

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

Preliminary Environmental Assessment

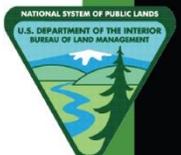
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June 17, 2014

Permit Renewal for Authorization # 2703972
On the
Mormon Peak Allotment (#01044)

Lincoln County, Nevada

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1.0 Introduction

This document identifies issues, analyzes alternatives, and discloses the potential environmental impacts associated with the proposed term grazing permit renewal for authorization number 2703972 on the Mormon Peak Allotment (#01044).

1.1 Background

The Mormon Peak Allotment, a land based allotment having one permittee, is located in the south-central portion of Lincoln County, Nevada (Appendix I, Map #1). It is approximately 40 miles south of Caliente, Nevada and approximately 14 miles northwest of Mesquite, Nevada. Cattle are the type of livestock grazed on the allotment.

Current management practices are a reflection of Best Management Practices (BMPs) as coordinated between the permittee and the appropriate Bureau of Land Management (BLM) Range Management Specialist.

It should be noted that, through a grazing preference transfer, the current permittee is a lessee who has an approximate four-year lease of the base property (until 11/30/2017) to which the grazing privileges are attached. Unless the lease is extended, the privileges will be transferred back to the owner (lessor) of the base property upon expiration of the lease.

Allotment General Location:

T.10 S., R.67 E., MDBM, many sections
T.10 S., R. 68 E., MDBM, many sections
T.10.5 S., R. 67 E., MDBM, many sections
T.11 S., R. 66 E., MDBM, many sections
T.11 S., R. 67 E., MDBM, many sections
T.11 S., R. 68 E., MDBM, many sections
T.12 S., R. 66 E., MDBM, many sections
T.12 S., R. 67 E., MDBM, many sections
T.12 S., R. 68 E., MDBM, many sections

1.2 Introduction of the Proposed Action.

The BLM, Caliente Field Office, proposes to renew the aforementioned term grazing permit on the Mormon Peak Allotment.

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. Changes to grazing management are recommended which would establish Best Management Practices (BMPs) within the allotment. Such BMPs would assist in maintaining these Standards, particularly in the unburned portions of the allotment.

The BLM collected and analyzed monitoring data, and conducted professional field observations, as part of the permit renewal process. This information was used to evaluate

livestock grazing management and rangeland health within the Mormon Peak Allotment. Subsequently, an evaluation of rangeland health along with recommendations associated with grazing management practices, in the form of a Standards Determination Document (SDD), was completed in 2013 (Appendix II). A summary of the RAC Standards assessment is found in Table 1.2, below.

Table 1.2 Summary of Assessment of the Mojave-Southern Great Basin Area Standards for the Mormon Peak Allotment.

Standard	Status	
	Burned Portions of Allotment	Unburned Portions of Allotment
1. Soils	Not Achieved	Achieved
2. Riparian and Wetland Sites Standard	Upland portion – Not Achieved Riparian Portion – Not Applicable	Upland portion – Achieved Riparian Portion – Not Applicable
3. Habitat and Biota Standard	Not Achieved	Achieved

1.3 Need for the Proposed Action.

The need for the proposal is to authorize grazing use on public lands in a manner which satisfies the Federal Land Policy and Management Act (FLPMA) (1976) and the Wilderness Act of 1964 while being consistent with multiple use, sustained yield and the Nevada’s Mojave-Southern Great Basin Area Standards for Rangeland Health; to manage livestock in accordance with all applicable laws, regulations, and policies; to manage livestock in conformance with the Ely District Record of Decision and Approved Resource Management Plan (Ely RMP) (August 2008); and, to renew the term grazing permit for authorization #2703972 on the Mormon Peak Allotment (#01044) while introducing BMPs – along with not only specific (mandatory) terms and conditions, but other terms and conditions – directed toward maintaining all applicable Standards and Guidelines for Grazing Administration, particularly in the unburned portions of the allotment.

An additional need for the Proposed Action is to construct a fence to prevent livestock access into the desert tortoise Mormon Mesa Area of Critical Environmental Concern (ACEC), in the southern portion of the allotment, which has been designated as unavailable for livestock grazing in the Ely RMP under Management Action LG-2 (p. 86); and, to establish three new watering locations on the allotment in an effort to provide better cattle distribution, while reducing the potential for negative grazing impacts on the soil and plant resource.

1.3.1 Objectives for the Proposed Action.

- To renew the term grazing permit for authorization #2703972; while authorizing grazing in accordance with applicable laws, regulations, and land use plans (LUPs) on approximately 77,991 acres (GIS) of public land.

- To improve/maintain vegetative health and growth conditions on the allotment while either making progress toward or maintaining achievement of the Standards and Guidelines for rangeland health as approved and published by Mojave-Southern Great Basin RAC.

1.4 Relationship to Planning

The proposed action is in conformance with the Ely District Record of Decision and Approved Resource Management Plan (Ely RMP) (August 2008), which states as a goal (p. 85): “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.” It further states as an objective (p. 86): “To allow livestock grazing to occur in a manner and at levels consistent with multiple use, sustained yield, and the standards for rangeland health.”

Management Action LG-1 states, “Make approximately 11,246,900 acres and 545,267 animal unit months available for livestock grazing on a long-term basis.”

Management Action LG-3 states, “Allow allotments or portions of allotments within desert tortoise habitat, but outside of Areas of Critical Environmental Concern (ACECs) to remain at current stocking levels unless a subsequent evaluation indicates a need to change the stocking level.”

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 Ely RMP goals and objectives, including the standards for rangeland health.”

Management Action LG-8 states, “Implement management actions for desert tortoise habitat contained in the 2008 Biological Opinion.”

1.5 Relationship to Other Plans

The proposed action was analyzed within the scope of the *Revised Recovery Plan for the Mojave Population of the Desert Tortoise (Gopherus agassizii)* (2011) and found to be in compliance.

The proposed action is also consistent with the *Lincoln County Public Lands Policy Plan* (2010) which states (p. 38):

“Policy 4-4: Grazing should utilize sound adaptive management practices consistent with the BLM Mojave-Southern Great Basin Resource Advisory Council’s Standards and Guidelines for Grazing Administration. Lincoln County supports the periodic updating of the Nevada

Rangeland Monitoring Handbook to help establish proper levels of grazing. Lincoln County supports accountability between BLM and Lincoln County Commission to assure these management practices are carried out in a timely and professional manner.

Policy 4-5: Allotment management strategies should be developed that provide incentives to optimize stewardship by the permittee. Flexibility should be given to the permittee to reach condition standards for the range. Monitoring should utilize all science-based relevant studies, as described in the current Nevada Rangeland Monitoring Handbook. Changes to these standards should involve pre-planning collaborative consultation with the permittee and Lincoln County Commission.”

1.6 Relationship to Acts, Executive Orders and Agreements

The proposed action was analyzed within the scope of other relevant Acts, Executive Orders and associated regulations, Agreements and Guidance listed below and found to be in compliance:

- State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada State Historic Preservation Office for Implementing the National Historic Preservation Act (Revised January 2012)
- National Historic Preservation Act (1966) (Public Law 89-665; 16 U.S.C. 470 as amended through 2000)
- Archaeological Resources Protection Act (ARPA) (1979)
- Migratory Bird Treaty Act (1918 as amended)
- Executive Order 13186 (1/11/01): Responsibilities of Federal Agencies to Protect Migratory Birds (2001)
- Bald and Golden Eagle Protection Act (1940 as amended)
- Memorandum of Understanding between the BLM and the U.S. Fish and Wildlife Service To Promote the Conservation of Migratory Birds (2010)
- The National Environmental Policy Act (1969) (42 U.S.C. §§ 4321-4347, January 1, 1970, as amended 1975 and 1994)
- The Federal Land Policy and Management Act (1976) (43 U.S.C. §§ 1701-1782, October 21, 1976, as amended 1978, 1984, 1986, 1988, 1990-1992, 1994 and 1996)
- Endangered Species Act (ESA) (1973)
- Wilderness Act (1964) (Public Law 88-577 (16 U.S. C. 1131-1136))

1.7 Tiering

This document is tiered to the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (Ely PRMP/FEIS, Volumes I and II) (November 2007).

1.8 Relevant Issues and Internal Scoping/Public Scoping.

On April 5, 2013, a letter was sent to local Native American tribes requesting comments regarding the permit renewal process for authorization number 2703972 on the Mormon Peak Allotment. No comments were received.

On April 2, 2013 a BLM internal meeting was held in coordination between the Caliente Field Office and the Ely BLM District Office. The term permit renewal proposal for authorization number 2703972 was presented and scoped by resource specialists to identify any relevant issues. Comments were provided by the staff wildlife biologist, archaeologist, fire projects program, and wilderness program.

On August 19, 2013, the SDD was sent to interested publics (using the Interested Publics Mailing List as described in section 6.2) to solicit input prior to the completion of the Preliminary EA. Comments to the SDD were received by the Nevada Department of Wildlife. The department was supportive of livestock management actions intended to improve overall ecosystem functions, although they were “unsure of the degree to which this tool can be effective in and of itself.”

Comments were also received by Resource Concepts, Inc. They expressed that they were aware of the difficulty of establishing native perennial vegetation in the Mojave Desert following wildfires. They also noted the opportunity and value of test plots to evaluate selected desert adapted species (native and non-native); the installation of green strips as a viable option to restrict the movement of wildfire; and, that grazing is “the only practical tool currently in use to address unprecedented fuel loading before fire occurs in the Mojave Desert ecosystem.” They further stated that “grazing is a sound and proven tool to reduce biomass, thereby lessening the potential for major wildfire.” However, they also commented on the aspect of “voluntary nonuse” (temporary suspended use) and Allowable Use Levels, questioning as to whether it was actually necessary.

2.0 Alternatives Including the Proposed Action

2.1 Proposed Action

The BLM, Caliente Field Office, proposes to renew the term grazing permit for authorization number 2703972 on the Mormon Peak Allotment (#01044). The SDD evaluated the allotment for the period March 1, 1991 – February 28, 2011 (20 years). No livestock grazing has occurred on the allotment during this time period.

A Summary of the Assessment of the Mojave-Southern Great Basin Area Standards for the Mormon Peak Allotment is displayed in Table 1.2, above. Monitoring data review and

assessment findings indicate that all Standards, or their applicable portions thereof, are being achieved (Standards 1 and 3; and the upland portion of Standard 2) for the unburned portions of the allotment; the data also indicates that management practices are in conformance with all applicable Guidelines for these areas.

However, for the burned portions of the allotment, Standards 1 and 3 and the upland portion of Standard 2 are not being achieved due to the results of catastrophic wildfires.

It should be noted that the Mormon Peak Allotment has suffered major wild fires, particularly the Duzak Fire which burned approximately 22,000 acres (approximately 28%) of the allotment. Field observations have shown that the wild fires have resulted not only in a reduction in perennial forage availability, but a flourishing of annual grasses within the allotment when precipitation is sufficient. It is widely recognized that fire in the Mojave Desert is devastating to all resources, and it is considered a high priority to reduce the risk of fire.

Consequently, the proposed action consists of five parts:

- Part 1: Changing the Season of Use from 6/1 – 3/31 to 10/1 – 4/30.
- Part 2: The placement of 45% (270 AUMs) of the current Active Use (600 AUMs) into Temporary Suspended Use, leaving the remainder (330 AUMS) as Active Use.
- Part 3: The authorization of Temporary Nonrenewable (TNR) grazing in accordance with § 4110.3-1 (a) when forage is available in excess of both, the proposed 330 Active AUMs plus the proposed 270 Temporary Suspended AUMS.
- Part 4: The establishment of three additional watering locations within the allotment.
- Part 5: Construction of a fence to prevent livestock access into the desert tortoise Mormon Mesa Area of Critical Environmental Concern (ACEC).

Part 1: Changing the Season of Use

Unburned Portions of the Allotment

The current season of use (6/1 – 3/31) allows for grazing not only during the hottest part of the year, but also into the early fall. Therefore, as part of the proposed action, the season of use would be changed from 6/1 – 3/31 to 10/1 – 4/30 to help promote plant physiological characteristics of native perennial plants in a positive manner.

Burned Portions of the Allotment

The allotment has suffered from major wildfires over the past 11 years (section 3.1). Although the shrub component appears to be slowly re-establishing, the shrub understory is lacking in density of perennial grasses and forbs, and consists primarily of red brome (*Bromus rubens*), an invasive winter annual grass. Red brome produces persistent fine fuels

that have been linked to increased frequency, extent, and intensity of fire in invaded south-western USA communities (Salo, 2004).

Salo (2004) noted: “This grass appears able to germinate following a precipitation event of one centimeter, whereas native Mohave Desert annuals appear to require twice that amount (Beatley, 1966). This suggests that red brome may be able to germinate before native annuals in years when early precipitation events are relatively small. If so, this exotic grass would be able to pre-empt resources early in the growing season, when they may be most critical (Ross and Harper, 1972).”

Red brome is an early emergent. Seedlings produced in fall will overwinter, grow slowly in spring, and as soil temperature warms there is a high potential for rapid growth and early maturation (USDA, 2012). With sufficient precipitation, even into April, this grass could potentially reproduce in copious amounts; thereby, yielding vegetation capable of contributing to highly destructive wildfires in the future.

Part 2: Placing 45% (270 AUMs) of the current Active Use (600 AUMs) into temporary suspended use

Field observations have shown that the wild fires have resulted in a reduction in perennial forage availability and a flourishing of annual grasses, within the approximate east half of the allotment, when precipitation is sufficient.

As a result, the permittee agreed to accept a voluntary reduction of 45% of the current Active AUMs in the form of Temporary Suspended Use.

Therefore, as the second part of the proposed action, 45% of the current active use of 600 AUMS (270 AUMs) would be placed into Temporary Suspended Use, for fuels management purposes, while maintaining the remaining 55% (330 AUMs) as Active Use for a period of 10 years.

The 270 AUM reduction is consistent with Reasonable and Prudent Measure 7i of the Programmatic Biological Opinion (PBO) as contained in the Ely RMP (2008) (p. 140), which states: “Livestock levels shall be adjusted to reflect significant, unusual conditions that result in a dramatic change in range conditions (*e.g.*, drought and fire) and negatively impact the ability of the allotment to support both listed species and cattle.”

Under the discretion of the BLM, the AUMs placed in temporary suspended use would be temporarily reinstated - as Active AUMs - whenever resource conditions resulted in a significant increase in annual forage production, and dictated a need for fine fuels reduction (*e.g.*, when precipitation events result in a flourishing of annual grasses). This would provide an aid for fuels management purposes.

It should be noted that the temporary suspension of 45% of the active AUMs is not a permanent revocation of 45% of the current grazing privileges. Therefore, the permitted use for the new permit would remain the same as the current permit (600 AUMs). The reduction

would prevail, for up to 10 years, or until a subsequent allotment evaluation is conducted to determine that changes to the new permit are needed.

The permittee would be required to submit an application for any temporary reinstatement of Temporary Suspended Use. The application would have to be evaluated by an appropriate BLM team of specialists and subsequently approved by the Authorized Officer.

It should be emphasized, that the approval of any annual grazing authorizations would be based on annual forage availability; and, the terms and conditions included in the new term permit.

Furthermore, under the discretion of the BLM, the permittee would be required to use multiple watering locations within the allotment, during any given grazing season; to use such watering locations in a manner which would yield maximum livestock distribution; and, to use herding where and when deemed necessary.

Part 3: The authorization of Temporary Nonrenewable (TNR) grazing

As the third part of the proposed action, and in accordance with § 4110.3-1 (a), apportion any additional forage – in excess of both, the proposed 330 Active AUMs plus the proposed 270 Temporary Suspended AUMs – on a temporary, nonrenewable basis (TNR).

Part 4: The establishment of three new watering locations in the allotment

The Proposed Action would also include the establishment of three new permanent watering locations in the allotment in an effort to provide better cattle distribution.

This part of the proposed action consists of placing two to three 500 gallon water troughs, with wildlife escape ramps (bird ladders), in the southeast and northern portions of the allotment (Appendix I, Map #2).

For two of the locations (waterhauls #1 and #2), the troughs would be placed on ground surface immediately adjacent to existing roads which are open to motorized and mechanical transport (designated as cherry-stemmed roads) within designated wilderness. Waterhaul #3 would be placed within - and at the end of - an existing road, and outside of the designated wilderness boundary. The troughs associated with waterhauls #1 and #2 would be located within 100' from the centerline of the cherry-stemmed road in the designated non-wilderness corridor. Consequently, all troughs would be placed in previously highly disturbed areas, with no additional ground disturbance other than the footprint of the troughs. All subsequent waterhauling activities, associated with the project, would occur within the previously disturbed areas. Vehicles would not have to travel off-road to deliver water. Therefore, no new soil disturbance would occur from water deliveries.

The proposed waterhauls would be authorized under a Range Improvement Permit (Form 4120-7), with the permittee being responsible for not only all materials, labor and subsequent maintenance, but also for compliance with Nevada state water laws. No hazardous materials

would be associated with any aspects of any part of the proposed action regarding range improvements.

A representative from the BLM would make site visits, as deemed necessary, to monitor the project through completion. Upon completion of the project, a final inspection would be made to ensure compliance and to correct any existing deficiencies.

Part 5: Construction of a fence to prevent livestock access into the Mormon Mesa Area of Critical Environmental Concern (ACEC) for desert tortoise.

The Proposed Action would also include the construction of an approximate 5.5 mile fence to prevent livestock from accessing to the Mormon Mesa ACEC in the southeast part of the allotment (Appendix I, Map #2). The fence would be designed to avoid or minimize any vegetative destruction as much as possible.

Construction would not occur from March 1 – October 31 to comply with the Ely RMP (2008), Management Action SS-32 (Special Status Species). All construction would occur either, outside of – and contiguous to – designated tortoise ACEC habitat, immediately adjacent to existing roads or as a combination of the two. The use of a gasoline powered poinjar (jack hammer) may be used, where necessary, to drill holes into otherwise impenetrable ground or rock, so that metal fence posts or pipe may be inserted. Potentially, an all-terrain four-wheeled vehicle may be used to haul and distribute materials and equipment.

As noted on the map, the fence would extend approximately .4 miles into the Mormon Mountains Wilderness. Within the wilderness area, the fence construction corridor would be limited to an approximate 15 foot wide strip within which all construction traffic would be confined. As many as two trips would occur to do so. However, no motorized access or motorized equipment would be permitted within the designated Mormons Mountain Wilderness Area without approval of the District Manager.

The project would be constructed under a Cooperative Range Improvement Agreement (Form 4120-6), with the permittee being responsible for all fence maintenance following construction. Construction would occur in coordination with a BLM project inspector (PI), in accordance with BLM Handbook H-1741-1 fence construction specifications, for fence construction in Bighorn sheep and deer habitat (illustrations 1 and 2 in Appendix III). Standard Operating Procedures (SOPs) for fence construction, for this portion of the Proposed Action, are listed in Appendix IV. The PI would make periodic site visits during fence construction to assure compliance with BLM specifications and evaluate construction progress. Upon completion of the fence, a final inspection would be made to ensure compliance with specifications and to correct any existing deficiencies.

The fence would be a BLM three-strand wire fence consisting of three strands of barbed wire. Outside of the Mormon Mountains Wilderness Area, white topped green steel fence posts would be used for increased visibility for wildlife purposes. Fence posts used within the wilderness area would be entirely green. In accordance with BLM specifications, the

posts would be spaced 16.5 feet apart with wire stays placed between them for stability. Wire spacing, measured from ground level to each strand of wire, would be 20”, 35” and 39” from the bottom strand to the top strand, respectively. This translates to 20 inch spacing between the ground and the bottom wire, 15 inch spacing between the bottom and second (or middle) wire, and 4 inch spacing between the two top wires. Consequently, the fence would be 39” high from ground level to the top wire. All fence corners and panels would consist of galvanized metal pipe.

Approximately .4 miles of the fence would extend into the wilderness area. Within the wilderness boundary, the fence would be constructed generally by hand, with use of a gas-powered rock drill where needed, and all tools and materials would be transported by personnel on foot. After completing fence construction in the wilderness, any obvious foot trails, created from multiple hiking trips over the same path of travel, would be raked.

In addition, the mitigating measures, as described in the Risk Assessment for Noxious & Invasive Weeds (Appendix V), would be incorporated into the fence construction operation to limit the influence of construction on noxious weed spread.

Reasonable and Prudent Measures to be Added to the Proposed Action

The Proposed Action would also include other terms and conditions to the permit that would aid in reducing fuel loading, fire intensity and severity; introduce BMPs which would aid in reducing impacts to the plant and soil resource; satisfy the Wilderness Act of 1964 and BLM (Wilderness) Handbook 6340; minimize incidental take of desert tortoises; and, aid in maintaining all applicable Standards and Guidelines for Grazing Administration, particularly in the unburned portions of the allotment

2.1.1 Current Permit

Table 2.1.1, below, displays the mandatory terms and conditions for the current term grazing permit for authorization number 2703972 on the Mormon Peak Allotment. The current grazing permit has been issued for the period 3/1/2013 – 9/30/2013 and authorizes cattle grazing according to the following:

Table 2.1.1. Current Term Grazing Permit, Showing Mandatory Terms and Conditions, for Authorization Number 2703972 on the Mormon Peak Allotment.

ALLOTMENT		Auth. Num.	LIVESTOCK		GRAZING PERIOD		** % Public Land	Active Use	AUMs	
Name	Number		* Number	Kind	Begin	End			Hist. Susp. Use	Permitted Use
Mormon Peak	1044	#2703972	60	cattle	6/1	3/31	100%	600	0	600

* This number is approximate

** This is for billing purposes only.

2.1.2 Proposed Term Permit

The mandatory terms and conditions of the permit - regarding the season of use, number of livestock and AUMs - would change according to Table 2.1.2, below:

Table 2.1.2. Proposed Term Grazing Permit, Showing Mandatory Terms and Conditions, for Authorization Number 2703972 on the Mormon Peak Allotment.

ALLOTMENT		Auth. Num.	LIVESTOCK		GRAZING PERIOD		** % Public Land	Active Use	AUMs		
Name	Number		* Number	Kind	Begin	End			Hist. Susp. Use	Temporary Suspended Use	Permitted Use
Mormon Peak	1044	#2703972	47	cattle	10/1	4/30	100%	330	0	270	600

* This number is approximate

** This is for billing purposes only.

The renewal of the term grazing permit would be for a period of up to 10 years. If the grazing preference is transferred during this 10-year period – with no changes to the terms and conditions – the new term permit would be issued for the remainder of the 10-year period in accordance with all applicable laws and regulations.

The following terms and conditions would be added to the term grazing permit for Authorization #2703972, regarding the application of Temporary Suspended AUMs (§ 4110.3-2 (a)) and Temporary Nonrenewable grazing (TNR) (§ 4110.3-1 (a)):

1. A total of 270 AUMs (45% of current active use) will be placed in Temporary Suspended Use on Mormon Peak Allotment.

The 270 AUMs will be placed into Temporary Suspended Use for up to 10 years, or until a subsequent allotment evaluation is conducted to determine that changes to the permit are needed.

2. Under the discretion of the BLM, the AUMs placed in Temporary Suspended Use will be temporarily reinstated – as Active AUMs – whenever resource conditions result in a significant increase in annual forage production; thereby, dictating a need for fine fuels reduction (e.g., when precipitation events result in a flourishing of annual grasses).
3. The use of either Temporary Suspended Use or Temporary Nonrenewable (§ 4110.3-1(a)) AUMs will be determined on an annual basis. Stocking levels and grazing management practices will be evaluated prior to any anticipated livestock turnout.
4. The permittee must submit an application for any temporary reinstatement of Temporary Suspended Use or for Temporary Nonrenewable Use (§ 4110.3-1(a)). All submitted applications must be evaluated by an appropriate BLM team of specialists, and approved by the Authorized Officer.

5. The placement of 45% of the active AUMs into Temporary Suspended Use is absolutely **not** a permanent revocation of 45% of the current grazing privileges.

The following Terms and Conditions (BMPs) would also be added to the Term Grazing Permit to assist in maintaining the Standards:

6. Allowable Use Levels on current year's growth of perennial upland vegetation (grasses, forbs and shrubs) within the Mormon Peak Allotment will not exceed 40%.
7. Under the discretion of the BLM, watering locations will be used in a manner which will yield maximum livestock distribution within the allotment. Herding will be used, as needed, to achieve this objective.
8. Waterhauling will be limited to existing roads. No roads will be bladed or improved in any way, with mechanical equipment, without the expressed consent of the authorized officer.

To address Mormon Mountain Wilderness Areas, created through the Lincoln County Conservation Recreation and Development Act P.L. 108-424, the following term and condition will be added to comply with the Wilderness Act of 1964 (P.L. 88-577) (see Congressional Grazing Guidelines in Appendix B of the Standards Determination Document in Appendix II of this EA):

9. Except in the case of emergency – the definition of which is defined in BLM Handbook 6340 (Management of Designated Wilderness Areas (Public) (2012) – the permittee(s) must obtain written authorization from the District Manager prior to using any motorized vehicles, mechanical transport or motorized equipment within the Mormon Mountains Wilderness Area. The use of motor vehicles, mechanical transport, or motorized equipment is not allowed for herding animals or routine inspection of the condition of developments or the condition of the range.

To emphasize Management Action LG-2, in the Ely RMP (2008) (p. 86) – which specifically notes that the Mormon Mesa ACEC is unavailable for livestock grazing – the following term and condition will be included in the new grazing permit:

10. No livestock grazing is allowed in the desert tortoise Mormon Mesa ACEC.

In addition, the new term permit would also include standard terms and conditions which would assist in maintaining the Standards and Guidelines for Grazing Administration (in the unburned portions of the allotment) in addition to other pertinent land use objectives for livestock use (Appendix VI).

Finally, the following terms and conditions, from the *Programmatic Biological Opinion for the Bureau of Land Management's Ely District Resource Management Plan* (File No. 84320-2008-F-0078) (pp. 132-133), would be included in the term grazing permit to minimize incidental take of desert tortoises that may result from the implementation of programs in general:

11. Prior to initiation of an activity within desert tortoise habitat, a desert tortoise awareness program shall be presented to all personnel who will be onsite, including but not limited to contractors, contractors' employees, supervisors, inspectors, and subcontractors. This program will contain information concerning the biology and distribution of the desert tortoise and other sensitive species, their legal status and occurrence in the project area; the definition of "take" and associated penalties; speed limits; the terms and conditions of this biological opinion including speed limits; the means by which employees can help facilitate this process; responsibilities of workers, monitors, biologists, etc.; and reporting procedures to be implemented in case of desert tortoise encounters or noncompliance with this biological opinion.
12. Tortoises discovered to be in imminent danger during projects or activities covered under this biological opinion, may be moved out of harm's way.
13. Desert tortoises shall be treated in a manner to ensure they do not overheat, exhibit signs of overheating (e.g., gaping, foaming at the mouth, etc.), or are placed in a situation where they cannot maintain surface and core temperatures necessary to their well-being. Desert tortoises will be kept shaded at all times until it is safe to release them. No desert tortoise will be captured, moved, transported, released, or purposefully caused to leave its burrow for whatever reason when the ambient air temperature is above 95°F. Ambient air temperature will be measured in the shade, protected from wind, at a height of two inches above the ground surface. No desert tortoise will be captured if the ambient air temperature is anticipated to exceed 95°F before handling and relocation can be completed. If the ambient air temperature exceeds 95°F during handling or processing, desert tortoises will be kept shaded in an environment that does not exceed 95°F and the animals will not be released until ambient air temperature declines to below 95°F.
14. Desert tortoises shall be handled by qualified individuals. For most projects, an authorized desert tortoise biologist will be onsite during project activities within desert tortoise habitat. Biologists, monitors, or anyone responsible for conducting monitoring or desert tortoise field activities associated with the project will complete the Qualifications Form (Appendix D) and submit it to the Service for review and approval as appropriate. The Service should be allowed 30 days for review and response.
15. A litter-control program shall be implemented to minimize predation on tortoises by ravens drawn to the project site. This program will include the use of covered, raven-proof trash receptacles, removal of trash from project areas to the trash receptacles following the close of each work day, and the proper disposal of trash in a designated solid waste disposal facility. Appropriate precautions must be taken to prevent litter from blowing out along the road when trash is removed from the site. The litter-control program will apply to all actions. A litter-control program will be implemented by the responsible federal agency or their contractor, to minimize predation on tortoises by ravens and other predators drawn to the project site.

The following terms and conditions, also from the *Programmatic Biological Opinion* (pp. 138-140), would be included in the term grazing permit to minimize incidental take of desert tortoises that may result from permitting livestock grazing:

16. Livestock use may occur from March 1 to October 31, outside of desert tortoise critical habitat, as long as forage utilization management levels are monitored and do not exceed 40 percent on key perennial grasses, shrubs and perennial forbs; and between November 1 and February 28/29, provided forage utilization management levels are monitored and do not exceed 50 percent on key perennial grasses and 45 percent on key shrubs and perennial forbs. If the utilization management levels are reached, livestock will be moved to another location within the allotment or taken entirely off the allotment. No livestock grazing will occur in desert tortoise critical habitat March 1 through October 31.
17. Livestock grazing in desert tortoise habitat shall be managed in accordance with the most current version of the Desert Tortoise Recovery Plan, including allotments or portions of allotments that become vacant and occur within desert tortoise critical habitat outside of ACECs. Grazing may continue in currently active allotments until such time they become vacant. BLM will work with the permittees of active allotments to implement changes in grazing management to improve desert tortoise habitat which may include use of water, salt and mineral licks, or herding to move livestock; changes in season of use and/or stocking rates; installation of exclusionary fences; reconfiguring pasture or allotment boundaries; and retiring pastures or allotments.
18. BLM and Service will cooperatively develop livestock grazing utilization levels or other thresholds, as appropriate for each of the listed species. These levels or thresholds shall be incorporated into each of the allotment term permit for those allotments that overlap with habitat for the listed species.
19. The permittee shall be required to take immediate action to remove any livestock that move into areas unavailable for grazing. If straying of livestock becomes problematic, BLM, in consultation with the Service, will take measures to ensure straying is prevented.
20. All vehicle use in listed species habitat associated with livestock grazing, with the exception of range improvements, shall be restricted to existing roads and trails. Permittees and associated workers will comply with posted speed limits on access roads. No new access roads will be created.
21. Use of hay or grains as a feeding supplement shall be prohibited within grazing allotments. Where mineral and salt blocks are deemed necessary for livestock grazing management they will be placed in previously disturbed areas at least one half mile from riparian areas wherever possible to minimize impacts to flycatchers and listed fishes and their habitat. In some cases, blocks may be placed in areas that have a net benefit to tortoise by distributing livestock more evenly throughout the allotment, and minimizing concentrations of livestock that result in habitat damage. Waterhaul sites will also be placed at least one half mile from riparian areas.

22. Site visits shall be made to active allotments by BLM rangeland specialists and other qualified personnel, including Service biologists, to ensure compliance with the terms and conditions of the grazing permit. Any item in non-compliance will be rectified by BLM and permittee, and reported to the Service.
23. Livestock levels shall be adjusted to reflect significant, unusual conditions that result in a dramatic change in range conditions (e.g., drought and fire) and negatively impact the ability of the allotment to support both listed species and cattle.

In relation to grazing, there would be no additional terms and conditions needed for management practices to conform to guidelines to either make progress toward or to maintain achievement of the Standards for Rangeland Health.

2.1.3 Wilderness

Within wilderness, authorization for the use of motorized equipment or mechanized transport for range development maintenance or repair would be granted – consistent with the NEPA analysis – through a BLM letter of authorization. Such authorization letters would be consistent with terms and conditions listed in the Final Grazing Decision, and would include specified design features or mitigation measures along with any specified follow-up actions.

Authorization letters would designate exact travel routes to be followed if any motorized equipment or mechanical transport is authorized as well as habitat rehabilitation requirements. They would also include the specific management guidelines outlined in Appendix VII, as appropriate.

2.1.4 Invasive, Non-Native Species and Noxious Weeds

A Weed Risk Assessment was completed for this project (Appendix V). According to recent weed surveys (2013), the noxious weeds Sahara mustard (*Brassica tournefortii*), Black Henbane (*Hyoscyamus Niger*) and Salt cedar (*Tamarix spp.*) are known to be found within or vicinal to the east boundary of the Mormon Peak Allotment. In addition, while not officially documented, the following non-native invasive weeds occur either within or vicinal to the allotment: cheatgrass (*Bromus tectorum*), red brome (*Bromus rubens*) and Russian thistle (*Salsola kali*).

The mitigation measures listed in the Weed Risk Assessment will be followed, when grazing occurs on the allotment, to minimize the potential spread of weeds.

2.1.5 Monitoring

The Ely District Approved Resource Management Plan (August 2008) identifies monitoring to include (p. 88): “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.”

Under guidance of the Endangered Species Act and through Section 7 consultation with the U.S. Fish and Wildlife Service, a species specific monitoring plan will be developed to monitor desert tortoise habitat.

2.2 Description of Alternatives Analyzed in Detail

2.2.1 No Action Alternative

The No Action Alternative, for livestock grazing, permit renewals is defined as “continuing to graze under current terms and conditions” in IM-2000-022, Change 1 (re-authorized by IM-2010-063).

Therefore, the No Action Alternative would reflect the status quo. The term permit would be issued without changes to grazing management, or modifications to the existing terms and conditions of the permit.

The renewal of the term grazing permit would be for a period of up to 10 years. If the grazing privileges, associated with the permit, are transferred during this 10-year period – with no changes to the terms and conditions – the new term permit would be issued for the remainder of the 10-year period in accordance with all applicable laws and regulations.

2.2.2 No Grazing Alternative

Under this alternative a new term grazing permit would not be issued, once the current term permit expired, resulting in no authorized livestock grazing on the allotment.

This alternative was also considered and analyzed in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (Ely PRMP/FEIS) (November, 2007) which is addressed below.

2.3 Alternatives Considered but Eliminated from Further Analysis

The Ely PRMP/FEIS (Volume II) analyzed the Environmental Impacts of livestock grazing under the Proposed RMP section, along with four alternatives (p.4.16-1 to 4.16-15.), which included a no-grazing alternative (Alternative D). It also analyzed environmental impacts on vegetative resources from livestock grazing under the Proposed RMP section, and the four alternatives (4.5-1 to 4.5-28), which included the no-grazing alternative. No further analysis is necessary in this document for Alternatives A, B and C. However, the no-grazing alternative is additionally analyzed in this EA. The following is a list of the four Alternatives contained within the PRMP/FEIS (Volume II):

- 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 Mormon Peak Allotment, a land based allotment having one permittee, is located in the south-central portion of Lincoln County, Nevada (Appendix I, Map #1). It is approximately 40 miles south of Caliente, Nevada and approximately 14 miles northwest of Mesquite, Nevada. Elevations range from approximately 3,000 feet along the south boundary to approximately 7,200 feet at highest peaks in the central portion of the allotment. The allotment falls within the Meadow Valley Wash South (#214 B) and Toquop Wash (#230) Watersheds, and is approximately 77,991 acres (GIS) in size (Appendix I, Map #3). Cattle are the type of livestock grazed on the allotment.

There are four known developed springs located within the allotment, on BLM managed lands, (Appendix A, Map #2 of SDD in Appendix II): Horse Spring, Hackberry Spring, Wiregrass Spring, and Davies Spring. Horse Spring feeds an approximate three mile pipeline capable of providing water to three watering locations (troughs), which includes a watering location vicinal to the spring source, along its length. When Hackberry Spring was developed it was capable of providing water, via an approximate two mile pipeline, to a location at the pipeline's end. Similarly, when Wiregrass spring was developed it supplied water to an approximate 50 foot pipeline which led to a trough. Field reconnaissance indicates that Davis Spring, which is located in an extremely rocky (rock outcrop type) area, was developed at one time as evidenced by remnants of a pipeline leading to a concrete trough below the spring source. It is important to note that all four springs lack associated riparian areas (lentic), and there are no known intermittent or perennial lotic systems found within the allotment.

Three designations of habitat for the federally threatened Agassiz's desert tortoise (*Gopherus agassizii*) occur within the allotment: general habitat, critical habitat, and the Mormon Mesa ACEC. Desert tortoise general habitat and desert tortoise critical habitat occupy approximately 24,498 acres and 11,935 acres within the allotment, respectively. Through the Approved Caliente Management Framework Plan Amendment and Record of Decision for the Management of Desert Tortoise (September 2000), approximately 13,200 acres within the allotment boundary were designated as an ACEC for desert tortoise (Appendix A, Map #3 of SDD in Appendix II). No livestock grazing is allowed within desert tortoise ACECs. The desert tortoise critical habitat is encompassed by the ACEC, therefore, no grazing is allowed within the critical habitat.

In general, much of the terrain immediately surrounding the ACEC in the southwest portion of the allotment is much more rugged (mountainous) than the terrain immediately surrounding much of the ACEC in the southeast part of the allotment (Appendix I, Map #2). Consequently, navigability by livestock to the ACEC boundary in the southwest portion of the allotment would prove much more difficult. Also, as noted on the map, there are no watering locations in the lower elevations of the southwest part of the allotment; and, there are also existing fences designed to prevent livestock drift to lower elevations of this portion of the allotment. Therefore,

the threat of livestock travelling to and accessing the desert tortoise ACEC, in the southwest part of the allotment, is highly unlikely.

The allotment also contains mule deer (*Odocoileus hemionus*) habitat and occupied desert bighorn sheep (*Ovis canadensis nelsoni*) habitat (Appendix A, Map #4 of SDD in Appendix II)

Approximately 90% (70,069 acres) (GIS) of the allotment occurs within the Mormon Mountains Wilderness area which encompasses approximately 157,938 acres (Appendix A, Map #5 of SDD in Appendix II).

Between 1998 and 2009, there have been seven fires, all located within the central and east portions of the allotment. All seven fires were located in Lincoln County, Nevada and started due to lightning (Appendix A, Map #6 of SDD in Appendix II). The fires occurred primarily in the east and central portions of the allotment, and burned approximately 25,017 acres or about 31% of its total acreage. The portion of the 2005 Duzak fire, the largest and most catastrophic fire known to have occurred within the allotment, was not seeded subsequent to the fire as a fire rehabilitation measure.

Neither the allotment nor any of its portions are located within a Wild Horse Herd Management Area (HMA).

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	<p>Air quality in Lincoln County is classified by the State of Nevada as being “unclassifiable” since no monitoring has been conducted to determine the classification and National Ambient Air Quality Standards; violations would not otherwise be expected in the county.</p> <p>The proposed action would not have a measurable affect the air quality of Lincoln County. Any dust created would be expected to be ephemeral.</p>
Cultural Resources	No	<p>Impacts from livestock grazing on Cultural Resources are analyzed on page 4.9-5 of the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007).</p> <p>A cultural review, in accordance with the State Protocol Agreement, was completed on June 9, 2014 where all documented sites in the allotment were looked at to see where there were potential effects to historic properties (cultural resources eligible for listing in the National Register of Historic</p>

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		<p>Properties). The report of this effort is on file in the Caliente Field Office and available upon request. There were four historic properties noted that have a high potential for impacts from current grazing practices. However, proposed mitigation measures would reduce the potential impacts to a low- moderate level.</p> <p>A cultural resources inventory for the ground disturbing actions being analyzed in this document will be completed prior to issuing the Final EA and Proposed Decision. Every effort will be made to avoid impacts to cultural resources through project redesign in accordance with the BLM 8100 Manual Series.</p>
Paleontological Resources	No	No currently identified paleontological resources of concern in the project area.
Native American Religious Concerns and other concerns	No	<p>Letters notifying Native American Tribes of proposed term grazing permit renewals scheduled for 2013 were sent out on April 5, 2013 for a 30 day comment period. The Mormon Peak Allotment was included in the notification. No concerns were identified.</p> <p>Direct impacts and cumulative impacts would not occur, because there were no identified concerns through coordination.</p>
Noxious and Invasive Weed Management	No	<p>Livestock grazing has the potential to spread noxious and invasive weeds. A Weed Risk Assessment was completed for this project (Appendix V).</p> <p>The design features of the proposed action, in addition to the vigilant practices described in the Noxious Weed Risk Assessment, will help prevent livestock grazing from spreading noxious and non-native, invasive weeds.</p> <p>No additional analysis is needed.</p>
Vegetative Resources	Yes	<p>Impacts from livestock grazing on Vegetation Resources were analyzed on page 4.5-9 in the Ely Proposed Resource Management Plan/Environmental Impact Statement (November 2007). Beneficial impacts to vegetative resources are consistent with the need and objectives for the proposed action.</p> <p>This resource has been further analyzed in the EA.</p>
Rangeland Standards and Health	Yes	<p>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 (November 2007). Beneficial impacts to rangeland standards and health are consistent with the need and objectives for the proposed action.</p> <p>Analysis of the proposed action and alternatives is provided in the affected environment and environmental impacts sections of this EA.</p>
Grazing Uses	Yes	<p>Wildlife species that likely occur in or near the project area are listed in Appendix VIII.</p> <p>Livestock grazing is analyzed in this EA.</p>
Forest Health ¹	No	Pinyon-juniper woodlands are found within the allotment. Such areas are

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		characterized by steep, rugged terrain which is unattractive to livestock. The impact of grazing in the woodlands is cumulatively negligible.
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 or alternatives.
Wilderness	Yes	<p>Approximately 90% (70,069 acres) (GIS) of the allotment occurs within the Mormon Mountains Wilderness area which encompasses approximately 157,938 acres (Appendix A, Map #5 of SDD in Appendix II)</p> <p>Impacts to wilderness is analyzed in this EA.</p>
Lands with Wilderness Characteristics	No	<p>In the original 1979/1980 wilderness characteristics inventory, three units were inventoried, of which one was found to possess wilderness characteristics. It was designated in 2004 as the Mormon Mountains Wilderness.</p> <p>In the 2011-2014 inventory update, four units extend into the allotment, of which three inventory units found to possess wilderness characteristics based on the adjacent wilderness. There are no anticipated impacts to Size, Solitude or Primitive forms of Recreation from the proposed action, no action or no grazing alternatives.</p>
Wetlands/Riparian Zones	No	No riparian areas occur on public land in the analysis area.
Water Quality, Drinking/Ground	No	<p>The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) disclosed effects to Water Resources from livestock grazing on page 4.3-5.</p> <p>The proposed action would not affect water quality (surface or groundwater sources) or drinking water in the project area. No surface water in the project area is used as human drinking water sources and no impaired water bodies of the State on Nevada are present in the project area.</p>
Water Resources (Water Rights)	No	The Proposed Action would not affect existing or pending water rights vicinal to the project analysis area.
Floodplains	No	The project analysis area is not included on FEMA flood maps. The resource does not exist in the proposed project area on BLM managed lands.
Migratory Birds	No	<p>The migratory bird species that occur in or near the project area are listed in Appendix VIII. This list includes BLM Sensitive species.</p> <p>There is always a possibility that the nests, and/or developing young, of ground nesting birds during the spring nesting period could be trampled by cattle. However, the potential for nest trampling is anticipated to be remote and upon occurrence, would be limited to an occasional individual or nest. If nests were lost due to trampling, birds would likely re-nest.</p> <p>Grazing would also reduce the height of existing vegetative structure and cover to some degree. However, with the establishment Allowable Use Levels it is anticipated that vegetative structure and cover would be negligibly affected.</p>

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		In view of the aforementioned, it is anticipated that negative impacts to migratory bird populations, as a whole, would be negligible.
U.S. Fish and Wildlife Service (USFWS) Listed or proposed for listing Threatened or Endangered Species or critical habitat.*	Yes	<p>Species (plant and animal) that occur in or near the project area are listed in Appendix VIII.</p> <p>The Mormon Peak Allotment contains habitat for the federally threatened Agassiz's desert tortoise (<i>Gopherus agassizii</i>) (Appendix A, Map #3 of SDD in Appendix II). Formal section 7 consultation for this species is being pursued.</p> <p>The aforementioned species are analyzed in detail in this EA.</p>
Special Status Plant Species, other than those listed or proposed by the USFWS as Threatened or Endangered	No	As listed in Appendix VIII, the BLM sensitive plant species Antelope Canyon goldenbush (<i>Ericameria cervina</i>) potentially occurs in the allotment. Habitat for this species (rock crevices and talus at 3120 to 6230 feet in elevation) likely receives little to no livestock grazing. Therefore, population-level impacts are not anticipated.
Special Status Animal Species, other than those listed or proposed by the UFWS as Threatened or Endangered	Yes	<p>No preliminary priority habitat or preliminary general habitat for greater sage-grouse occurs within the Lower Lake West Allotment.</p> <p>Wildlife species that occur in or near the project area are listed in Appendix VIII.</p> <p>The allotment potentially contains the following BLM sensitive species:</p> <p>golden eagle (<i>Aquila chrysaetos</i>); peregrine falcon (<i>Falco peregrinus</i>); , ferruginous hawk (<i>Buteo regalis</i>), Swainson's hawk (<i>Buteo swainsoni</i>), Western burrowing owl (<i>Athene cunicularia</i>), Brewer's sparrow (<i>Spizella breweri</i>), pinyon jay (<i>Gymnorhinus cyanocephalus</i>) and, loggerhead shrike (<i>Lanius ludovicianus</i>).</p> <p>desert bighorn sheep (<i>Ovis canadensis nelsoni</i>) and banded Gila monster (<i>Heloderma suspectum cinctum</i>).</p> <p>The aforementioned species are analyzed in detail in this EA.</p>
Fish and Wildlife	No	<p>There are no known riparian areas located within the allotment on BLM managed lands.</p> <p>Wildlife species that occur in or near the project area are listed in Appendix VIII.</p> <p>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 (November 2007).</p> <p>Grazing would reduce the amount of available forage (grass and forbs);</p>

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		<p>however, compliance with Ely Resource Management Plan standards for utilization percentages ensures that forage is present in the allotment after cattle are removed.</p> <p>The allotment contains general habitat for mule deer (<i>Odocoileus hemionus</i>), small mammals, and reptiles. No population level impacts are anticipated to these species.</p> <p>Therefore, it is anticipated that the proposed action would have no measurable effect on this resource.</p>
Wild Horses	No	Neither the allotment nor any of its portions are located within a Wild Horse Herd Management Area (HMA).
Soil Resources	No	<p>The Ely Proposed resource Management Plan/Final Environmental Impact Statement (November 2007) disclosed effects to Soil Resources resulting from livestock grazing actions on page 4.4-4.</p> <p>Soils in the project analysis area are not prone to compaction or erosion problems; infiltration rates and soil permeability are high and soil textures are coarse throughout the area</p> <p>It is expected that the proposed action would not measurably affect soil resources.</p>
Mineral Resources	No	There would be no modifications to mineral resources through the proposed action or alternatives; therefore, no direct or cumulative impacts would occur to minerals.
VRM	No	<p>The proposed action is consistent with the VRM classification objectives for VRM classes 1 and 2 within the allotment; therefore, no direct or cumulative impacts to visual resources would occur.</p> <p>Approximately 95 % of the allotment is classified as Class 1 with the remaining portion classified as Class 2. Livestock graze within both classes.</p>
Recreation Uses	No	Design features identified in the proposed action would result in negligible impacts to recreational activities
Land Uses	No	<p>There would be no modifications to land use authorizations through the proposed action, therefore no impacts would occur.</p> <p>No direct or cumulative impacts would occur to access and land use.</p>
Environmental Justice	No	No environmental justice issues are present at or near the project area. No minority or low income populations would be unduly affected by the proposed action or alternatives.
Areas of Critical Environmental Concern (ACEC)	No	The Mormon Peak Allotment contains an Area of Critical Environmental Concern (ACEC) for desert tortoise (Appendix A, Map #3 of SDD in Appendix II). This area is closed to livestock grazing, and construction of the ACEC fence would be a beneficial effect to the ACEC.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Farmlands (Prime or Unique)	No	No prime farmland exists within the allotment.

¹ Healthy Forests Restoration Act projects only

* Consultation required, unless a “not present” or “no effect” finding is made.

An analysis of grazing impacts on the following resources – noted in the above table as being negligibly affected – may be found in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) on the noted pages: Cultural Resources (page 4.9-5); Water Quality, Drinking/Ground (page 4.3-5); Fish and Wildlife (pages 4.6-10 through 4.6-11); and Soil Resources (page 4.4-4). Consequently, these resources do not require a further detailed analysis.

3.3 Resources/Concerns Analyzed

The following resources were assigned a “Yes” under the “Issue(s) Analyzed” column in the above table and have been identified by the BLM interdisciplinary team as resources within the affected environment that merit a detailed analysis: Vegetative Resources; Rangeland Standards and Health; Grazing Uses; Wilderness; USFWS Listed or proposed for listing Threatened or Endangered Species or critical habitat; and Special Status Animal Species other than those listed or proposed by the USFWS as Threatened or Endangered. An analysis of grazing impacts on these resources may also be found in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007), on the following noted pages: Vegetative Resources (page 4.5-9); Rangeland Standards and Health (pages 4.16-3 through 4.16-4); Special Status Species, including Threatened and Endangered Species (pages 4.7-28 through 4.7-33).

3.3.1 Vegetative Resources; Rangeland Standards and Health; Grazing Uses

3.3.1.1 Affected Environment

Sections 1.1, 2.1, and 3.1 describe and/or reference basic information about the Mormon Peak Allotment.

As described under section 1.2, an evaluation of livestock grazing management and rangeland health within the allotment (achievement of the standards and conformance to the guidelines) in the form of a Standards Determination Document was completed in conjunction with the permit renewal process (Appendix II).

The assessment indicated that Standards 1 and 3, and the upland portion of Standard 2 are being achieved within the unburned portions of the allotment; however, the same Standards or indicated portions thereof are not being achieved for the burned portions of the allotment. The riparian portion of Standard 2 is not applicable within the allotment.

3.3.1.2 Environmental Consequences

Proposed Action

Part 1: Changing the Season of Use

The current season of use doesn't allow periodic rest during the latter portion of the spring critical growing period for warm season plants, especially grasses. Such rest would be equally important for warm season grasses if summer thunderstorms spurred vegetative growth during the summer or early fall.

Consequently, there is the potential that it would not allow for the type of root mass and subsequent above ground biomass development which lends itself to healthy, vigorous growing plants. It is believed that annual summer grazing could potentially steadily diminish the root systems of warm season grasses, causing above ground biomass to correspondingly diminish over time¹.

Therefore, changing the season of use would reduce the potential for grazing to occur during either the latter portion of the spring critical growing period or during a possible summer/fall regrowth occurrence for warm season perennial grasses. This would especially aid in favoring plant growth and seed set requirements in warm season grasses. It would allow the potential for grazed plants to continue their growth, without grazing influence, which would aid in allowing such plants: to develop above ground biomass and produce a viable seed crop; to protect soils and provide desirable perennial cover for wildlife; to contribute to litter cover; and to continue to develop root masses which would lend itself to improved carbohydrate storage for vigor and reproduction.

Consequently, the benefits to plant physiology, added soil protection and wildlife cover would be enhanced; the plant quality and volume of existing perennial forage species would be promoted; and the potential for loss of desired plant species, due to repeated spring grazing during the critical growing period, would decline. Summarily, this would impact the desired forage base in a positive manner and result in an improvement of overall range condition.

In addition to the aforementioned benefits listed above, the change in the season of use would also exclude grazing during the hot summer months when livestock heavily rely on water sources for both, volume of water consumed and frequency of drinking. During such times, livestock are also noted as lacking the desire to travel as far from water sources as they otherwise would during times when temperatures are substantially cooler as during the fall, winter, and early spring months. This would result in better overall livestock distribution during the proposed season of use.

Part 2: The placement of 45% (270 AUMs) of the current Active Use (600 AUMs) into Temporary Suspended Use, leaving the remainder (330 AUMS) as Active Use.

¹ Dietz, Harland E. 1989. Grass: the Stockman's Crop, How to Harvest More of It. Special Report. Sunshine Unlimited, Inc. 15 pp.

Part 3: The authorization of Temporary Nonrenewable (TNR) grazing in accordance with § 4110.3-1 (a) when forage is available in excess of both, the proposed 330 Active AUMs plus the proposed 270 Temporary Suspended AUMS.

Placing 45% (270 AUMs) of the current Active Use (600 AUMs) into temporary suspended use, as mentioned under section 2.1, is consistent with Reasonable and Prudent Measure 7i of the Biological Opinion as contained in the Ely RMP (2008) (p. 140).

During an average precipitation year, grazing 100% of Total Active Use of the current term permit (600 AUMs) could have the potential to exceed the moderate use level (50%) on perennial forage. This is because the adjudication of the AUMs in the current permit was based on such forage before wildfires consumed a lot of the perennial plants in the approximate east half of the allotment. However, during years of high annual grass production where annual production can exceed 1000 pounds per acre – such as during 2005 when precipitation events caused a dramatic increase in fine fuels which subsequently resulted in catastrophic wildfires – the potential to exceed this grazing level, while annuals are green and succulent, would be dramatically reduced due to the abundance of forage.

By having the option of activating either the Temporary Suspended Use portion of the permit or authorizing TNR grazing (or both), it would allow the option to increase grazing use during years of high annual grass production while targeting weed species when such plants are most palatable, and consequently, vulnerable to grazing. This would also help reduce fuel loading, thereby lending itself to reduced fire frequency, intensity and severity while facilitating burn area recovery.

This allows for better management of rangeland resources, because grazing is tied to forage availability rather than a set AUM amount. It allows for flexibility to accommodate annual range conditions; deter overgrazing; and safeguard residual forage for wildlife habitat, plant recovery and productivity, and watershed function.

Part 4: The establishment of three new watering locations in the allotment

The introduction of three new waterhaul locations within the allotment, in combination with existing watering locations, would provide an additional means of controlling livestock; especially with respect to the potential to relieve grazing pressure in the areas serviced by the existing waters.

Existing permanent watering locations spread throughout the allotment provides some means to help control livestock. Under the discretion of the BLM the strategic use of multiple watering locations during the grazing season within the allotment, along with herding when needed, should maintain livestock distribution to achieve a uniform utilization level. When coupled with the introduction of allowable use levels, it would aid in preventing overall negative impacts to the soil and plant resource accordingly.

In summary, this should result in the promotion of overall forage production, ground cover, plant vigor and overall range condition. In addition, the potential for unacceptable utilization levels would be reduced while providing benefits to wildlife, regarding not only forage and cover, but additional water availability during the livestock grazing season.

The Nevada Department of Wildlife (NDOW) developed and completed a statewide Comprehensive Wildlife Conservation Plan in September 2012. The plan was approved by the USFWS on March 1, 2013 (Wildlife Action Plan Team 2013). It serves as a comprehensive, landscape level plan, identifying the species of greatest conservation need and the key habitats on which they depend, with the intent to prevent wildlife species from becoming threatened or endangered.

According to the Nevada Wildlife Action Plan, range improvements resulting in better distribution of livestock can reduce impacts. The plan notes: "Livestock facilities such as springs developments, water pipelines, and fencing have distributed livestock use over areas that were sporadically or lightly used prior to agricultural development. Distribution of livestock over a greater area, can also reduce impacts associated with concentrated livestock – trampling, soil compaction, eroding trails, etc."

The Nevada Wildlife Action Plan goes on to discuss habitat benefits of water developments further: "The presence of livestock water developments can also improve the quality of surrounding habitat, allowing wildlife species to expand into previously unoccupied areas. Pronghorn antelope generally require permanent water sources at intervals of less than five miles within their home range. Ranchers have become increasingly interested in, with the help of various federal programs, developing water systems that are wildlife friendly (e.g., wildlife escape ladders, using structures of different size, shape or position to enhance wildlife use). Strategically placed water developments that are managed to eliminate excessive diversion and that incorporate wildlife friendly features can be used to enhance rangeland for both livestock and wildlife. Food, cover, and space are habitat needs for both wildlife and livestock. Grazing management can be focused to managing livestock in a manner that supports these basic habitat elements while maintaining native plant community integrity – the plant communities to which native wildlife have adapted."

A concentrated influence on vegetation, vicinal to water troughs, is expected due to typical ungulate behavior associated with point water sources. Typically, there is an area immediately surrounding the troughs where soil and vegetation is the most affected as a result of cattle trampling and grazing while drinking. Varying degrees of grazing use/trampling subsequently occurs, in a radial pattern, with such affects decreasing as distance from the watering source increases. However, with the establishment of three new watering locations, logic dictates that the overall degree of such impacts should further decline, because of additional water sources servicing a given number of livestock, thereby, creating increased livestock distribution.

The installation and maintenance of bird ladders would allow a means of escape for wildlife.

Part 5: Construction of a fence to prevent livestock access into the desert tortoise Mormon Mesa Area of Critical Environmental Concern (ACEC).

Management Action LG-2, in the Ely RMP (2008) (p. 86) specifically notes that the Mormon Mesa ACEC is unavailable for livestock grazing. Furthermore, according to Appendix D (ACECs) of the Ely PRMP/FEIS, the ACEC offers several relevant and important features and encompass important desert tortoise and hot desert wildlife habitats in Lincoln County. The current condition and trend of the relevant and important values of the ACEC is a byproduct of historic human uses, present human uses, and unnatural and reoccurring fire regimes.

Fencing the desert tortoise Mormon Mesa ACEC, in the southeast portion of the allotment, will prevent access by any livestock that are grazing on the allotment, thereby, offering a measure of protection to the desert tortoise population within the ACEC; help preserve relevant and important values of the ACEC; and, provide a management tool to aid in complying with the Ely RMP which designates the ACEC as unavailable for livestock grazing.

The construction of the fence within the wilderness boundary would be constructed generally by hand with use of a gas-powered rock drill only where needed, and all tools and materials would be transported by personnel on foot. Therefore, it is anticipated that the impacts to the physical environment, during fence construction, would be negligible. Furthermore, after completing fence construction in the wilderness, any obvious foot trails created from multiple hiking trips over the same path of travel would be raked which would further mitigate constructional impacts.

The Proposed Action would also add other terms and conditions (BMPs) to the permit that would further aid in maintaining the Mojave-Southern Great Basin Standards within the unburned portion of the allotment.

Consequently, it is anticipated and reasonable to expect that Standards 1, 3, and the upland portion of Standard 2 would continue to be achieved within the unburned portions of the allotment; and, in the burned portions of the allotment, the reduction of fine fuels – using grazing as a tool – would help to reduce fire intensity and severity of any future fires.

No Action Alternative

All of the mandatory terms and conditions of the current permit, as displayed under section 2.1.1, would remain unchanged. This includes the season of use which currently allows grazing during the hot summer months (6/1 – 3/31). All of the anticipated benefits explained under Part 1 of this section would be either dramatically reduced or eliminated.

Under the no action alternative, the standard terms and conditions referenced under 2.1.2 under the Proposed Action and in Appendix VI of this EA - which further assist in maintaining the Standards and Guidelines for Grazing Administration (in the unburned portions of the allotment) in addition to other pertinent land use objectives for livestock use - would not be implemented.

The BMPs listed under 2.1.2, intended to assist in maintaining the Standards, would not be implemented. Consequently, the setting of allowable use limits; the rotation of watering locations directed at allowing periodic rest for areas serviced by each watering location; the strategic use of watering locations, along with the requirement of herding as needed, both directed at yielding maximum livestock distribution; and, the restriction of waterhauling to existing roads would not become integrated into the permit.

Consequently, the benefits to plant physiology and added soil protection, and wildlife cover – as described under the Environmental Consequences of the Proposed Action – would be dramatically reduced; and, the plant quality and volume of existing forage species could decrease, thereby, impacting the desired forage base in a negative manner. This would have overall negative impacts on vegetative resources and the health of the land.

In addition, all the terms and conditions from the PBO as listed under 2.1.2 – intended to minimize incidental take of the desert tortoise – would not be included in the new permit. This would ignore PBO directives (and the efforts associated with threatened and endangered species consultation with the U.S. Fish and Wildlife Service) designed to mitigate impacts to the desert tortoise; and, could subsequently have negative impacts on the currently listed species.

The ability to use grazing as a management tool to help reduce fine fuels by increasing grazing use during years of high annual grass production, while targeting weed species, when such species are most palatable and vulnerable to grazing would be lost.

Finally, the proposed fence which would aid in preventing livestock from accessing the Mormon Mesa ACEC – an area which has been designated as unavailable for livestock grazing in the Ely RMP – would not be constructed.

In summary, all of the benefits listed under the Environmental Consequences for the Proposed Action would not occur.

No Grazing Alternative

It should be noted that the following is most applicable to the unburned portions of the allotment:

For a short period of time following implementation, no grazing may accomplish the same desired result as allowing periodic rest during the spring critical growing period for plants by allowing perennial forage plants rest during the vital phenological stages of their annual growing cycle. However, studies indicate that this benefit would begin to decrease as plants accumulate previous years' herbage. Thus, the benefit may become relatively short-lived without outside influences, and may lead to wolfy plants. Among bunchgrasses, wolfy plants are clumps that have accumulations of both current and previous years' herbage (Ganskopp and Bohnert 2004).

In fact, it is realized in the scientific community that, over time and without outside influences such as fire, grasses may become wolfy from lack of grazing use. Ganskopp et al. (1992, 1993) cites where research at the Eastern Oregon Agricultural Research Center demonstrated that cattle

are aware of even one cured stem in clumps of green grass, and that they are about 40 percent less likely to forage on a woody plant than on one that does not have cured stems. They also state that many have reported preferential use by both wild and domestic animals of individual plants or patches of grass where old growth material has been removed by grazing or fire.

If this occurs, substantial forage can become wasted, because current year's growth is intermixed with older, cured materials that are nutritionally deficient and present a physical barrier to cattle grazing (Ganskopp and Bohnert 2004). Such plants would also lose vigor and become less palatable, thereby contributing to less productive rangelands for either wildlife or domestic livestock that depend on such a forage base.

Anderson (1993) elaborated on the consequences of choosing a No Grazing option. He states: "After a period of time, ungrazed herbaceous fibrous-rooted plant species become decadent or stagnant. Annual above-ground growth is markedly reduced in volume and height. Root systems likely respond the same. The result is reduction in essential features of vegetational cover, including the replacement of soil organic matter and surface residues, and optimum capture of precipitation." He also lists two other consequences: "(1) loss of quality herbaceous forage for wild herbivores, causing them to move to areas where regrowth following livestock grazing provides succulent forage (Anderson 1989), and (2) increased hazard from wildfires that can be devastating from a rangeland watershed standpoint."

Courtois et al. (2004) found that 65 years of protection from grazing on 16 exclosures, at different locations across Nevada, resulted in relatively few differences between vegetation inside the exclosures and that exposed to moderate grazing outside the exclosures. Where differences occurred, total vegetation cover was greater inside the exclosures while density was greater outside the exclosures. Protection from grazing failed to prevent expansion of cheatgrass into the exclosures (Ely PRMP/FEIS pg. 4.5–27). The article further stated, "Herbivory exclusion has not conclusively increased species richness, but at the simple majority of sites, richness was greater under grazing. It is also important to note that this study was conducted during a period of low precipitation...if differences are detectable, they should be more pronounced during times of stress." The article concluded that, "For this assessment, few changes in vegetation characteristics between the inside and outside of exclosures have occurred in 65 years, indicating that recovery rates have been similar under moderate grazing and exclusion. The live plant census reported few dead shrub and grass plants, but the vegetation inside exclosures often exhibited decadent growth characteristics."

The following is most applicable to the burned portions of the allotment:

It would be worthy to note that there would be a higher potential for large, destructive wildfires when ample precipitation produces copious amounts of fine fuels, in the form of invasive annual grasses (particularly in the east half of the allotment), the volume of which could otherwise be reduced using grazing as a management tool. Following such an event, the soil protection typically offered by perennial vegetative cover and associated root systems would be lacking, and could lead to a high soil erosion potential and mass land movements within affected watersheds.

3.3.2 USFWS Listed or proposed for listing Threatened or Endangered Species or critical habitat

3.3.2.1 Affected Environment

The Mormon Peak Allotment contains habitat for the federally threatened Agassiz’s desert tortoise (*Gopherus agassizii*). A portion of the allotment was designated as Mormon Mesa ACEC, which is closed to livestock grazing. The desert tortoise critical habitat (Mormon Mesa Critical Habitat Unit) is encompassed by the ACEC, therefore, no grazing is allowed within the critical habitat.

The allotment is located within the desert tortoise Northeast Mojave Recovery Unit (NE RU). Line Distance Sampling (LDS) desert tortoise density estimates in the last ten years for the NE RU range from 0.84 to 3.4 tortoises/km² (Table 3.3.2.1 a).

Table 3.3.2.1 a. Desert Tortoise Density Estimates for NE RU

Area	Year	Density (km ²)	Std Error
NE RU	2002	0.84	0.476
NE RU	2003	3.01	0.465
NE RU	2004	1.42	0.342
NE RU	2005	2.15	0.400
NE RU	2007	1.7	25.0 = CV
NE RU	2008	0.9	28.3 = CV
NE RU	2009	3.4	34.0 = CV
NE RU	2010	3.2	15.8 = CV
NE RU	2011	3.4	21.3 = CV
NE RU	2012	3.4	20.1 = CV

CV = Coefficient of Variance

Additional data were analyzed for the Mormon Mesa Critical Habitat Unit (CHU). LDS desert tortoise density estimates for 2007 to 2012 for the Mormon Mesa CHU range from 1.0 to 7.3 tortoises/km² (Table 3.3.2.1 b). The BLM Ely District funded additional transects just north of outside the Mormon Mesa CHU in 2008 and 2009. The densities were lower in areas north of the Mormon Mesa CHU.

Table 3.3.2.1 b. Desert Tortoise Density Estimates for Mormon Mesa CHU

Area	Year	Density (km ²)	Coefficient of Variance
MM CHU	2007	3.3	31.2 = CV
MM CHU	2008	1.9	38.0 = CV
MM2 CHU*	2008	1.0	44.1 = CV
MM CHU	2009	7.3	37.7 = CV
MM2 CHU*	2009	2.4	49.4 = CV
MM CHU	2010	5.5	20.7 = CV
MM CHU	2011	6.3	33.21 = CV
MM CHU	2012	4.3	30.03 = CV

* Additional transects funded by BLM in areas outside and north of the CHU in 2008 & 2009.

BLM desert tortoise triangular transects (surveyed in 1980s to 1990) estimated tortoise densities from very low to moderate in this allotment.

Proposed watering location #1 is located outside of desert tortoise habitat. Proposed watering location #2 is on the margin of desert tortoise habitat, and location #3 is within desert tortoise habitat.

3.3.2.2 Environmental Consequences

Proposed Action

The Revised Recovery Plan for the Mojave Population of the Desert Tortoise (2011), states under Recovery Action 2.16 (minimize impacts to tortoises from livestock grazing): “Grazing by livestock (cattle and sheep) affects desert tortoises through crushing animals or their burrows, destroying or altering vegetation (which may introduce weeds and change the fire regime), altering soil, and competition for food (Boarman 2002). There is currently no evidence that cattle grazing will restore habitat or prevent fire in Mojave Desert environments.”

The Revised Recovery Plan goes on to recommend: “The [U.S. Fish and Wildlife] Service should work to assist grazing managers to develop experimental application of more flexible grazing practices, such as allowing or reducing grazing during specific times of the year (*e.g.*, after ephemeral forage is gone or winter only) or under certain environmental conditions (*e.g.*, following a specified minimum amount of winter rain), in order to investigate the compatibility of grazing with desert tortoise populations.” The Revised Recovery Plan identifies outside of desert tortoise conservation areas as the most appropriate areas to collect data on these sorts of experimental applications.

Some management actions recommended in the Revised Recovery Plan are incorporated into the proposed action for the Mormon Peak allotment, such as: removing trespass cattle, monitoring, and prohibiting supplemental feeding.

The introduction of three new watering locations on the allotment – one outside of desert tortoise habitat, and one on the margin of tortoise habitat – has the potential to relieve grazing pressure within portions of desert tortoise habitat by displacing livestock to the areas serviced by the waters. Additionally, the strategic use of multiple watering locations during the grazing season by the permittee should improve livestock distribution to achieve a more uniform utilization level within the allotment. This would potentially further decrease overall impacts to the soil and plant resources, including desert tortoise habitat. In addition, the potential for unacceptable utilization levels would be reduced due to the better distribution of livestock. This would provide benefits to wildlife with more forage and cover.

Because all activities associated with the three new watering locations would occur within the previously disturbed areas and no new soil disturbance would occur, impacts to desert tortoise habitat would be minimal. Vehicles would not have to travel off-road to deliver water, which would minimize impacts as well.

Construction of the ACEC fence would benefit desert tortoise habitat within the ACEC. This fence could offer a measure of protection to the desert tortoise population within the ACEC and the Mormon Mesa CHU, which has higher densities than the non-critical desert tortoise habitat.

The terms and conditions listed in the Proposed Action would minimize impacts to desert tortoise and its associated habitat. For example, a 40% utilization limit on vegetation would benefit vegetative thermal cover and forage species for tortoise.

In Boarman's *Threats to Desert Tortoise Populations: A Critical Review of the Literature* (2002), he summarizes livestock grazing as a threat to desert tortoise in the following way: "Surprisingly little information is available on the effects of grazing on the Mojave Desert ecosystem (Oldemeyer 1994, Rundel and Gibson 1996, Lovich and Bainbridge 1999). Differences in rainfall patterns, nutrient cycling, and foraging behavior of herbivores and how these three factors interact make applications of research from other areas of limited value in understanding the range ecology of the Mojave Desert. The paucity of information is surprising given the controversy surrounding grazing in the Mojave and the importance of scientific information for making resource management decisions affecting grazing. Studies, mostly from other arid and semi-arid regions tells us that grazing can alter community structure, compact soil, disturb cryptogamic soils, increase fugitive dust and erosion. Some impacts to tortoises or their habitat have been demonstrated, but the evidence is not overwhelming."

The Mormon Peak Allotment contains habitat for the federally threatened Agassiz's desert tortoise (*Gopherus agassizii*) (Appendix A, Map #3 of SDD in Appendix II). Formal section 7 consultation for this species is being pursued.

No Action Alternative

Because authorization of three new watering locations would not occur, grazing would not be as well distributed in this allotment. This could have a negative impact on the plant resources that could otherwise serve as thermal cover or forage species for the desert tortoise.

Also, under the no action alternative, the terms and conditions listed in the Proposed Action would not be included in the new permit. Several of these terms and conditions that would otherwise benefit desert tortoise and associated habitat would not be implemented.

No Grazing Alternative

Not grazing the allotment could be beneficial to desert tortoise by eliminating a perceived threat of grazing in desert tortoise habitat. Grazing is one of the few threats to desert tortoise that can be managed.

However, the absence of grazing could lead to greater fuel loading. If this fuel loading resulted in wildfires, then the absence of grazing could be detrimental. The Revised Recovery Plan states: "There is currently no evidence that cattle grazing will restore habitat or prevent fire in

Mojave Desert environments.” Further study would be needed to determine the long-term consequences of not grazing this area and how the absence of grazing impacts desert tortoise.

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

3.3.3.1 Affected Environment

The allotment contains the following BLM sensitive species: desert bighorn sheep (*Ovis canadensis nelsoni*), golden eagle (*Aquila chrysaetos*), peregrine falcon (*Falco peregrinus*), ferruginous hawk (*Buteo regalis*), Swainson’s hawk (*Buteo swainsoni*), Western burrowing owl (*Athene cunicularia*), Brewer’s sparrow (*Spizella breweri*), pinyon jay (*Gymnorhinus cyanocephalus*), loggerhead shrike (*Lanius ludovicianus*), and banded Gila monster (*Heloderma suspectum cinctum*).

3.3.3.2 Environmental Consequences

Proposed Action

Some of the sensitive bird species found in this allotment (golden eagle, peregrine falcon, ferruginous hawk, Swainson’s hawk, loggerhead shrike, and pinyon jay) typically nest at a height greater than what livestock can reach (3 feet and above), therefore, no direct impacts to these bird species are anticipated. Livestock grazing is generally not listed as a potential threat or conservation issue for the some of the sensitive bird species that may potentially occur on this allotment, such as the golden eagle, peregrine falcon, ferruginous hawk, Swainson’s hawk, and pinyon jay (Ehrlich et al. 1988, Great Basin Bird Observatory 2010, and Paige and Ritter 1999).

Some species show no clear response or a positive response to livestock grazing. For example, burrowing owls showed positive or mixed responses to grazing (Paige and Ritter 1999 and Saab et al. 1995). Light to moderate grazing may provide open habitat for loggerhead shrike foraging (Paige and Ritter 1999).

Brewer’s sparrow is often found within 1,000 m of water (Great Basin Bird Observatory 2010), therefore, the three additional waters in the Proposed Action may be beneficial to this species.

Due to their lower nest locations, Western burrowing owl and Brewer’s sparrow may experience individual impacts from grazing, but no population-level effects are anticipated from the Proposed Action.

Studies on dietary overlap between desert bighorn sheep and cattle vary. One study between desert bighorn sheep and cattle in the Virgin Mountains of the northern Mojave Desert in Arizona did not find forage competition to be apparent (Morgart 1990). However, according to Nevada Department of Wildlife’s (NDOW) Bighorn Sheep Management Plan (2001), it is important that bighorn sheep habitats are maintained in good to excellent ecological condition because livestock directly compete with bighorns for forage, water, and space. The current condition of this habitat is unknown. The proposed action is designed to maintain or move

toward good to excellent ecological condition, therefore minimizing effects to desert bighorn sheep.

Very few studies have shown disease transmission between desert bighorn sheep and cattle as an issue. Experiments that put bighorn sheep in contact with species that were not domestic sheep (i.e., cattle, horses, elk, etc.) do not support a stress or transmission of fatal microbes hypothesis (Schommer and Woolever 2008).

In a study on ecology and behavior of Gila monsters in southwestern Utah, Beck found that all shelters used by Gila monsters were in rocky areas (1990). Therefore, trampling of Gila monster shelters by livestock is unlikely. These lizards spend a large percentage of their time underground and feed primarily on eggs and young small mammals taken from nests. Given the carnivorous diet and secretive nature of Gila monsters, no impacts to this species are anticipated from the proposed action.

In general, terms and conditions (such as a 40% utilization limit on vegetation) incorporated in the Proposed Action would benefit sensitive species that may occur within the allotment.

No Action Alternative

According to the *Nevada Comprehensive Bird Conservation Plan* (2010), “Domestic livestock (cattle and sheep) are a long-established component of most publicly managed lands in Nevada...Livestock grazing, however, is not invariably harmful to birds, and it may sometimes be beneficial for achieving particular management objectives.” The Plan concludes that “overgrazing” may be a conservation concern when it involves the removal of understory vegetation at sensitive times or leads to permanent changes in vegetation composition and structure.

Also, under the no action alternative, the terms and conditions listed in the Proposed Action and in Appendix VI of this EA would not be included in the new permit. Special status species and their associated habitats would not benefit from utilization limits (meant to prevent overgrazing) that are incorporated in the Proposed Action.

No Grazing Alternative

The no grazing alternative would remove any pressure from invasive annual grasses and could allow fuel loading to increase. Increased fire frequency and severity removes and prevents the re-establishment of native perennial species. Recovery and survival of perennial habitat components is dependent on maintaining historic disturbance regimes. If invasive annual grasses are allowed to flourish without any competitive pressure, fuel loading will eventually lead to more frequent and more intense fires. Wildfires could be detrimental to sensitive species and their associated habitats.

3.3.4 Wilderness

3.3.4.1 Affected Environment

Approximately 90% (70,069 acres) (GIS) of the allotment occurs within the Mormon Mountains Wilderness area which encompasses approximately 157,938 acres (Appendix A, Map #5 of SDD in Appendix II).

Planning related to grazing operations would be guided by the Congressional Grazing Guidelines (House Report 105-405 Appendix L, 1990) (also see Appendix B of the Standards Determination Document in Appendix II of this EA); BLM Manual 6340 (Management of Designated Wilderness Areas (Public)) (dated 7/13/2012); and the Delamar Mountains, Meadow Valley Range and Mormon Mountains Wilderness Management Plan issued December 16, 2009.

Activities and necessary facilities used to support livestock grazing would be permitted to continue in wilderness. Various range improvements currently exist within the allotment (Appendix VII).

Wilderness character

Are described under five categories as listed in the Wilderness Act of 1964: untrammeled (untrammeled is defined as unhindered and free from modern human control or manipulation), naturalness and primeval character, undeveloped, outstanding opportunities for solitude or a primitive unconfined form of recreation and other features of scientific, educational, scenic or historical value.

Untrammeled

Few trammeling activities occur within this wilderness and include management of wildland fire and weeds, and the presence of wildlife water developments, pipelines and fences.

Naturalness and primeval character

The naturalness and primeval character of the wilderness is mostly preserved. Some changes to the native vegetation composition have occurred, including the introduction of the non-native annual cheatgrass over portions of the wildernesses.

Undeveloped

There are approximately 17 fence lines within the Mormon Peak allotment in the Mormon Mountains Wilderness. Two pipelines extend into the wilderness at Horse Spring (and trough) and Hackberry Spring. The Horse Spring administrative route for permittee use was identified in the Delamar Mountains, Meadow Valley Range and Mormon Mountains Wilderness Management Plan and EA (2009). Range improvements that occur within the Mormon Mountains Wilderness are identified in Appendix VII.

Outstanding opportunities for solitude or a primitive form of recreation

Visitors can enjoy outstanding opportunities for solitude and primitive, unconfined recreation in the wildernesses.

The many canyons provide excellent opportunities for solitude as does the sheer size of the wilderness. Outstanding recreation opportunities for hiking, exploration and camping are present throughout the area. Only the 14-day stay limit for camping in all three areas confines primitive recreational opportunities.

3.3.4.2 Environmental Consequences

Proposed Action

Untrammelled

Trammeling activities would continue in the form of vegetation removal and the use of the three new proposed watering locations by livestock; however, shortening the season of use from 10 months to 7 months along with a decrease of Active AUMs from 600 to 330 AUMs would reduce this effect.

Naturalness and primeval character

A reduced season of use would allow for improved naturalness by helping to promote plant physiological characteristics of native perennial plants in a positive manner. This is particularly important given the invasion of red brome throughout the burned portions of the wilderness.

Undeveloped

The three proposed new watering locations are external to the wilderness, though Locations #1 and #2 are within routes that were cherry-stemmed (a route excluded from the wilderness; the boundary being 100' from centerline of the road).

The proposed fence line to prevent livestock from accessing the Mormon Mesa ACEC for desert tortoise, which extends 0.4 miles into the wilderness, was analyzed in a Minimum Requirements Decision Guide (MRDG)². The MRDG determined the fence would be constructed generally by hand, with use of a gas-powered rock drill where needed. All tools (hand tools and rock drill) and materials (green t-posts, wire, poles for braces) would be transported, within the wilderness,

² The Minimum Requirements Decision Guide (MRDG) is designed to assist wilderness managers in making appropriate decisions in wilderness. Conducting a minimum requirements analysis follows the direction of both law and agency policy. The MRDG uses a process to identify, analyze, and select management actions that are the minimum necessary for wilderness administration. It applies this direction from the Act (Section 4(c)) and incorporates a two-step process. Step 1 determines whether administrative action is necessary. If action is found to be necessary, then Step 2 provides guidance for determining the minimum activity. Step 2 has been referred to as determining the minimum tool but could include any type of activity, method, or equipment.

by personnel on foot. After completing fence construction in the wilderness, any obvious foot trails, created from multiple hiking trips over the same path of travel, would be raked which would further mitigate constructional impacts.

Inspection and routine maintenance of range developments within the wilderness would be accomplished on foot or horseback; therefore, those actions would not impact the undeveloped quality. Major maintenance or repair for which motorized equipment or mechanized transport would be authorized (e.g., replacement of pipeline, or fence repairs) would negatively impact the undeveloped character for the duration of the motorized or mechanized use. It is anticipated that the use of motorized vehicles or mechanical transport would be infrequent and the minimum tool would be determined through the use of an MRDG. See Appendix VII for a list of range developments and wilderness-specific maintenance information.

Outstanding opportunities for solitude or a primitive form of recreation

Occasionally, visitors may encounter permittees and cattle. However, these impacts would be reduced with the reduced season of use and temporary reduction of AUMs in the form of Temporary Suspended Use.

No Action Alternative

All of the mandatory terms and conditions of the current permit, as displayed under section 2.1.1, would remain unchanged.

The term and condition in section 2.1.2 designed to control permitted range related specific activities while mitigating associated impacts within wilderness, as described in BLM Handbook 6340 for grazing facilities, would not be implemented. This would defeat the objective of striving to meet minimum requirements for the administration of wilderness areas, as set forth in BLM Manual 6340 (1.6.B.3.c, p. 1-16), in an effort to preserve wilderness character for the purpose of the Wilderness Act.

Untrammeled

This alternative would have higher potential impacts to the untrammeled quality than the Proposed Action, because the current permit has 600 Active AUMs as opposed to the proposed permit which would have a reduced Active Use of 330 AUMs (45% proposed reduction).

Contrastingly, the proposed fence would not be constructed which would help preserve the untrammeled aspect of wilderness character.

Naturalness and primeval character

Naturalness would not either be degraded or improved under this alternative.

Undeveloped

The proposed fence would not be constructed which would help preserve the undeveloped aspect of wilderness character.

Outstanding opportunities for solitude or a primitive form of recreation.

Occasionally, visitors may encounter permittees and cattle.

No Grazing Alternative

Untrammelled

No grazing would occur on the allotment under this alternative and, thus, no trammeling impacts to the vegetation or soils would occur.

Naturalness and primeval character

Naturalness would not be impacted as grazing would not be occurring.

Undeveloped

Under the No Grazing Alternative, the proposed fence would not be built – and there would be no additional impact to the undeveloped quality. Further, the undeveloped quality would be improved as range developments within wilderness are no longer needed, and subsequently removed. Occasional maintenance of the range developments with motorized equipment or mechanical transport would not need to occur.

Outstanding opportunities for solitude or a primitive form of recreation

No impacts would occur to the Outstanding Opportunities quality.

4.0 Cumulative Effects

4.1 Past Actions

Livestock grazing operations in the planning area developed during the mid to late-1800s. The Ely PRMP/FEIS summarizes livestock grazing history in the region on pages 3.16–1 to 3.16–3. Range improvements have occurred on the allotment to improve grazing management and include fencing and stockwater developments.

No known vegetation treatments (e.g., chainings, seedings, sprayings, etc.) have been implemented within the allotment.

A description of fire history dating back to 1998 is found in the SDD in Appendix II.

4.2 Present Actions

Currently, one permittee holds grazing privileges on the Mormon Peak Allotment.

Because a large portion of the allotment occurs within the Mormon Mountains Wilderness Area, widely dispersed incidental recreation occasionally occurs within the allotment in the form of wildlife viewing, photography and hiking.

4.3 Reasonably Foreseeable Future Actions

The aforementioned widely dispersed incidental recreation will continue into the future. Livestock grazing will continue on the allotment. Upon expiration, the permit will be considered for renewal through site-specific NEPA analysis.

4.4 Cumulative Effects Summary

4.4.1 Proposed Action

According to page 36 of the 1994 BLM publication *Guidelines for Assessing and Documenting Cumulative Impacts*, the 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 (CESA).

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

The CESA, regarding livestock grazing, is defined as the Meadow Valley Wash South (#214 B) and Toquop Wash (#230) Watersheds (Appendix I, Map #3).

The proposed action in conjunction with the past, present and reasonable foreseeable future actions would result in no noticeable overall negative changes to the affected environment. In fact, grazing under the proposed permit would promote resource benefits as described under each “Environmental Consequences” section for the Proposed Action with the understanding that adjustments to grazing management would occur, when deemed necessary, to achieve resource objectives. This is in accordance with federal regulations which state: “The authorized officer shall take appropriate action under subparts 4110, 4120, 4130, and 4160 of this part as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management needs to be modified...(43 CFR §4180.1).”

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

In summary, no cumulative impacts of concern are anticipated as a result of the proposed action in combination with any other existing or planned activity.

4.4.2 No Action Alternative

It is anticipated that the No Action Alternative would have the same cumulative effect as the proposed action, above.

4.4.3 No Grazing Alternative

The No Grazing Alternative will not have any cumulative effects on rangeland health.

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 Resource Specialists

Domenic A. Bolognani	Rangeland Management Specialist/Project Lead
Daniel Condie	Rangeland Management Specialist
Chris Mayer	Supervisory Rangeland Management Specialist
Alicia Styles	Wildlife, Special Status Species, Migratory Birds
Cameron Boyce	Soil, Water, Wetlands and Riparian, Floodplains
Cameron Boyce	Noxious and Invasive, Non-native Species
Nick Pay	NEPA Coordinator, Cultural Resources
Elvis Wall	Native American Cultural Concerns
Randy Johnson	Hazardous & Solid Waste/Safety
Lisa Domina	Recreation, Visual Resources
Emily Simpson	Outdoor Recreation Planner - Wilderness

6.2 Persons, Groups or Agencies Consulted

Formal Section 7 consultation with the U.S. Fish and Wildlife Service for the federally threatened Agassiz's desert tortoise (*Gopherus agassizii*) is currently being pursued.

Public Notice of Availability

The Ely District Office mails an annual Consultation, Cooperation and Coordination (CCC) letter, for various program areas, to individuals and organizations who have previously expressed an interest in federal actions on the Ely District. Through the CCC letter, the public has the opportunity to submit a request to be a 2014 interested public for grazing management actions on the Ely BLM District; and, to specify the specific grazing management actions and grazing allotments in which they are interested. From the gathered information, an Interested Publics Mailing List is developed. Grazing permittees are automatically included on the Interested Public Mailing List for any allotment on which they have a grazing permit.

On November 19, 2013, the aforementioned Ely BLM annual CCC letter was mailed.

On October, 11, 2012, the permittee of record was sent a letter informing them of the proposed term permit renewal process, associated with their permit on the Mormon Peak Allotment. No comments were received.

On March 20, 2014, the proposal to fully process the term permit associated with livestock grazing on the Mormon Peak Allotment was posted on the following E-Gov for Planning (ePlanning) and National Environmental Policy Act (NEPA) website:
https://www.blm.gov/epl-front-office/eplanning/nepa/nepa_register.do.

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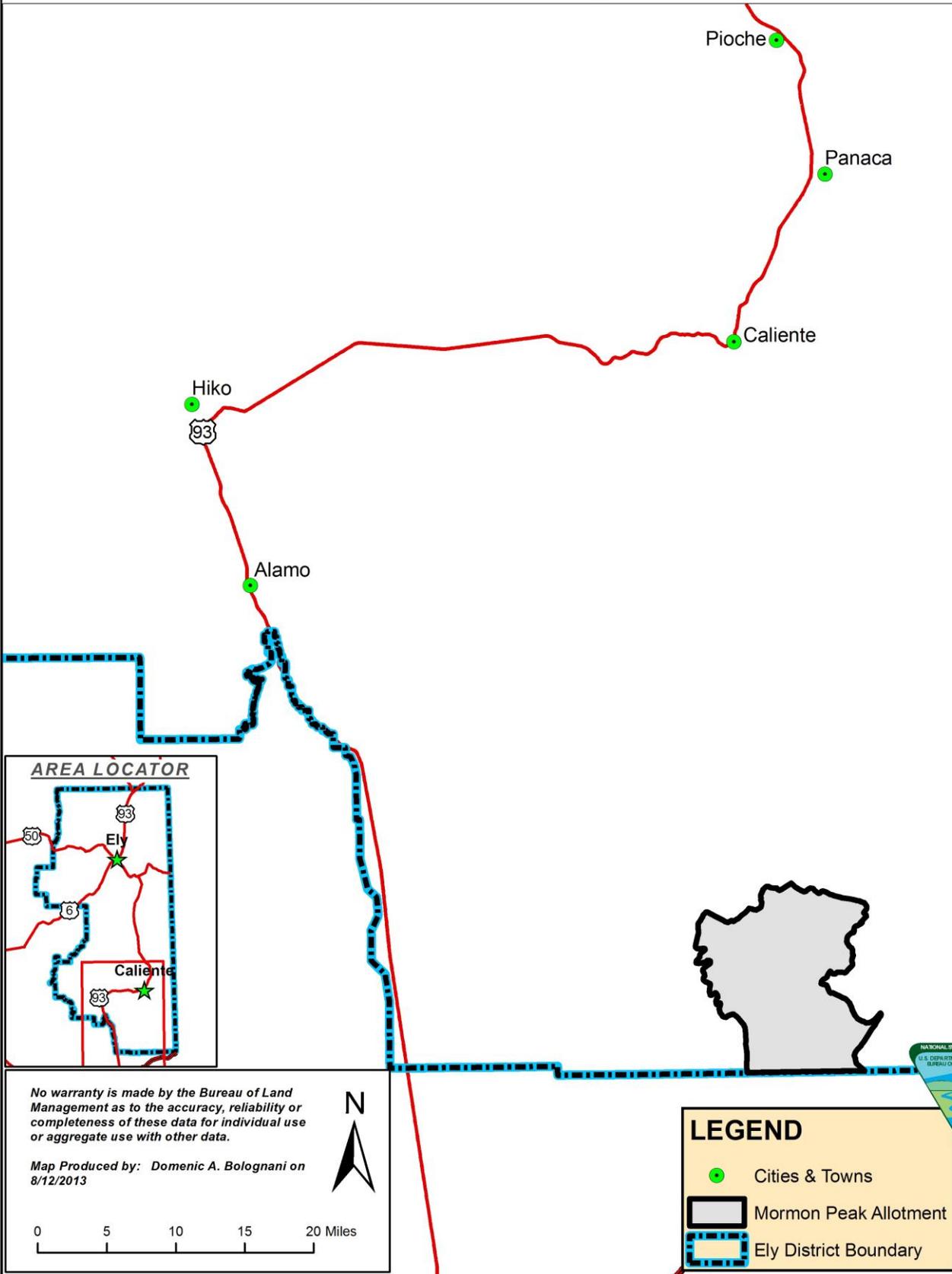
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APPENDIX I
(EA)

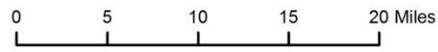
MAP(S)

Location of the Mormon Peak Allotment (#01044)
with Respect to the Surrounding Towns.



No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

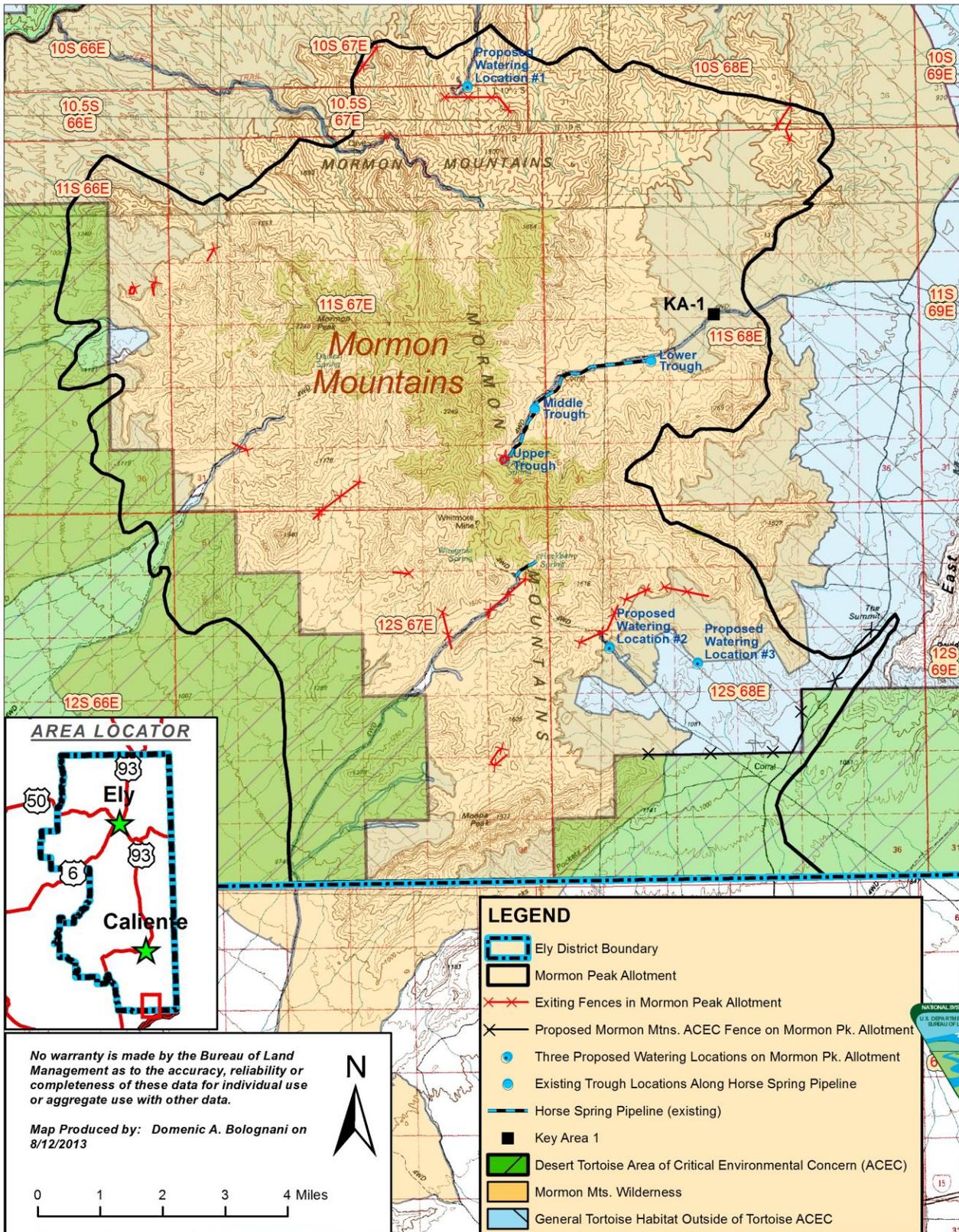
Map Produced by: Domenic A. Bolognani on 8/12/2013



LEGEND

- Cities & Towns
- Mormon Peak Allotment
- ▭ Ely District Boundary

Location of Existing Waters and Fences, the Established Key Area, the Three Propose Watering Locations, and the Proposed ACEC Fence with Respect to the Mormon Mts. Wilderness and the Desert Tortoise Area of Critical Environmental Concern (ACEC) within the Mormon Peak Allotment (#01044).



Ely District Office



LEGEND

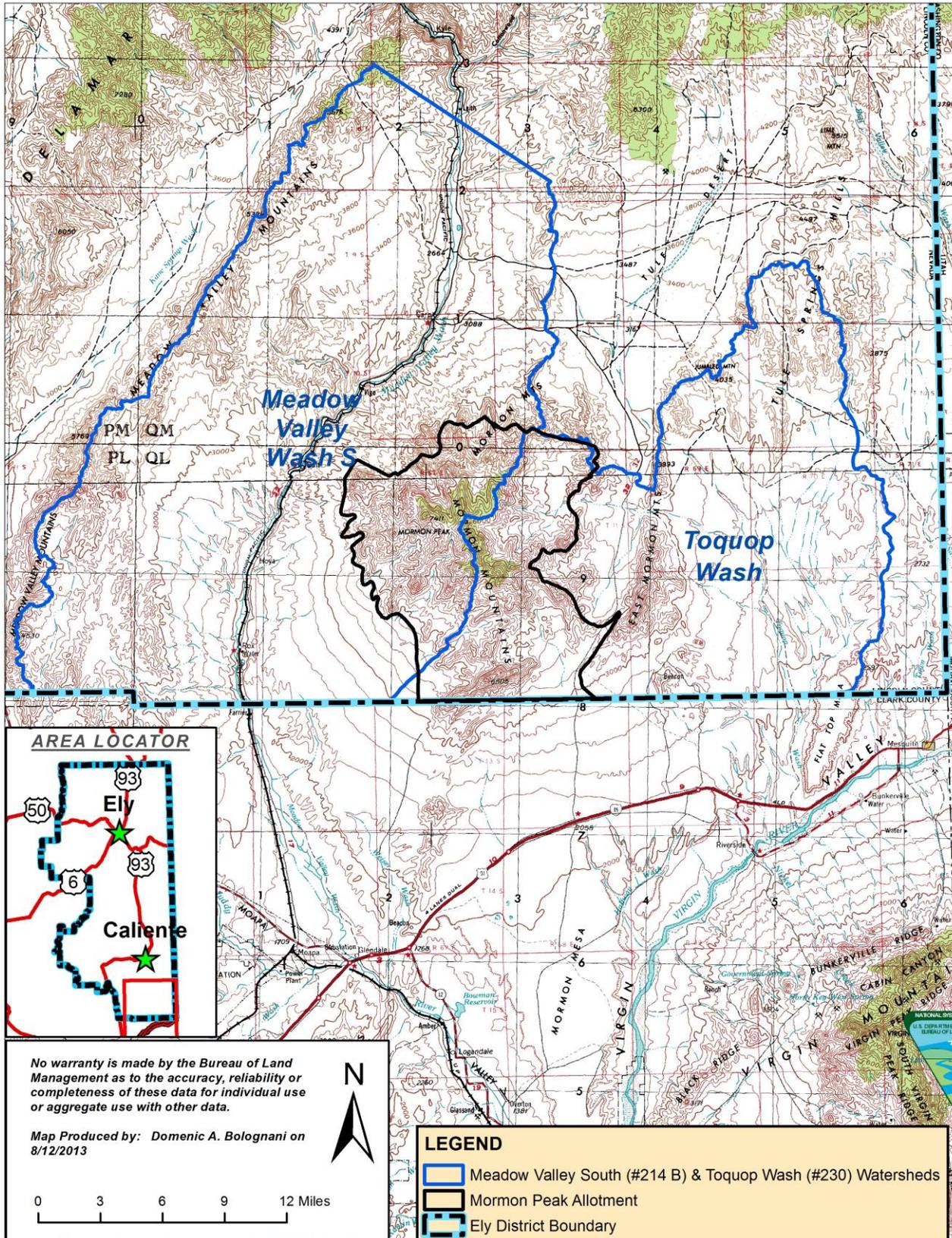
- Ely District Boundary
- Mormon Peak Allotment
- Existing Fences in Mormon Peak Allotment
- Proposed Mormon Mtns. ACEC Fence on Mormon Pk. Allotment
- Three Proposed Watering Locations on Mormon Pk. Allotment
- Existing Trough Locations Along Horse Spring Pipeline
- Horse Spring Pipeline (existing)
- Key Area 1
- Desert Tortoise Area of Critical Environmental Concern (ACEC)
- Mormon Mts. Wilderness
- General Tortoise Habitat Outside of Tortoise ACEC

No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Domenic A. Bolognani on 8/12/2013

0 1 2 3 4 Miles

Location of the Mormon Peak Allotment (#01044) with Respect to the Meadow Valley Wash South (#214 B) and Toquop Wash (#230) Watersheds.



APPENDIX II
(EA)

STANDARDS DETERMINATION DOCUMENT

STANDARDS DETERMINATION DOCUMENT

Permit Renewal for Authorization # 2703837
On the
Mormon Peak Allotment (#01044)

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 of rangeland health 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. Guidelines are options that move rangeland conditions toward the multiple use Standards. Guidelines are based on science, best rangeland management practices and public input. Therefore, determination of rangeland health is based upon conformance with these standards. Thus Guidelines indicate the types of grazing methods and practices for achieving the Standards for multiple use, are developed for functional watersheds and implemented at the allotment level.

This Standards Determination document evaluates livestock grazing management and achievement of the Standards and Guidelines for the Mormon Peak Allotment. It does not evaluate or assess the Standards or Guidelines for Wild Horses and Burros. Publications used in assessing and determining achievement of the Standards include: Ely Record of Decision and Approved Resource Management Plan (RMP) (August 2008); Sampling Vegetation Attributes; National Range and Pasture Handbook published by the Natural Resources Conservation Service (NRCS); Nevada Rangeland Monitoring Handbook; Utilization Studies and Residual Measurements; Nevada Plant List; and Major Land Resource Area (MLRA 29 and MLRA 30) Rangeland Ecological Site Descriptions. A complete list of references is included at the end of this document. These documents are available for public review at the Caliente Field Office during business hours.

Background

The Mormon Peak Allotment, a land based allotment having one permittee, is located in the south-central portion of Lincoln County, Nevada (Appendix A, Map #1). It is approximately 40 miles south of Caliente, Nevada and approximately 14 miles northwest of Mesquite, Nevada. Elevations range from approximately 3,000 feet along the south boundary to approximately 7,200 feet at highest peaks in the central portion of the allotment. The allotment falls within the Meadow Valley Wash South (#214 B) and Toquop Wash (#230) Watersheds, and is approximately 77,991 acres (GIS) in size. The current grazing permit has been issued for the period 3/1/2013 – 9/30/2013 and authorizes cattle grazing according to the following:

Table 1. Current Term Grazing Permit, Showing Mandatory Terms and Conditions, for Authorization Number 2703837 on the Mormon Peak Allotment.

ALLOTMENT		Authorization Num.	LIVESTOCK		GRAZING PERIOD		** % Public Land	Active Use	AUMs	
Name	Number		* Number	Kind	Begin	End			Hist. Susp. Use	Permitted Use
Mormon Peak	1044	#2703863	60	cattle	6/1	3/31	100%	600	0	600

* This number is approximate

** This is for billing purposes only.

This assessment evaluates the allotment for the period March 1, 1991 – February 28, 2011 (20 years). No livestock grazing has occurred on the allotment during this time period.

One key area (KA-1) was established on the allotment on June 22, 1982 (Appendix A, Map #2). It was established to provide utilization data on existing perennial plant species, in the primary livestock grazing use area by the permittee, following a burn in the late 1970s.

There are four known developed springs located within the allotment, on BLM managed lands, (Appendix A, Map #2): Horse Spring, Hackberry Spring, Wiregrass Spring, and Davies Spring. Horse Spring feeds an approximate three mile pipeline capable of providing water to three watering locations (troughs), which includes a watering location vicinal to the spring source, along its length. When Hackberry Spring was developed it was capable of providing water, via an approximate two mile pipeline, to a location at the pipeline’s end. Similarly, when Wiregrass spring was developed it supplied water to an approximate 50 foot pipeline which led to a trough. Field reconnaissance indicates that Davis Spring, which is located in an extremely rocky (rock outcrop type) area, was developed at one time as evidenced by remnants of a pipeline leading to a concrete trough below the spring source. It is important to note that all four springs lack associated riparian areas (lentic), and there are no known intermittent or perennial lotic systems found within the allotment.

Three designations of habitat for the federally threatened Agassiz’s desert tortoise (*Gopherus agassizii*) occur within the allotment: general habitat, critical habitat, and the Area of Critical Environmental Concern (ACEC). Desert Tortoise General Habitat and Desert Tortoise Critical Habitat occupy approximately 24,498 acres and 11,935 acres within the allotment, respectively. Through the Approved Caliente Management Framework Plan Amendment and Record of Decision for the Management of Desert Tortoise (September 2000), approximately 13,200 acres within the allotment boundary were designated as an ACEC for desert tortoise (Appendix A, Map #3). No livestock grazing is allowed within desert tortoise ACECs.

The allotment also contains mule deer (*Odocoileus hemionus*) habitat and occupied desert bighorn sheep (*Ovis canadensis nelsoni*) habitat (Appendix A, Map #4).

Approximately 90% of the allotment occurs within the Mormon Mountains Wilderness area (Appendix A, Map #5).

Neither the allotment nor any of its portions are located within a Wild Horse Herd Management Area (HMA).

The following table summarizes the aforementioned information regarding desert tortoise statistics and wilderness.

Table 1. Approximate acres of the Mormon Peak Allotment, the various designations of desert tortoise habitat found within the allotment, the Mormon Mountains Wilderness Area, and the percent of the allotment each contributes.

Name	Acreage	Percentage of Allotment
Mormon Peak Allotment	77,990	----
Desert Tortoise General Habitat	24,498	31%
Desert Tortoise Critical Habitat*	11,935	15%
Mormon Mesa ACEC (closed to grazing)	13,200	17%
Mormon Mountains Wilderness	70,068	90%

Since 1998 there have been seven fires, all located within the central and east portions of the allotment (Table 2).

Table 2. Fires which have occurred within the 77, 900 acre Mormon Peak Allotment from 1998-2012, the year of the fire and the acres consumed.

Fire Name	Year	Acres	Approximate Percentage of the Allotment
K-147	1998	622	.80%
Burky	2004	50	.06%
Bighorn	2004	1,471	1.9%
Duzak	2005	21,948	28%
Davies	2006	871	1.1%
Davidson	2007	35	.04%
Summit Two	2009	20	.03%
Total Acreage		25,017	31.93%

All seven fires were located in Lincoln County, Nevada and started due to lightning (Appendix A, Map #6). The fires occurred primarily in the east and central portions of the allotment, and burned approximately 25,017 acres or about 31% of its total acreage. The portion of the 2005 Duzak fire, the largest and most catastrophic fire known to have occurred within the allotment, was not seeded subsequent to the fire as a fire rehabilitation measure.

The BLM collected cover data at KA-1 on September 20, 2012 using the Line Intercept Method. The method is described in Sampling Vegetation Attributes (USDI-BLM et. al., 1996).

The following is an analysis of monitoring data which the BLM used to evaluate applied management practices during the evaluation period. The BLM used these data to determine if such management practices yielded results that were in conformance with the Mojave - Southern Great Basin Standards.

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 crusts, pavement); and
- Compaction/infiltration.

Riparian soil indicators:

- Stream bank stability.

All of the above upland indicators have been deemed appropriate to the potential of the ecological site.

The riparian component of the standard is not applicable.

Burned Portion of the Allotment (approximate east half)

Determination:

- Achieving the Standard
- Not achieving the Standard, but making significant progress towards meeting the Standard.
- Not achieving the Standard, not making significant progress towards meeting the Standard.**

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.
- Livestock are not a contributing factor to not meeting 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

Soil Mapping Units and corresponding Rangeland Ecological Site Descriptions, as determined by the NRCS, combined with professional field observations were used to determine the ecological site represented by the key area.

The BLM determined that Key area KA-1 was located in a Shallow Gravelly Loam 8-10" P.Z. ecological site (029XY077NV – Blackbrush (*Coleogyne ramosissima*) / Desert needlegrass (*Achnatherum speciosum*). This site comprises a majority of the northern approximate two-thirds of the allotment.

The soils of this site are shallow and well drained. Surface soils are medium to coarse textured. Subsoils are generally heavy textured with a high percent of gravels. Runoff is rapid and the potential for gully, sheet or rill erosion varies with slope. The soils are slowly permeable and

available water capacity is very low to low. These soils are dry most of the year but are moist for short periods during the winter and early spring months and occasionally for short intermittent periods following summer convection storms.

The following photos (Figures 1-6) show the vegetation and soil surface characteristics of the key area.



Figure 1. Looking northwest from KA-1.



Figure 2. Looking north at KA-1.



Figure 3. Looking northeast from KA-1.



Figure 4. Looking east at KA-1.



Figure 5. Looking south from KA-1.



Figure 6. Looking west from KA-1.

The table below shows a comparison summary of cover data, collected at the key area on the Mormon Peak Allotment, to the potential natural community (PNC) cover value for the applicable range site.

Key Area	Range Site *	Associated Vegetation Type	% Cover Collected at Key Area	% Cover at PNC in Rangeland Site Description
KA-1	029XY077NV	CORA/ACSP	5.4%	25%-35%

* Based upon Soil Mapping Units as provided by the Natural Resource Conservation Service (NRCS) along with ground reconnaissance.

Conclusion: Burned Portions of the allotment: *Standard 1 Not Achieved*

According to the range site description applicable to the key area, potential perennial ground cover (basal and crown) should range between 25 – 35%. As the above table shows, cover values at the key area falls significantly below this range. Existing cover components consist primarily of annual grasses mixed with widely scattered perennial shrubs. However, it should be noted that the lack of pedestalled plants, rills and gully erosion on gentler slopes is evidence of minimal wind and water erosion. Soil characteristics for this range site were described above. The BLM believes that these soil characteristics (well drained, medium to coarse textured with subsoils being generally heavy textured with a high percent of gravels) help provide some measure of soil protection.

As previously stated, the allotment has received no grazing use for the grazing years 1991 – 2010. Therefore, grazing is not a causal factor in failing to meet the standard. Failing to meet the standard can be attributed to the repeated devastating fires which have occurred on the allotment as recently as 2005, when the Duzak Fire consumed almost 22,000 acres in the east portion of the allotment (Appendix A, Map #6). As mentioned, the Duzak fire was not seeded as a fire rehabilitation measure subsequent to the fire.

Unburned Portion of the Allotment (approximate west half)

Determination:

Meeting the Standard

- Not meeting the Standard, but making significant progress towards meeting the Standard.
- Not meeting the Standard, not making significant progress towards meeting the Standard.

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.
- Livestock are a contributing factor to not meeting 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

As previously mentioned, the range site 029XY077NV dominates the approximate two-thirds of the northern portion of the allotment. These soils were described above.

The BLM conducted professional field observations and collected cover data in locations typical of the unburned portions of the allotment to determine achievement or non-achievement of Standard I. To collect representative cover data, the BLM established two monitoring points on May 2, 2013.

The table below shows a comparison summary of cover data between the data collected at each monitoring point and the potential natural community (PNC) cover value for the applicable range site.

Key Area	Range Site *	Associated Vegetation Type	% Cover Collected at Key Area	% Cover at PNC in Rangeland Site Description
M-1	029XY077NV	CORA/ACSP	34%	25%-35%
M-2	029XY077NV	CORA/ACSP	49%	25%-35%

* Based upon Soil Mapping Units as provided by the Natural Resource Conservation Service (NRCS) along with ground reconnaissance.

The following photos (Figures 7-8) show the typical vegetation and soil surface characteristics of the unburned portions of the allotment.



Figure 7. Monitoring point M-1 located in an unburned portion of the allotment (elevation 3,793 feet).

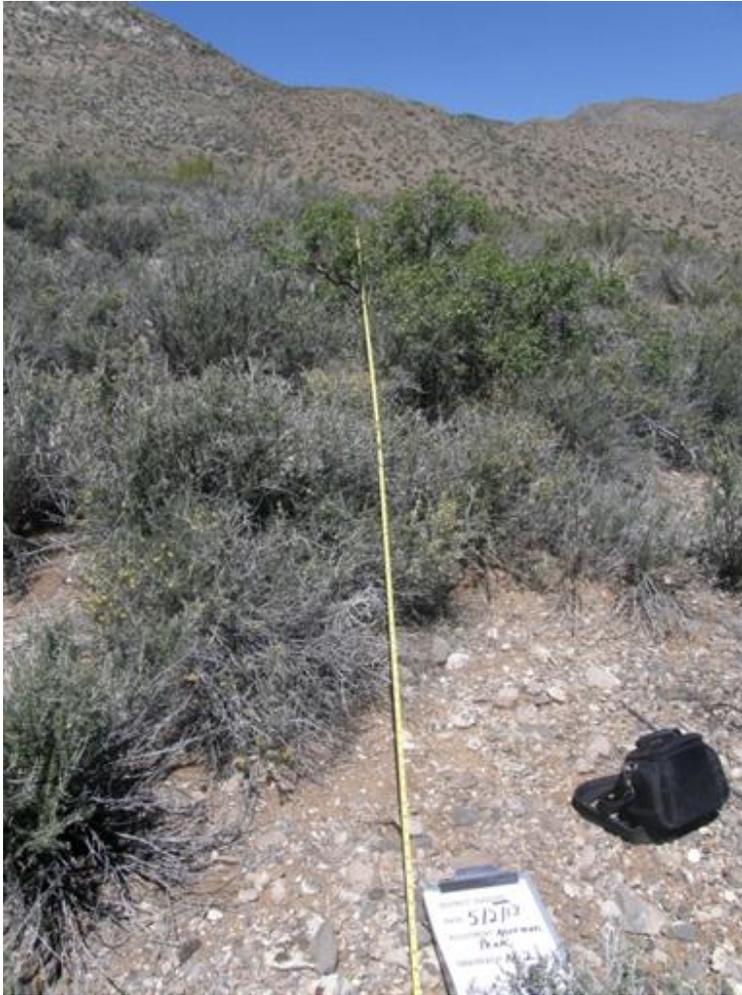


Figure 8. Monitoring point M-2 in an unburned portion of the allotment (elevation 5,075 feet).

Conclusion: Unburned Portions of the allotment: *Standard 1 Achieved*

According to the site description applicable to the key areas, potential ground cover (basal and crown) should range between 25% – 35%. As the above table shows, cover values at each of the monitoring points occurs within – or even exceeds – this range.

Within the unburned areas of the allotment, the vegetative community is diverse and productive. The combination of vegetative cover, litter and rock on the soil surface is appropriate for the site and contribute significantly to soil stability and protection against normal erosive forces.

Furthermore, field observations on the allotment have substantiated that soils were stable, native plants were not pedestalled and there were no signs of soil compaction. This indicates that this portion of the allotment has sufficient vegetative cover to maintain stability and to resist accelerated erosion, maintain soil productivity and sustain the hydrologic cycle. It further indicates that there is minimal wind and/or water erosion of topsoil, and apparent appropriate infiltration of water from snowmelt and rainfall. In addition, the gravelly/stony soil surface

characteristics found in the soil mapping unit (029XY077NV) comprising large portions of the allotment further contribute to soil protection.

Sufficient live vegetative cover infers litter production that further adds to increased soil protection and stability. Field observations have substantiated various amounts of scattered litter throughout the allotment.

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 the 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); and
 - Other cover (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 plant species and cover appropriate to the site characteristics.

Water quality indicators:

- Chemical, physical and biological constituents do not exceed the state water quality standards.

Uplands:

Burned Portion of the Allotment (approximate east half)

Determination:

- Achieving the Standard
- Not achieving the Standard, but making significant progress towards meeting the Standard.
- Not achieving the Standard, not making significant progress towards meeting the Standard.**

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.
- Livestock are not a contributing factor to not meeting 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

Data and field observations relating to soils, hydrologic processes, canopy and ground cover (including litter and rock) were discussed in Standard I. Observed live vegetation species are discussed in Standard 3.

Burned portions of the allotment are lacking the perennial cover necessary to fulfill the standard. These areas of the allotment are dominated primarily by annual grasses.

Conclusion: Burned portions of the allotment: *Standard 2 Not Achieved*

Unburned Portion of the Allotment (approximate west half)

Determination:

- Meeting the Standard**
- Not meeting the Standard, but making significant progress towards meeting the Standard.
- Not meeting the Standard, not making significant progress towards meeting the Standard.

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.
- Livestock are not a contributing factor to not meeting 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

The allotment supports a healthy, diverse variety of native shrubs with a smaller component of annual forbs and perennial grasses; all of which provide soils with the appropriate inputs of organic matter to become incorporated into the surface soil layer. Summarily, all of this infers

that ecological processes are adequate for the existing vegetative communities, while sustaining appropriated uses.

Conclusion: Unburned portions of the allotment: *Standard 2 Achieved*

Riparian Habitat Components – *Not Applicable*

There are no known riparian areas found on public lands within the Mormon Peak Allotment.

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."

Habitat indicators:

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

Wildlife indicators:

- Escape terrain;
- Relative abundance;
- Composition;
- Distribution;
- Nutritional value; and
- Edge-patch snags.

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

Burned Portion of the Allotment (approximate east half)

Determination:

- Achieving the Standard
- Not achieving the Standard, but making significant progress towards meeting the Standard.
- Not achieving the Standard, not making significant progress towards meeting the Standard.**

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.
- Livestock are not a contributing factor to not meeting 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

General field observations revealed that the burned portions of the allotment are lacking in all the aforementioned habitat and wildlife indicators necessary to achieve the standard. Although the shrub component appears to be slowly re-establishing, the shrub understory is lacking in density of perennial grasses and forbs, and consists primarily of red brome (*Bromus rubens*), an invasive annual grass.

The range site description states that the range site should be dominated by blackbrush with desert bitterbrush (*Purshia glandulosa*), ephedra (*Ephedra nevadensis*), and desert needlegrass being important species associated with this site. The following table displays the species noted as being widely dispersed in a patchy nature within the burned area of the allotment.

Shrubs	Grasses	Forbs	Cacti
blackbrush (<i>Coleogyne ramosissima</i>)	desert needlegrass (<i>Achnatherum speciosum</i>)	desert globemallow (<i>Sphaeralcea ambigua</i>)	Cholla (<i>Opuntia spp.</i>)
turpentinebroom (<i>Thamnosma montana</i>)	fluffgrass (low whollygrass) (<i>Dasyochloa pulchella</i>)	redstem stork's bill (<i>Erodium cicutarium</i>)	Banana yucca (<i>Yucca baccata</i>)
Nevada ephedra (<i>Ephedra nevadensis</i>)	Indian ricegrass (<i>Achnatherum hymenoides</i>)	desert marigold <i>Baileya</i> <i>multiradiata</i>	Agave (<i>Agave spp.</i>)
desert peach (<i>Prunus andersonii</i>)	purple threeawn (<i>Aristida purpurea</i>)		
yellow rabbitbrush (<i>Chrysothamnus viscidiflorus</i>)			
Mexican bladdersage (<i>Salazaria mexicana</i>)			

Conclusion: Burned portions of the allotment: *Standard 3 Not Achieved*

Although the burned area of the allotment possesses perennial plant species in alignment with the applicable range site description, field observations indicate that none of the species are present in appreciable amounts. As a result, they are so widely dispersed throughout the burn area that they contribute little to overall composition, structure, and productivity; and, although Nevada ephedra, Indian ricegrass, desert needlegrass are inherently nutritious, their scarcity fails to contribute appreciably to the overall nutrition bank of the range within the burned areas of the allotment.

Unburned Portion of the Allotment (approximate west half)

Determination:

- Achieving the Standard**
- Not achieving the Standard, but making significant progress towards meeting the Standard.
- Not achieving the Standard, not making significant progress towards meeting the Standard.

Causal Factors:

- Livestock are a contributing factor to not meeting the standard.
- Livestock are not a contributing factor to not meeting the standard.
- Failure to meet the standard is related to other issues or conditions.

Guidelines:

- In conformance with the Guidelines**
- Not in conformance with the Guidelines

General field observations revealed that at least thirteen perennial species of shrubs; seven perennial species of grasses; a variety of perennial forb species; four species of trees; and six different species of cacti exist in a patchy network within the unburned portions of the allotment. The following table displays these observations:

Shrubs	Grasses	Forbs	Cacti	Trees
blackbrush (<i>Coleogyne ramosissima</i>)	desert needlegrass (<i>Achnatherum speciosum</i>)	desert globemallow (<i>Sphaeralcea ambigua</i>)	Cholla (<i>Opuntia spp.</i>)	pinion pine (<i>Pinus monophylla</i>)
turpentinebroom (<i>Thamnosma montana</i>)	fluffgrass (low whollygrass) (<i>Dasyochloa pulchella</i>)	redstem stork's bill (<i>Erodium cicutarium</i>)	Banana yucca (<i>Yucca baccata</i>)	juniper (<i>Juniperus osteosperma</i>)
Nevada ephedra (<i>Ephedra nevadensis</i>)	Indian ricegrass (<i>Achnatherum hymenoides</i>)	desert marigold (<i>Baileya multiradiata</i>)	prickly pear (<i>Opuntia spp.</i>)	Joshua tree (<i>Yucca brevifolia</i>)
desert peach (<i>Prunus andersonii</i>)	purple threeawn (<i>Aristida purpurea</i>)	Phlox (<i>Phlox spp.</i>)	Agave (<i>Agave spp.</i>)	Ponderosa Pine (<i>Pinus ponderosa</i>)
yellow rabbitbrush (<i>Chrysothamnus viscidiflorus</i>)	squirreltail (<i>Elymus elymoides</i>)	showy goldeneye (<i>Heliomeris multiflora</i>)	Barrel cactus (<i>Ferocactus spp.</i>)	
Mexican bladdergrass (<i>Salazaria mexicana</i>)	Big galleta (<i>Pleuraphis rigida</i>)	desert trumpet (<i>Eriogonum inflatum</i>)	Beavertail (<i>Opuntia basilaris</i>)	
snakeweed (<i>Gutierrezia spp.</i>)	bluegrass (<i>Poa spp.</i>)			
Brittlebush (<i>Encelia farinose</i>)				
Apache plume (<i>Fallugia paradoxa</i>)				
Cliffrose (<i>Purshia stansburiana</i>)				
Mojave indigobush (<i>Psoralea argophylla</i>)				
Creosote bush (<i>Larrea tridentata</i>)				
Fourwing Saltbush (<i>Atriplex canescens</i>)				

Conclusion: Unburned portions of the allotment: *Standard 3 Achieved*

Habitat indicators for Standard 3 refer to vegetative composition, structure, distribution, productivity, and nutritional value. Vegetative conditions within the unburned area on the Mormon Peak Allotment suitably reflect these attributes. Within the unburned areas of the allotment, the vegetative communities are diverse and productive.

Field observations revealed diversity in vegetation types that are distributed in a patchy nature across the landscape within the unburned areas. Observations also indicate that species composition is appropriate. This indicates productive and functional plant communities with suitable structure and distribution.

Nevada ephedra, Indian ricegrass, desert needlegrass, and squirreltail are known to be nutritious, palatable plant species for livestock and/or wildlife. Various forb species were also noted. This serves to provide a variable and productive forage base; and in combination with the aforementioned characteristics of the landscape, is capable of supporting an appropriate level of biodiversity while being conducive to appropriate uses.

Moderate to good species diversity of perennial plants, coupled with no livestock grazing use during the 20 year allotment evaluation period (March 1, 1991 – February 28, 2011) indicate that there is sufficient ground cover (in the form of live vegetation and litter) to protect soils and perpetuate vegetative productivity while ensuring appropriate vegetative structure and diversity.

In concert, the various vegetation habitats within the unburned portions of the allotment provide escape terrain and thermal cover, while short and tall statured woody species create perching/nesting habitat for the avian community. These habitats also offer a desirable environment for a variety of small mammals, reptiles, and assorted numerous songbirds.

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

As previously stated, the allotment has received no grazing use for the grazing years 1991 – 2010. Therefore, grazing is not a causal factor in failing to meet the standard. Failing to meet the standard can be attributed to the repeated devastating fires which have occurred on the allotment as recently as 2005, when the Duzak Fire consumed almost 22,000 acres in the east portion of the allotment.

PART 3. GUIDELINE CONFORMANCE REVIEW and SUMMARY

GUIDELINES for SOILS (Standard 1):

See Conclusion for Standard 1, and Part 2 above.

Burned Portions of the Mormon Peak Allotment

As mentioned, livestock grazing is not the causal factor for not meeting Standard I. It is due to catastrophic fire. Therefore, the Guidelines are not applicable regarding the burned portions of the allotment. In addition, the portion of the Duzak fire that occurred within the allotment was not seeded subsequent to the fire as a fire rehabilitation measure.

Unburned Portions of the Mormon Peak Allotment

Current livestock grazing management practices conform to Guideline 1.1. The remaining three Guidelines are not applicable to the assessment area at this time.

Upland management practices are maintained and promoted through adequate vegetative ground cover.

GUIDELINES for *ECOSYSTEM COMPONENTS* (Standard 2):

See Conclusion for Standard 2, and Part 2 above.

Burned Portions of the Mormon Peak Allotment

See explanation above regarding Standard I for the burned portions of the allotment.

Unburned Portions of the Mormon Peak Allotment

Uplands

Current livestock grazing management practices conform to Guidelines 2.3, 2.4 and 2.6. The remaining six Guidelines are not applicable to the assessment area at this time.

Riparian

There are no known riparian areas found on public lands within the Mormon Peak Allotment. Therefore, Standard 2 and associated Guidelines, regarding the riparian portion of this standard, are not applicable.

GUIDELINES for *HABITAT AND BIOTA* (Standard 3):

See Conclusion for Standard 3, and Part 2 above.

Burned Portions of the Mormon Peak Allotment

See explanation above regarding Standard I for the burned portions of the allotment.

Unburned Portions of the Mormon Peak Allotment

Current livestock grazing management practices conform to Guidelines 3.1, 3.2, 3.3, 3.4, 3.5 and 3.6. The remaining three Guidelines are not applicable to the assessment area at this time.

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

- A. Change the season of use from 6/1 – 3/31 to 10/1 – 4/30.

BACKGROUND

Unburned Portions of the Allotment

The current season of use (6/1 – 3/31) allows for grazing during not only the hottest part of the year, but into the early fall months. Consequently, it doesn't allow periodic rest during the latter portion of the critical growing period for warm season plants, especially grasses. This is particularly true for warm season grasses if summer thunderstorms spur vegetative growth during the summer and fall.

Consequently, there is the potential that it would not allow for the type of root mass and subsequent above ground biomass development which lends itself to healthy, vigorous growing plants. It is believed that annual summer grazing could potentially steadily diminish the root systems of warm season grasses, causing above ground biomass to correspondingly diminish over time¹.

Burned Portions of the Allotment

Although the shrub component appears to be slowly re-establishing, the shrub understory is lacking in density of perennial grasses and forbs, and consists primarily of red brome (*Bromus rubens*), an invasive annual grass. It is a species which begins growth in late winter/early spring prior to the green-up of perennial vegetation. With sufficient precipitation, even into April, this grass could potentially reproduce in copious amounts; thereby, yielding vegetation capable of contributing to highly destructive wildfires.

Therefore, as part of the Proposed Action the season of use would be changed from 6/1 – 3/31 to 10/1 – 4/30, to reduce the possibility of grazing during a portion of the critical growing period for warm season plants; and, to utilize livestock as a tool as an aid in reducing fine fuels should the opportunity present itself.

The change in the season of use would also exclude grazing during the hot summer months when livestock heavily rely on water sources for both, volume of water consumed and frequency of drinking. During such times, livestock are also noted as lacking the desire to travel as far from water sources as they otherwise would during times when temperatures are substantially cooler as during the fall, winter, and early spring months. This would result in better overall livestock distribution during the proposed season of use.

- B. Place 45% of the current active use of 600 AUMS (270 AUMs) into temporary suspended use (voluntarily non-use) for fuels management purposes, while maintaining the remaining 55% (330 AUMs) as Active Use for a period of 10 years.

¹ Dietz, Harland E. 1989. Grass: the Stockman's Crop, How to Harvest More of It. Special Report. Sunshine Unlimited, Inc. 15 pp.

The Mormon Peak Allotment has suffered major wild fires, particularly the Duzak Fire which burned approximately 22,000 acres (approximately 28%) of the allotment. Field observations have shown that the wild fires have resulted not only in a reduction in perennial forage availability, but a flourishing of annual grasses within the allotment when precipitation is sufficient. It is widely recognized that fire in the Mojave Desert is devastating to all resources, and it is considered a high priority to reduce the risk of fire.

As a result, the permittee agreed to accept a voluntary reduction of 45% of the current Active AUMs in the form of Temporary Suspended Use.

Therefore, as the second part of the proposed action, 45% of the current active use of 600 AUMS (270 AUMs) would be placed into Temporary Suspended Use, for fuels management purposes, while maintaining the remaining 55% (330 AUMs) as Active Use for a period of 10 years.

The 270 AUM reduction is in consistent with Reasonable and Prudent Measure 7i of the Programmatic Biological Opinion (PBO) as contained in the Ely RMP (2008) (p. 140), which states: “Livestock levels shall be adjusted to reflect significant, unusual conditions that result in a dramatic change in range conditions (*e.g.*, drought and fire) and negatively impact the ability of the allotment to support both listed species and cattle.”

Under the discretion of the BLM, the AUMs placed in voluntary non-use would be temporarily reinstated - as Active AUMs - whenever resource conditions resulted in a significant increase in annual forage production, and dictated a need for fine fuels reduction (*e.g.*, when precipitation events result in a flourishing of annual grasses). This would provide an aid for fuels management purposes.

It should be noted that the voluntary reduction of 45% of the active AUMs is not a permanent revocation of 45% of the current grazing privileges. Therefore, the permitted use for the new permit would remain the same as the current permit (600 AUMs). The reduction would prevail, for up to 10 years, or until a subsequent allotment evaluation is conducted to determine that changes to the new permit are needed.

The permittee would be required to submit an application for any temporary reinstatement of Temporary Suspended Use. The application would have to be evaluated by an appropriate BLM team of specialists and subsequently approved by the Authorized Officer.

It should be emphasized, that the approval of any annual grazing authorizations would be based on annual forage availability; and, the terms and conditions included in the new term permit.

- C. Authorize Temporary Nonrenewable (TNR) grazing in accordance with § 4110.3-1 (a) when forage is available in excess of both, the proposed 330 Active AUMs plus the proposed 270 Temporary Suspended AUMS.
- D. Establish additional watering locations on the allotment for the purpose of promoting improved livestock distribution.

- E. Construct a fence, in the southeast portion of the allotment, to prevent livestock access into the Mormon Mesa Area of Critical Environmental Concern (ACEC) for desert tortoise.

The following terms and conditions would be added to the term grazing permit for Authorization #2703972, regarding the application of Temporary Suspended AUMs and Temporary Nonrenewable grazing (TNR):

1. A total of 270 AUMs (45% of current active use) will be placed in Temporary Suspended Use on Mormon Peak Allotment.

The 270 AUMs will be placed into Temporary Suspended Use for up to 10 years, or until a subsequent allotment evaluation is conducted to determine that changes to the permit are needed.

2. Under the discretion of the BLM, the AUMs placed in Temporary Suspended Use will be temporarily reinstated – as Active AUMs – whenever resource conditions result in a significant increase in annual forage production; thereby, dictating a need for fine fuels reduction (e.g., when precipitation events result in a flourishing of annual grasses).
3. The use of either Temporary Suspended Use or Temporary Nonrenewable (§ 4110.3-1(a)) AUMs will be determined on an annual basis. Stocking levels and grazing management practices will be evaluated prior to any anticipated livestock turnout.
4. The permittee must submit an application for any temporary reinstatement of Temporary Suspended Use or for Temporary Nonrenewable Use (§ 4110.3-1(a)). All submitted applications must be evaluated by an appropriate BLM team of specialists, and approved by the Authorized Officer.
5. The placement of 45% of the active AUMs into Temporary Suspended Use is absolutely **not** a permanent revocation of 45% of the current grazing privileges.

The following Terms and Conditions (BMPs) would also be added to the Term Grazing Permit to assist in maintaining the Standards:

6. Allowable Use Levels on current year's growth of perennial upland vegetation (grasses, forbs and shrubs) within the Mormon Peak Allotment will not exceed 45%.
7. Under the discretion of the BLM, watering locations will be used in a manner which will yield maximum livestock distribution within the allotment. Herding will be used, as needed, to achieve this objective.
8. Waterhauling will be limited to existing roads. No roads will be bladed or improved in any way, with mechanical equipment, without the expressed consent of the authorized officer.

To address Mormon Mountain Wilderness Areas, created through the Lincoln County Conservation Recreation and Development Act P.L. 108-424, the following term and condition will be added to comply with the Wilderness Act of 1964 (P.L. 88-577) (see Congressional Grazing Guidelines in Appendix B):

9. No motorized access is permitted within the designated Mormon Mountain or Clover Mountain Wilderness Areas without approval of the Field Manager. Motorized access may be permitted for emergency situations, or where practical alternatives for reasonable grazing management needs are not available and such motorized use would not have an adverse impact on the natural environment.

In addition, the new term permit would also include standard terms and conditions which would assist in maintaining the Standards and Guidelines for Grazing Administration in addition to other pertinent land use objectives for livestock use.

Finally, the following terms and conditions, from the *Programmatic Biological Opinion for the Bureau of Land Management's Ely District Resource Management Plan* (File No. 84320-2008-F-0078) (pp. 132-133), would be included in the term grazing permit to minimize incidental take of desert tortoises that may result from the implementation of programs in general:

10. Prior to initiation of an activity within desert tortoise habitat, a desert tortoise awareness program shall be presented to all personnel who will be onsite, including but not limited to contractors, contractors' employees, supervisors, inspectors, and subcontractors. This program will contain information concerning the biology and distribution of the desert tortoise and other sensitive species, their legal status and occurrence in the project area; the definition of "take" and associated penalties; speed limits; the terms and conditions of this biological opinion including speed limits; the means by which employees can help facilitate this process; responsibilities of workers, monitors, biologists, etc.; and reporting procedures to be implemented in case of desert tortoise encounters or noncompliance with this biological opinion.
11. Tortoises discovered to be in imminent danger during projects or activities covered under this biological opinion, may be moved out of harm's way.
12. Desert tortoises shall be treated in a manner to ensure they do not overheat, exhibit signs of overheating (e.g., gaping, foaming at the mouth, etc.), or are placed in a situation where they cannot maintain surface and core temperatures necessary to their well-being. Desert tortoises will be kept shaded at all times until it is safe to release them. No desert tortoise will be captured, moved, transported, released, or purposefully caused to leave its burrow for whatever reason when the ambient air temperature is above 95°F. Ambient air temperature will be measured in the shade, protected from wind, at a height of two inches above the ground surface. No desert tortoise will be captured if the ambient air temperature is anticipated to exceed 95°F before handling and relocation can be completed. If the ambient air temperature exceeds 95°F during handling or processing, desert tortoises will be kept shaded in an environment that does not exceed 95°F and the animals will not be released until ambient air temperature declines to below 95°F.

13. Desert tortoises shall be handled by qualified individuals. For most projects, an authorized desert tortoise biologist will be onsite during project activities within desert tortoise habitat. Biologists, monitors, or anyone responsible for conducting monitoring or desert tortoise field activities associated with the project will complete the Qualifications Form (Appendix D) and submit it to the Service for review and approval as appropriate. The Service should be allowed 30 days for review and response.
14. A litter-control program shall be implemented to minimize predation on tortoises by ravens drawn to the project site. This program will include the use of covered, raven-proof trash receptacles, removal of trash from project areas to the trash receptacles following the close of each work day, and the proper disposal of trash in a designated solid waste disposal facility. Appropriate precautions must be taken to prevent litter from blowing out along the road when trash is removed from the site. The litter-control program will apply to all actions. A litter-control program will be implemented by the responsible federal agency or their contractor, to minimize predation on tortoises by ravens and other predators drawn to the project site.

The following terms and conditions, also from the *Programmatic Biological Opinion* (pp. 138-140), would be included in the term grazing permit to minimize incidental take of desert tortoises that may result from permitting livestock grazing:

15. Livestock use may occur from March 1 to October 31, as long as forage utilization management levels are monitored and do not exceed 40 percent on key perennial grasses, shrubs and perennial forbs; and between November 1 and February 28/29, provided forage utilization management levels are monitored and do not exceed 50 percent on key perennial grasses and 45 percent on key shrubs and perennial forbs. If the utilization management levels are reached, livestock will be moved to another location within the allotment or taken entirely off the allotment. No livestock grazing will occur in desert tortoise critical habitat March 1 through October 31.
16. Livestock grazing in desert tortoise habitat shall be managed in accordance with the most current version of the Desert Tortoise Recovery Plan, including allotments or portions of allotments that become vacant and occur within desert tortoise critical habitat outside of ACECs. Grazing may continue in currently active allotments until such time they become vacant. BLM will work with the permittees of active allotments to implement changes in grazing management to improve desert tortoise habitat which may include use of water, salt and mineral licks, or herding to move livestock; changes in season of use and/or stocking rates; installation of exclusionary fences; reconfiguring pasture or allotment boundaries; and retiring pastures or allotments.
17. When BLM proposes to issue a term permit or other type of grazing authorization, BLM shall provide the following to the Service with their request to append the action to this biological opinion:
 - An allotment-level assessment of current conditions (relative to listed species habitat); if unknown, a description of, and timeframe for actions BLM will implement to collect such information;
 - a plan and schedule for monitoring listed species habitat on the allotment;

- a description of the grazing system and how it will minimize conflicts with listed species habitat;
 - proposed actions or remedies (e.g., reduce utilization levels, reduce AUMs, limit season-of-use) if listed species habitat has not attained the goals for the allotment; and
 - other information requested by the Service that is necessary to conclude activity-level consultation.
18. BLM and Service will cooperatively develop livestock grazing utilization levels or other thresholds, as appropriate for each of the listed species. These levels or thresholds shall be incorporated into each of the allotment term permit for those allotments that overlap with habitat for the listed species.
 19. The permittee shall be required to take immediate action to remove any livestock that move into areas unavailable for grazing. If straying of livestock becomes problematic, BLM, in consultation with the Service, will take measures to ensure straying is prevented.
 20. All vehicle use in listed species habitat associated with livestock grazing, with the exception of range improvements, shall be restricted to existing roads and trails. Permittees and associated workers will comply with posted speed limits on access roads. No new access roads will be created.
 21. Use of hay or grains as a feeding supplement shall be prohibited within grazing allotments. Where mineral and salt blocks are deemed necessary for livestock grazing management they will be placed in previously disturbed areas at least one half mile from riparian areas wherever possible to minimize impacts to flycatchers and listed fishes and their habitat. In some cases, blocks may be placed in areas that have a net benefit to tortoise by distributing livestock more evenly throughout the allotment, and minimizing concentrations of livestock that result in habitat damage. Waterhaul sites will also be placed at least one half mile from riparian areas.
 22. Site visits shall be made to active allotments by BLM rangeland specialists and other qualified personnel, including Service biologists, to ensure compliance with the terms and conditions of the grazing permit. Any item in non-compliance will be rectified by BLM and permittee, and reported to the Service.
 23. Livestock levels shall be adjusted to reflect significant, unusual conditions that result in a dramatic change in range conditions (e.g., drought and fire) and negatively impact the ability of the allotment to support both listed species and cattle.

In relation to grazing, there would be no additional terms and conditions needed for management practices to conform to guidelines to either make progress toward or to maintain achievement of the Standards for Rangeland Health.

REFERENCES

BLM – August 2008. Ely Record of Decision and Approved Resource Management Plan (RMP)

USDA – USFS, NRCS, USDI - BLM, Cooperative Extension Service. 1996. Sampling Vegetative Attributes.

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USDA – USFS, USDA – NRCS, USDI – BLM, Univ. of Nevada Cooperative Extension. 2006. Nevada Rangeland Monitoring Handbook (Second Edition).

USDA – USFS, USDA – NRCS, USDI – BLM, Utah Cooperative Extension Service. 1999. Utilization Studies and Residual Measurements; Interagency Technical Reference 1734 – 3.

USDA – NRCS. 1998. Nevada Plant List.

USDA – NRCS. 2003. Major Land Resource Area 29, Southern Nevada Basin and Range Ecological Site Descriptions.

USDA – NRCS. 2002. Major Land Resource Area 30, Southern Nevada Basin and Range Ecological Site Descriptions.

Specialists:

/s/ **Todd Trapp** for Alicia Styles
Alicia Styles – Wildlife Biologist

9/10/13
Date

/s/ **Clint Wertz**
Clinton Wertz – Soil, Water & Air Quality, Floodplains & Riparian

9/9/13
Date

/s/ **Cameron Boyce**
Cameron Boyce – Noxious and Invasive Weeds

9/10/13
Date

Prepared by:

/s/ **Domenic A. Bolognani**
Domenic A. Bolognani – Rangeland Management Specialist

9/10/13
Date

Reviewed by:

/s/ **Chris Mayer**
Chris Mayer – Assistant Field Manager, Egan Field Office
District Lead Rangeland Management Specialist

9/9/13
Date

I concur:

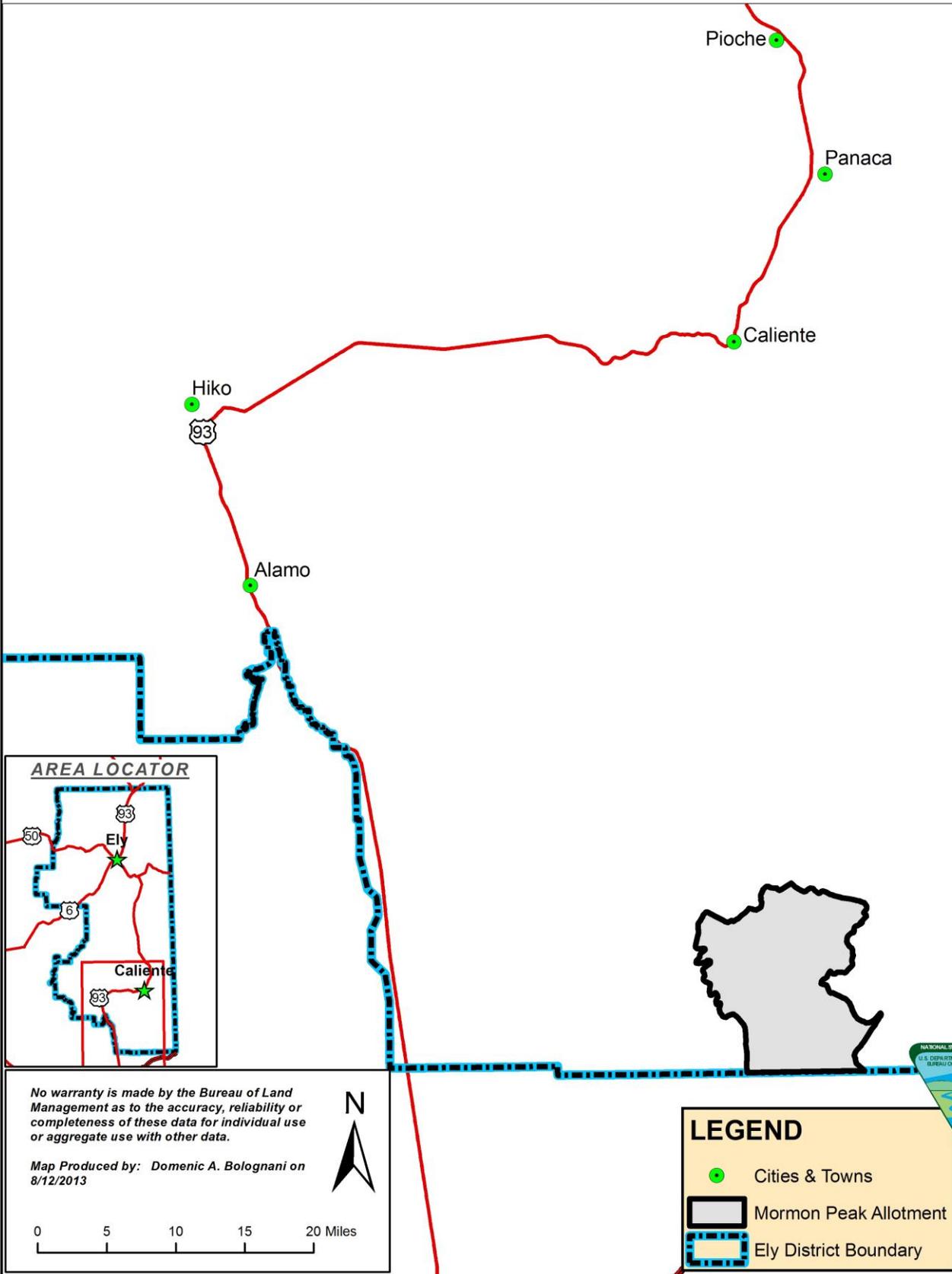
/s/ **Victoria Barr**
Victoria Barr – Caliente Field Manager

9/13/13
Date

APPENDIX A
(Standards Determination Document)

MAPS

Location of the Mormon Peak Allotment (#01044)
with Respect to the Surrounding Towns.

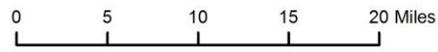


Ely District Office



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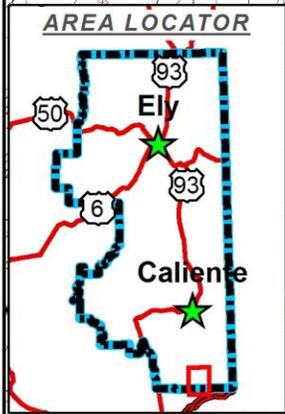
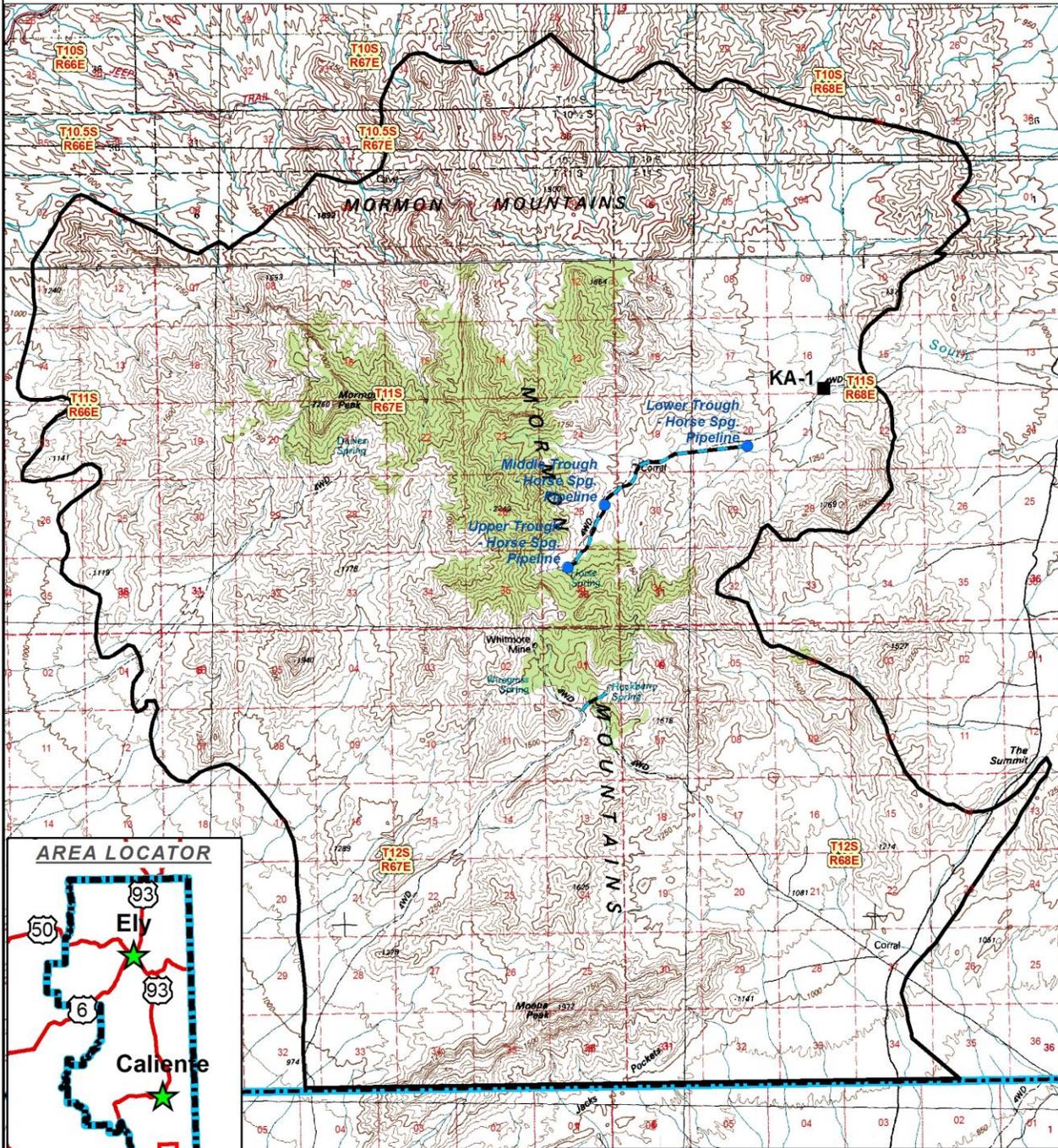
Map Produced by: Domenic A. Bolognani on 8/12/2013



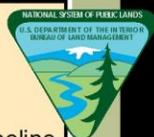
LEGEND

- Cities & Towns
- Mormon Peak Allotment
- Ely District Boundary

Location of Existing Waters and the Established Key Area within the Mormon Peak Allotment (#01044).

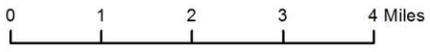


Ely District Office



No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

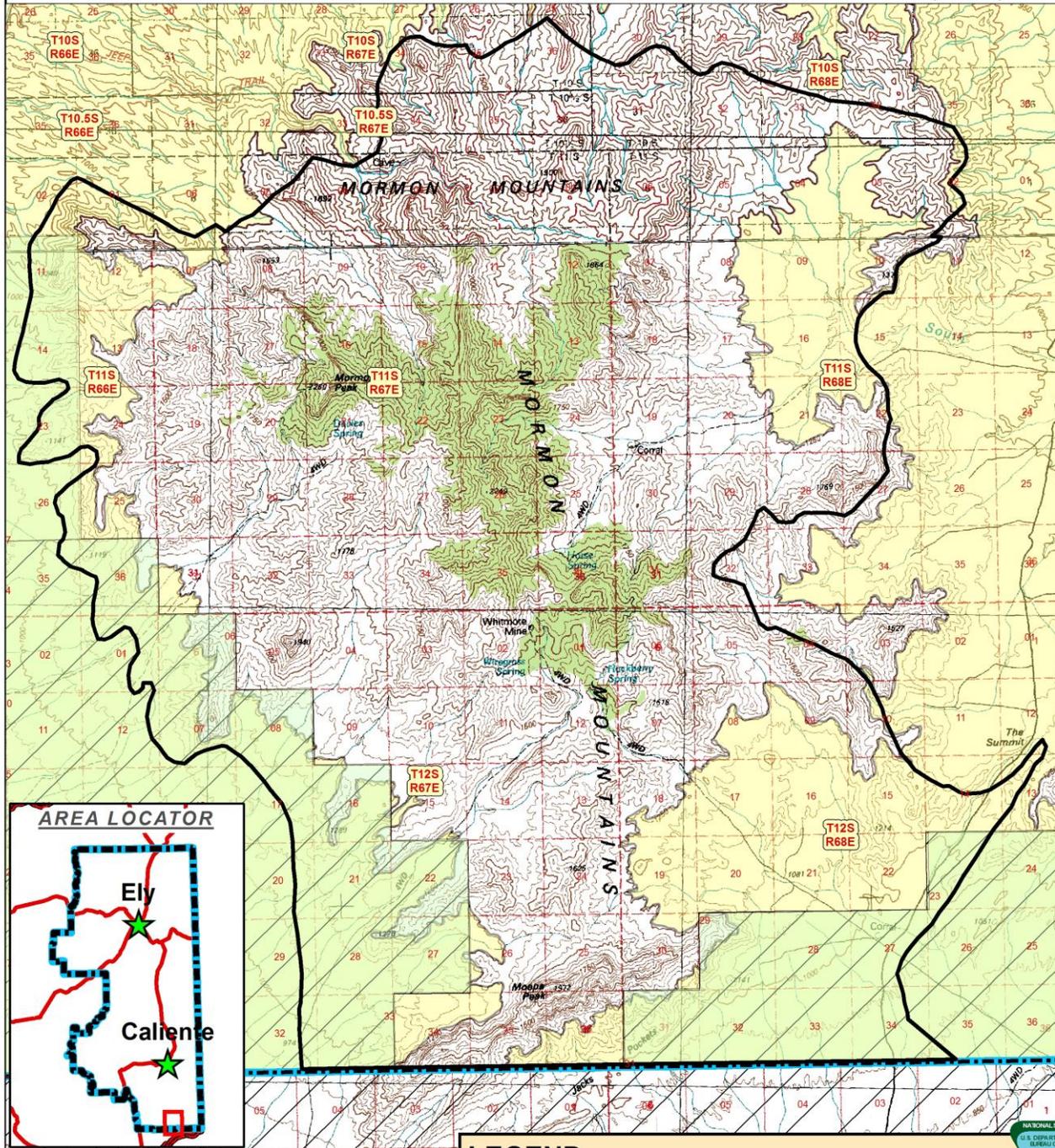
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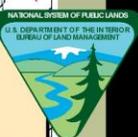
LEGEND

- Mormon Peak Allotment
- Trough Locations Along Horse Spring Pipeline
- Pipeline
- Key Area 1
- Ely District Boundary

The Three Designations of Habitat which Occur within the Mormon Peak Allotment (#01044), for the Federally Threatened Agassiz's Desert Tortoise (*Gopherus agassizii*): General Habitat, Critical Habitat, and Area of Critical Environmental Concern (ACEC).

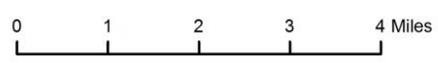


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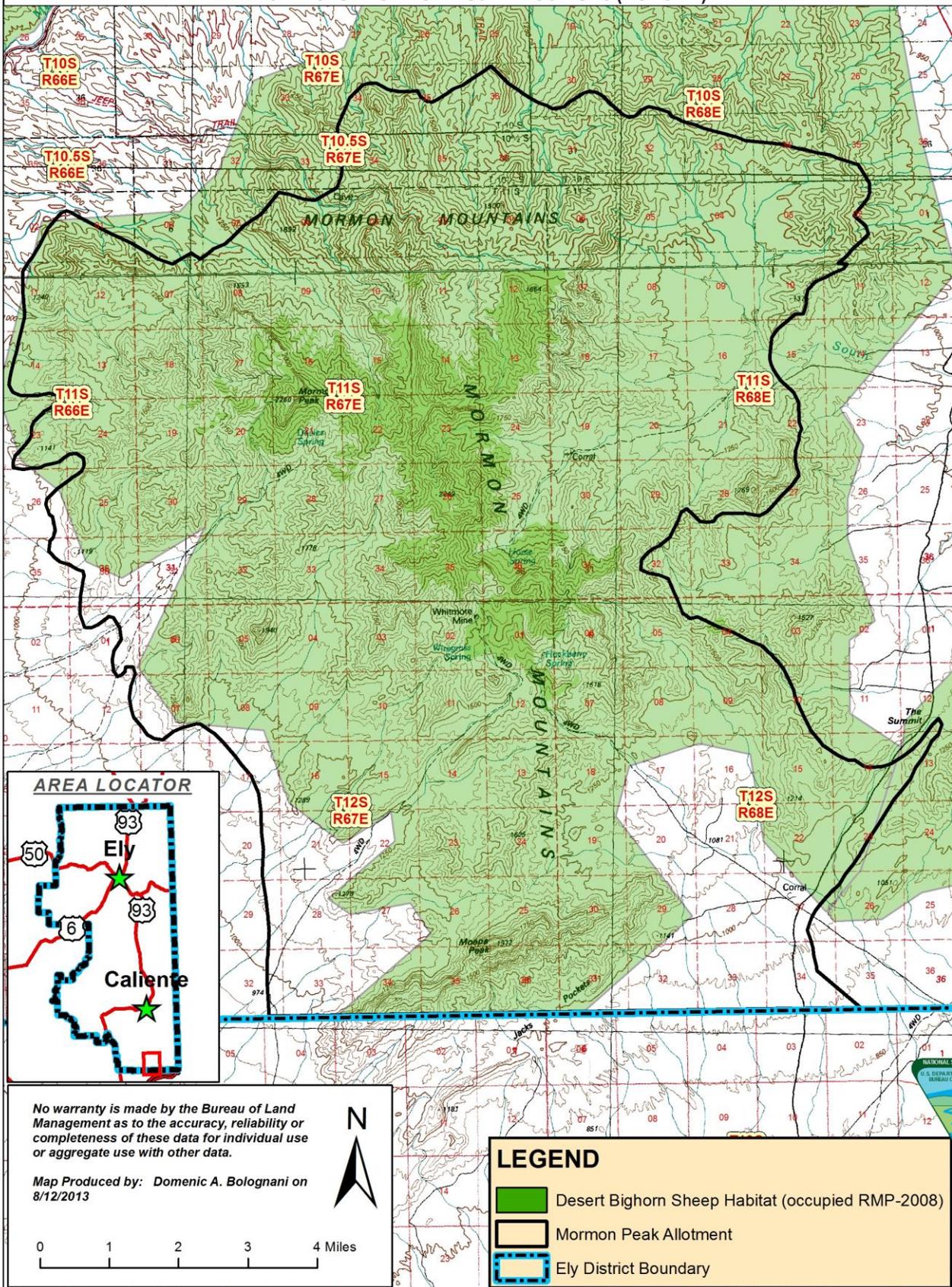
Map Produced by: Domenic A. Bolognani on 8/12/2013



LEGEND

-  Mormon Peak Allotment
-  Desert Tortoise Area of Critical Environmental Concern (ACEC)
-  Desert Tortoise Critical Habitat
-  Tortoise Habitat (RMP 2008 - 4000ft)
-  Ely District Boundary

Location of Occupied Bighorn Sheep Habitat within the Mormon Peak Allotment (#01044).



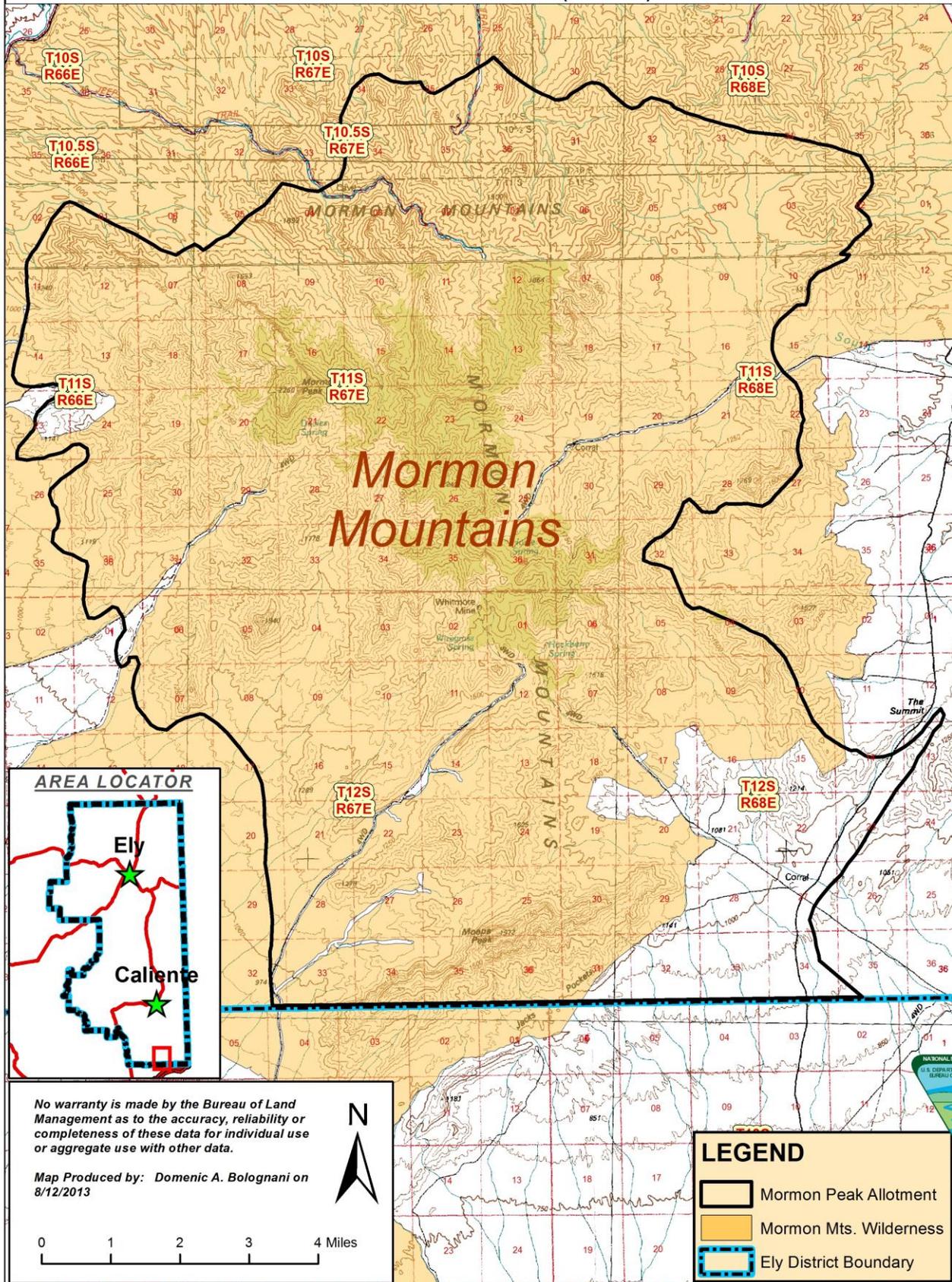
Ely District Office

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Map Produced by: Domenic A. Bolognani on 8/12/2013

Location of Designated Wilderness within the Mormon Peak Allotment (#01044).

BLM

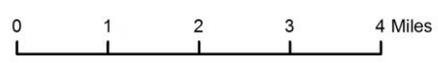


Ely District Office



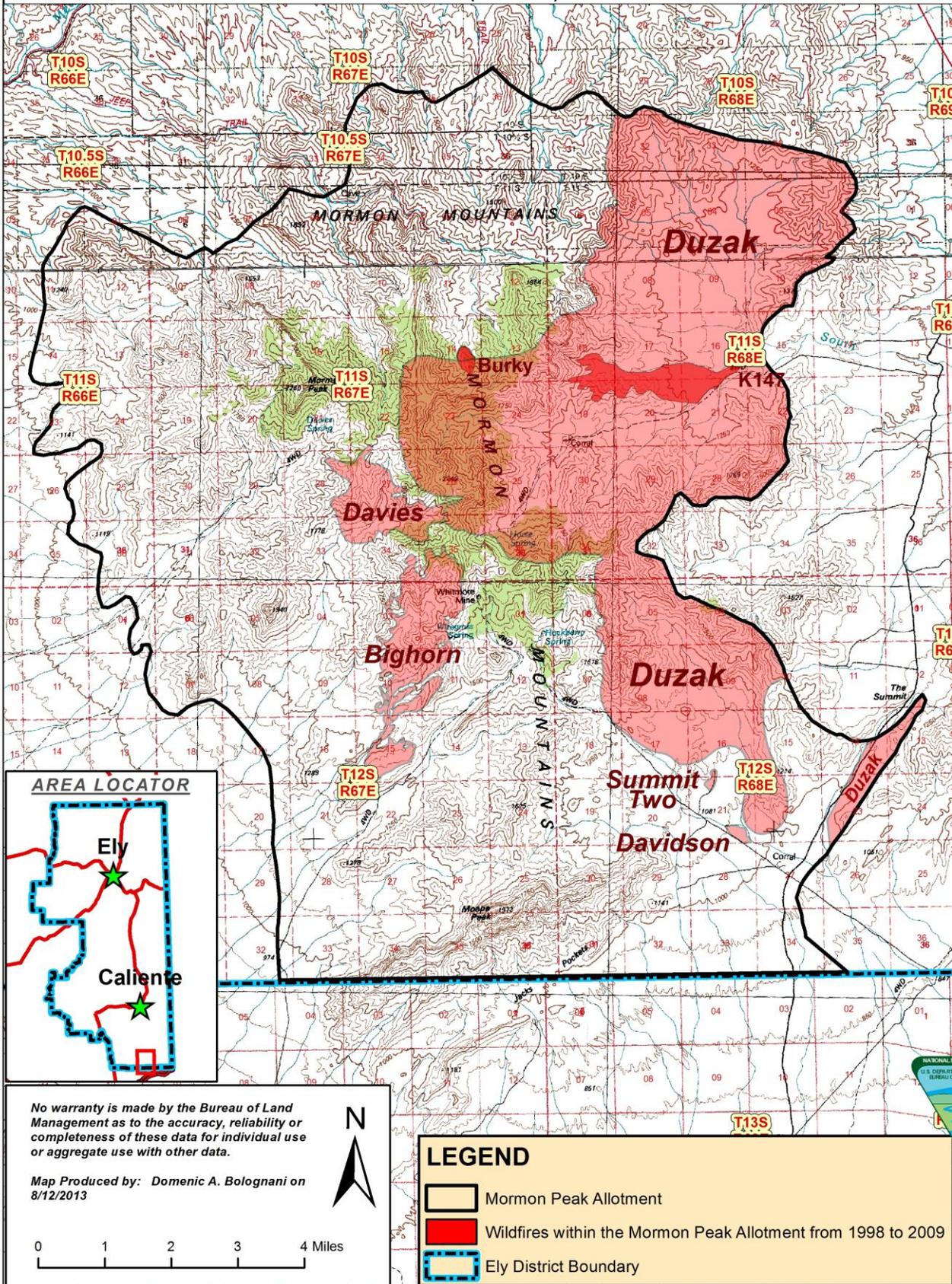
No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Domenic A. Bolognani on 8/12/2013



LEGEND	
	Mormon Peak Allotment
	Mormon Mts. Wilderness
	Ely District Boundary

Location of Wildfires which have Occurred within the Mormon Peak Allotment (#01044) from 1998 - 2009.



APPENDIX B
(Standards Determination Document)

CONGRESSIONAL GRAZING GUIDELINES

Congressional Grazing Guidelines (Excerpt from House Report 96-1126)

Grazing in National Forest Wilderness Areas

Section 4(d)(4)(2) of the Wilderness Act states: "the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture."

The legislative history of this language is very clear in its intent that livestock grazing, and activities and the necessary facilities to support a livestock grazing program, will be permitted to continue in National Forest wilderness areas, when such grazing was established prior to classification of an area as wilderness.

Including those areas established in the Wilderness Act of 1964. Congress has designated some 188 areas, covering lands administered by the Forest Service, Fish and Wildlife Service, National Park Service and Bureau of Land Management as components of the National Wilderness Preservation System. A number of these areas contain active grazing programs, which are conducted pursuant to existing authorities. In all such cases, when enacting legislation classifying an area as wilderness, it has been the intent of the Congress, based on solid evidence developed by testimony at public hearings, that the practical language of the Wilderness Act would apply to grazing within wilderness areas administered by all Federal agencies, not just the Forest Service. In fact, special language appears in all wilderness legislation, the intent of which is to assure that the applicable provisions of the Wilderness Act, including Section 4(d)(4)(2), will apply to all wilderness areas, regardless of agency jurisdiction.

Further, during the 95th Congress, Congressional committees became increasingly disturbed that, despite the language of section 4(d)(4)(2) of the Wilderness Act and despite a history of nearly 15 years in addressing and providing guidance to the wilderness management agencies for development of wilderness management policies, National Forest administrative regulations and policies were acting to discourage grazing in wilderness, or unduly restricting on-the-ground activities necessary for proper grazing management. To address this problem, two House Committee on Interior and Insular Affairs Reports (95-620 and 95- 1821) specifically provided guidance as to how section 4(d)(4)(2) of the Wilderness Act should be interpreted. This guidance appeared in these reports as follows:

Section 4(d)(4)(2) of the Wilderness Act states that grazing in wilderness areas, if established prior to designation of the area as wilderness, "shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture". To clarify any lingering doubts, the committee wishes to stress that this language means that there shall be no curtailment of grazing permits or privileges in an area simply because it is designated as wilderness. As stated in the Forest Service regulations (36 CFR 293.7), grazing in wilderness areas ordinarily will be controlled under the general regulations governing grazing of livestock on National Forests* * *. This includes the establishment of normal range allotments and allotment management plans. Furthermore, wilderness designation should not prevent the maintenance of existing fences or other livestock management improvements, nor the

construction and maintenance of new fences or improvements which are consistent with allotment management plans and/or which are necessary for the protection of the range.

Despite the language of these two reports, RARE II hearings and field inspection trips in the 96 Congress have revealed that National Forest administrative policies on grazing in wilderness are subject to varying interpretations in the field, and are fraught with pronouncements that simply are not in accordance with section 4(d)(4)(2) of the Wilderness Act. This had led to demands on the part of grazing permittees that section 4(d)(4)(2) of the Wilderness Act be amended to clarify the intentions of Congress. However, because of the great diversity of conditions under which grazing uses (including different classes of livestock) are managed on the public lands, the Conferees feel that the original broad language of the Wilderness Act is best left unchanged. Any attempts to draft specific statutory language covering grazing in the entire wilderness system (presently administered by four separate agencies in two different Departments) might prove to be unduly rigid in a specific area, and deprive the land management agencies of flexible opportunities to manage grazing in a creative and realistic site specific fashion.

Therefore, the conferees declined to amend section 4(d)(4)(2) of the Wilderness Act, agreeing instead to reaffirm the existing language and to include the following nationwide guidelines and specific statements of legislative policy. It is the intention of the conferees that the guidelines and policies be considered in the overall context of the purposes and direction of the Wilderness Act of 1964 and this Act, and that they be promptly, fully, and diligently implemented and made available to Forest Service personnel at all levels and to all holders of permits for grazing in National Forest Wilderness areas:

1. There shall be no curtailments of grazing in wilderness areas simply because an area is, or has been designated as wilderness, nor should wilderness designations be used as an excuse by administrators to slowly "phase out" grazing. Any adjustments in the numbers of livestock permitted to graze in wilderness areas should be made as a result of revisions in the normal grazing and land management planning and policy setting process, giving consideration to legal mandates, range condition, and the protection of the range resource from deterioration.

It is anticipated that the numbers of livestock permitted to graze in wilderness would remain at the approximate levels existing at the time an area enters the wilderness system. If land management plans reveal conclusively that increased livestock numbers or animal unit months (AUMs) could be made available with no adverse impact on wilderness values such as plant communities, primitive recreation, and wildlife populations or habitat, some increases in AUMs may be permissible. This is not to imply, however, that wilderness lends itself to AUM or livestock increases and construction of substantial new facilities that might be appropriate for intensive grazing management in non-wilderness areas.

2. The maintenance of supporting facilities, existing in the area prior to its classification as wilderness (including fences, line cabins, water wells and lines, stock tanks, etc.), is permissible in wilderness.

Where practical alternatives do not exist, maintenance or other activities may be accomplished through the occasional use of motorized equipment. This may include, for

example, the use of backhoes to maintain stock ponds, pickup trucks for major fence repairs, or specialized equipment to repair stock watering facilities. Such occasional use of motorized equipment should be expressly authorized in the grazing permits for the area involved. The use of motorized equipment should be based on a rule of practical necessity and reasonableness. For example, motorized equipment need not be allowed for the placement of small quantities of salt or other activities where such activities can reasonably and practically be accomplished on horseback or foot. On the other hand, it may be appropriate to permit the occasional use of motorized equipment to haul large quantities of salt to distribution points. Moreover, under the rule of reasonableness, occasional use of motorized equipment should be permitted where practical alternatives are not available and such use would not have a significant adverse impact on the natural environment. Such motorized equipment uses will normally only be permitted to those portions of a wilderness area where they had occurred prior to the area's designation as wilderness or are established by prior agreement.

3. The placement or reconstruction of deteriorated facilities or improvements should not be required to be accomplished using "natural materials", unless the material and labor costs of using natural materials are such that their use would not impose unreasonable additional costs on grazing permittees.
4. The construction of new improvements or replacement of deteriorated facilities wilderness is permissible if in accordance with those guidelines and management plans governing the area involved. However, the construction of new improvements should be primarily for the purpose of resource protection and the more effective management of these resources rather than to accommodate increased numbers of livestock.
5. The use of motorized equipment for emergency purposes such as rescuing sick animals or the placement of feed in emergency situations is also permissible. This privilege is to be exercised only in true emergencies, and should not be abused by permittees.

In summary, subject to the conditions and policies outlined above, the general rule of thumb on grazing management in wilderness should be that activities or facilities established prior to the date of an area's designation as wilderness should be allowed to remain in place and may be replaced when necessary for the permittee to properly administer the grazing program. Thus, if livestock grazing activities and facilities were established in an area at the time Congress determined that the area was suitable for wilderness and placed the specific area in the wilderness system, they should be allowed to continue. With respect to areas designated as wilderness prior to the date of this Act, these guidelines shall not be considered as a direction to re-establish uses where such uses have been discontinued.

It is also the understanding of the conferees that the authorizing Committees intend to closely monitor the implementation of the guidelines through subsequent oversight hearings to insure that the spirit, as well as the letter, of the guidelines is adhered to by the Forest Service. Of course, the inclusion of these guidelines in this joint Statement of Managers does not preclude the Congress from dealing with the issue of grazing in wilderness areas statutorily in the future.

APPENDIX III
(EA)

FENCE CONSTRUCTION SPECIFICATIONS

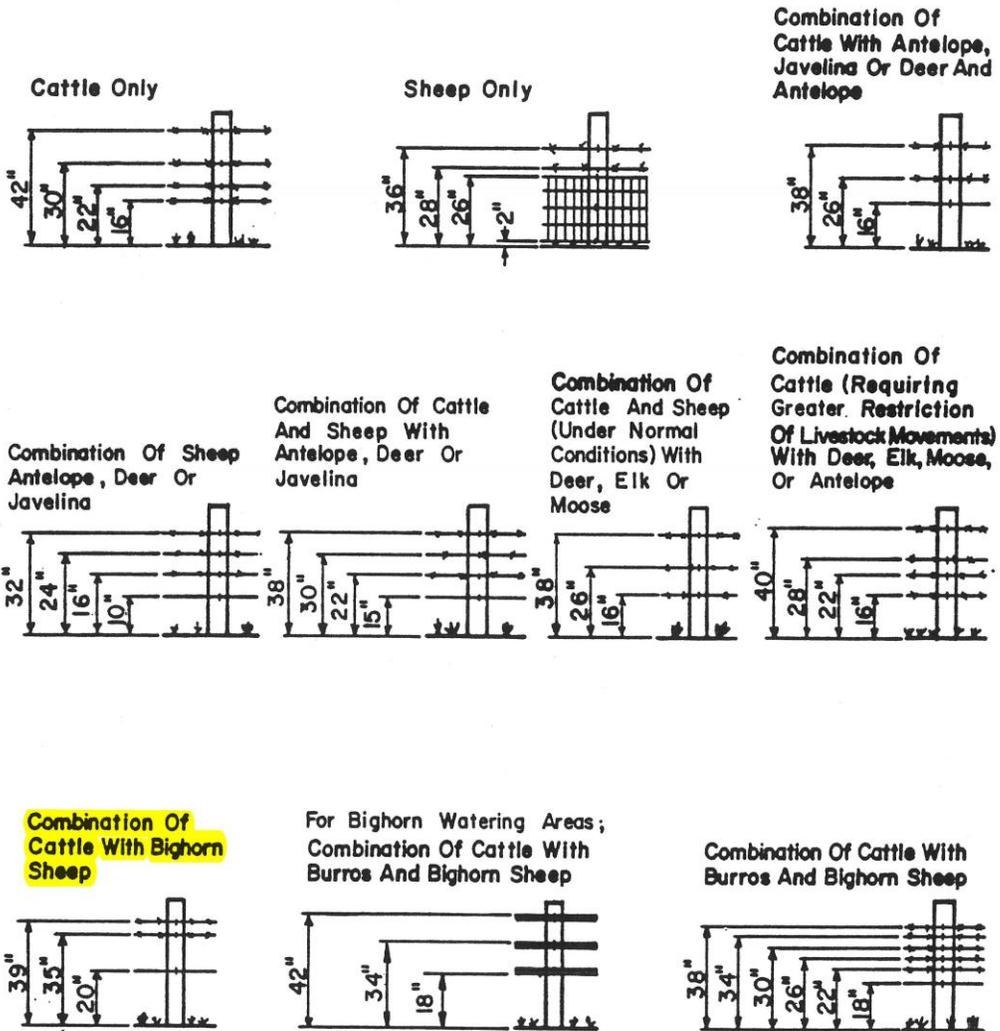
H-1741-1 - FENCING

BLM Fence Standards for Livestock and Wildlife

<u>Kinds of Use Combinations</u>						
<u>Kinds of Livestock and Wild Burros</u>	<u>Predominant Big Game Wildlife Species</u>	<u>Number Wires</u>	<u>Max. Fence Height in Inches</u>	<u>Wire Spacing (From Ground Up, in Inches)</u>	<u>Wire Type</u>	<u>No. Stays Between Line Posts w/Spacing of 16.5' - 30'</u>
STANDARD BUREAU FENCES:						
Cattle	None	4	42	16, 6, 8, 12	Barbed.	1 to 4
Sheep	None	-	36	2, 24 (Woven) 2, 8	Woven, barbed.	
STANDARD BUREAU MODIFICATIONS TO MEET MULTIPLE-USE NEEDS:						
Cattle (only)	Antelope, Javelina, or Deer and Antelope.	3	38	16, 10, 12	Bottom strand smooth, others barbed.	One w/post spacing of 16.5' -- 1 or 2 w/post spacing of 30'.
Sheep (only)	Antelope, Javelina or Deer	4	32	12, 6, 6, 8 16.5' -- 1 or 2	Bottom strand smooth, others barbed.	One w/post spacing of 16.5' -- 1 to 3 w/post spacing of 30'.
Cattle and Sheep (Use only where sheep control is necessary.)	Antelope Javelina or Deer	4	38	15, 7, 8, 8	Bottom strand smooth, others barbed.	One w/post spacing of 16.5' -- 1 to 3 w/post spacing of 30'.
Cattle and Sheep (normal conditions)	Deer, Elk Moose, or Antelope.	3	38	16, 10, 12	Bottom strand smooth, others barbed.	1 to 4
Cattle and sheep (Requires greater restriction of livestock movements.)	Deer, Elk, Moose, or Antelope.	4	40	16, 6, 6, 12	Barbed.	1 to 4
Cattle	Bighorn Sheep*	3	39	20, 15, 4	Barbed.	1 to 4
Cattle, Wild Burros	Bighorn Sheep* - (Use around watering area)	-	42	18 to bottom rail; 34 and 42 to top of middle and top rails.	Rails 2"-3" diameter.	Line Post spacing 10 feet
Cattle, Wild Burros	Bighorn Sheep*	6	38	18, 4, 4, 4 4, 4	Bottom strand smooth, others barbed.	1 to 2

*These fences also meet antelope, and deer standards.

BLM WIRE SPACING STANDARDS
NOT TO SCALE



APPENDIX IV
(EA)

STANDARD OPERATING PROCEDURES

The following are required Standard Operating Procedures (SOPs) during the construction of a fence to prevent livestock access into the desert tortoise Mormon Mesa Area of Critical Environmental Concern (ACEC), in the southern portion of the allotment, which has been designated as unavailable for livestock grazing in accordance with the Ely RMP (2008):

STANDARD OPERATING PROCEDURES

1. Vehicle travel will only be permitted on existing, developed dirt roads within the allotment.
2. Construction activities will be limited to times when soils are not wet or saturated, to lessen soil compaction by equipment.
3. No vegetation will be altered or removed during construction.
4. Construction would not occur from March 1 – October 31 to comply with the Ely RMP (2008), Management Action SS-32 (Special Status Species). All construction would occur outside of designated ACEC habitat.
5. Construction will occur in coordination with a BLM project inspector (PI), according to BLM Handbook H-1741-1, for Bighorn Sheep and deer, along with current standard BLM fence construction specifications for Bighorn sheep ranges as provided by BLM.
6. Fence posts used within the Mormon Mountains Wilderness Area will be entirely green.
7. Fence posts used outside the Mormon Mountains Wilderness Area will be white topped for increased visibility for wildlife purposes.
8. Maintenance of the fence will be the responsibility of the livestock permittee(s) through a Cooperative Agreement (Form 4120-6) with the BLM.
9. All equipment, assorted materials and refuse, associated with the construction of the project, must be removed immediately after completion of the project or according to contract specifications.
10. 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 vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

APPENDIX V
(EA)

WEED RISK ASSESSMENT

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Term Grazing Permit Renewal for Authorization #2703972 on the Mormon Peak Allotment (#1044)

On March 12, 2014, a Noxious & Invasive Weed Risk Assessment was completed on the Mormon Peak Allotment in Lincoln County, Nevada in preparation for the permit renewal process scheduled during 2014.

The Bureau of Land Management (BLM), Caliente Field Office, proposes to fully process and issue new term grazing permit for authorization # 2703972 on the Mormon Peak Allotment.

The proposed action consists of three parts:

- Part 1: Changing the Season of Use from 6/1 – 3/31 to 10/1 – 4/30.
- Part 2: The placement of 45% (270 AUMs) of the current Active Use (600 AUMs) into Temporary Suspended Use, leaving the remainder (330 AUMS) as Active Use.
- Part 3: The authorization of Temporary Nonrenewable (TNR) grazing in accordance with § 4110.3-1 (a) when forage is available in excess of both, the proposed 330 Active AUMs plus the proposed 270 Temporary Suspended AUMS.
- Part 4: The establishment of three additional watering locations within the allotment.
- Part 5: Construction of a fence to prevent livestock access into the Mormon Mesa Area of Critical Environmental Concern (ACEC) for desert tortoise.

Annual Grazing authorizations would be based on annual forage availability; and the terms and conditions included in the new term permit.

The Proposed Action would also add other terms and conditions to the permit that would aid in maintaining the Mojave-Southern Great Basin Standards, particularly in the unburned portions of the allotment. No other changes to any of the permit would be made.

The following table displays the current term grazing permit for authorization # 2703972 on the Mormon Peak Allotment:

ALLOTMENT		Auth. Num.	LIVESTOCK		GRAZING PERIOD		** % Public Land	AUMs		
Name	Number		* Number	Kind	Begin	End		Active Use	Hist. Susp. Use	Permitted Use
Mormon Peak	1044	#2703972	60	cattle	6/1	3/31	100%	600	0	600

* This number is approximate

** This is for billing purposes only.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. This area was last surveyed in 2013. According to this survey, the following noxious weeds are known to occur in and within one mile of the allotment boundary of the Mormon Peak Allotment (Map #1).

<i>Hyoscyamus Niger</i>	Black Henbane
<i>Brassica tournefortii</i>	Sahara mustard
<i>Tamarix spp.</i>	Salt cedar

However, while not officially documented, the following non-native invasive weeds also occur either within or vicinal to the allotment: cheatgrass (*Bromus tectorum*), red brome (*Bromus rubens*) 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 (7) at the present time. This rating was chosen based on the location of weeds with respect to access routes to the project area. Grazing can increase the populations of the invasive weeds already within the permitted areas and could aid in the introduction of weeds from surrounding areas. However the design features of the proposed action will help to prevent weeds from establishing or spreading.

A majority of the allotment occurs within the Mormon Mountains Wilderness Area (Appendix A, Map #2 of SDD in Appendix II of the EA). Six “cherry-stemmed” roads provide access routes into the wilderness area within the allotment. The two access routes that enter the allotment along its north boundary, and the access route that enters the allotment along its west boundary either travel through or are located immediately adjacent to areas known to have noxious weeds. These infested areas are located outside the allotment are currently being treated by Tri-county Weed Control (contracted weed service).

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

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

This project rates as Moderate (5) at the present time. . If noxious weed infestations establish within the permitted area this could have an adverse impact those native plant communities. However, the proposed action includes measures to increase native plants and to help prevent weeds from establishing. An increase of red brome could alter the fire regime in the area.

Both Salt Cedar and tall whitetop prefer wet (mesic) sites which are very limited within the Mormon Peak Allotment. It is likely that salt cedar has been present for well over 50 years and its effects are well established, though highly limited, which indicates its limited capability to spread due to a lack of preferred habitat.

Sahara mustard may have the potential to highly alter the vegetation communities within the project area; the effects are becoming more certain at the lower elevations (below 4000'). The allotment has suffered repeated wildfires during the past 11 years. While burn areas in the higher elevations have had recovery of native perennial grasses and shrubs, the lower elevations have become dominated by annual grasses and forbs, primarily red brome. A favorable year for precipitation resulted in an abundance of red brome which provided most of the fuel for the 2005 conflagration. It appears this area is entering in to a frequent fire cycle that will prevent any native vegetation from becoming permanently established and forever altering the ecology of the area. Therefore, the consequences of Sahara mustard establishment in the lower elevations are greatly reduced. Burn area rehabilitation has proven ineffective and/or impractical using native species. New plant materials better adapted to the frequent fire cycle must be established in order to maintain the primary ecological functions of 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 (49). This indicates that the project can proceed as planned as long as the following mitigation measures are followed:

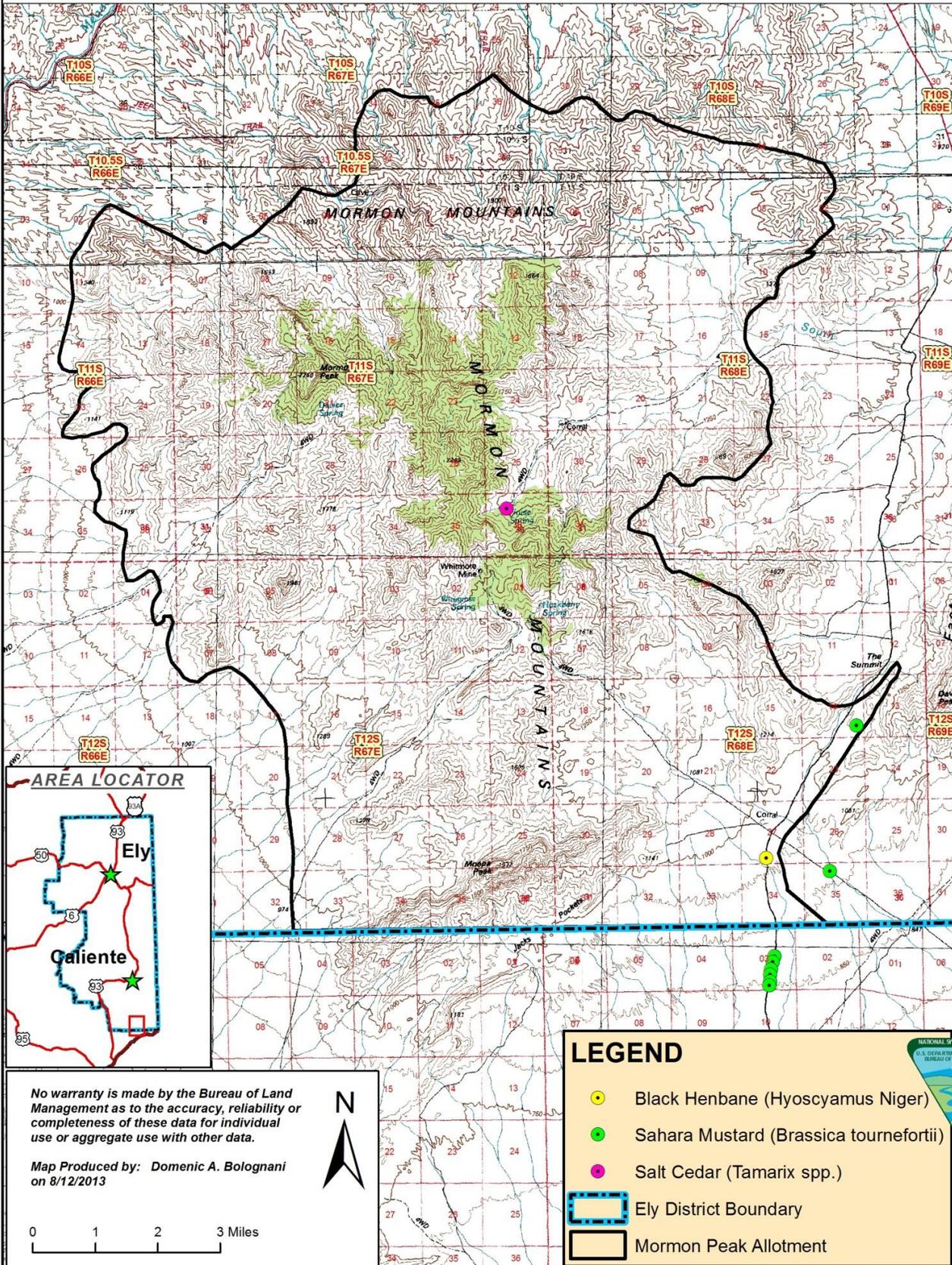
- The range specialist for the allotment will include weed detection into project compliance inspection activities. If the spread of noxious weeds is noted, appropriated weed control procedures will be determined in consultation with BLM personnel and will be in compliance with the appropriate BLM handbook sections and applicable laws and regulations.
- Any newly established populations of noxious/invasive weeds discovered will be communicated to the Ely District Noxious and Invasive Weeds Program for treatment.
- Continue to use integrated weed management to treat weed infestations and use principles of integrated pest management to meet management objectives and to reestablish resistant and resilient native vegetation communities.
- Develop weed management plans that address weed vectors, minimize the movement of weeds within public lands, consider disturbance regimes, and address existing weed infestations.
- When manual weed control is conducted, remove the cut weeds and weed parts and dispose of them in a manner designed to kill seeds and weed parts.
- All straw, hay, straw/hay, or other organic products used for reclamation or stabilization activities, must be certified that all materials are free of plant species listed on the Nevada noxious weed list or specifically identified by the Ely District Office.
- Where appropriate, vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; for emergency fire suppression; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. Vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Vehicles used for emergency fire suppression will be cleaned as a part of check-in and demobilization procedures. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the Ely District Office Weed Coordinator or designated contact person.
- Determine seed mixes on a site specific basis dependent on the probability of successful establishment. Use native and adapted species that compete with annual invasive species or meet other objectives.
- Conduct mixing of herbicides and rinsing of herbicide containers and spray equipment only in areas that are a safe distance from environmentally sensitive areas and points of entry to bodies of water (storm drains, irrigation ditches, streams, lakes, or wells).
- Keep removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g., using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.)

- Certify that all interim and final seed mixes, hay, straw, and hay/straw products are free of plant species listed on the Nevada noxious weed list.
- When managing in areas of special status species, carefully consider the impacts of the treatment on such species. Wherever possible, hand spraying of herbicides is preferred over other methods.
- Do not conduct noxious and invasive weed control within 0.5 mile of nesting and brood rearing areas for special status species during the nesting and brood rearing season.
- 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.
- When maintaining unpaved roads on BLM-administered lands, avoid the unnecessary disturbance of adjacent native vegetation and spread of weeds. Grade roads shoulders or barrow ditches only when necessary to provide for adequate drainage. Minimize the width of grading operations. The BLM Authorized Officer will meet with equipment operators to ensure that they understand this objective.
- Consider nozzle type, nozzle size, boom pressure, and adjuvant use and take appropriate measures for each herbicide application project to reduce the chance of chemical drift.
- All applications of approved pesticides will be conducted only by certified pesticide applicators or by personnel under the direct supervision of a certified applicator.
- Prior to entering public lands, the contractor, operator, or permit holder will provide information and training regarding noxious weed management and identification to all personnel who will be affiliated with the implementation of the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.
- Whenever possible, hand spraying of herbicides is preferred over other methods at heavily used recreation sites (i.e., campgrounds, trailheads, etc.).

Reviewed by: **Cameron Boyce**
 Cameron Boyce
 Natural Resource Specialist

3/17/2014
 Date

Location of Known Noxious Weeds in and within One Mile of the Mormon Peak Allotment (#01044).



Ely District Office



No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Domenic A. Bolognani on 8/12/2013



0 1 2 3 Miles

LEGEND

- Black Henbane (*Hyoscyamus Niger*)
- Sahara Mustard (*Brassica tournefortii*)
- Salt Cedar (*Tamarix* spp.)
- Ely District Boundary
- Mormon Peak Allotment

APPENDIX VI

(EA)

STANDARD TERMS AND CONDITIONS

1. Livestock numbers identified in the Term Grazing Permit are a function of seasons of use and permitted use. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations are consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.
2. The authorized officer is requiring that an actual use report (Form 4130-5) be submitted within 15 days after completing your annual grazing use.
3. Grazing use will be in accordance with the Standards and Guidelines for Grazing Administration. The Standards and Guidelines have been developed by the respective Resource Advisory Council and approved by the Secretary of the Interior on February 12, 1997. Grazing use will also be in accordance with 43 CFR Subpart 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.
4. If future monitoring data indicates that Standards and Guidelines for Grazing Administration are not being met, the permit will be reissued subject to revised terms and conditions.
5. The permittee must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of any hazardous or solid wastes as defined in 40 CFR Part 261.
6. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.
7. When necessary, control or restrict the timing of livestock movement to minimize the transport of livestock-borne noxious weed seeds, roots, or rhizomes between weed-infested and weed-free areas.
8. Livestock will be moved to another authorized pasture (where applicable) 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.
9. The placement of mineral or salt supplements will be a minimum distance of 1/2 mile from known water sources, riparian areas, winterfat dominated sites, sensitive sites, populations of special status plant species, and cultural resource sites. Mineral and salt supplements will also be one mile from active sage-grouse leks. Placing supplemental feed (i.e., hay, grain, pellets, etc.) on public lands without authorization is prohibited.

APPENDIX VII
(EA)

Specific Management Guidelines for Range Improvements
within the Mormon Mountains Wilderness

Range Improvements on the Mormon Peak Allotment Located within Wilderness.

Improvement Name	Range Improvement Project #	Improvement Type	Length within Wilderness (miles)*
Hackberry Spring pipeline	574570	Pipeline	0.4
Horse Spring pipeline & trough	570467	Pipeline Extension (& Troughs)	0.3
F2 Mormon HMA Fence	576720	Fence	0.1
F6 Hackberry Gap Fence	574673	Fence	0.9
F8 Mormon HMA Fence	574673	Fence	0.4
F5 Mormon HMA Fence	576720	Fence	0.2
F9 Mormon HMA Fence	574673	Fence	1.0
F12 Mormon Mountain HMA Fence	574673	Fence	0.8
F10 Mormon Mountain HMA Fence	574673	Fence	0.3
F7 Wiregrass Gap Fence	574673	Fence	0.6
F3 Mormon Mountain HMA Fence	576720	Fence	0.3
F3 Mormon Mountain HMA Fence	576720	Fence	0.2
F12 Mormon Mountain HMA Fence	576720	Fence	0.1
F21 Mormon Mountain HMA Fence	574673	Fence	0.3
F1 Mormon Mountain HMA Fence	574673	Fence	0.1
F11 Mormon Peak Gap Fence	574673	Fence	0.7
Unknown Fence (T.10 S., R.68 E., sec. 26, 34 and 35, MDBM)	570506	Fence	1.8
Unknown Fence (10.S., R.67 E., sec. 34, MDBM)	574673	Fence	0.6
F11 Mormon Peak Gap Fence	574673	Fence	0.4

*Measurements are calculated for the length that lies within the Wilderness boundary

Developed Springs

The use of motorized vehicles or equipment for routine replacement of stock troughs may be authorized not more than once every ten years. The District Manager may allow additional use of motorized equipment or vehicles on a case-by-case basis where the BLM determines the need for replacement is due to extraordinary circumstances (i.e., flash flood, wildfire, vandalism, etc.). Replacement troughs, pipe and head boxes would be designed and constructed to function ten years or more under normal conditions of use with routine maintenance and to blend with the surrounding environment to the extent practicable.

Any trough, catchment or other water storage development which is reconstructed or replaced would be designed to divert and store only the minimum amount of water necessary to achieve management objectives or the valid water rights. All additional water would remain in its natural location to meet the riparian purposes of wilderness.

Pipelines

The use of motorized vehicles or equipment may be authorized for the routine replacement of below-ground pipeline segments no more than once every ten years. Requests for more frequent use of motorized vehicles or equipment would be addressed on a case-by-case basis. The entire section of pipeline replaced must meet BLM trenched or ripped trench pipeline construction standards for depth below grade, construction material, venting, and grade to minimize the risk of future failure and need for future repair or replacement.

Fences

Fences throughout the planning area require routine maintenance. Additional maintenance may be required due to damage from wildfires, animals, or intentional destruction.

For any single segment of pre-existing fence at least one-quarter mile from any designated motorized route and at least one-half mile in length, the use of the motorized vehicles or equipment may be allowed for replacement or repair to damage otherwise unpreventable through routine inspection and maintenance (i.e., destruction by wildfire, or extensive damage from livestock, wild horses and/or wildlife). It is anticipated that damage which would require the use of motorized equipment or vehicles to replace segments longer than one-half mile would not occur frequently. Alternative fence locations, materials, construction techniques, and the use of additional gates would be evaluated prior to authorizing more frequent use of motorized equipment or vehicles for fence that repeatedly requires repairs.

Additional Range Specific Management

Inspection and routine maintenance of range developments would be accomplished on foot or horseback. Management direction for the use of motorized equipment and vehicles for the maintenance and reconstruction of range developments would apply to those developments identified in this EA and which are included in a current decision or document (i.e., final multiple use decision, allotment management plan, grazing decision, permit, lease, or cooperative agreement).

All authorizations for the use of motorized equipment (e.g., chainsaw, generator, gas-powered posthole digger, etc.) or vehicles (e.g., ATV, truck, snowmobile, bulldozer, trackhoe etc.) would specify the type of vehicle and number of vehicle passes, the route(s) to be used and period of use for motorized equipment. The number of vehicle passes authorized would be based upon the minimum number necessary to safely accomplish maintenance objectives. The selection of vehicles to be used would be based upon readily available and cost-effective equipment which minimizes soil disturbance, compaction and resource damage. Approved motorized access would be confined to previously utilized routes except in cases where the potential for resource damage is determined to be unacceptable; in such a case an alternate route may be identified. Some previously utilized routes have been restored to their natural condition in order to prevent

unauthorized motorized use. It is anticipated that most repair or reconstruction of range developments requiring motorized vehicles would be accomplished with a single trip using one vehicle and trailer. For scheduled repair or construction, the use of motorized vehicles or equipment would be scheduled to minimize disturbance to riparian areas, soils, wildlife, and the visiting public.

Except in the case of emergency, permittees must obtain written authorization from the District Manager prior to using any motorized equipment or vehicles within the wilderness areas. For uses evaluated as part of this document, authorizations would typically be issued within one to two weeks from the time of request.

For the purposes of allowing motorized equipment and/or vehicles for grazing management, an emergency is defined as any unpreventable or reasonably unforeseeable set of circumstances which, without immediate action, would likely result in the death of livestock or result in long-term or irreversible impact to the wilderness resource. At a minimum, grazing permittees must obtain verbal authorization from the District Manager for each instance in which motorized equipment or vehicles are to be used in the wilderness. Verbal authorization must be followed up with a written authorization for the wilderness file. In the event that the District Manager is not immediately available, the permittee must notify the District Manager as soon as practicable but not later than 48 hours following the use of motorized equipment or vehicles.

Excerpt from BLM Manual 6340 – Management of Designated Wilderness Areas (Public) (July 13, 2012):

“8. Grazing

- a. **Background.** The Wilderness Act, Section 4(d)(4)(2) states: “the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the [administering agency].” In 1990, the House of Representatives issued House Report 101-405, Appendix A— Grazing Management Guidelines, in association with the Arizona Desert Wilderness Act of 1990. Although the Wilderness Act provides the authority for managing grazing in wilderness, this report (and its predecessor, House Report 96-1126, issued in association with the Colorado Wilderness Act of 1980) has been cited in many subsequent wilderness bills and provides helpful information. Grazing is specifically permitted in wilderness under Section 4(d)(4)(2) of the Act. After designation of an area as wilderness, Allotment Management Plans may need to be revised or developed for allotments within a wilderness to ensure they are consistent with this policy.
- b. **Continuation of livestock grazing.** Where grazing of livestock has been authorized by a grazing permit or grazing lease for land within a wilderness, and the use was established before Congress established the wilderness area, under Section 4(d)(4)(2) of the Act it “shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the [administering agency].” The continuation of existing grazing may apply to not only the utilization of the forage resource, but also the use and maintenance of livestock management developments and facilities that were associated with the grazing activity at the time of designation and have been authorized by the BLM. Grazing management activities, including the construction, use, and maintenance of

livestock management developments, must comply with the BLM grazing regulations 43 CFR 4100, as well as this manual.

c. Adjustments in levels of authorized use

There will be no automatic reduction in the amount of livestock use permitted simply because an area is designated as wilderness. Reductions should be made only as a result of normal changes in grazing management based on range condition and in accordance with the BLM's grazing regulations. For example, an increase in the number of livestock may be permitted if it can be demonstrated that the increase will have no negative impact on wilderness character.

d. Grazing facilities

i. *Structures and installations used for livestock management existing at the time of designation* may be maintained. Maintenance may be done by the occasional use of motorized equipment where:

- A. practical non-motorized alternatives do not exist; and
- B. the motorized use is expressly authorized in the grazing permit and advanced written permission for each maintenance activity is granted by the BLM; and
- C. the motorized use was allowed prior to wilderness designation.

In most situations, authorization for motorized use would be considered on a case-by-case basis—for example, to remove sediment from a stock reservoir. In some cases, a schedule could be established—for example, hauling water to fill a tank. In all cases, authorization should be for no more than is practically necessary to support the livestock grazing program and for actions that would not have a significant adverse impact on the natural environment. The use of an existing route and mode of travel also must cause the least impact on wilderness character and be similar to what was allowed prior to wilderness designation. These decisions are made during the grazing permitting process with the use of a Minimum Requirements Analysis, completed in conjunction with the associated NEPA analysis, through which alternatives are analyzed to determine the method that least impacts wilderness character while remaining consistent with the rule of practical necessity and reasonableness in supporting the livestock grazing program. Actual authorization is granted, consistent with the NEPA analysis, in a letter of authorization. Authorizations need to be consistent with the Decision Document, including specified design features or mitigation measures and any specified follow-up actions. Authorizations will include exact travel routes to be followed by any motorized equipment or mechanical transport, as well as rehabilitation requirements.

Where practical alternatives to the use of motor vehicles exist—for example, using horses to distribute small quantities of salt or repair short sections of fence—the BLM will only authorize non-motorized activities.

- ii. *Reconstruction or replacement of existing facilities* will require the use of natural materials if their use would not impose unreasonable added cost for the grazing permittee. An exception is when use of other materials would require less frequent motorized or mechanized access to perform maintenance.
 - iii. *New facilities* will be permitted by the BLM only for the purpose of enhancing the protection of wilderness character.
- e. **Use of motorized equipment.** Except as allowed under sub-section 9.d [*sic*], above, the use of motor vehicles, motorized equipment, or mechanical transport to carry out a lawful grazing-associated activity is limited to emergencies only, such as rescuing sick animals or placing feed in emergency situations. In emergencies, permittees do not need prior authorization for these uses, but must notify the BLM of their use reasonably soon thereafter. The use of motor vehicles, motorized equipment, or mechanical transport is not allowed for herding animals or routine inspection of the condition of developments or the condition of the range.”

APPENDIX VIII
(EA)

Wildlife and Plant Species

Wildlife & Plants for Mormon Peak Allotment 1/29/13

Highlighted species are BLM Sensitive Species in Nevada. Data accessed from Ely RMP, NV Natural Heritage Data, and NDOW Diversity Data.

The allotment contains the Mormon Mesa Critical Habitat Unit (CHU) for desert tortoise. The allotment contains the Mormon Mesa ACEC. Portions of the Mormon Mesa ACEC are larger than the CHU; the allotment does not contain any CHU that is not designated ACEC. Desert tortoise triangular transects (surveyed in 1980s to 1990) estimated densities from very low to moderate.

Federal Threatened & Endangered Species

Agassiz's desert tortoise (*Gopherus agassizii*) - federally threatened

BLM SSL

desert bighorn sheep (*Ovis canadensis nelsoni*) occupied habitat
banded Gila monster (*Heloderma suspectum cinctum*)

Plants

Clark Mountains agave (*Agave utahensis* var. *nevadensis*)
Antelope Canyon goldenbush (*Ericameria cervina*)

General wildlife

Mule deer (*Odocoileus hemionus*) general habitat
Kit fox (*Vulpes macrotis*)
Bobcat (*Lynx rufus*)
Gray fox (*Urocyon cinereoargenteus*)
Great Basin fence lizard (*Sceloporus occidentalis*)
Variable groundsnake (*Sonora semiannulata*)

Migratory birds

The following data reflect survey blocks and/or incidental sightings of bird species within the project area boundaries from the Atlas of the Breeding Birds of Nevada (Floyd et al. 2007). These data represent birds that were confirmed, probably, or possibly breeding within the project area boundaries. These data are not comprehensive, and additional species not listed here may be present within the project area boundary. No survey blocks were located within the project area.

Golden eagle (*Aquila chrysaetos*)
Prairie falcon (*Falco mexicanus*)
Red-tailed hawk (*Buteo jamaicensis*)
American kestrel (*Falco sparverius*)
Northern harrier (*Circus cyaneus*)
Peregrine falcon (*Falco peregrinus*)
Ferruginous hawk (*Buteo regalis*)
Swainson's hawk (*Buteo swainsoni*)
Sharp-shinned hawk (*Accipiter striatus*)

Cooper's hawk (*Accipiter cooperii*)
Western burrowing owl (*Athene cunicularia hypugaea*)
Merlin (*Falco columbarius*)
Ash-throated flycatcher (*Myiarchus cinerascens*)
Gambel's quail (*Callipepla gambelii*)
Ladder-backed woodpecker (*Picoides scalaris*)
Lesser goldfinch (*Carduelis psaltria*)
Loggerhead shrike (*Lanius ludovicianus*)
Scott's oriole (*Icterus parisorum*)
Verdin (*Auriparus flaviceps*)
Western kingbird (*Tyrannus verticalis*)
White-crowned sparrow (*Zonotrichia leucophrys*)
Blue-gray gnatcatcher (*Polioptila caerulea*)
Violet-green swallow (*Tachycineta thalassina*)
Black-throated sparrow (*Amphispiza bilineata*)
Cactus wren (*Campylorhynchus brunneicapillus*)
Costa's hummingbird (*Calypte costae*)
Horned lark (*Eremophila alpestris*)
Northern mockingbird (*Mimus polyglottos*)
Western meadowlark (*Sturnella neglecta*)
Black-chinned sparrow (*Spizella atrogularis*)
Brewer's sparrow (*Spizella breweri*)
Bushtit (*Psaltriparus minimus*)
Gray vireo (*Vireo vicinior*)
Pinyon jay (*Gymnorhinus cyanocephalus*)
Western scrub-jay (*Aphelocoma californica*)
Bewick's wren (*Thryomanes bewickii*)
Spotted towhee (*Pipilo maculatus*)
Juniper titmouse (*Baeolophus ridgwayi*)
Black-throated gray warbler (*Dendroica nigrescens*)
Broad-tailed hummingbird (*Selasphorus platycercus*)
Common poorwill (*Phalaenoptilus nuttallii*)
Gray flycatcher (*Empidonax wrightii*)
Virginia's warbler (*Vermivora virginiae*)

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