V. Metscher, B. Perryman, P. Tueller, D. Weaver, and D. Wilson. 2006. Nevada Rangeland Monitoring Handbook, S. Swanson, ed. University of Nevada Cooperative Extension, Educational Bulletin 06-03, Reno, Nevada.

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USDI-BLM. 2008. Ely District Record of Decision and Approved Resource Management Plan. Ely Field Office, Ely, Nevada. August 2008.

APPENDIX II
FIGURES

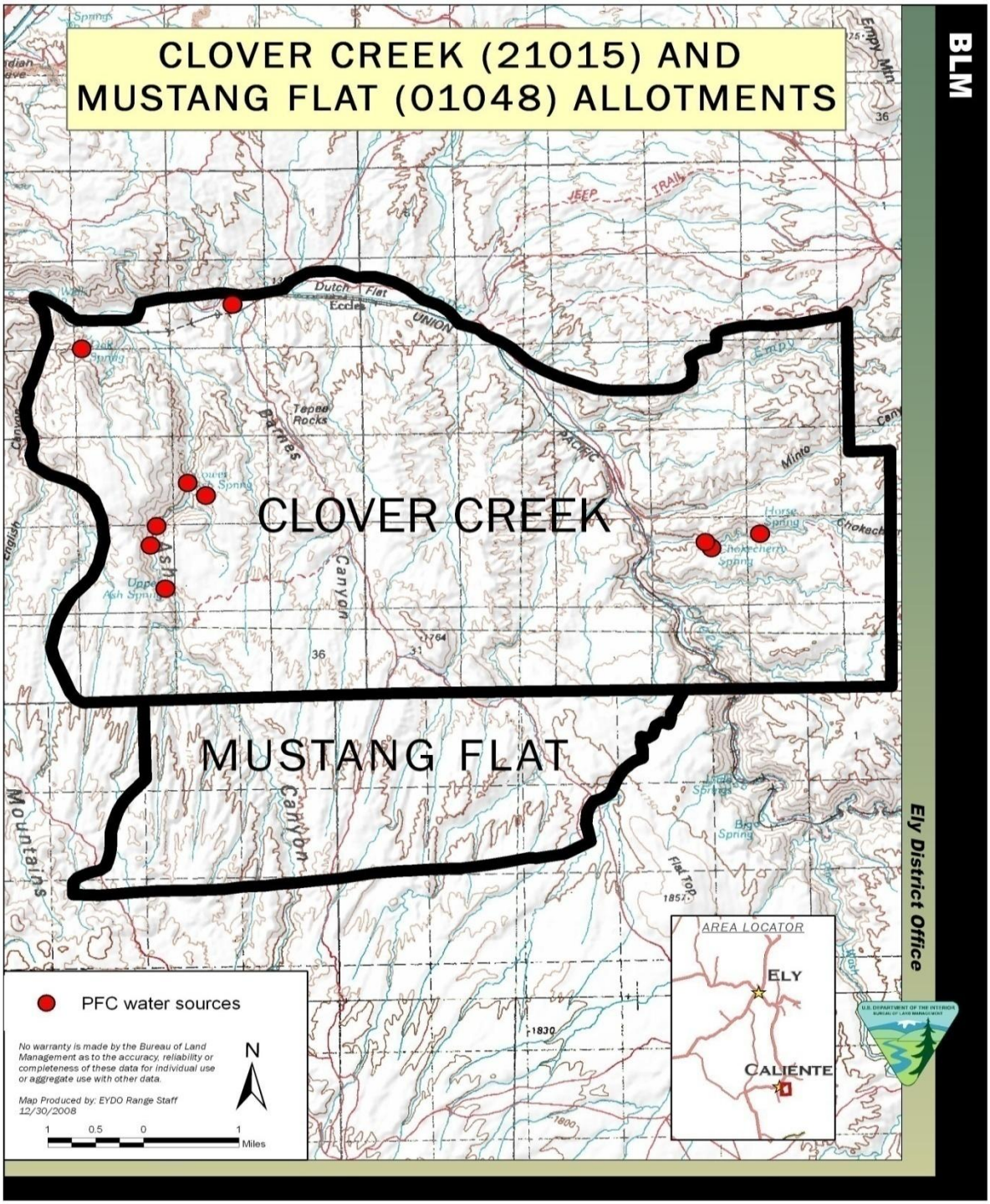

Figure 2-1. Location of Clover Creek and Mustang Flat allotments, Lincoln County, Nevada.

APPENDIX III
TERMS AND CONDITIONS
Clover Creek Allotment (21015)

Roger J. Dieleman:

Livestock Number/Kind	Grazing Period	Percent Public Land*	Non-use AUMs	Suspended AUMs	Permitted Use
110 cattle	9/1 to 12/31	100	447	357	804

*Percent Public Land is the percent of public land for billing purposes.

Livestock Management Practices - Terms and Conditions

In accordance with 43 CFR §4130.3 and §4130.3-2 the following terms and conditions shall be included in the term grazing permit for Roger J. Dieleman for the Clover Creek allotment (21015):

1. To improve livestock distribution the placement of mineral blocks or salt blocks will be a minimum distance of ½ mile from water.
2. Maximum allowable use levels will be established as follows:
   Perennial native grasses: 50% current year's growth
   Perennial shrubs and half-shrubs: 50% use on current annual production.
3. 447 currently active AUMs will be placed in non-use status until such time as the authorized officer determines that rangeland monitoring data demonstrates adequate forage for cattle is available, progress is being made toward achieving the Standards, and that reintroduction of cattle grazing at the allowable use level during the described season of use will not detrimentally affect that progress.

National Mustang Association Inc.:

Livestock Number/Kind	Grazing Period	Percent Public Land*	Non-use AUMs	Suspended AUMs	Permitted Use
36 cattle	9/1 to 12/31	100	166	137	303

*% Public land is the percent of public land for billing purposes.

Livestock Management Practices - Terms and Conditions

In accordance with 43 CFR §4130.3 and §4130.3-2 the following terms and conditions shall be included in the term grazing permit for National Mustang Association Inc. for the Clover Creek allotment (21015):

1. To improve livestock distribution the placement of mineral blocks or salt blocks will be a minimum distance of ½ mile from water.
2. Maximum allowable use levels will be established as follows:

a. Perennial native grasses: 50% current year's growth
b. Perennial shrubs and half-shrubs: 50% use on current annual production.

3. 166 currently active AUMs will be placed in non-use status until such time as the authorized officer determines that rangeland monitoring data demonstrates adequate forage for cattle is available, progress is being made toward achieving the Standards, and that reintroduction of cattle grazing at the allowable use level during the described season of use will not detrimentally affect that progress.

Additional stipulations common to all grazing allotments:

1. Livestock numbers identified in the Term Grazing Permit are a function of seasons of use and permitted use. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the allotment.

2. Deviations from specified grazing use dates will be allowed when consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.

3. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.

4. The payment of your grazing fees is due on or before the date specified in the grazing bill. This date is generally the opening date of your allotment. If payment is not received within 15 days of the due date, you will be charged a late fee assessment of $25 or 10 percent of the grazing bill, whichever is greater, not to exceed $250. Payment with Visa, MasterCard or American Express is accepted. Failure to make payment within 30 days of the due date may result in trespass action.

5. Pursuant to 43 CFR 10.4 (G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.

6. Grazing use will be in accordance with the Mojave-Southern Great Basin Standards and Guidelines for grazing administration as developed by the Mojave-Southern Great Basin 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 Sub-part 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.

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

and conditions.

8. 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.

9. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.

10. 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.

Mustang Flat Allotment (01048)

Roger J. Dieleman:

Livestock Number/Kind	Grazing Period	Percent Public Land*	Non-use AUMs	Suspended AUMs	Permitted Use
36 cattle	9/1 to 12/31	100	147	658	805

*% Public land is the percent of public land for billing purposes.

Livestock Management Practices - Terms and Conditions
In accordance with 43 CFR §4130.3 and §4130.3-2 the following terms and conditions shall be included in the term grazing permit for Roger J. Dieleman for the Mustang Flat allotment (01048):

1. To improve livestock distribution the placement of mineral blocks or salt blocks will be a minimum distance of ½ mile from water.
2. Maximum allowable use levels will be established as follows:
    a. Perennial native grasses: 50% current year's growth
    b. Perennial shrubs and half-shrubs: 50% use on current annual production.
3. 147 currently active AUMs will be placed in non-use status until such time as the authorized officer determines that rangeland monitoring data demonstrates adequate forage for cattle is available, progress is being made toward achieving the Standards, and that reintroduction of cattle grazing at the allowable use level during the described season of use will not detrimentally affect that progress.

Additional stipulations common to all grazing allotments:

1. Livestock numbers identified in the Term Grazing Permit are a function of seasons of use and permitted use. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the allotment.

2. Deviations from specified grazing use dates will be allowed when consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.

3. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.

4. The payment of your grazing fees is due on or before the date specified in the grazing bill. This date is generally the opening date of your allotment. If payment is not received within 15 days of the due date, you will be charged a late fee assessment of $25 or 10 percent of the grazing bill, whichever is greater, not to exceed $250. Payment with Visa, MasterCard or American Express is accepted. Failure to make payment within 30 days of the due date may result in trespass action.

5. Pursuant to 43 CFR 10.4 (G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.

6. Grazing use will be in accordance with the Mojave-Southern Great Basin Standards and Guidelines for grazing administration as developed by the Mojave-Southern Great Basin 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 Sub-part 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.

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

8. 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.

9. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.

10. 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.

APPENDIX IV

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Term Grazing Permit Renewals for Roger J. Dieleman
and National Mustang Association, Inc. on
Clover Creek and Mustang Flat Allotments
Lincoln County, Nevada

On December 10, 2008 a Noxious & Invasive Weed Risk Assessment was completed for the term grazing permit renewal for Roger J. Dieleman and National Mustang Association Inc. on the Clover Creek allotment and for Roger J. Dieleman on the Mustang Flat allotment in Lincoln County, NV. The BLM proposes to fully process and renew the grazing term permit for Roger J. Dieleman and National Mustang Association Inc (NMA). on the Clover Creek allotment and for Roger J. Dieleman on the Mustang Flat allotment. The current term permit for Roger J. Dieleman is issued for the period 03/01/2004 to 02/28/2014 for both allotments. This is a cattle permit with an active permitted use of 443 and 151 AUMs for Clover Creek and Mustang Flat allotments, respectively. The current term permit for National Mustang Association Inc. is issued for 12/18/2002 to 12/18/2012 and is a cattle permit. The issuance of the new term grazing permits could be for a period of up to ten years. An evaluation of range monitoring data and professional observations of rangeland health will be conducted for both allotments. This data will be summarized in a Standards Determination Document that will be provided for internal and public review at a later date.

ALLOTMENT		Permittee	LIVESTOCK		GRAZING PERIOD		AUMs
Name	Number		* Number	Kind	Begin	End	
Clover Creek	21015	Dieleman	74	C	11/01	04/30	443
		NMA	28	C	11/01	04/30	167
Mustang Flat	01048	Dieleman	25	C	05/01	10/31	151

The grazing permit area occurs within Lincoln County, Nevada and is situated in the northern portion of the Caliente Field Office, between 1 to 12 miles southeast of Caliente, Nevada. The permit area occurs primarily within the Clover Creek South (212S) watershed, with a small portion of the Clover Creek allotment falling within the Clover Creek North (212N) watershed. The Clover Creek allotment encompasses 22,786 public land acres, while the Mustang Flat allotment encompasses 5,987 public land acres. All permitted AUMs are currently active. However, National Mustang Association Inc. has not reported any use in the Clover Creek allotment since at least 1997, and Roger J. Dieleman has not reported any use in either allotment since 2004, with intermittent use and non-use reported from 1997 to 2004.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. The Mustang Flat allotment is currently has no documented weed infestations. The following species are found within the boundaries of the Clover Creek allotment:

Cirsium vulgare Bull thistle

Conium maculatum	Poison hemlock
Lepidium draba	Hoary cress
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

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

Acroptilon repens	Russian knapweed
Ailanthus altissima	Tree of Heaven
Centaurea stoebe	Spotted knapweed
Cirsium vulgare	Bull thistle
Conium maculatum	Poison hemlock
Lepidium draba	Hoary cress
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

These allotments were last inventoried for noxious weeds in 2004. While not officially documented the following non-native invasive weeds probably occur in or around the allotments: red brome (*Bromus rubens*), cheatgrass (*Bromus rubens*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

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

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result

	in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the factor rates as Moderate (4) at the present time. The Proposed Action could increase the populations of the noxious and invasive weeds already within the allotments and could aid in the introduction of weeds from surrounding areas. Within the allotments, watering and salt block sites are of particular concern of new weed infestations due to the concentration of livestock around those sites and the amount of ground disturbance associated with that.

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

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

This project rates as High (8) at the present time. If new weed infestations establish within the allotments this could have an adverse impact those native plant communities especially since most of the allotments are currently considered to be weed-free. Also, any increase of red brome could alter the fire regime in the area.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (32). This indicates that the project can proceed as planned as long as the following measures are followed:

- 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.
- 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.
- 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.
- Any newly established populations of noxious/invasive weeds discovered will be communicated to the Ely District Noxious and Invasive Weeds Coordinator for treatment.

Reviewed by: _____ 12/10/2008

Bonnie Million — Date
Ely District Noxious & Invasive Weeds Coordinator

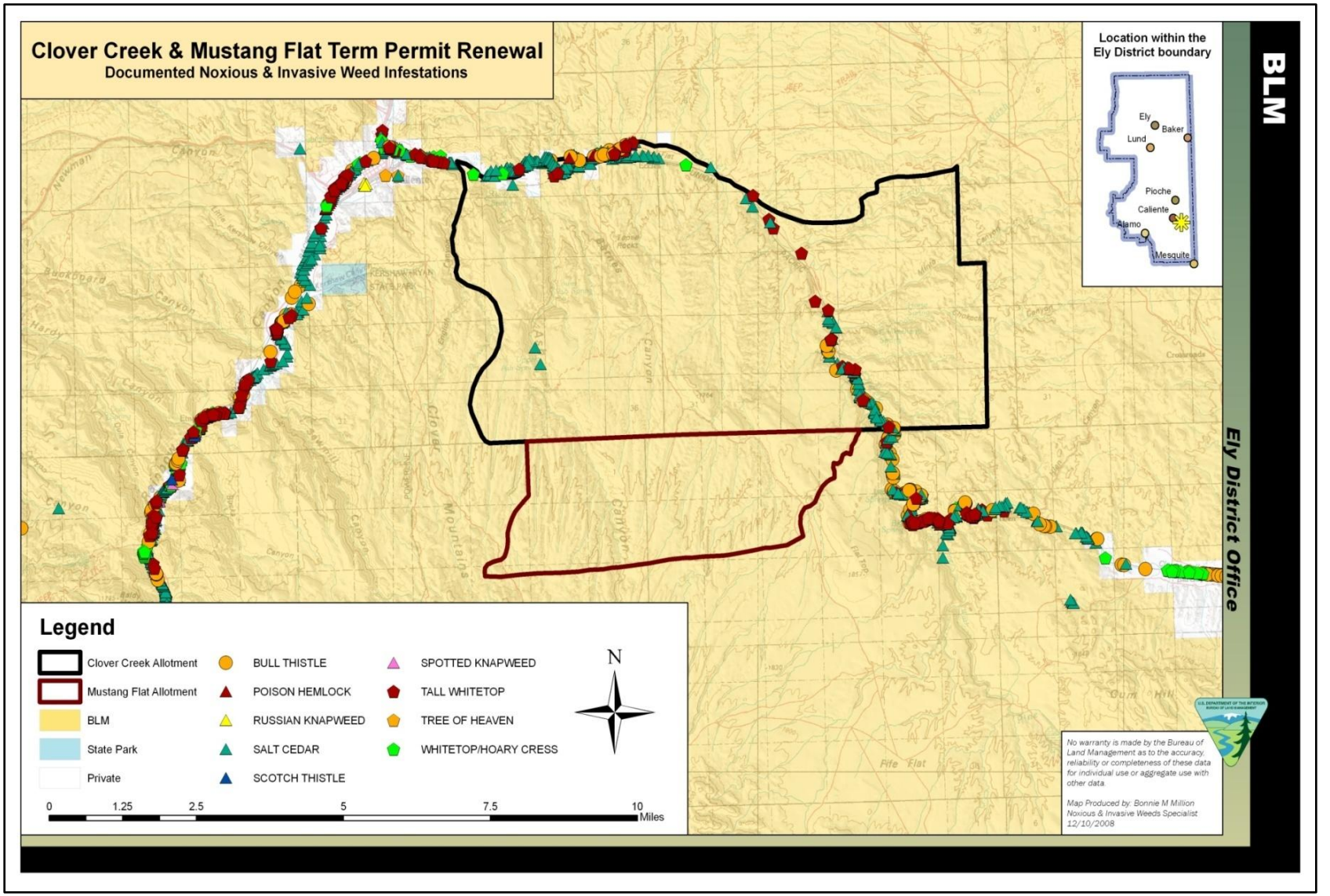

Figure 3-1. Locations of documented noxious and invasive weeds within and near the Clover Creek and Mustang Flat allotments, Lincoln County, Nevada.