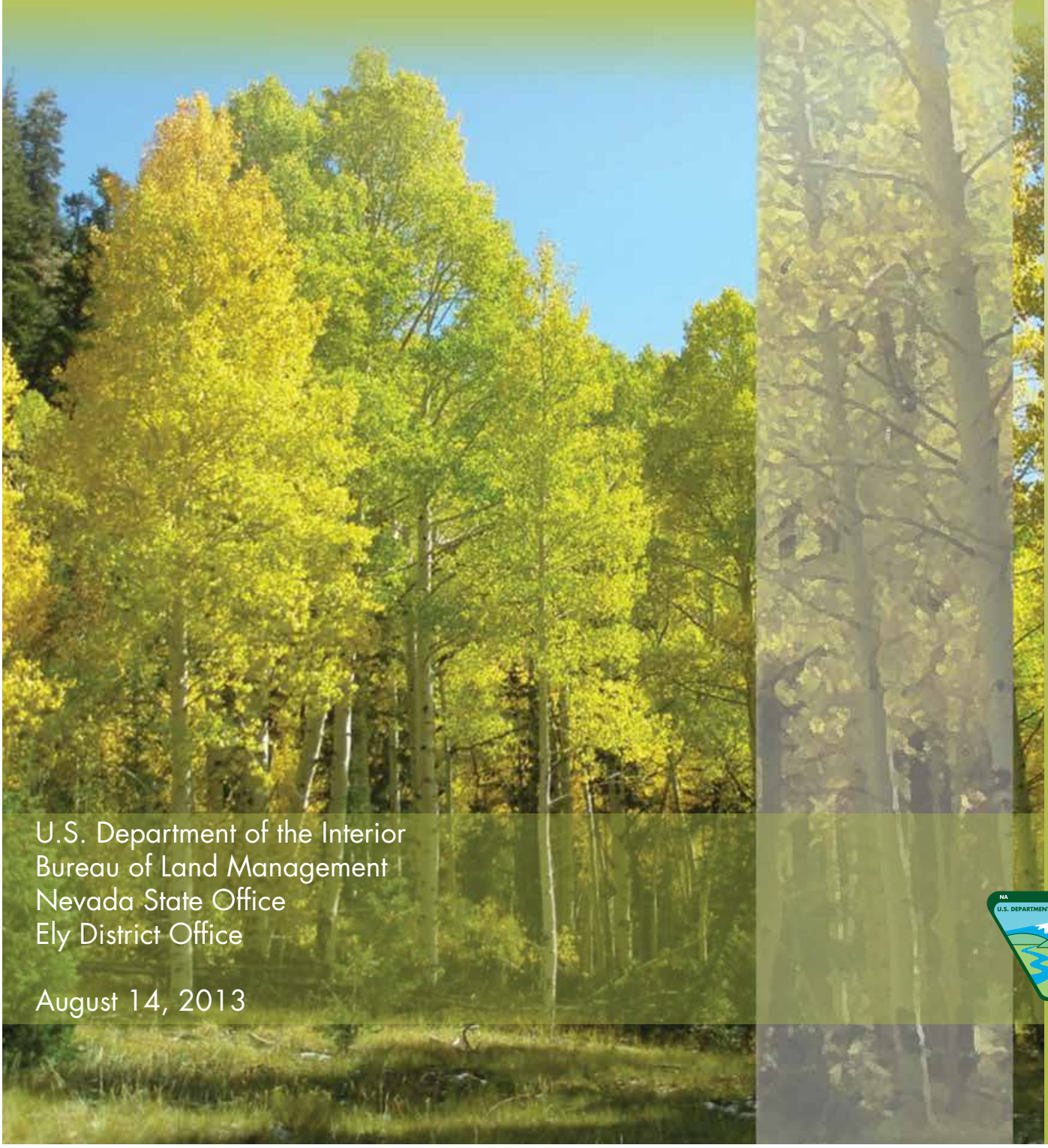
BLM

# Highland Ridge, Mount Grafton, South Egan Range, and Far South Egans Wilderness

## Final Wilderness Management Plan and Environmental Assessment



U.S. Department of the Interior
Bureau of Land Management
Nevada State Office
Ely District Office

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Cover Photo: Highland Ridge aspens

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# A. Introduction

**Background**

The United States Congress established the National Wilderness Preservation System to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States. Wilderness designation is intended to preserve and protect certain lands in their natural state. Only Congress, with Presidential approval, may designate areas as Wilderness. The Wilderness Act of 1964 defines wilderness character, the uses of wilderness, and the activities prohibited within its boundaries.

Wilderness areas provide a contrast to lands where human activities dominate the landscape. No buffer zones are created around wilderness to protect them from the influence of activities on adjacent land. Wilderness areas are managed for the use and enjoyment of the American people in a manner that will leave them unimpaired for future use and enjoyment as wilderness, for their protection, preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness.

Bureau of Land Management (BLM) policy requires the development of a management plan that will: Protect wilderness character and values, provide for visitor use and enjoyment, require the "Minimum Tool" to accomplish resource objectives inside wilderness, and allow for special provisions as provided by legislation.

Wilderness character is described in terms of: undeveloped, untrammeled, natural, outstanding opportunities for solitude or a primitive and unconfined type of recreation, and other unique or supplemental qualities.

BLM Manual 8561 (Wilderness Management Plans) requires that wilderness areas be managed pursuant to a specific management plan. This Environmental Assessment analyzes the environmental and social impacts of the proposed Wilderness Management Plan (WMP) and one alternative, a "no-action" alternative.

Highland Ridge, Mount Grafton and the South Egan Range Wilderness areas were added to the National Wilderness Preservation System by the White Pine County Conservation, Recreation and Development Act in December 2006 (Public Law 109-432, December 20, 2006; WPCCRDA). The Far South Egans Wilderness area was designated in the Lincoln County Conservation, Recreation, and Development Act of 2004 (Public Law 108-424, November 30, 2004; LCCRDA). See Map 1 (Page 3).

## Scope and Purpose of the Wilderness Management Plan

This WMP provides the primary management direction for the Highland Ridge, Mount Grafton, South Egan Range and Far South Egan Wilderness areas. Given their comparable natural resources and similar broad management issues, it is appropriate to incorporate the administration of the four areas into a single plan. Management direction will be guided by statutes, regulations, manuals, policy, guidelines and other plans referenced in this document.

Wilderness Characteristics

The Wilderness Act of 1964 defines wilderness and mandates that the primary management direction is to preserve wilderness character. Although wilderness character is a complex idea and was not explicitly defined in the Wilderness Act, wilderness character is commonly defined as:

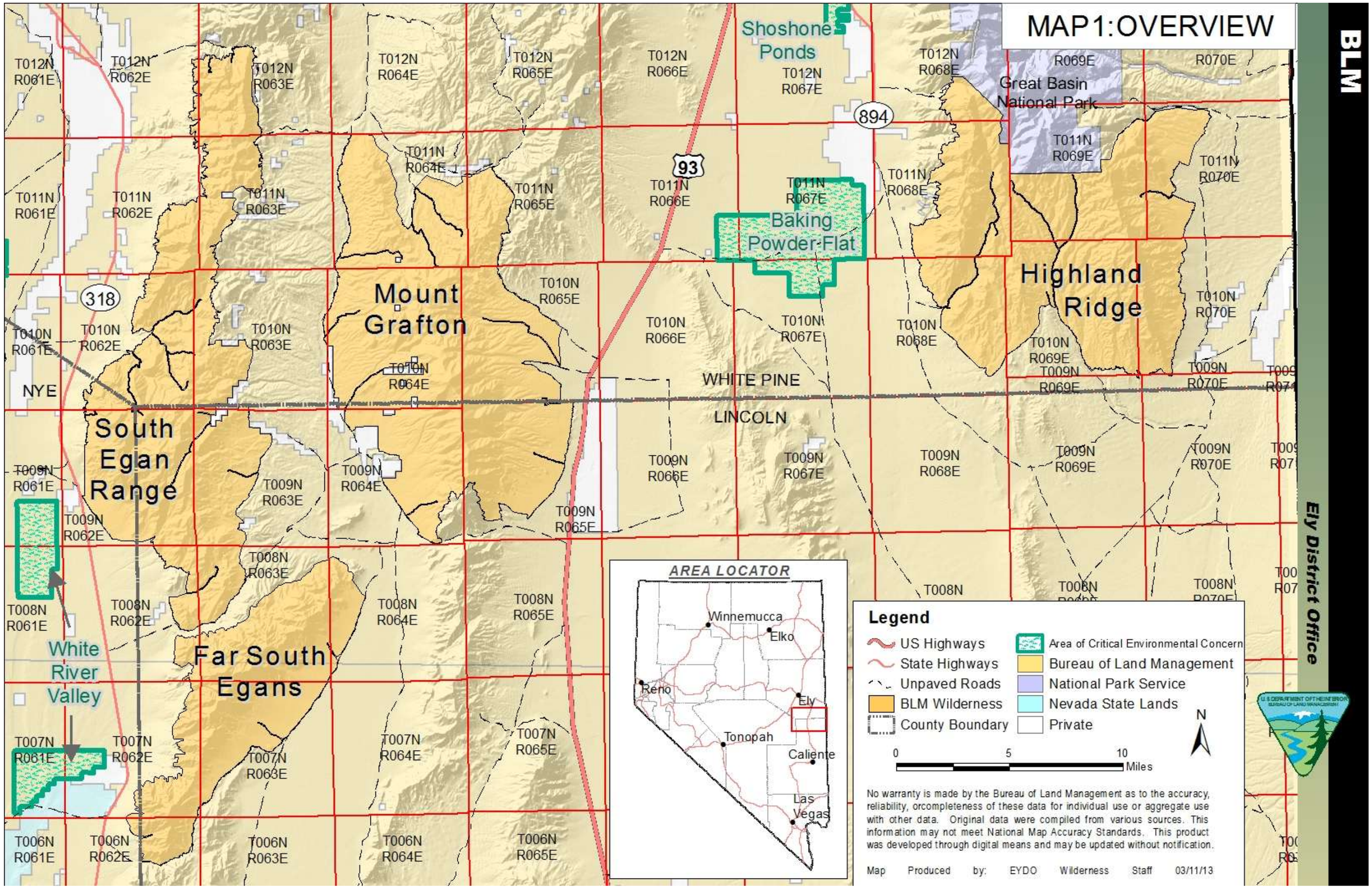
- **Untrammeled** — area is unhindered and free from modern human control or manipulation.
- **Natural** — area appears to have been primarily affected by the forces of nature.
- **Undeveloped** — area is essentially without permanent improvements or human occupation and retains its primeval character.
- **Outstanding opportunities for solitude or a primitive and unconfined type of recreation** — area provides outstanding opportunities for people to experience solitude or primeval and unrestricted recreation, including the values associated with physical and mental inspiration and challenge.

Additionally, wilderness areas may contain supplemental values such as; ecological, geological, or other features of scientific, educational, scenic, or historical value. However, these values need not be present for an area to meet the definition of wilderness.

This wilderness management plan preserves the areas' characteristics by:

- Identifying the conditions and opportunities for which the wilderness areas would be managed.
- Creating specific directives for managing resources and activities existing or occurring in wilderness.
- Identifying management needs outside of, and immediately adjacent to the wilderness areas, including signing, staging areas, and access points.

The WMP contains current comprehensive descriptions of the wilderness areas and proposed management actions, directives, and guidelines that relate to specific wilderness management categories. An Environmental Assessment follows the WMP in this document, which fully describes and analyzes the potential impacts relating to proposed management actions, directives and considered alternatives.


MAP1:OVERVIEW
BLM
Ely District Office
Shoshone Ponds
Great Basin National Park
Baking Powder Flat
Highland Ridge
Mount Grafton
South Egan Range
Far South Egans
White River Valley
WHITE PINE
LINCOLN
NYE
894
93
318
T012N R061E
T012N R062E
T012N R063E
T012N R064E
T012N R065E
T012N R066E
T012N R067E
T012N R068E
R069E
R070E
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T006N R065E
AREA LOCATOR
Winnemucca
Elko
Reno
Ely
Tonopah
Caliente
Las Vegas
Legend
US Highways
State Highways
Unpaved Roads
BLM Wilderness
County Boundary
Area of Critical Environmental Concern
Bureau of Land Management
National Park Service
Nevada State Lands
Private
N
0
5
10
Miles
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, orcompleteness of these data for individual use or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.
Map Produced by: EYDO Wilderness Staff 03/11/13

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## Wilderness Overview (General Setting)

### Location / Boundaries

The BLM administers all surface and sub-surface land within the four wilderness areas. The Wilderness areas are administered under authority and provisions of:

- The Wilderness Act of 1964
- The Federal Land Policy and Management Act of 1976
- Lincoln County Conservation, Recreation, and Development Act of 2004
- White Pine County Conservation, Recreation and Development Act 2006

The Bureau of Land Management, Ely District Office, has primary management responsibility for all four areas. Current conditions for each wilderness area are displayed in Maps 2-5.

These four wilderness areas lie along the Lincoln County - White Pine County border in Nevada. Highland Ridge Wilderness is entirely within White Pine County. Mount Grafton Wilderness extends into Lincoln and White Pine counties; the South Egan Range Wilderness in both and also extends into Nye County; and the Far South Egans Wilderness is in Nye and Lincoln Counties.

Highland Ridge Wilderness spans 68,622 acres and ranges in elevation from 6,070 feet to 10,825 feet. One component of the WPCCRDA, in addition to wilderness designation, was the transfer of administrative jurisdiction for the land surrounding the Great Basin National Park from the U.S. Forest Service to the Bureau of Land Management, including the portions designated as Highland Ridge Wilderness.

The Mount Grafton Wilderness covers 78,743 acres with elevations of 6,000 feet to 10,991 feet on the top of the peak for which the area is named. Mount Grafton is the highest peak on BLM-managed lands in Nevada.

The South Egan Range Wilderness encompasses 67,214 acres and ranges from 5,000 feet to 9,616 feet. Lastly, the Far South Egans Wilderness contains 36,384 acres ranging in elevation from 5,800 feet to 9,823 feet.

Parcels of private property exist within and adjacent to the Mount Grafton Wilderness. The South Egan Range and Highland Ridge Wilderness areas have several adjacent parcels and the Far South Egans Wilderness has no parcels of private land adjacent.

**Topography and Vegetation**

The topography of the four wilderness areas is similar: massive limestone cliffs cut through with canyons. The typical vegetative composition consists of sagebrush that covers the lower elevations while singleleaf pinyon and Utah juniper grow on the slopes. Pockets of aspen can be found in Highland Ridge and Mount Grafton Wilderness areas. Bristlecone and Limber pine are found at the higher elevations of each wilderness. Small stands of ponderosa pine occur in the Far South Egans Wilderness.

The four wilderness areas covered in this plan lie within the Central Basin and Range ecoregion (U.S. Environmental Protection Agency). This ecoregion is, as defined by the EPA, "internally drained and is characterized by a mosaic of xeric basins, scattered low and high mountains, and salt flats" and "are covered by Great Basin sagebrush or saltbush-greasewood vegetation that grow in Aridisols". Aridisols are a category of soil classification characterized by very low amounts of moisture and organic matter.

**Wildlife**

Many species inhabit the wilderness that are representative of the diverse characteristics of the area such as Rocky Mountain elk, Mule deer, Pronghorn antelope, Bobcat, Mountain lion, Pinyon jay, Clark's nutcracker, Mountain bluebird, Green-tailed towhee, Golden eagle, Cooper's hawk and Ferruginous hawk. Numerous reptiles, invertebrates and other small creatures are found throughout the area.

Water sources include a few developed and undeveloped springs. Two perennial streams flow out of Mount Grafton Wilderness. A few wildlife water developments exist for the maintenance of large game populations, and are administered by the Nevada Department of Wildlife (NDOW) and the BLM. The region's varying climate and elevation provide important habitat for a variety of wildlife. No federally listed wildlife species are known to occur, however some BLM and state sensitive species are likely to occur.

**Fire**

The historic fire regime of these areas has been highly variable. Fires were frequent in lower elevation sagebrush communities and spread to the adjacent pinyon-juniper woodland while infrequent relatively small-scale high severity fires characterized the pinyon-juniper woodland. Increased distribution and density of the pinyon-juniper woodland, coupled with the presence of introduced non-native annual grasses, predominately cheatgrass has increased the frequency of large, intense fires. The intensity of these fires can lead to further dominance by exotics, thereby altering the fire regimes and succession, resulting in a feedback loop.

Mount Grafton Wilderness burned 2,449 acres in 2007, South Egan Range burned 7,238 acres in 2012 and in 2000 Highland Ridge had a 952 acre fire. Numerous smaller fires have burned in all four wilderness areas. Current fire management objectives are management of wildland and prescribed fires in the treatment of vegetation communities and watersheds to achieve the desired range of condition for these and other resource programs.

**Grazing**

Active grazing permits existed at the time of wilderness designation and are authorized to continue under the direction of the Congressional Grazing Guidelines. There are portions of 20 grazing allotments in the four wilderness areas. Most of the human developments are associated with range developments (fences, pipelines and spring developments) for the support of livestock grazing.

**Cultural Resources**
Fossils found throughout the wilderness areas offer a glimpse into life hundreds of million years ago when the area was at the bottom of a sea. Prehistoric cultural resources abound and include lithic scatters and prehistoric camp sites. More recent human occupation by early settlers is evidenced by the presence of various historic resources such as glass bottles, metal cans, barbed wire, arbor-glyphs, mill sites, and mining sites.

**Recreation**
Recreational activities in the four wilderness areas include hiking, rock climbing, wildlife viewing, hunting, trapping, photography, horseback riding and backpacking. Further, Whipple Cave, within Far South Egans, is a popular recreational destination for spelunking (caving).

Human-caused disturbances, in the form of off-road vehicle routes, existed within these areas at the time of wilderness designation. They have since undergone route decommissioning and initial rehabilitation. The total for Highland Ridge Wilderness is 59 miles, Mount Grafton Wilderness contains 105 miles, the South Egan Range Wilderness has 40 miles, and the Far South Egans Wilderness has 3 miles of former vehicle routes. There are a several cherry stem routes (a road that is excluded from the designated wilderness by a non-wilderness corridor having designated wilderness on both sides) associated with each wilderness.

**Mineral Resources**
The wilderness areas were withdrawn from mineral entry upon wilderness designation. There are no mining claims and no mineral leases or substantial mining disturbances exist in the wilderness area other than historic.

A more comprehensive description of the environment is incorporated into the Affected Environment section in the Environmental Assessment (EA) that analyzes the impacts of implementing the proposed WMP.

## General Management Situation

### Wilderness Issues

This WMP was prepared to address issues that were identified through internal and public scoping. Internal scoping was done via meetings and written communications with BLM resource specialists from 2009 to 2013. Public scoping was conducted in the form of workshops, meetings, written letters, email, and by BLM staff.

All issues and concerns were considered during the development of the alternatives described in the EA, following this plan. Relevant issues to be addressed in this WMP that were identified through public scoping relate to wilderness characteristics and are as follows:

***Opportunities for solitude or primitive and unconfined recreation***

- Recreational hunting increasing in wilderness; prohibit hunting camps (public or outfitter and guide) from blocking access to trails, trailheads, cherry stem roads, etc.
- Educate and enforce camping stay limit on public lands.
- Cherry stems and routes that access the wilderness boundary should be maintained.
- Explore interconnectivity of trails in Great Basin National Park and interagency information on trailhead signs.
- Trail designations and maintenance standards.
- Climbing and caving regulations in wilderness.

***Protecting and enhancing the undeveloped and natural appearance of the wilderness areas***

- Process of consideration for the installation or removal of wildlife water developments inside wilderness.
- Defining vegetation restoration.

***Preserving naturalness, primeval character and influence of the wilderness areas***

- Conversion of closed routes in Great Basin National Park and adjacent wilderness (e.g. Decathon Canyon).
- Maintenance of water rights and associated facilities (e.g. ditches, gauging station) for grazing, irrigation or other purposes.
- Managing access and necessary maintenance of existing authorized range facilities inside wilderness.
- Evaluate grazing on land acquired from US Forest Service in Highland Ridge Wilderness.
- Delineate policy regarding purchasing or acquisition of private parcels should the opportunity arise.
- Establish access methods and schedule to inholdings.
- Seek easements across private property to cherry stem routes (e.g. Cappy's Diggins/North Creek (west) route).

***Managing supplemental values of the wilderness***

- Determine eligibility and management of historical structures.

***Wilderness Management***

- Reduce illegal motorized use in wilderness associated with various activities (e.g. shed antler collection, hunting or game retrieval).

Certain issues identified during public scoping are already addressed in existing planning documents or policy, and are not within the scope of this Plan. They are listed below:

- Suppression of human-caused fires – standard operating procedures are addressed in the Ely Fire Management Plan.
- Amending wilderness boundaries or cherry-stemmed routes – Wilderness boundaries are designated by Congress and legislation would have to be enacted to authorize any changes.

*Mount Grafton Wilderness*

## B. Wilderness Management Goals and Objectives

Managing Wilderness is guided by four primary goals defined in BLM wilderness management planning manual (BLM Manual 8561) Appendix 1. The goals provide general direction, and are refined into specific objectives. Objectives are statements of desired conditions, stemming from current situations and assumptions about the future. Management action(s) are based on these objectives. This section outlines the goals and objectives that guide this WMP.

**Goal 1**

Provide for the long-term protection and preservation of the areas' wilderness character under a principle of non-degradation. The areas' natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historic value present will be managed so that they would remain unimpaired.

**Objectives**

- Preserve the primeval character and influence of the wilderness by allowing fire as a natural process of disturbance and succession where the ecosystem is fire-dependent; manage fire where it threatens wilderness character and/or natural ecological conditions or processes; prevent fire where it threatens human life or property.
- Manage wildlife habitat to support healthy, viable, and naturally distributed wildlife populations in an effort to retain the areas' natural and primeval character.
- Maintain native plant distribution and abundance through the reduction of noxious and non-native invasive species in an effort to retain the areas' natural and primeval character.
- Protect and preserve the outstanding archaeological and historic resources of these areas while allowing for visitor enjoyment of those resources.

**Goal 2**

To manage the wilderness areas for the use and enjoyment of visitors in a manner that would leave the areas unimpaired for future use and enjoyment as wilderness. The wilderness resource would be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.

**Objectives**

- Provide for the use and enjoyment of the wilderness areas while maintaining outstanding opportunities for primitive recreation, including solitude, through minimal visitor use regulations and minimal on-the-ground developments.
- Utilize education and interpretation as a proactive approach in managing visitor activities that may impact preservation of the wilderness character.
- Prevent unauthorized motorized vehicle travel through the management of vehicle access points.

**Goal 3**
To manage the wilderness areas using the minimum tool, equipment, or structure necessary to successfully and safely accomplish the objective of a project approved for the preservation of wilderness character. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently. Management would seek to preserve spontaneity of use and freedom from regulation to the greatest extent possible.

**Objective**

- Implement proposed actions as necessary to meet minimum requirements for the administration of the areas as wilderness and to have the least impact to wilderness characteristics.

**Goal 4**
To manage activities (e.g. grazing of livestock and commercial services) allowed under the Special Provisions of the Wilderness Act (Section 4(d)) and subsequent laws in a manner that would prevent unnecessary or undue degradation of the areas' wilderness character. Special Provisions are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

**Objectives**

- Allow for special provision land uses determined by the Wilderness Act, Lincoln County Conservation, Recreation and Development Act or White Pine County Conservation, Recreation and Development Act while minimizing developments, degradation to naturalness, and other impacts to wilderness resources.
- Maintain or enhance the natural appearance of the wilderness areas by removing unnecessary facilities and minimizing or restoring human-caused surface disturbances.
- Assess potential commercial services of the wilderness areas for their economic importance and prevent negative impacts on wilderness characteristics.

**Management Strategy**
This plan has been designed to serve as the management guidance for Highland Ridge, Mount Grafton, South Egan Range and Far South Egans Wilderness areas is to maintain or improve the natural, near-pristine conditions present today while rehabilitating existing and future human-caused disturbances.

An interdisciplinary team developed the management strategy. The objectives and associated management actions were designed to help meet the goals of preserving wilderness character, while providing protection of cultural resources, primitive recreational opportunities, solitude and the continuation of accepted uses permitted by the Wilderness Act.

The planned actions and monitoring of their effectiveness are designed to ensure that the characteristics that define these wilderness areas remain stable or improve. Management objectives will be re-evaluated periodically maintained, and updated as needed.

Current local conditions and expectations were identified before developing management actions. Inventory, monitoring, and research are important aspects to meet the objectives of this plan.

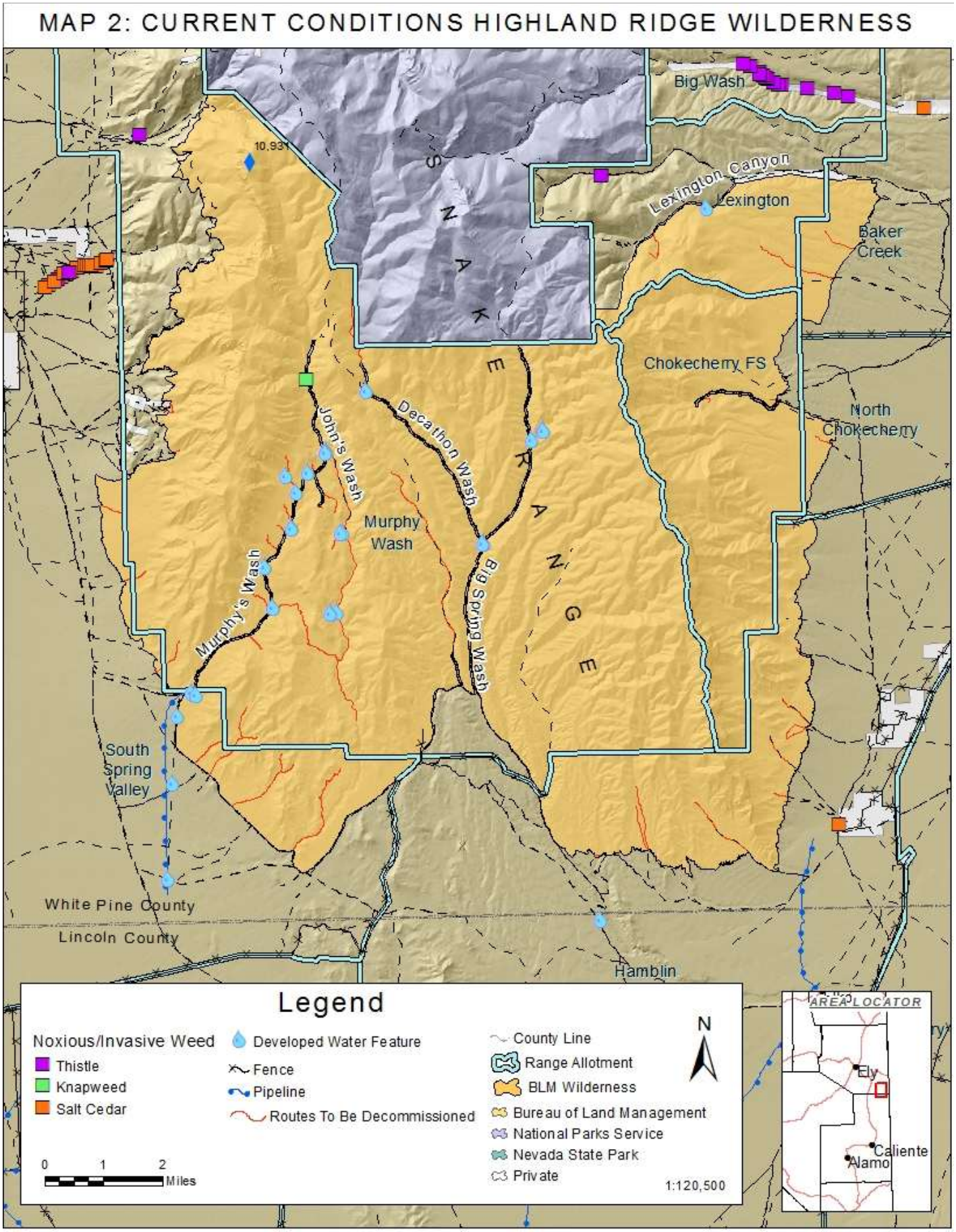
## C. Wilderness Management Actions

Wilderness management actions for these areas are based on national wilderness goals, wilderness management objectives, current situation and assumptions, and wilderness-specific issues that were identified through internal and external scoping. Except for site-specific proposed actions, management actions are the same for all areas because of similar management issues.

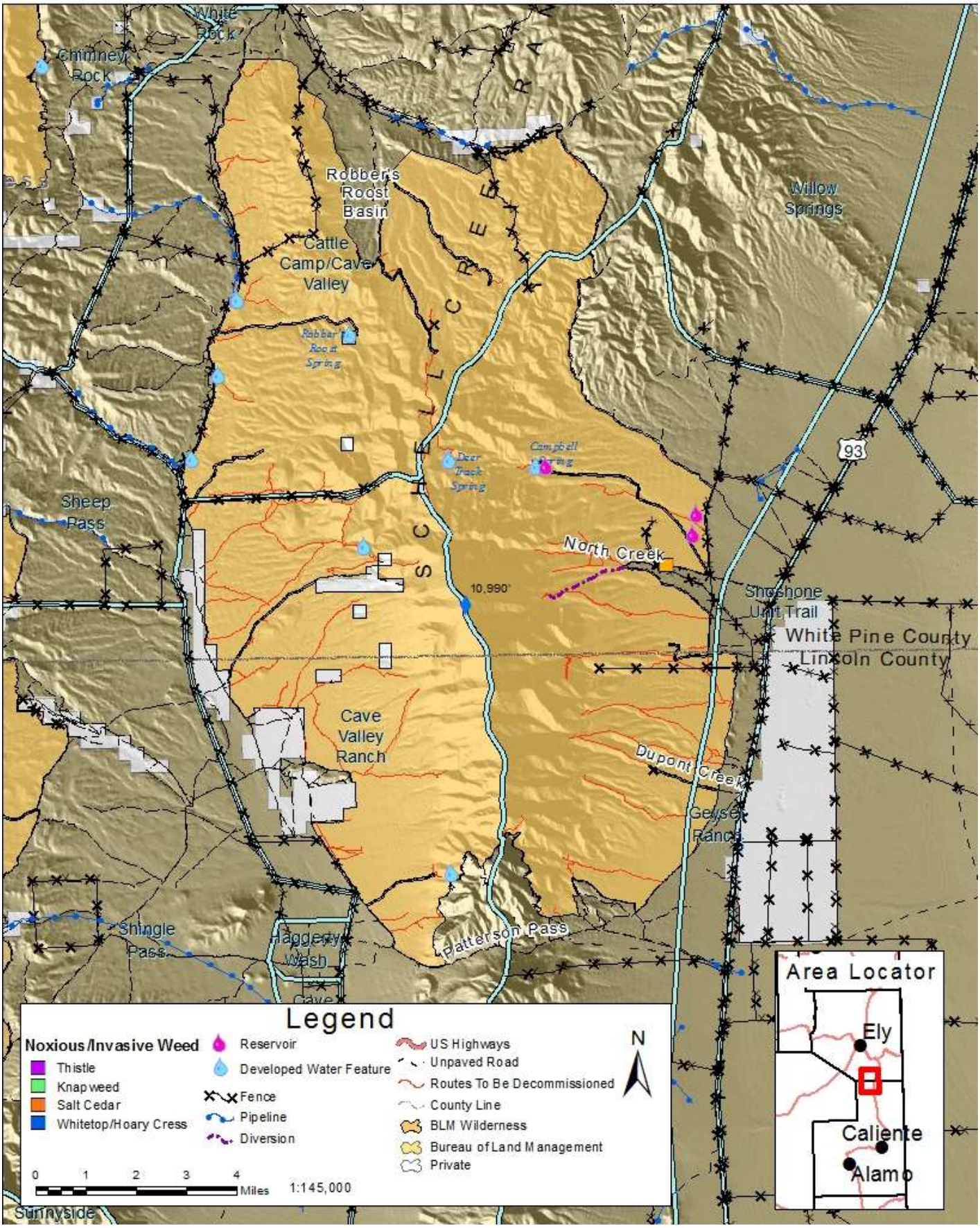
Resource programs, such as Fire Management, Noxious and Invasive Weed Management, Range and Wild Horses and Burros, have specific plans that guide their programs that individually address the management goals and activity plans. This WMP considers all related resources involved in wilderness. Non-wilderness resource programs have been evaluated to ensure conformity with wilderness management goals and objectives. Management actions are described on the following pages. While all of the management actions provide wilderness specific direction, several outline site-specific management actions.

Any ground disturbing activities associated with the following actions would implement Best Management Practices outlined in the Ely District Approved Resource Management Plan (2008). All actions are supplemental to, and consistent with Wilderness laws, regulations, and policies, which must be further consulted in the event of unforeseen issues.

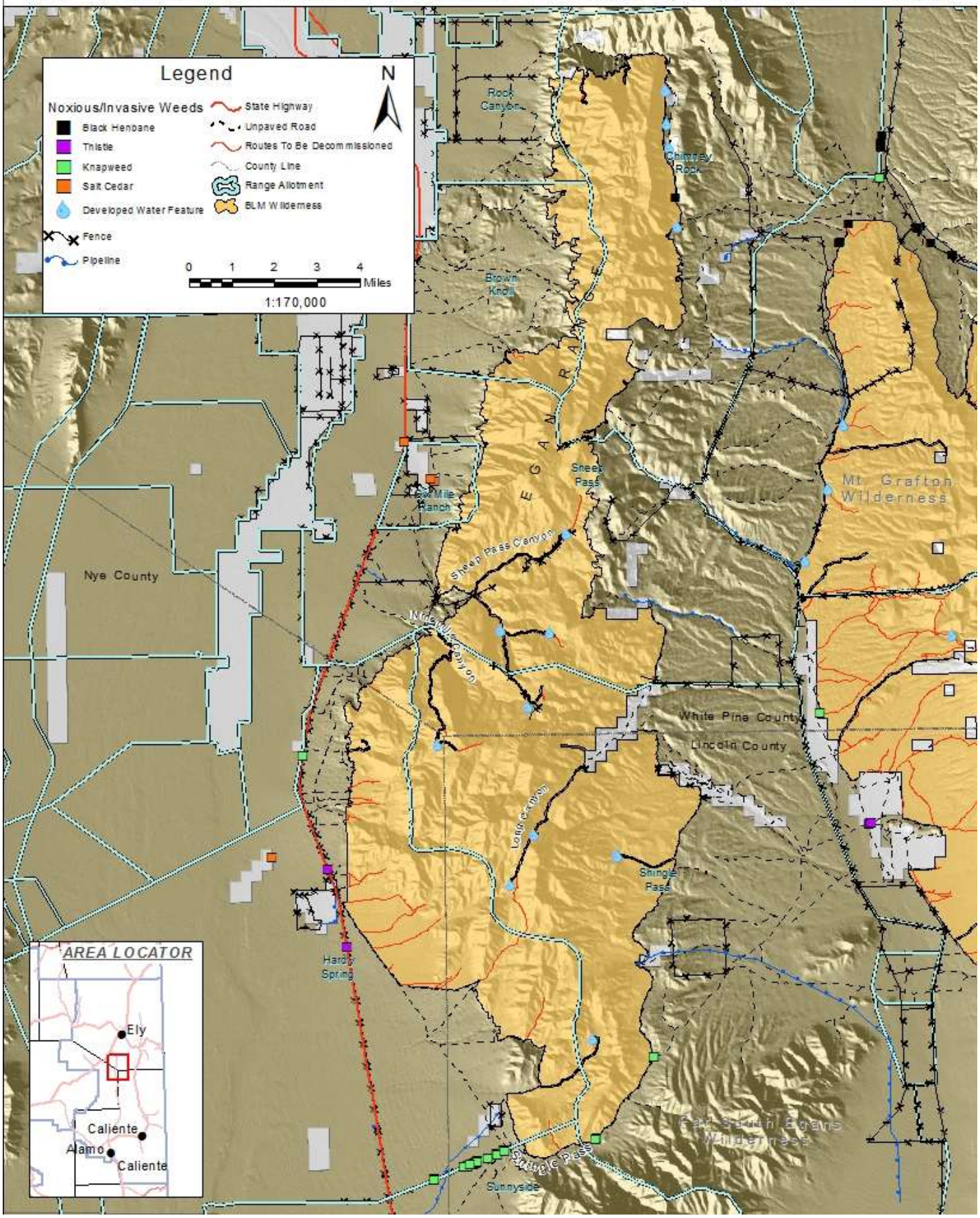
*Bristlecone Pine stump in Highland Ridge Wilderness*

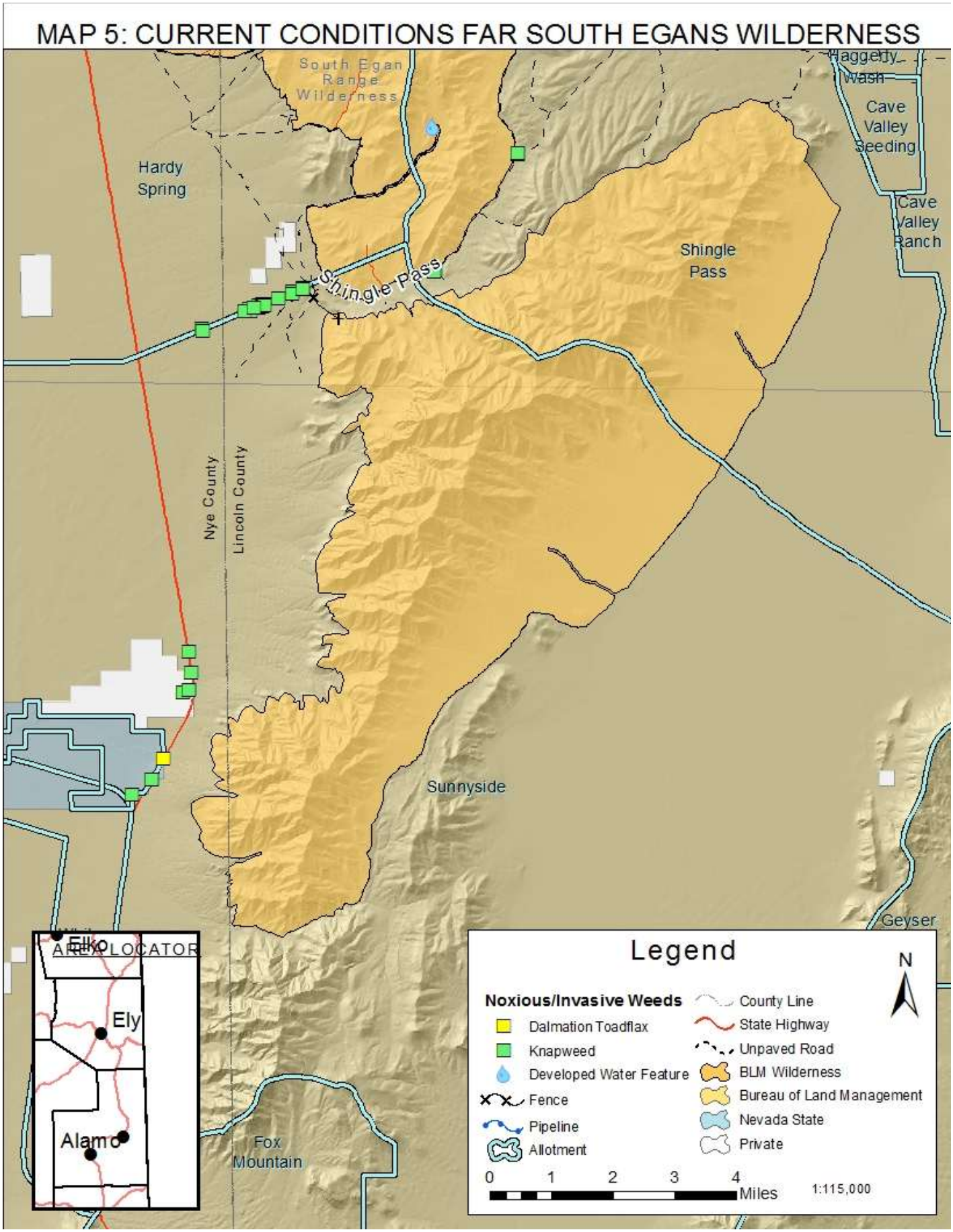

MAP 2: CURRENT CONDITIONS HIGHLAND RIDGE WILDERNESS
Big Wash
10,931
Lexington Canyon
Lexington
Baker Creek
S N A K E
Chokecherry FS
North Chokecherry
Decathon Wash
John's Wash
Murphy Wash
Murphy's Wash
Big Spring Wash
R A N G E
South Spring Valley
White Pine County
Lincoln County
Hamblin
Legend
Noxious/Invasive Weed
Thistle
Knapweed
Salt Cedar
Developed Water Feature
Fence
Pipeline
Routes To Be Decommissioned
County Line
Range Allotment
BLM Wilderness
Bureau of Land Management
National Parks Service
Nevada State Park
Private
N
0 1 2 Miles
1:120,500
AREA LOCATOR
Ely
Caliente
Alamo

MAP 3: CURRENT CONDITIONS MOUNT GRAFTON WILDERNESS



# MAP 4: CURRENT CONDITIONS SOUTH EGAN RANGE WILDERNESS




MAP 5: CURRENT CONDITIONS FAR SOUTH EGANS WILDERNESS
South Egan Range Wilderness
Haggerty Wash
Cave Valley Seeding
Cave Valley Ranch
Hardy Spring
Shingle Pass
Shingle Pass
Nye County
Lincoln County
Sunnyside
Geyser
Fox Mountain
AREA LOCATOR
Elko
Ely
Alamo
Legend
N
Noxious/Invasive Weeds
Dalmation Toadflax
Knapweed
Developed Water Feature
Fence
Pipeline
Allotment
County Line
State Highway
Unpaved Road
BLM Wilderness
Bureau of Land Management
Nevada State
Private
0 1 2 3 4 Miles
1:115,000

## Management of Noxious and Non-Native Invasive Weeds

The management ideal is to sustain only native species in wilderness. Noxious weeds in Nevada are classified by the Nevada Department of Agriculture and the Plant Protection Act (2000) administered by the USDA Animal and Plant Health Inspection Service (APHIS).

Spotted knapweed (*Centaurea stoebe ssp. Micranthos*, noxious, Category A) has been documented in the Mount Grafton Wilderness. Further, several weed species have been identified along boundaries or cherry-stem roads in Highland Ridge and South Egan Range: Russian knapweed (*Acroptilon repens*,), hoary cress (*Cardaria draba,* noxious), salt cedar (*Tamarix ramosissima*), black henbane (*Hyoscyamus niger*), dalmatian toadflax (*Linaria dalmatica*) and poison hemlock (*Conium maculatum*). Cheatgrass (*Bromus tectorum*, invasive) is documented in the South Egan Range Wilderness, though may be found in varying degrees in each wilderness.

The potential exists for further infestations of these species, and others, coming from surrounding areas. Different management techniques may be required for each non-native, invasive species based on effectiveness as determined by plant biology, minimum tool requirements and impact to the wilderness resource.

When noxious and invasive weeds are found, emphasis would be placed on controlling small infestations with the potential to spread and displace native plants. Treatments for large infestations (as determined by the BLM Ely District Weeds Program) would be considered separately. Seeding and transplant projects will follow standards presented in the Emergency Stabilization and Rehabilitation section (Page 37). Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic EIS BLM 2007 and BLM Ely District weed management protocols will guide the use of herbicide treatments. The Ely District Integrated Weed Management Plan and Environmental Assessment (DOI-BLM-NV-L000-2009-0010-EA) has also analyzed the effects of treatments in wilderness. Treatments will be prioritized in the following order, though it is likely that treatment combinations would be necessary in some situations:

1. Manual removal with hand tools if weeds could be controlled or eradicated without causing re-sprouting, without soil disturbance leading to expansion of noxious or non-native invasive species, and where infestations are of a size manageable by hand crews.
2. Herbicides applied by backpack and pack stock equipment, where manual removal is not effective.
3. Biological control agents approved by the APHIS where infestations are of such size that eradication by manual removal or herbicides is not feasible. Current possibilities consist of a stem-boring weevil for Dalmatian toadflax.
4. Herbicides applied aerially or with motorized equipment, where control is feasible, where control impacts are quickly and readily rehabilitated and where the infestation is of such size that herbicide cannot be effectively applied without motorized equipment. When a Minimum Requirements Analysis determines that motorized equipment is recommended, site-specific National Environmental Policy Act (NEPA) analysis would be required.
5. Reseeding treated areas preferably with native species of local genetic stock following standards outlined under the Emergency Stabilization and Rehabilitation heading (See Page 37).
6. Alternative treatments, such as targeted grazing by livestock, would be considered.

## Management of Livestock Grazing

There are three grazing allotments that overlap Mount Grafton Wilderness, seven allotments within Highland Ridge Wilderness, eight allotments within South Egan Range Wilderness and two allotments within Far South Egans Wilderness. Two of the grazing allotments in Highland Ridge Wilderness (Lexington and Chokecherry) were closed to grazing at the time of the wilderness designation, and therefore remain closed to grazing in perpetuity.

Although grazing is considered a trammeling activity, the Wilderness Act explicitly allows this activity to occur where it existed prior to wilderness designation. BLM Manual 6340 (Management of Designated Wilderness Areas) states, *"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]. … 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."*

Grazing would continue under federal regulations for the grazing allotments in the four wilderness areas and meet the Mojave – Southern Great Basin Resource Advisory Council and Northeastern Great Basin Resource Advisory Standards. Planning related to grazing operations would be guided by the Congressional Grazing Guidelines (House Report 105-405 Appendix A, 1990) and BLM Manual 6340.

Activities and the necessary facilities used to support livestock grazing will be permitted to continue in wilderness. Structures and installations used for livestock management existing at the time of designation may be maintained. Inspection and routine maintenance of range developments would be accomplished by foot or horseback, as needed. Motorized vehicles may be authorized for major maintenance when transporting equipment or parts which cannot be transferred by foot or pack stock. These decisions are made during the grazing permitting process with the use of a Minimum Requirements Decision Guide (MRDG), 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. If the grazing permit has not yet been renewed, the use of motorized equipment or vehicles for maintenance or reconstruction of range developments would be evaluated through MRDG analysis and a separate NEPA evaluation.

Developments would be removed if deemed unnecessary by the BLM and permittee following a comprehensive evaluation process. Range developments that appear to have been abandoned would receive an administrative record review and additional field reconnaissance in order to determine usage. A BLM Range Specialist and Archaeologist would be consulted to determine if historical or cultural designation is warranted. All projects involving ground disturbing activities will be subject to Section 106 consultation. If it is determined, after consultation with the permittee, that a development is abandoned and not of historical or cultural value, it would be removed by BLM personnel or authorized volunteers.

In the case of an emergency, the permittee may be authorized to use motor vehicles in addition to their scheduled range development maintenance and livestock management access, provided the permittee notifies the BLM at the onset of the emergency or immediately thereafter. This would be stated as a term or condition of the grazing permit. 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.

Administrative routes are routes identified for the purpose of allowing permittees access to existing grazing facilities. These will be managed for limited use by the permittee. A gate or bollard, signed as administrative

access, may be installed at the start of select administrative access routes to prevent unauthorized vehicle use. The permittees and BLM staff would maintain access keys. Administrative access routes would not be decommissioned; they may be maintained to the condition at the time of designation as wilderness on a case by case basis in order to provide access for permittees.

Current known range developments (shown in Table 1), as well as any yet to be discovered range developments identified during monitoring that are determined to be necessary to the continuation of the grazing program may be kept and maintained.

*Table 1: Range Developments in Wilderness*

| | Range developments | Fence (#) | Pipeline (#) | Reservoir (#) |
|---|---|---|---|---|
| Mount Grafton | 18 | 6 | 7 | 3 |
| South Egan Range | 12 | 7 | 5 | 0 |
| Highland Ridge | 11 | 4 | 0 | 0 |
| Far South Egans | 1 | 1 | 0 | 0 |
| Total | 42 | 18 | 12 | 3 |

***Site-Specific Actions***

These existing range developments, fence and pipeline across the four wilderness areas would be kept and maintained. Maps 2-5 show existing range developments. Appendix A shows the full list of known developments. A site specific Range EA addressing the maintenance of range facilities will include analysis and decisions regarding range facilities within designated wilderness.

*Table 2. Site-Specific Proposed Administrative Access Routes. (See Map 8, Page 51)*

| Wilderness Area | Allotment | Access Need | Access Location | Length (mi) |
|---|---|---|---|---|
| Highland Ridge | Murphy Wash | Troughs and pipeline along John's Wash | T11N<br>R68E<br>Sec. 25-36 | 4.1 |
| | Murphy Wash | Cedar Cabin Spring trough, pipeline | T 11 N,<br>R 69 E,<br>Sec. 27, 28 | 0.3 |
| | Hamblin Valley | Supplemental drop locations along southeastern edge | T 10 N, R 70 E<br>Section 31 | 1.3 |

## Management of Small-Scale Surface Disturbances

Small-scale disturbances fall into two categories with common characteristics: small-site disturbances (including dispersed campsites and abandoned developments, and mine sites); and linear disturbances created by motorized vehicle traffic that are largely denuded of vegetation. The Wilderness Disturbance Reclamation Environmental Assessment (EA) (NV-040-05-010), and the White Pine County Wilderness Ground Disturbance Reclamation Environmental Assessment (NV-040-08-17), as well as the EA associated with this plan, may be referenced for rehabilitation following decommissioning of former vehicle routes and rehabilitating small-site disturbances.

All reclamation activities will be in accordance with the 2008 Ely District Approved Resource Management Plan's Best Management Practices (Appendix A, Section 1). Work will be completed by BLM staff, contractors, and/or volunteers. All actions in wilderness will require a Minimum Requirements Analysis to determine the action and activity. Actions would include and generally be conducted in the following order as needed:

**1.** *Decompaction:* Working the top few inches of the entire disturbed surface to relieve soil compaction. This action would be completed with the use of non-motorized hand tools (soil spades, spading forks, McCloud rakes, pulaskis, shovels, horse-drawn implements, etc.).

**2.** *Scarifying/Pitting:* Loosening and texturizing the impacted, disturbed surface in random locations to better capture water, organic debris, and wind-blown seeds, thereby stimulating natural re-vegetation. This would be done with non-motorized hand tools.

**3.** *Recontouring:* Reconfiguring/shaping the route to blend it with the adjacent, relatively undisturbed landscape. This would involve the creation of small hummocks and banks, where appropriate, to mimic the surrounding landscape. Berms would be pulled in and the soil distributed across the disturbed surface. Vehicle tracks would be raked. This would lessen visual contrasts and provide a surface for natural revegetation. This action would be completed with the minimum tool utilizing a MRDG.

**4.** *Vertical Mulching:* Dead and down vegetation is "planted" to obscure the visible portions of the disturbance. Additional dead vegetation, rock material and other organic matter may be distributed over the worked surface to decrease visual contrasts, create sheltered sites to aid in natural revegetation, and add organic debris. Dead and down vegetation and other materials would be gathered from areas near to the disturbances by hand.

**5.** *Erosion Control:* Placing sterile weed-free straw bales or creating light terracing/berms to reduce erosion and create barriers to vehicles on steep slopes. This is especially effective on hill climbs. The straw bales break down over time and provide additional organic debris to the reclamation site. Bales would be brought in by hand or horseback to the worksite.

**6.** *Desert varnish colorant:* Spraying disturbed rock surfaces to simulate the coloration of the surrounding desert varnish. Desert varnish colorants are chemical compounds comprised of manganese, salts and other ingredients used to simulate the natural desert varnish that occurs on rock surfaces in arid environments. This substance would be applied sparingly, with the use of a backpack sprayer, and only on disturbed rock surfaces that contrast sharply with the surrounding landscape.

**7.** *Vegetative Restoration:* This would involve planting, transplanting and/or seeding necessary to help stabilize soil, speed overall vegetative recovery and camouflage evidence of disturbances. All seed would be locally collected or native species scattered on reclaimed surfaces to accelerate natural revegetation. This action would be completed by non-motorized hand tools.

Monitoring will be performed to assess the need for additional rehabilitation work utilizing photo points that would be established at the time of rehabilitation and retaken annually thereafter. Repeat treatments would occur on a case-by-case basis.

Large surface disturbances, such as those that may be caused by heavy machinery, would be rehabilitated by the entity (e.g. individual, agency, or company) causing them. They would be responsible for developing a rehabilitation plan and conducting any necessary environmental analysis.

***Site-Specific Action***

Currently, there are 207 miles of linear disturbance across the four wilderness areas: 58.9 miles in Highland Ridge Wilderness, 39.8 miles in the South Egan Range Wilderness, 105.6 miles in Mount Grafton Wilderness and 2.9 miles in the Far South Egans Wilderness, which is approximately 207 acres of surface disturbance, total. Except for designated administrative access routes and designated hiking and equestrian trails, all former vehicle routes, including future disturbances, would be decommissioned over time. Based on monitoring results, repeat treatments may occur. These routes are displayed on Maps 2 – 5.

*Far South Egan Wilderness*

## Management and Designation of Trails

All trails under this plan would follow the direction outlined in BLM Manual 6340:

*Existing trails must be evaluated to determine if they are the minimum necessary to preserve wilderness character. Trails may be relocated or closed and restored as a result of the evaluation. The evaluation should include closure or consideration of conversion to hiking trails of any existing motorized routes, abandoned logging roads, old firebreaks, etc.*

> *A. New trails may be constructed only if they are needed to preserve wilderness values and resources and will not significantly impair the degree of naturalness or solitude in the area. Trails must not be constructed with treads of more than 24 inches in width except where a wider trail is justified to protect the wilderness resource. Trails should follow natural contours where possible and result in minimum disturbance to soil and ground cover. Trail location and design standards should minimize the need for trail installations such as water bars. Minimum reassurance markers such as rock cairns would be used, some limbing may occur to protect resources.*
>
> *B. Where possible, trailhead/access points should be located well outside the wilderness boundary to reduce their impact upon the wilderness area.*
>
> *C. Construction techniques should always give first consideration to using native materials found within the wilderness (e.g. logs, rocks, etc.) A Minimum Requirements Analysis will be used to determine the necessity of using any non-natural materials for trail construction (e.g. sawn lumber, plastic pipe, landscaping fabric etc.)*

Designated trails may be maintained or rerouted where they are causing or anticipated to cause damage to wilderness character.

Monitoring for new user-created hiking paths would specifically occur in high use areas, and at all vehicle access points near former vehicle routes. As new user-created paths are discovered, they would be evaluated for impacts to wilderness character (including cultural and biological resources), and the management objectives of this WMP. Monitoring would inventory all paths and identify paths with different levels of impacts, such as social trails to primitive camping areas, cut vegetation, or other evidence of use. New user-created hiking paths may be either rehabilitated or retained, when appropriate. When a user-created hiking path is retained, it may be rerouted, improved, or maintained to follow designated trail standards as outlined in this section to make the trail compatible with protecting resources while preserving wilderness character. If not designated as a trail, new user-created trails would be rehabilitated.

### *Site-Specific Action*

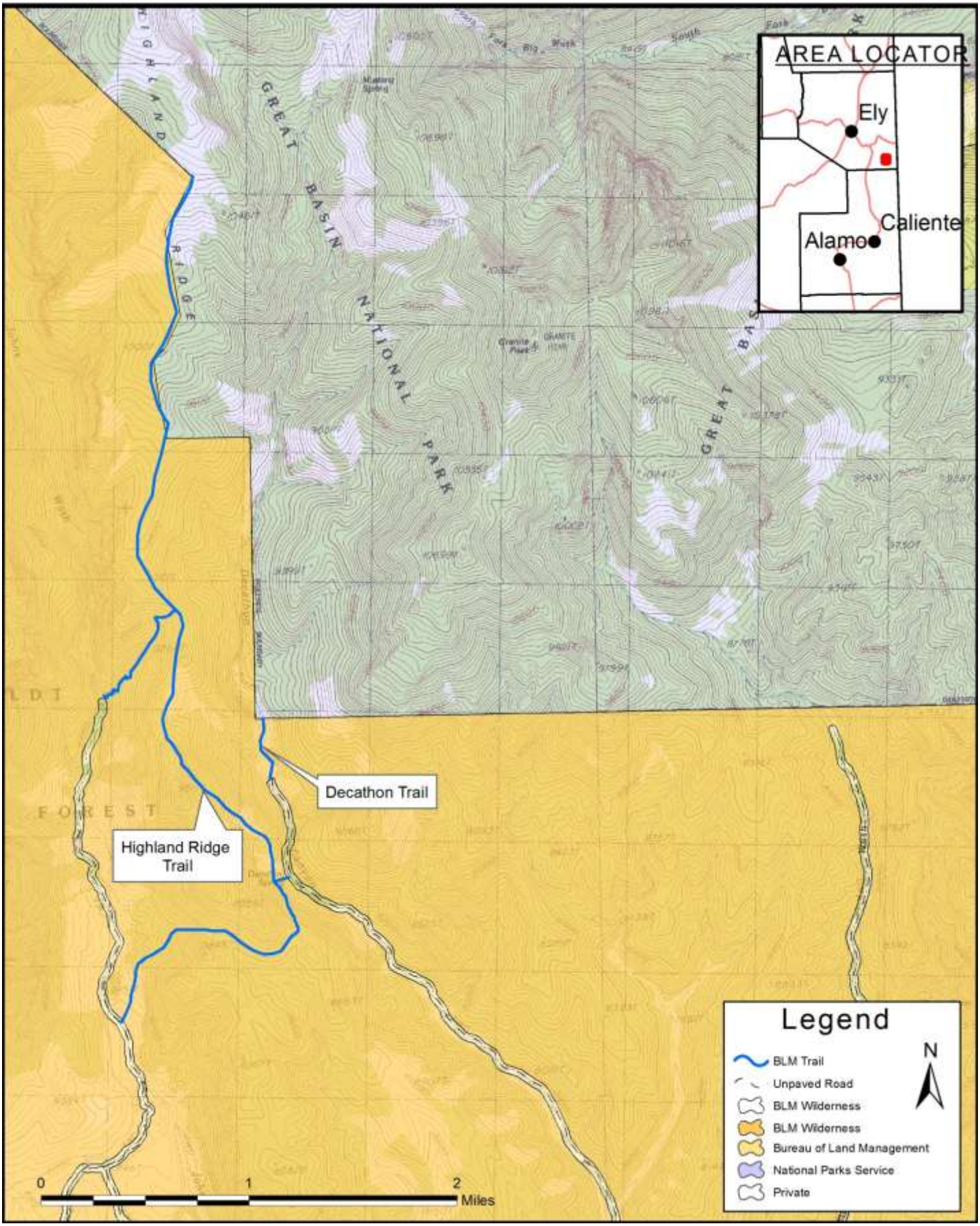
Some historic trails (6.5 miles) on Highland Ridge Wilderness, which were developed when the area was managed by the US Forest Service, will be maintained to primitive standards. One trail, at the end of the John's Wash cherrystem, will head northerly and up to Highland Ridge and into Great Basin National Park. A portion of this trail follows the ridgeline which serves as the BLM-National Park Service (NPS) boundary. A second trail will lead from the end of the Decathon cherrystem and connect to a primitive route in the National Park. See Map 6. These primitive trails would be established, with no construction occurring on NPS lands. Future coordination with the NPS may lead to establishing interconnectivity of trails with the park. See the Relationship with Great Basin National Park section for further information.

In the South Egan Range Wilderness there are two primitive historic equestrian trails which cross the wilderness: the Hendrix Trail (4.5 miles) and the Reid Trail (approximately 3 miles). These two primitive trails will be marked on the ground intermittently with rock cairns. Portions may need to be re-routed to reduce erosion on steep slopes. See Map 7.

The Whipple Cave Trail in Far South Egans Wilderness would be designated as a hiking trail to access Whipple Cave. The trail would be approximately 300 feet and would follow the current existing path to the cave entrance.

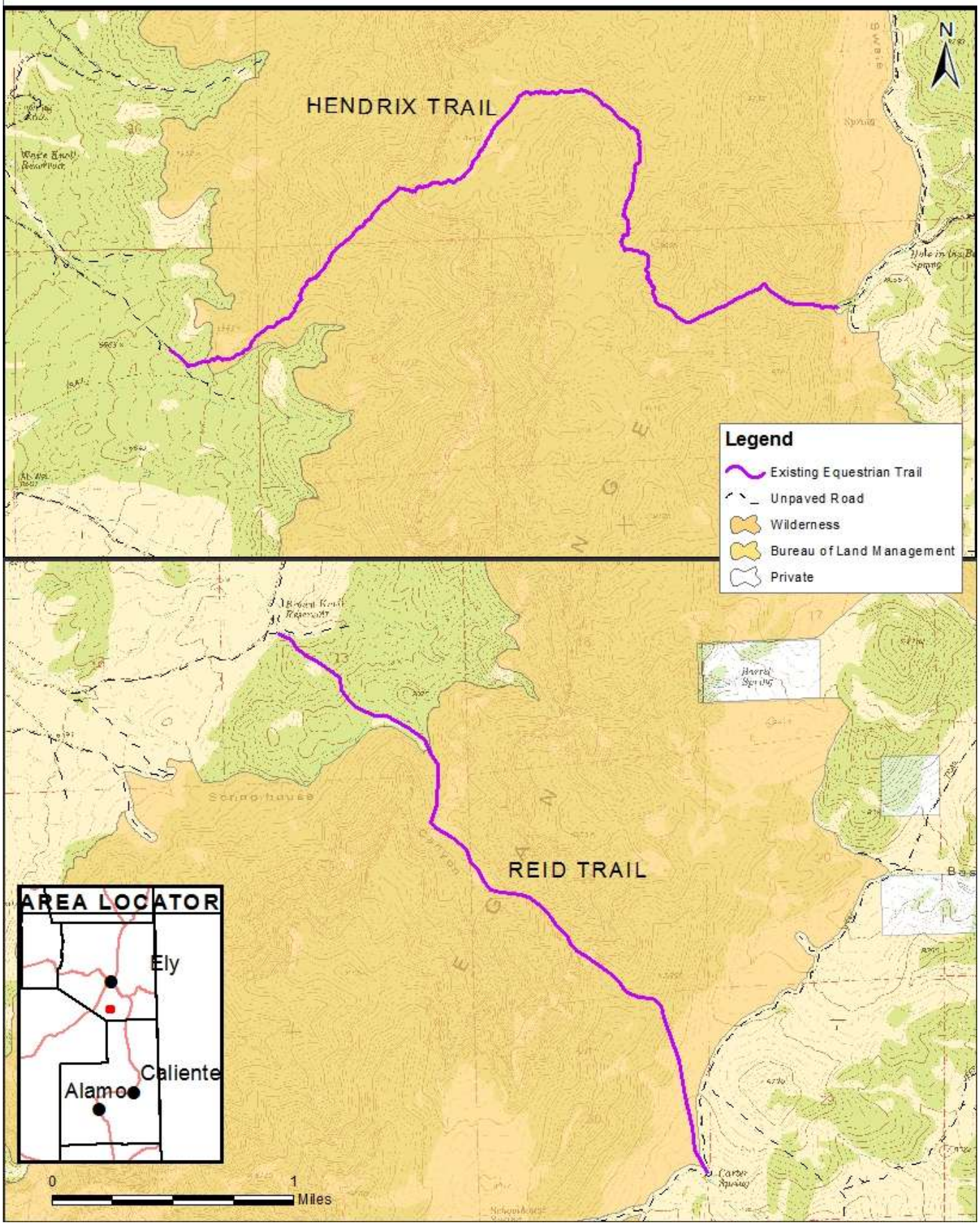
*Whipple Cave Trail*

# MAP 6: TRAILS - HIGHLAND RIDGE WILDERNESS




[HR/MG/SER/FSE -WMP & EA 24]

# MAP 7: TRAILS - SOUTH EGAN RANGE WILDERNESS



## Management of Vehicle Access Points and Designation of Staging Areas

The wilderness areas, while only occasionally visited during the majority of the year, are visited more heavily during hunting season (August through December). Several access points are used for entry. Access points are defined as locations along wilderness boundaries where concentrated entry occurs; this could be where a road dead ends at the wilderness boundary or along a boundary road. Several access points exist around each wilderness, including Dupont Creek and Cottonwood Canyon on Mount Grafton Wilderness.

Over time, these and other areas used for parking along boundary roads may be impacted to the point that improvements should be made in order to protect wilderness character. These access points may be defined by creating vehicle turn-around at or before the wilderness boundary to help deter motorized or mechanized vehicles from continuing into wilderness. Vehicle turn-around would be limited to 0.5 acre, within the 100-foot buffer off the road, and would not extend into wilderness.

Additional staging areas could be constructed when necessary to accommodate vehicle parking, visitation and to protect wilderness character. This is a location with more concentrated use than an access point, such as a trailhead. The area of disturbance would be no more than 1 acre per staging area and would not extend into wilderness. Vehicle barriers could be constructed outside of wilderness where natural obstacles are not adequate to prevent vehicles from crossing into wilderness. Barriers could include the following: wilderness signs, a berm associated with turn-around, small rocks and/or vegetation placement or restoration, large boulders moved by heavy equipment, posts, fences and/or gates. As necessary, BLM appropriate land use authorization or right-of-ways would be obtained.

*Cherry stems*

A cherry stem is a road that is excluded from the designated wilderness by a non-wilderness corridor having designated wilderness on both sides. Where determined feasible, roads adjacent to and accessing the wilderness areas, such as cherrystem and administrative access routes, would be maintained in the condition that existed at the time of wilderness designation. Using a trail maintenance approach, the installation of water bars to control the flow of water, as opposed to blading or culvert installation, would be utilized. See Table 3 below.

### *Site-Specific Action*

Mount Grafton Wilderness would have three staging areas: North Creek (east side), Robber's Roost and North Creek (west side). Whipple Cave staging area will be designated for Far South Egans Wilderness. See Maps 8 and 11. Numerous access points are found around each wilderness.

The Cave Valley Ranch, which owns several inholdings on the western side of the Mount Grafton Wilderness, is managing these inholdings with a private conservation easement. This conservation easement prohibits new road construction, and any new development on those parcels. An additional goal of the ranch is to use only non-motorized, traditional forms of travel or transport on their private parcels. Therefore, the trailhead has been established on the North Creek cherrystem (west side) to support this effort.

*Table 3: Maintenance Levels for Cherry Stem Routes*

| Wilderness | Engineered | Two Track | ATV |
|---|---|---|---|
| Highland Ridge | Murphy's Wash<br>John's Wash<br>Big Spring Wash<br>Decathon Wash | South Fork Chokecherry | None |
| Mount Grafton | Robber's Roost<br>Robber's Roost Spring<br>North Creek (East side)<br>Campbell Spring | Robber's Roost (Jeep Trail)<br>Cappy's Diggin's/North Creek (West side)<br>Geyser Spring<br>Dupont Creek<br>SW Mine Site | Wildcat Canyon |
| Far South Egans | None | Cave Valley Well<br>Sawmill Well | None |
| SouthEgan Range | Long Canyon | Parker Spring<br>Sheep Pass Canyon (lower half) | Blue Spring<br>West Parker Spring<br>Travis Spring<br>Little Geyser Spring<br>Sheep Pass Canyon (upper half) |

## Management of Signs

The wilderness boundary will be identified by markers along the boundary roads and cherry stem routes. Boundary markers (e.g. carsonite posts) delineate most boundary edges.

Directional signs, key entrance signs and information kiosks have been placed around all four wilderness area under Wilderness Signs & Information Kiosks CX (DOI-BLM-NV-L000-2009-003-CX). See Maps 8-11. Directional signs, placed along minor routes and entrances to cherry stems, direct visitors to wilderness access points or staging areas. These signs will also help to both identify legal driving routes and reduce illegal vehicle intrusions.

Key entrance signs state the name of the wilderness, and were placed where visitors are likely to come into contact with the wilderness boundary. Both directional and key entrance signs are larger than the boundary markers.

Kiosks will be one or two-paneled information signs placed at staging areas, access points, or on major roads. These signs will provide regional and local information regarding wilderness, natural and cultural resources, regulatory information, and interpretation. These signs will direct visitor use away from sensitive resources. Additionally, certain kiosks may include visitor surveys with collection boxes. Signs will be installed to manage for changing needs.

At trailheads, signs would be installed stating "This trail is open to hikers, horses. Closed to motor vehicles and motorized equipment." At locations where there is visitor access along former vehicle routes, carsonite markers will be posted stating "Restoration Site: This area is being rehabilitated to protect the wilderness environment." or similar signage. Steel posts would be placed at routes which are receiving repeated illegal trespass or sign vandalism.

***Site-Specific Action***

An additional sign, not covered in the above CX, would be placed at the staging area for Whipple Cave. It will provide information in an interpretive format on cave formations. Additional interagency signs at trailheads on Highland Ridge Wilderness may be considered.

A junction sign will be added in the cherry stem at Big Spring Wash / Decathon road junction.

A regional kiosk panel would be placed on the Patterson Silver State Off-Highway Vehicle Trailhead. There is a three-panel kiosk in place at this trailhead and one panel on wilderness (map and information) would be installed on it.

*Examples of signs*



## Management of Vegetation Restoration

Vegetation treatments considered in wilderness will be conducted in compliance with the 6340 manual:

> *Manipulation of vegetation through prescribed fire, chemical application, mechanical treatment, or introduced biological agents, is normally not permitted. Exceptions may include emergencies, actions taken to recover a federally listed threatened or endangered species, control of non-native species, and restoration actions where natural processes alone cannot recover the area from past human intervention. All management activities must be designed to strive towards natural vegetative composition and processes that reflect what would likely have developed with minimal human influence.*

When a vegetation treatment is deemed appropriate following an environmental analysis and a Minimum Requirements Analysis, management activities would emphasize protection and enhancement of wilderness character. Projects that attempt to restore native vegetation and enhance the resiliency of impaired vegetation communities with objectives that fall within the bounds of maintaining or improving wilderness character would be considered. The 'Natural' quality of wilderness character may be enhanced by vegetation treatment so long as it is the minimum necessary to preserve wilderness character. Naturalness is degraded by the effects of modern people on the ecological systems inside the wilderness since the time the area was designated as wilderness, such as fire suppression.

Several tree species found within the Highland Ridge, Mount Grafton, South Egan Range and Far South Egans Wilderness areas are relatively rare in the Great Basin. Both ponderosa pine stands and aspen stands are remnants from the Pleistocene era when ponderosa and aspen was a much more widespread species in the Great Basin. Today they are only found in physically and disjoint populations at higher elevations. Due to the scarcity and potential risk to these systems they would receive higher priority for evaluation and treatment.

Ponderosa stands which historically were maintained by disturbance, generally wildfire, as open, pure stands often are becoming encroached by other conifer species, specifically singleleaf pinyon pine and Utah juniper. The resulting stands are much denser than what would occur with a natural disturbance regime with many more ladder fuels that puts these remnant ponderosa pine stands at risk of high severity, high intensity and high mortality wildfires. The increased density also puts the ponderosa pine trees at an increased risk of mortality due to insects, especially mountain pine beetle. Drought also plays a factor in more stress to the trees and lowers the natural ability of the trees to survive an insect attack. Upper elevations on the Pinyon and Juniper Woodlands, and other vegetative communities that support pinyon and juniper, are adjacent to the vegetative communities that support Bristlecone Pine (*Pinus longaeva*). While often thought of being present on very high elevation, low productivity rocky sites within the wilderness areas being analyzed the Bristlecone Pines can be found intermixed with Limber Pine (*Pinus flexilis*) on sites that support sage species and various perennial grasses. In these systems the historic fire regime was for low intensity fine scale fires. Understory vegetation is typically sparse and direct contact of the tree by fire is low to minimal. According to the LANDFIRE Biophysical setting model for Inter-Mountain Basins Subalpine Limer-Bristlecone Pine Woodland only 27 percent of the fires that occur within this vegetative community are stand replacing fires with an average fire interval of 143 years. The increase in Pinyon and Juniper in the vegetative communities that are adjacent to these stands as well as intermixed within these stands have the potential to increase both fire intensity and severity leading to a potential increase of tree mortality for all species present.

The fate of quaking aspen stands is also in question due to an altered natural disturbance regime, as well as herbivory by ungulates including livestock, big game and wild horses. Aspen faces a double edge sword: a lack of regeneration and the quick dying of overstory stems once shaded due to the extreme shade intolerance of aspen. Many conifer species, such as white fir, pinyon pine, Utah and Rocky Mountain juniper, limber pine and Engelmann spruce can become dominant over aspen relatively quickly. Stands also often don't send up new

aspen shoots without some sort of disturbance to the existing root system. Historically, this was done by periodic fire stimulating hormonal responses in the aspen sending up a sea of new aspen stems. Fire would also kill the encroaching conifers that are much less fire resilient than aspen.

One of the tools used to make the assessment of the watershed's condition is Fire Regime Condition Class (FRCC), which is an interagency, standardized tool based on scientific and peer reviewed literature for determining the degree of departure from a reference vegetation condition within a given biophysical setting. FRCC describes the departure from natural fire regimes, which is one indicator of the naturalness of the wilderness. For each wilderness, the FRCC rating has been calculated (see the Vegetation section in the EA, Page 88) which indicates the degree of departure from the reference condition (i.e. vegetation pre-European settlement). For more information on FRCC see Appendix D.

Preference would be given to allowing natural ignition fires to burn within the wilderness. Vegetation treatments may be considered to in order to establish conditions where naturally ignited fires could play a natural role with in the ecosystem.

If approved, prescribed fire would occur with little or no suppression or control efforts, unless fire escapes its treatment conditions and threaten other values. Vegetation communities that are in a condition where prescribed or natural fire would occur at intensity and severity levels beyond the historical fire regime may require pre-treatment to prevent the loss of key ecosystem components due to wildfire or prescribed fire.

Temporary structures, such as exclosure fences, may be permitted when their presence would contribute to the long-term enhancement of wilderness character. When considering these structures, preference would be given to the least disturbing, least visible and shortest duration methods available.

An analysis using the MRDG must be made in non-urgent situations to determine whether or not any restoration action within a wilderness is warranted. The MRDG must also be used to determine the most appropriate method to use in order to minimize impacts to wilderness qualities. As Minimum Requirements Analysis is completed for potential vegetation treatments the following factors, among others, may be considered:

- Review success of comparable treatments in nearby or similar areas.
- Consider potential loss of key ecosystem components should disturbance occur outside of the historical disturbance regime.
- Potential risks of conducting the treatment.

***Site-Specific Action***

Vegetation treatments within wilderness would be analyzed in an MRDG with additional site-specific NEPA.

For all wildernesses, naturally ignited fires would be allowed to burn where fuels and climate conditions support achieving resource management objectives in compliance with current EYDO BLM fire management policies. The overall goal would be to allow the wilderness to return to a condition that allows naturally-ignited fires to play a natural role within wilderness.

Mount Grafton Wilderness is approved for restoration activities which are covered within the South Steptoe Valley Watershed Restoration Plan (DOI-BLM-NV-L020-2011-0013) and the Cave Valley and Lake Valley Watershed Restoration Plan (DOI-BLM-NV-L020-2011-0021). Highland Ridge wilderness would be evaluated for vegetative restoration treatments within the Hamblin and South Spring Valley Watershed Restoration Plan.

## Management of Wildlife

Over the life of this Plan, it may be necessary to implement wildlife management activities within the four wilderness areas to:

1) mitigate loss of natural water sources,
2) mitigate for wildlife habitat loss or fragmentation,
3) reduce competition among wildlife, livestock, and wild horses, or
4) reduce competition among wildlife species.

Wildlife management activities would be conducted in conformance with the current (2012) BLM-NDOW Memoranda of Understanding (MOU) (BLM-MOU-6300-NV-930-0402), as amended, regarding wildlife management in Wilderness Areas and guided by both the WPCCRDA (2006) and LCCRDA (2004), which may include, on a case-by-case basis, the occasional and temporary use of motorized vehicles or tools. Also the forthcoming Nevada and Northern California Greater Sage – Grouse Land Use Plan Amendment and EIS guidance would be adopted.

Any ground disturbing activities in wilderness would be restricted by the following RMP wildlife timing stipulations:

- Sage grouse - within four miles of active leks from March 1 - July 15 during breeding, nesting, and early brood rearing seasons.
- Migratory birds - during the migratory bird nesting season from May 1 - July 15. If disturbance occurs during this time, a bird nest survey must be completed one week prior to disturbance.
- Raptors - April 15 - July 15 within a half-mile of active raptor nests, unless the nest has been determined to be inactive for at least 5 years.
- Big Game - within big game calving/fawning/kidding grounds and crucial summer range from April 15 - June 30.
- Big Game – crucial winter range November 1 – March 31.
- Desert Bighorn Sheep – March 1 – May 31 and July 1 – August 31.

*Wildlife Water Developments*

Water developments for wildlife in wilderness would only be considered to replace existing natural sources lost as a result of human influence. Restoration of existing natural water sources is preferred and will be analyzed for wildlife benefit prior to considering artificial water developments. Any new facilities should be considered outside of wilderness first. LCCRDA (2004) and WPCCRDA (2006) permit existing and future structures and facilities, including inspections and maintenance, for wildlife water development projects in wilderness when considered essential to preserve, enhance, or prevent degradation of wilderness character. Wildlife water developments may be authorized if the structures and facilities will enhance wilderness values by promoting healthy, viable, and more naturally distributed wildlife populations and the visual impacts meet VRM Class I criteria. Proposals will be considered for construction of new developments, which may allow motorized and/or mechanized equipment during construction, if deemed necessary by the public notification, MRDG analysis and site-specific NEPA assessment.

*Removal, Replacement, Modification and New Water Developments*

Should removal, replacement, or modification be required for any existing wildlife water developments, or if new water developments are proposed, the Ely District Manager will follow the requirements for processing, analyzing and evaluating such proposals including motorized access in the current BLM-NDOW MOU. The Ely District Manager will issue a public notification, prepare a MRDG, NEPA analysis, and appropriate decision documents as prescribed by BLM policy and procedure. Modifications to existing water developments may be

made as long as the designed capacity and/or dimensions of the existing development are not exceeded replacement of existing water developments and meet VRM Class I criteria.

*Wildlife Relocation*

According to the BLM-NDOW MOU (2012), transplants (i.e., removal or reintroduction of terrestrial wildlife species in Nevada BLM Wilderness Areas) may be permitted if necessary: (1) to perpetuate or recover a threatened or endangered species; or (2) to restore the population of indigenous species eliminated or reduced by human influence. Sites and locations outside wilderness will be used first. If sites and locations outside wilderness are not available, transplants shall be made in a manner compatible with the wilderness character of the area. Transplant projects, including follow-up monitoring, require advance written approval from the BLM, if the action requires ground disturbing activities, motorized methods, and/or temporary holding and handling facilities. Also, release of wildlife on public lands will be in conformance with BLM Manual 1745 (Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife and Plants, 1992) and the BLM-NDOW MOU. A MRDG and NEPA analysis would occur for site-specific actions. If motorized or mechanized means are authorized, staging would occur outside the wilderness boundary. When feasible, the specific project implementation will occur during periods when visitor use is low (for example, weekdays). In order to inform visitors of impending activity, relocation dates would be posted on the BLM website two weeks in advance.

*Collar Retrieval*

NDOW may submit requests for use of a helicopter in the wilderness areas in order to retrieve data from Very High Frequency (VHF)/GPS telemetry collars which have dropped off study animals or from animals which have died. In locating remotely situated study animals or dropped collars, opportunities to retrieve telemetry collars are usually discovered while performing aerial survey using helicopter where direct line of site detection of signals from transmitters are optimal. Once a collar's location is determined, its retrieval by aircraft assistance is usually unnecessary. However, in rare instances, NDOW may need to land a helicopter in remote wilderness locations as there is a narrow window of time to retrieve the collar before its location signal ceases and significant data stored in the collar is effectively lost. Furthermore, if animal mortality is involved, speedy access to the animal to perform a necropsy would provide additional information on the species.

NDOW would notify the BLM Wilderness Specialist any time they are requesting a helicopter for collar retrieval. The Wilderness Specialist would then evaluate the location, and recommend authorization for the use of a helicopter from the District Manager if any of the following criteria apply:

- Collar retrieval is requested between the months of May-September or the day time high will be over 100°F as extreme heat would limit the distance that could be covered on foot safely.
- Collar is located more than five miles from a vehicle access point or helicopter landing zone outside of wilderness.
- Extreme elevation gain and loss to access the collar location.
- Collar is located on a cliff and technical rock climbing gear or rappelling is needed to retrieve the collar.

*Riparian & Stream Habitat Improvement*

Both Geyser Creek and North Creek (east side) on Mount Grafton Wilderness contain populations of rainbow and brook trout, as of the last survey in 1984. Perennial streams in wilderness should be surveyed and sampled for fish species, habitat and water quality indicators by NDOW.

*Wildlife Damage Management*
To maintain the areas' natural character, wildlife damage management may be necessary to protect federally listed, declining, and reintroduced indigenous wildlife species: to prevent transmission of diseases or parasites affecting other wildlife and humans, or to prevent considerable loss of livestock. Wildlife damage management is conducted at the request of federal, state, or local agencies, private organizations, and individuals.

APHIS will provide BLM with data on animal damage control activities (numbers and types of animals taken) that occurs within wilderness for the District annual wilderness reports. Activities would use the minimum amount of control necessary to resolve wildlife damage problems. Acceptable control measures include lethal and non-lethal methods, however, toxicants and M-44 devices (sodium cyanide) are prohibited. Activities would be conducted on foot and may include the use of stock. Use of motorized vehicles, motorized equipment, and/or mechanical transport must be approved by the BLM on a case-by-case basis. Activities occurring in wilderness would be approved by the BLM and conducted in conformance with the BLM-APHIS MOU (2012) and BLM Manual 6340 (Management of Designated Wilderness).

***Site - Specific Actions:***
*Wildlife Water Developments*
The Pick-Up wildlife water development (aka guzzler), within the Far South Egans Wilderness, would be upgraded with a gravity-fed style guzzler. Currently, there is not enough water storage capacity or collection area to provide water for wildlife on a consistent basis. The new plan would entail two 1,800 gallon tanks and a 1,000 square foot apron in a color that minimizes visual contrast, which would supply approximately 3,100 gallons annually in dry years (about 5 inches of annual precipitation). A helicopter would be used to transport the new materials to the site and remove the old project components. The helicopter would not land in wilderness. Worker access would be hiking to the site. Generators would be used to operate power tools for construction.

Also proposed for removal are three defunct developments, Wildcat #1, Wildcat #2 and Robber's Roost, in Mount Grafton Wilderness. Wildcat #1 would be cut into pieces and packed out on foot. Wildcat #2 and Robber's Roost would remain, contingent on BLM or NDOW upgrading or replacing within 3 years of the completion of this plan. If no action is taken on Wildcat #2 and Robber's Roost, they would be removed by using vehicles along identified closed routes. The routes would be decommissioned after use to naturalize the disturbance. Smaller components would be packed out by BLM employees or volunteers. See Map 9.

On the South Egan Range Wilderness, the wildlife water development in Sheep Pass Canyon, also non-functioning, would be removed to a vehicle on the cherrystem. See Map 11.

## Management of Herd Areas

The goal within a Herd Management Area (HMA) is to "maintain and manage healthy, self-sustaining wild horse herds … within appropriate management levels … to ensure a thriving natural ecological balance" (RMP, 2008b). Management of wild horses is accomplished by activity plans created by the BLM Wild Horse Burro Specialist. None of the wilderness areas overlap with a HMA.

These four wilderness areas lie in herd areas – areas in which there are wild horse herds not managed within a HMA. The management prescription in herd areas is to reduce the numbers to zero. Therefore, all horses are targeted for removal. However, some horses may remain or immigrate from HMAs or other areas leading to periodic gathers in order to achieve a zero level. For wilderness, if the minimum requirement analysis results in motorized means for horse gathers, aircraft, including helicopters, may be used to survey, capture, and monitor wild horses. There are no burros in the wilderness areas.

However, aircraft may not land inside wilderness boundaries except in cases of emergency or by approval from the Ely District Manager. In cases where impacts to springs and riparian systems result from wild horses or burros, mitigation measures may be employed to prevent further degradation or to restore wilderness character.

*Wild horses*

## Management of Fire Suppression, Fuels and Emergency Stabilization and Rehabilitation

Fire management objectives in the wilderness would be structured in accordance with the Ely Fire Management Plan (FMP, 2008c) and the Ely District Approved Resource Management Plan (RMP) (2008b). If the FMP is updated over the life of this WMP, the new policies would be followed. According to the RMP, the overall objectives for fire management are to "manage wildland and prescribed fires as one of the tools in the treatment of vegetation communities and watersheds to achieve the desired range of condition for vegetation, watersheds, and other resource programs (e.g., livestock, wild horses, soils, etc.)" (RMP 2008b). Further, BLM Manual 6340 (Management of Designated Wilderness) states:

> *The overall goal of managing fire in wilderness is to allow the frequency and intensity of an ecosystem's natural fire regime to play its inherent role in that ecosystem. This means both allowing fire where ecosystems evolved in the presence of fire and preventing unnatural spread of fire in ecosystems that evolved without broad-scale fires.*

For details regarding fire management units within wilderness, including maps, see the Fire Management section in the EA (Page 73).

Management actions are developed following the initial report for wildland fires in the planning area and include a range of specific actions. Response would be determined according to the RMP and the FMP for each wildland fire. Wildland fire use can be determined as a response to the extent practical for resource benefit, to improve ecological system function and to allow fire to function as a natural part of the ecological system. Wildfire management priorities include maintaining native vegetation diversity by managing fire size to minimize the spread and density of noxious or invasive weeds, such as cheat grass. Minimum Impact Suppression Tactics (MIST) would be followed in an effort to minimize impacts to wilderness character. Any actions deemed necessary by the Incident Commander for public and firefighter safety would be authorized.

*Fire Use Guidelines*

Wildland fire will be used to protect, maintain, and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role. Wildland fires that occur in areas identified for wildland fire use will be managed, to the extent practical for resource benefit, to improve ecosystem function, and to allow fire to function as a natural part of the ecosystem. It is an appropriate response in wilderness.

*Fire Suppression Guidelines*

Minimum cost and consistency with resource objectives will be considered. The following points will guide suppression within wilderness:

- A Wilderness Specialist or Wilderness Resource Advisor would be dispatched to all fires occurring in or threatening a wilderness area.
- Use of any motorized equipment, including heavy machinery such as bulldozers, would be considered for approval by the District Manager in cases where the fire is threatening human life or property.
- Helibases and helispots would be located outside of wilderness boundaries. When this is not feasible, the District Manager may approve temporary sites within wilderness that require minimal clearing of natural vegetation. Upon final suppression of the fire, the temporary helibase or helispot will be rehabilitated as necessary to a natural condition.
- Staging areas and fire camps requiring motorized access would be located outside of wilderness unless authorized by the District Manager.

- Staging areas and fire camps that only require non-motorized access may be located in wilderness areas if authorized by the District Manager.

- Sling loading materials into or out of wilderness using a helicopter must be approved by the District Manager.

- Helicopters or other aircraft may be used for aerial reconnaissance work.

- The Ely District Office Noxious Weed Prevention Schedule, which identifies best management practices, would be utilized. Suppression equipment would be inspected and washed to prevent the spread of noxious weeds. Wash-down sites would be recorded using a Global Positioning System (GPS) unit, if possible, and reported to the Ely District Office Weeds Program. Camps and other assembly points would not be located in noxious weed infestation areas.

- Use of retardant must be approved by the District Manager; if retardant is not approved, water may be dropped from retardant aircraft as ordered by the Incident Commander without additional authorization.

- All fire suppression activities in wilderness would use MIST guidelines unless a higher degree or level of fire suppression is required.

- Leave No Trace principles would be used in wilderness areas. All evidence of human activity would be removed or rehabilitated to the maximum extent possible during demobilization.

*Suppression Activity Damage*
Repair of fire Suppression Activity Damage (SAD) will generally be planned and implemented as appropriate, by the suppression incident organization, prior to demobilization. Repair of SAD may occur with the same type of equipment that was used for the suppression activity. If motorized earth-moving equipment was used to construct fire lines, then the same type of equipment may be needed for rehabilitation and recontouring.

*Emergency Stabilization and Rehabilitation Activities*
Following site-specific assessments and planning, Emergency Stabilization and Rehabilitation (ES & R) activities may be undertaken in accordance with current Department of Interior policy (620 DM 3 Wildland Fire Management Burned Area Emergency Stabilization and Rehabilitation) and BLM policy (H-1742-1 Burned Areas Emergency Stabilization and Rehabilitation Handbook). The 2012 Emergency Stabilization and Rehabilitation Projects EA (EA #DOI-BLM-NV-L0000-2012-0004-EA) was implemented in 2013, which aerially seeded 2,800 acres of the Egan fire in the South Egan Range Wilderness.

The following points would guide ES & R within wilderness:

1. Natural recovery by native plant species is preferable to planting or seeding. The potential for recovery of existing vegetation and the potential establishment of invasive species should be evaluated prior to recommending seeding or planting. Seeding or planting will only be used when objectives cannot be accomplished without seeding or planting and there is a threat to wilderness values if no action is taken. When seeding or planting is recommended, the use of native material, preferably of local genetic stock, will be prioritized. When material of local genetic stock is not available timely or economically, or will not accomplish objectives, then other options may be evaluated.

2. The use of "assisted succession" or other similar techniques that employ the use of non-native species may be approved on a case-by-case basis with site-specific NEPA analysis. The use of non-native seed is appropriate only if 1) Suitable native species are not available; 2) the natural biological diversity of the proposed management area will not be diminished; 3) exotic and naturalized species can be confined within the proposed management area; 4) analysis of ecological site inventory information, if available for the site, indicates that a site will not support reestablishment of a species that historically was a part of the natural environment; 5) resource management objectives cannot be met with native species. (H-1745 Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants).

    - "Assisted succession" is a two-phase approach used to prevent an area from being dominated by invasive annual grasses or for manipulating an area that is already dominated by invasive annual grasses. In the first phase, a matrix of perennial plants is established. This matrix may be established using less desirable perennial species such as non-native species, or native species that are not locally adapted. In the second phase, the less desirable perennial plants are replaced or augmented with more desirable perennial plants. The second phase may or may not require active management to remove the less desirable perennials or to introduce more desirable natives. If the less desirable perennials are short-lived, sterile, unable to reproduce successfully on the site, or will not compete well with more desirable natives when those plants become established, then management intervention may not be necessary to remove the less desirable perennials. If native recruitment of more desirable perennials occurs, then secondary seeding may not be necessary. In some cases, selectively removal of less desirable species or secondary seeding may be necessary. Selective removal projects will follow standards presented in the Noxious and Non-Native Invasive Weeds section (Page 17).

3. The following activities could occur in Wilderness and may be approved on a case-by-case basis by the District Manager. These activities would follow standards presented in the Fire Suppression Guidelines section and must be necessary to meet minimum requirements for the administration of these two areas as wilderness.
    - The use of overland motorized equipment.
    - The location of helibases and helispots.
    - Sling loading materials into or out of wilderness using a helicopter.
    - Helicopters or other aircraft for aerial seeding.

4. Temporary structures, such as hydrologic, meteorological, or climatological collection devices, may be approved if deemed essential to flood warning, flood control, or water reservoir operation activities. Exclosure fences to protect seeding may also be approved.

5. Erosion control techniques such as the installation of anchored logs, bales, or wattles; the application of mulch, or the use of other techniques to slow water flow may be approved when their presence would contribute to the long term enhancement of wilderness character, or are necessary to meet minimum requirements for the administration of these areas as wilderness.

6. Minor developments and facilities (e.g., kiosks, fences, exclosures, small water pipelines, interpretive or boundary signs, water control structures, corrals, wildlife water developments, trails, etc.) burned or damaged by wildfire could be repaired or replaced to pre-fire specifications when this repair or replacement would contribute to the long term enhancement of wilderness character, or is necessary to meet minimum requirements for the administration of these areas as wilderness.

7. Non-motorized and non-mechanized visual inspections for hazardous conditions or materials may be conducted. This would not preclude aerial observations, though no landings would be permitted without District Manager approval.

8. Burned or seeded areas may be temporarily closed to the public if unacceptable resource damage would occur, or if danger to the public is present due to fire damage until safety assessments can be completed.

9. Efforts to stabilize and prevent post-fire related degradation to cultural resources including archeological sites, cultural landscapes, traditional cultural properties, and historic structures may be approved.

10. Techniques described in the "Management of Small-Scale Surface Disturbances" may be approved for use in ES & R (Page 20).

Addition standards regarding ES & R activities which apply to all BLM managed lands can be found in Burned Areas Emergency Stabilization and Rehabilitation Handbook (H-1742-1) such as grazing closures, and vegetation and soil monitoring.

***Site Specific Proposed Action***

For all wildernesses, naturally ignited fires would be allowed to burn where fuels and climate conditions support achieving resource management objectives

*Fire in Mount Grafton Wilderness*

## Protection of Archeological Resources and Historic Properties

The management and protection of cultural resources is guided by federal laws, the Cultural Resource Inventory General Guidelines (as currently published by the Nevada State Office), and the current State Protocol Agreement between the BLM and the Nevada State Historic Preservation Office. This includes the identification, evaluation and preservation of cultural resources. In some cases, the management of historic properties on wilderness lands may enhance the preservation of these resources. Prior to any action in wilderness, the potential effects on cultural resources will be evaluated per Section 106 of the National Historic Preservation Act of 1966, per Ely District guidelines and the BLM Nevada State Protocol Agreement with the State Historic Preservation Office.

For protection from wildland fire and enhancement of cultural resources, vegetation may be cut back or removed up to several feet from a resource or property, such as prehistoric rock art. This would be accomplished before fire season with the use of hand tools like pruning shears and Pulaskis. Resource protection and enhancement work would be completed after a trained cultural resource specialist's review.

Protection of archaeological resources from damage by wilderness visitors may be accomplished with the minimum necessary on-the-ground action. Resources would be monitored to determine conditions. If monitoring reveals that damage is occurring to cultural resources, the BLM Ely District wilderness planner and archaeologist would work together to develop a management strategy for preventing further damage, including, but not limited to, education, signage, and natural barriers.

Every attempt would be made for protection of artifacts and other archaeological remains in place. If these are discovered on designated trails, foot-worn hiking paths, or other areas of recreational use, the trail may be re-routed or alternate preservation or protection actions may be taken after consultation with the State Historic Preservation Office according to the standard process followed by the Ely District cultural resource specialist.

Additionally, inventory for cultural resources will be completed at natural springs in proximity to, or within wilderness, and along access and cherry stem routes in an effort to inform management of decisions for the protection of these resources. No undertakings would occur prior to completion of cultural resource and consultation processes.

Structures with National Register of Historic Places Eligibility or have historical significance, which warrant retention as a feature of the wilderness, will receive additional protection of structures through increased patrol by rangers and law enforcement. Additionally, they may require active protection as part of wildland fire suppression actions, such actions could include the use of protective foil materials, fire retardants, and fuel breaks. Within ten (10) years of the Decision Record for the Plan, the BLM would seek to remove from the wilderness all structures which do not have historical significance and are not eligible for the National Register of Historic Places as required by Bureau policy.

Summit and cave registers would not be removed. Other structures and installations may be removed if they are not the minimum necessary for the administration of the area as wilderness, or if they are not associated with a prior use or valid existing right.

BLM staff and volunteers that monitor wilderness would be given instructions on the identification of human effects that would be considered unattended personal property or refuse. Unattended personal property not associated with an active camp would be removed by BLM personnel, and held for 30 days at the appropriate BLM District or Field Office. If possible, the owner of the personal property would be contacted.

Human effects which may be old enough to be considered cultural artifacts will be evaluated by a qualified archaeologist. Cultural resources will be left in place. Removal of cultural resources is a last resort, and will not occur without full compliance with federal mitigation and preservation requirements and processes.

If mine adits or shafts are found in these wilderness areas – and are not eligible for the National Register of Historic Places (NRHP) – they may be filled or closed in order to enhance wilderness character and public safety using compliant actions such as, but not limited to, hand tools, foam plug, and dynamite. May be filled by backfill using native soil, foam filled, if historic content present or bat gate installed, if bats are present. Cultural, sensitive plant and biologic surveys will be completed prior to securing. NEPA and MRDG analyses would be required for certain actions including, but not limited to, bulldozers and bat gates. If mine adits or shafts are proposed for closure, bat surveys would be conducted.

Pending cultural inventory of the Sheep Creek cabin in Mount Grafton Wilderness, the following options may be considered:

- If rights can be identified for permitted use for support of sheep grazing activities, the cabin would be allowed to remain. The Wilderness Act and the Congressional Grazing Guidelines allow for continued use and maintenance of supporting facilities that were in place at the time of wilderness designation.
- If no rights are identified for permittee use and it is deemed historic, it may remain. Maintenance levels and methods would then be determined.
- If no rights are identified for permittee use, and it is not deemed historic, it will be removed. Methods of removal may include: demolition and airlifting pieces out; utilizing a trailer in to haul it out, or a combination of these and other methods. An MRDG analysis would be completed for this action.

***Site Specific Action***

The cabin on Murphy's Wash cherrystem in Highland Ridge Wilderness would be retained. This cabin was previously a US Forest Service Ranger cabin and was built in 1958. A separate Historic Preservation Treatment Plan will be prepared for the cabin. The State Historic Preservation Office would be consulted at that time. The following hierarchy of management options for the Highland Ridge Cabin may be implemented:

- No reservation system: first come, first served.
- Outfitter and Guides are not allowed to occupy the cabin or its surrounding area.
- If warranted, a reservation system and reservation obtained at the BLM office.

On the southwest side of Mount Grafton Wilderness there is a small shack, remains from a previous mining operation. The shack and debris will be removed pending a cultural inventory. The site will be seeded, and routes inside the wilderness will be obliterated.

## Management of Recreation Opportunities

A variety of primitive and unconfined types of recreational activities are likely to occur in all four wilderness areas. Management actions that may be initiated in response to recreational impacts include, but are not limited to:

- ➔ Public outreach and education in Leave No Trace principles to encourage minimum impact practices.
- ➔ Provide information to the public on non-wilderness recreational opportunities in the region.
- ➔ Establish protective areas around sensitive resources where recreation activities may be restricted.
- ➔ Closure of areas to recreation activities. Examples may include areas with sensitive plant and animal species or water resources.
- ➔ Campsite management to maintain use at existing sites and prevent unmanaged site expansion or new site establishment.

Recreational horseback riding and use of pack stock animals would be allowed both on and off trail. Other than incidental browsing, riding and pack stock animals may only be fed with packed-in, certified weed-free feed.

Traditional geocaching and letterboxing would not be allowed, however virtual geocaches are an accepted activity within wilderness. Traditional geocaches and letterboxes would be removed when encountered, and visitors wishing to participate would be directed to locations outside wilderness. In the instance that a virtual geocache identifies a sensitive site, the sponsor will be asked to remove the site from the internet.

According to BLM Wilderness policy (Manual 6340), "*casual collection of small quantities of renewable resources (such as wood, fruit, nuts or other vegetation) is permitted for use within the wilderness or for non-commercial, personal use.*" Any wood cutting in wilderness would be limited to dead and down material collected without motorized or mechanized equipment such as for a typical campfire.

*Hunting*

Hunting and trapping are allowed in wilderness, subject to applicable State and Federal laws and regulations.

The creation or construction of permanent blinds in wilderness areas and wilderness study areas is not allowed (43 CFR 6302.20(f)). However, portable or "pop-up" blinds may be temporarily allowed for hunting, photography, wildlife observation and similar purposes for a period of fourteen (14) days if they are packed or carried in and out and do not require the disturbance or destruction of native soil, rock, or vegetation.

Portable and "pop-up" blinds must be attended or occupied at least some portion of a ten day period within the 14 day period of use. If blinds are not attended or occupied for 10 days, they will be considered unattended property and/or permanent structures and will be subject to removal by the BLM (43 CFR 8365.1-2(b)) and subject to disposition under the Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C. 484(m)).

It is suggested that anyone who packs or carries a portable or "pop-up" blind into a wilderness or wilderness study area affix to the blind his or her name, address, phone number, the date the blind was placed, and the dates the blind will be unattended or unoccupied. This request would be made in any hunter mailings regarding wilderness.

*Camping*
Camping is allowed on public lands. Occupying a campsite is allowed for up to 14 days. Should a visitor wish to camp longer than 14 days, their camp must be relocated a minimum of 25 miles from the previous site (Federal Register Notice, Vol. 58, No. 191, October 5, 1993). On occasion an extended stay permit may be pursued with the local office if warranted. If monitoring shows that the 14-day stay limit is leading to unacceptable resource impacts, site stay limits of less than 14 days could be implemented.

Campfires will be allowed except during fire hazard restrictions. Leave No Trace camping techniques would be encouraged through literature and BLM-sponsored Leave No Trace public workshops. Use of impacted sites, usually denoted by the presence of a campfire rock ring is encouraged rather than continually disturbing and compacting new vegetation. Some impacted site would be restored to a natural condition to minimize additional camping disturbance. Campsites closer than 300 feet to sole water sources would also be removed in compliance with state regulations (N.R.S. 50.660).

*Managing to Maintain Solitude*
These wilderness areas currently enjoy outstanding opportunities for solitude and are infrequently visited, with the highest use occurring during hunting season. Numeric standards for frequency of visitor encounters or group size limits would not initially be established. Large groups (e.g. more than 12) inquiring about recreational opportunities would first be directed to locations outside of wilderness, while small groups (e.g. 12 or less) may be directed to locations within wilderness. If the wilderness character of solitude becomes degraded, the following management actions may be initiated:

- Educate visitors concerning Leave No Trace recreation ethics to reduce conflict with other visitors.
- Provide information to the public on non-wilderness recreational opportunities in the region.
- Establish a group size limit.
- Reduce maintenance levels on access points and boundary roads, and/or provide public information about opportunities outside wilderness.
- Plan revision with additional public input to reassess these standards and/or implement more direct controls.
- Establishing parking areas at trailheads for access issues and delineate parking space.

*Caving and Climbing*
Recreational caving and climbing are acceptable activities in the wilderness and would be allowed to continue as long as there are no irreversible impacts to cave resources or wilderness. Caves are protected under the Federal Cave Resources Protection Act (FCRPA) of 1988. The purpose of the act is twofold: to "secure, protect, and preserve significant caves on Federal lands for the perpetual use, enjoyment and benefit of all people" and "to foster increased cooperation and exchange of information between governmental authorities and those who utilize caves located on Federal lands for scientific, educational, or recreational purposes." A district wide Cave Management Plan is being planned for and will guide further usage in caves on the Ely District.

All persons engaged in these activities would be responsible for having appropriate equipment and necessary technical skills. Any human effects left for the purpose of recreational caving and climbing (i.e. ropes, ladders, and temporary devices) would be considered abandoned property and would be removed. Items would be retained at the District Office for 30 days. This would assist in resource protection, maintain the undeveloped character of wilderness, and provide for public safety.

The use of natural anchors for rigging ropes would be used when possible. Temporary anchoring devices such as nuts, cams, and slings would be allowed. The use of permanent fixed anchors, such as bolts and pitons, would be allowed to reduce impacts to vegetation or soils or to improve climbers' safety. The use of permanent bolts and anchors is discouraged, but if used, anchors should be camouflaged with non-reflective colors that closely match the rock. Climbers or others may use hand-powered drills to place these fixed anchors. Power drills may not be used to place permanent fixed anchors in non-emergency situations.

Alterations to cave resources such as digging, moving of rocks or enlargement of passages to allow explorations will not be allowed, and removal of natural components of the cave is prohibited. Human waste, trash, or other debris would be removed. Transport of fuel wood into caves and campfires therein will be discouraged and any evidence would be removed. Disturbance to cultural resources, as a result of caving and climbing activities is prohibited in accordance with the Archaeological Resources Protection Act (ARPA) of 1979.

There would be no group size restrictions or permits required to enter caves. Recreational use monitoring would take place through the use of cave registers located near the entrances of the caves. If monitoring determines impacts to cave resources, the BLM may require permits and/or limit the number of persons who can enter the cave at any one time. A maximum number of visits per month and/or per year may also be established.

The BLM would encourage Leave No Trace and Minimum Impact Caving principles and techniques to minimize impacts. Information, educational materials, and prohibitions regarding cave resources and climbing would be provided on information kiosks for the area, in BLM brochures, and on the Ely District Office website. Publicity of cave locations would be kept to a minimum, in order to protect them and significant caves would not be published in accordance with FCRPA.

The BLM recognizes the threat of White Nose Syndrome (WNS) expanding into the western U.S. If WNS reaches the BLM Ely District, the most current policy regarding WNS will be followed. Adherence to the National White-Nose Syndrome Decontamination Protocol - Version 06.25.2012 (and as revised), to prevent the spread of the disease by humans is required for all employees and volunteers and is encouraged for public entry.

***Site-Specific Action***

No camping is allowed that blocks public access including but not exclusive of: occupying the turnout areas preventing vehicles from turning around; occupying the road so as to impede traffic; blocking the roadway, turnarounds, trailheads, trail entrances or parking areas excluding people from access. Specifically, camping would not be allowed at the four trailheads adjacent to Mount Grafton Wilderness: Robber's Roost, North Creek (west), North Creek (east) and Dupont Creek. Nearby campsites or campsites along the wilderness access cherry stem roads may be used within 100 feet of the edge of the road. For three of these trailheads, campsites are adjacent to the parking area. The parking areas may be delineated with No Camping or Parking Only signs, as needed.

Two permanent fixed anchors located at the entrance to Whipple Cave in Far South Egans Wilderness would remain. The self-register box located within Whipple Cave would be replaced with an aluminum box of similar dimensions.

*Descending into Whipple Cave*

## Visitor Education, Interpretation and Law Enforcement

General interpretive information regarding natural and cultural resources, and recreation opportunities in wilderness would be located on kiosks outside of wilderness, in brochures and pamphlets, on BLM recreation maps, and at the BLM Ely District Office website. A brochure specific to eastern Nevada wilderness (Lincoln and White Pine Counties) has been developed and is distributed across Nevada. Wilderness-specific maps would include wilderness area descriptions, designated trails, interpretive information, as well as wilderness ethics and Leave No Trace principles. Whenever possible, language would be phrased in a positive light. No interpretive trails would be designated.

When feasible, the BLM would collaborate with other agencies and non-government organizations and individuals, including authors of media or guide books, in the presentation of basic information. The BLM will continue to coordinate with NDOW to include wilderness information on the maps and regulation in the Nevada Hunt Book and on the NDOW website.

Development of an off-site interpretive exhibit would be constructed outside of the Great Basin Visitor Center, near Baker, Nevada. This exhibit would showcase the wilderness areas of eastern Nevada, and provide an over-arching wilderness message. Further, a panel would be placed on the three panel kiosk at the Patterson Pass Trailhead of the Silver State Off-Highway Vehicle Trail.

Public outreach for Leave No Trace recreation ethics would be emphasized using classes and workshops presented at local schools and in the field. A separate wilderness public education plan has been developed for programs related to all designated wilderness in Lincoln County this plan would be adopted for the White Pine County wilderness areas. A children's wilderness booklet has also been developed and is available for distribution.

Further informal education occurs on the ground as BLM personnel and volunteers contact visitors and provide on-the-spot education, generally relating to wilderness regulations, Leave No Trace principles and dumping on public lands.

Enforcement of wilderness laws and federal regulations will be performed by uniformed BLM law enforcement rangers. BLM staff, contractors, and volunteers may indirectly assist law enforcement rangers by providing information regarding wilderness-related violations. Wilderness and law enforcement rangers would conduct patrols within wilderness on foot or horseback and along the perimeter using motorized vehicles. Motorized equipment, including helicopters may be allowed within wilderness when necessary to meet temporary emergencies involving violations of criminal law and/or including the pursuit of fugitives, or operations involving search and rescue.

***Site-Specific Action***

During shed antler collection periods and peak hunting times law enforcement and wilderness staff will conduct saturation patrols to enforce existing laws. Illegal off route riding will be targeted.

## Commercial Use Restrictions

Pursuant to Section 4(c) of the Wilderness Act, commercial enterprises are prohibited in wilderness, including the collection of any resource, including shed antlers, for the purpose of commercial sale.

Casual collection on foot or horseback (surface only, no digging) of small quantities (<20 lbs.) of renewable and mineral resources would be permitted (i.e., wood, pine nuts, vegetation, rock and mineral specimens, petrified wood, shed antlers, and common invertebrate and plant fossils).

Section 4(d) of the Wilderness Act states that commercial services are allowed, "*. . . to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas.*" Therefore, commercial services that are not wilderness-dependent or do not contribute to wilderness character or public education will be prohibited. Commercial guiding would be permitted for:

- Hunting.
- Academically-oriented organizations whose primary purpose is wilderness or environmental education.
- Organizations whose service is primarily for the support of people with disabilities.
- Wilderness therapy groups.

Outfitters and Guides are subject to statewide BLM special recreation permit (SRP) stipulations for commercial hunting/fishing guides as well as the rules and regulations outlined in their SRPs. Management of guides and outfitters will be in conformance with the BLM Ely District Resource Management Plan (2008), the Wilderness Act (1964), LCCRDA (2004) and WPCCRDA (2006). Limits on the number of commercial guides may be implemented if monitoring identifies excessive impacts to wilderness character or resources.

Academic and other organizations listed above requesting use of wilderness would be required to obtain a use authorization, on a case-by-case basis. Stipulations may include group size limits, camping outside wilderness, seasonal restrictions or collection limits.

## Management of Research

Research proposals investigating indigenous plant communities, wildlife, cultural resources, paleontology and the human dimensions of wilderness would be considered. Proposals must contribute to the enhancement of wilderness character or the improvement of wilderness management. All proposals would be subject to the restrictions and standards of BLM Manual 6340, the Wilderness Act (1964), WPCCRDA (2006), LCCRDA (2004) the BLM - NDOW MOU (2012), as well as appropriate standards outlined in this WMP.

Research proposals that do not contribute to the improved management of the area as wilderness will not be permitted if they can be accomplished outside of wilderness and/or cannot be conducted in a manner compatible with the preservation of the wilderness environment.

Research and other studies must be conducted without use of motorized equipment or construction of temporary or permanent structures. Exceptions may be approved for projects that are essential to managing the specific wilderness areas when no other feasible alternatives exist. Such use must be necessary to meet the minimum requirements for administration of the area as wilderness and must not degrade wilderness character. A site-specific MRDG and NEPA analysis would have to be prepared for the authorization of research proposals.

Excavation, salvage, or collection of paleontological resources within the wilderness areas would be determined on a case-by-case basis (BLM Manual 6340 1.6 C.12.), but should be collected using hand tools to preserve their scientific, educational, and interpretive values. Motorized equipment or vehicles may be authorized on a case-by-case basis when a separate minimum requirement analysis determines such devices are necessary. A site-specific MRDG and NEPA analysis would have to be prepared for the authorization of any exceptions.

*Climate, Weather, and Water Monitoring Data Collection Devices*

The installation of collection devices for climate, weather, or water monitoring may be considered in wilderness. Devices considered would have to conform to Visual Resource Management Class I goals and would be subject to a MRDG analysis. Section 121 in the Lincoln County Recreation and Development Act of 2004 states,

> *Subject to such terms and conditions as the Secretary may prescribe, nothing in this title precludes the installation and maintenance of hydrologic, meteorological, or climatological collection devices in the wilderness areas designated by this title if the facilities and access to the facilities are essential to flood warning, flood control, and water reservoir operation activities.*

Similarly, the WPCCRDA states,

> *If the Secretary determines that hydrologic, meteorological, or climatological collection devices are appropriate to further the scientific, educational, and conservation purposes of the wilderness areas designated by this subtitle, nothing in this sub title precludes the installation and maintenance of the collection devices within the wilderness areas.*

The gauging station at Geyser Spring would remain in place.

## Management of Valid Existing Rights

A number of existing water rights occur within the four wilderness areas. There are no Federal reserved rights as per the terms in the wilderness enabling legislation LCCRDA (2004) and WPCCRDA (2006). The BLM may acquire additional State appropriative water rights within these wilderness areas to sustain riparian habitat, provide water to wildlife, or support recreation. Existing water rights may be purchased from willing sellers or jointly managed with other agencies through cooperative agreements. All water rights actions will be in conformance with LCCRDA and WPCCRDA. However, new water resource developments not related to wildlife are prohibited by both Acts. In Appendix C, a table lists existing water rights within the boundaries of these four wilderness areas.

All maps represent current, known locations of springs and riparian areas, but may not be a complete representation. As new springs and riparian areas are located through monitoring they will be added to the database.

*Purchase or Acquisition of Private Land*

If private inholdings (parcels of private land inside the boundary of wilderness) or edge-holdings (private parcels which are edged on one or more sides by wilderness) are put up for sale efforts would be made to purchase the parcels, whether through an intermediary, such as the Rocky Mountain Elk Foundation, or directly. As stated in both the LCCRDA and WPCCRDA, any land or interest in land within the boundaries of a wilderness that is acquired by the BLM shall be added to and administered as part of the wilderness area within which the acquired land or interested is located.

*Easements or Access Authorizations*

Public access to these wilderness areas is provided through a variety of primitive roads, routes and trails. The majority of these routes are located on non-wilderness lands administered by the BLM. However, segments of some routes pass through parcels of private property and in many cases no right-of-way or easement exist to ensure continued public access across these private parcels. In most cases, legal public access to the wilderness areas can currently be achieved through alternate routes. Securing legal access along existing routes would maintain the type and level of access the public currently enjoys.

Easements across parcels identified in this plan would be actively pursued in the form of rights-of-way, leases, access authorizations or fee title from willing sellers. Easements for access across other parcels which would maintain additional access to the wilderness areas would only be pursued at the request of willing landowners to the extent that acquiring such access would not reduce the potential for meeting the higher priority access needs identified in this plan.

### *Site-Specific Action*

*Valid Existing Rights*

The two diversions (4.3 miles total) on Mount Grafton Wilderness – Sheep and Mill – would remain. The water right associated with these irrigation ditches predates 1900. Basic maintenance would be performed on foot or horseback, as needed. Large-scale maintenance requiring motorized vehicles or equipment would be allowed as needed, with site-specific NEPA and MRDG analysis.

*Legal Public Access*

Priority routes which currently lack legal public access listed in Table 4. These are the routes for which easements would be pursued to ensure continued public access to wilderness across private parcels.

*Table 4: Locations to Obtain Easements*

| Wilderness Area Accessed | Easement Location | Length | Township/Range |
|---|---|---|---|
| Mount Grafton | Cave Valley (Cappy's Diggins cherrystem) | 0.25 miles | T 9 N /R 64 E Section 6 |
| South Egan Range | Long Canyon | 2 miles | T 9 N / R 63 E Sections 5 - 6 T 10 N / R 63 E Section 32 and 28 |

## Military Operations

Military training exercises would not occur within the four wilderness areas. Directions for handling military operations would distinguish between non-emergency and emergency situations. Non-emergency incidents might include such activities as the release of flares, or the recovery of aircraft parts. Emergency situations may include, but are not limited to, the retrieval of downed aircraft, the rescue of pilots, or the recovery of live ordnance.

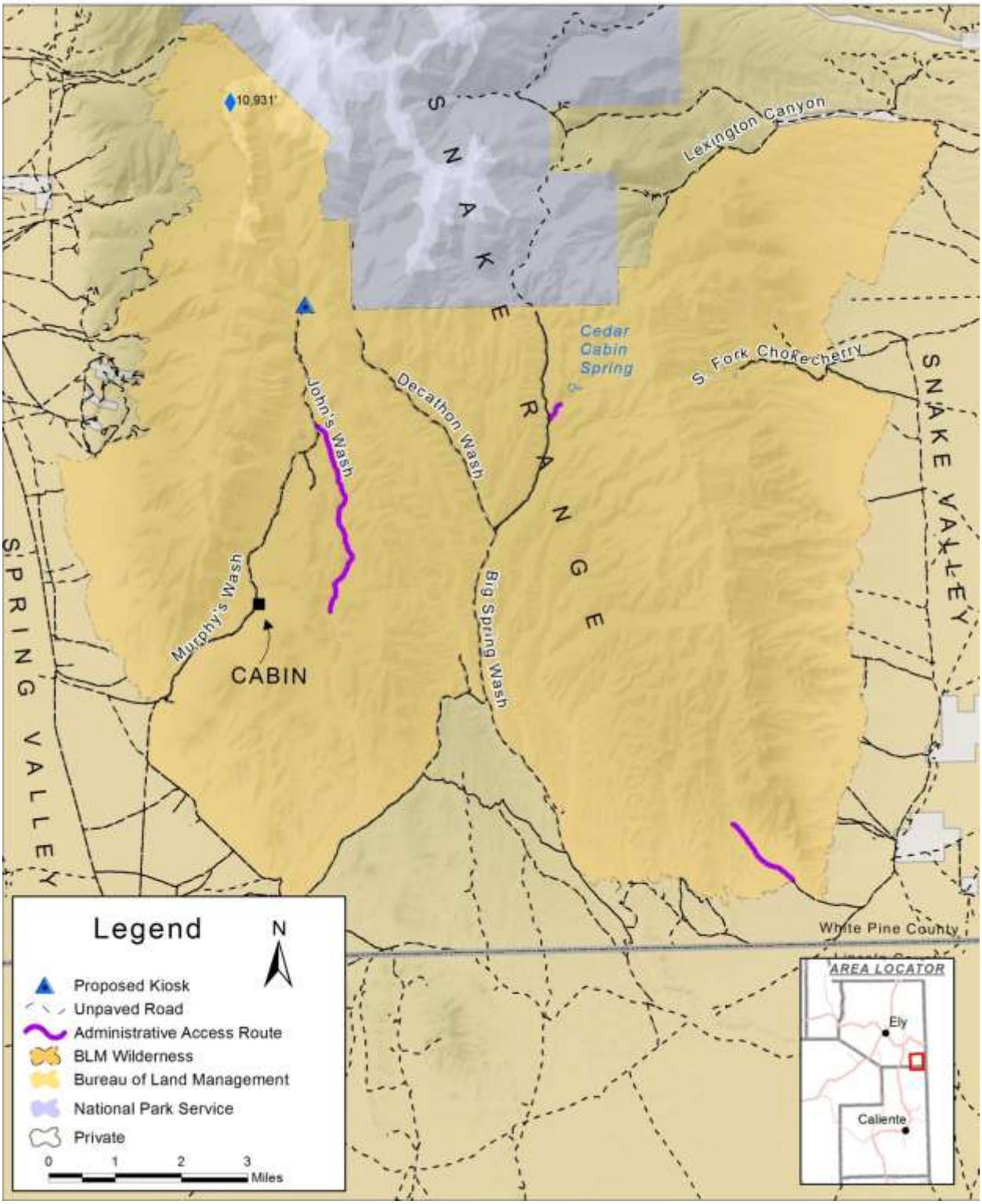
Non-emergency military actions may be approved on a case-by-case basis following MRDG analysis, environmental assessment, and authorization from the Ely BLM District Manager. All evidence of human activity would be removed to the maximum extent possible.

Emergency military actions involving prohibited uses identified in Section 4(c) of the Wilderness Act (1964) (e.g. motorized vehicles and mechanized equipment, mechanical transport, landing of aircraft etc.) will be allowed within wilderness without prior analysis, assessment, or authorization provided the 99th Airbase Wing Commander or his designated representative notifies the Ely BLM District Manager at the onset of the emergency or immediately thereafter.

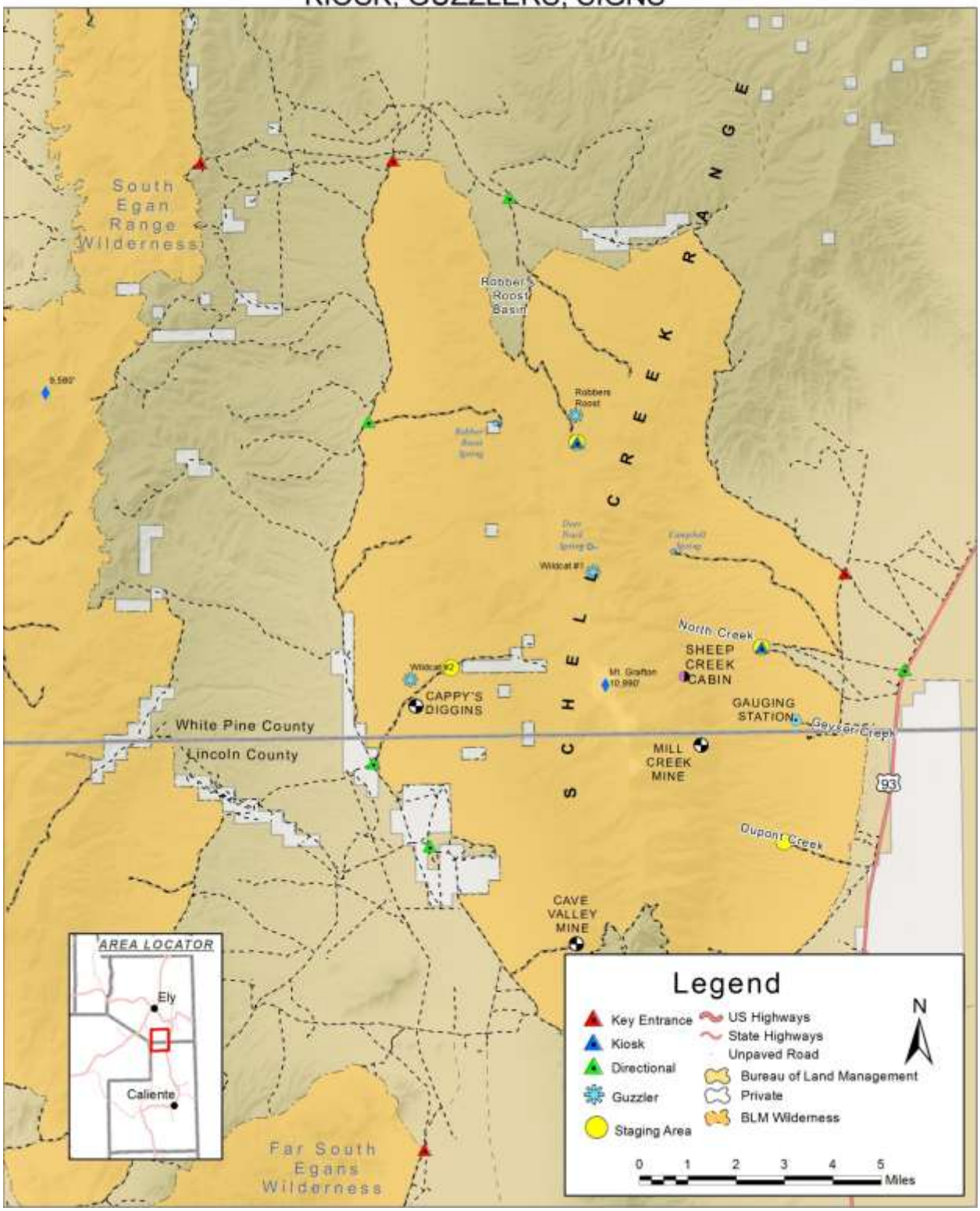
## Interagency Relationship - Great Basin National Park

Highland Ridge Wilderness lies along the southern border of Great Basin National Park. The BLM would seek to establish a Memorandum of Understanding with the Park. Several management objectives would be coordinated cooperatively between the two agencies. Cooperatively managing and maintaining the trails which cross administrative boundaries (if constructed in the future), designing and maintaining trailheads and jointly disseminating information to the public would aid both agencies in better managing the resources.

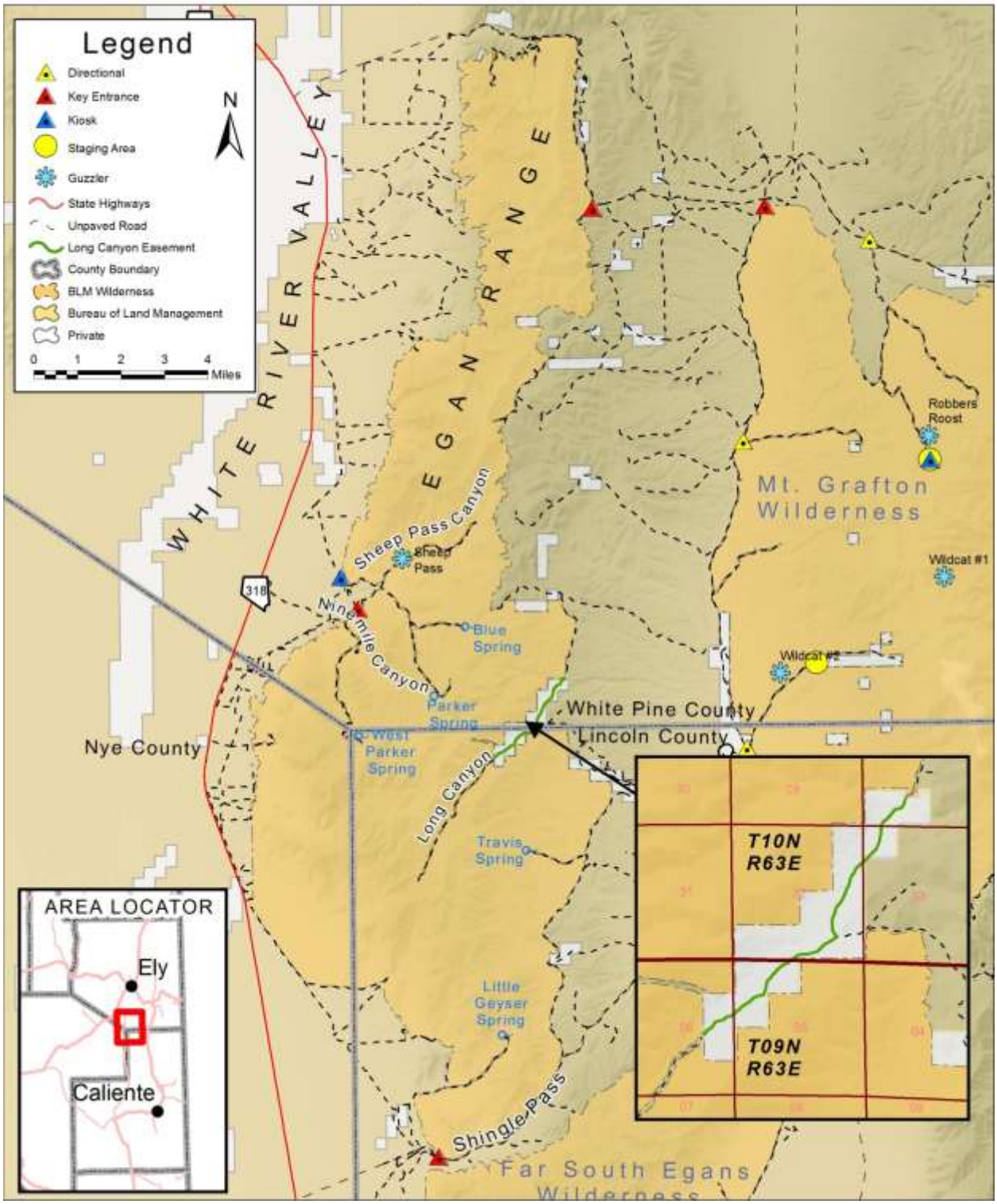
MAP 8: HIGHLAND RIDGE WILDERNESS - SITE SPECIFIC ACTIONS
KIOSK & ACCESS ROUTES



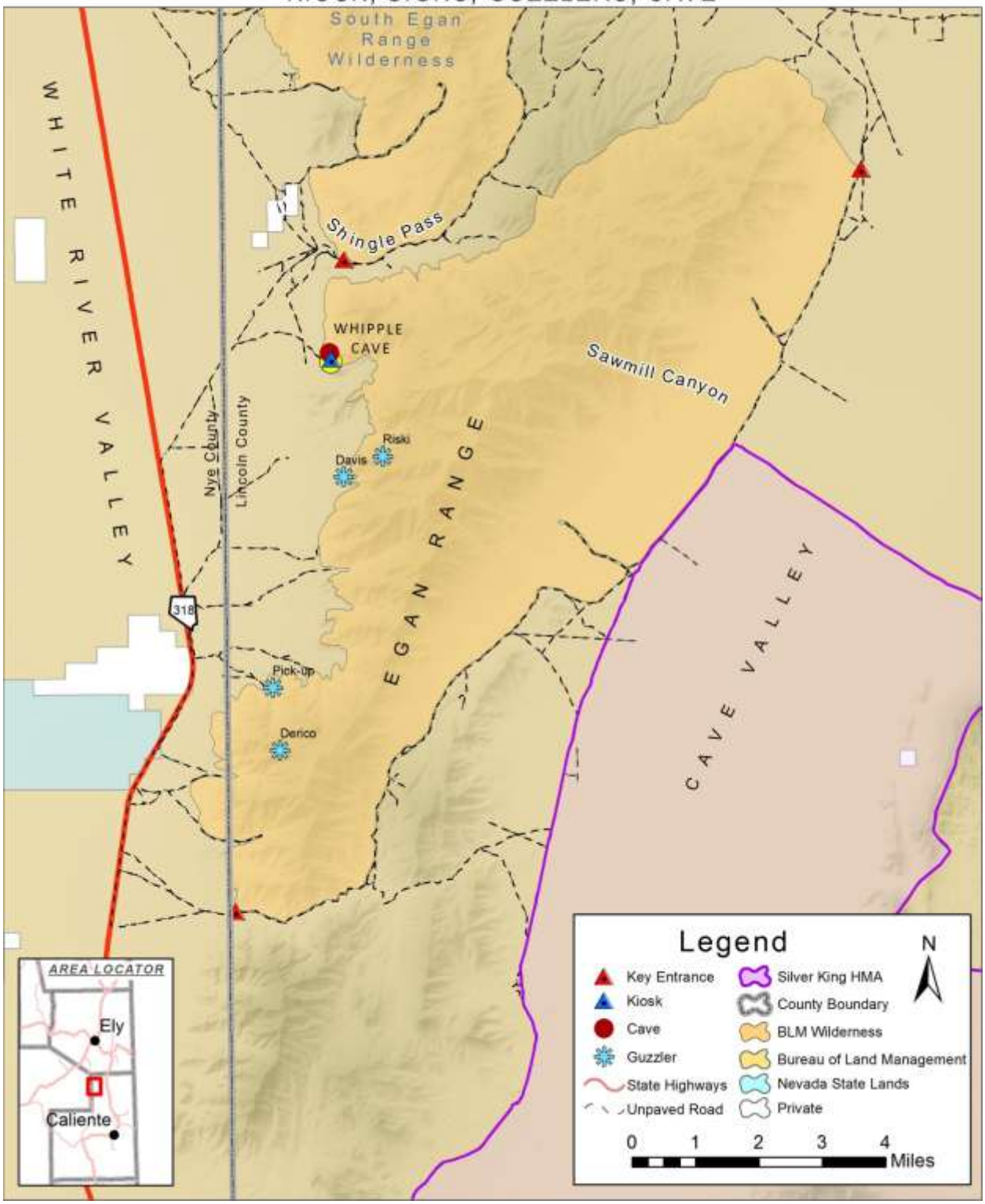
# MAP 9: MOUNT GRAFTON WILDERNESS - SITE SPECIFIC ACTIONS
## KIOSK, GUZZLERS, SIGNS



# MAP 10: SOUTH EGAN RANGE WILDERNESS - SITE SPECIFIC ACTIONS
## KIOSK, SIGNS, GUZZLERS



# MAP 11: FAR SOUTH EGANS WILDERNESS - SITE SPECIFIC ACTIONS
## KIOSK, SIGNS, GUZZLERS, CAVE



## D. Monitoring Program

Monitoring tracks the outcome of proposed activities on the qualities of wilderness character, as previously defined (Page 2). BLM Manual 6340 – Appendix C, Monitoring Changes in Wilderness Character and Measuring Attributes of Wilderness Character, and the resulting BLM Implementation Guide, direct monitoring in wilderness.

A single activity is likely to affect several qualities of wilderness character. For example, an activity such as weed control is intended to restore natural conditions over the long term but may diminish the untrammeled condition of the wilderness in the short term. These two separate outcomes, the improvement of "naturalness" and decreased "untrammeled nature," would be monitored separately.

On the other hand, separate activities undertaken for different purposes may cumulatively diminish the same qualities of wilderness character. For example, a trail might be designated to control visitor impacts on vegetation. In the same vicinity, a fence or barrier may be in place to protect sensitive resources from recreational impacts. Though the two activities are unrelated, both activities have an effect on the "undeveloped" quality of wilderness character. Monitoring the effects of single activities to multiple qualities of wilderness character will improve understanding of the effects upon wilderness character in combination and over time.

Effects of intentional, incidental, authorized and unauthorized activities will be captured under the monitoring system. The monitoring program will provide a greater understanding of the specific condition and trend of wilderness character within each wilderness. Information generated in monitoring wilderness conditions will indicate:

1) the current state of wilderness character;
2) how wilderness character is changing over time;
3) how stewardship actions are affecting wilderness character; and
4) what stewardship priorities and decisions would best preserve and sustain wilderness character.

Monitoring will also provide wilderness managers with more complete information, which will improve the evaluation of future proposed activities. However, monitoring will not be used to compare conditions and changes within these wilderness areas with other wilderness areas in the National Wilderness Preservation System. The following monitoring is associated with specific wilderness characteristics.

***Monitoring of Site-Specific Actions***

- Additional monitoring will occur for the following site-specific actions associated with the attached Environmental Assessment in order to ensure that wilderness character is protected and that undue impacts to other resources are not occurring as a result of the proposed actions:
  - Success of weed treatments and vegetation restoration projects.
  - Use of administrative access routes and gates.
  - Success of small-scale surface disturbance rehabilitation.
  - Recreational use of designated trails.
  - Effectiveness of sign plan.
  - Wildlife water development functionality and usage.
  - Success of mine site restoration on southwest side of Mount Grafton.

## E. Plan Evaluation

The Plan will be revised when the management actions prescribed no longer meet the wilderness management objectives, or when a change in the existing situation warrants revised management. The need for revision will be reviewed every five years. If the decision is made to revise this Plan, it will be accomplished with public participation. Minor revisions such as typographical or cartographical errors may be made by inserting an errata sheet.

## F. Plan Implementation

The following list shows the priority sequence for accomplishing management activities of this Plan. The actual implementation could be altered based on funding and staff availability outside the control of this Plan.

***Ongoing Activities***

- Maintenance of boundary signs.
- Trail, vehicle access point, and staging area construction and maintenance.
- Vegetation clearing around archaeological resources.
- Wilderness monitoring:
  - Visitor use monitoring.
  - Natural resource monitoring.
  - Trail condition monitoring.
  - All other wilderness character monitoring.
- Visitor information dissemination.

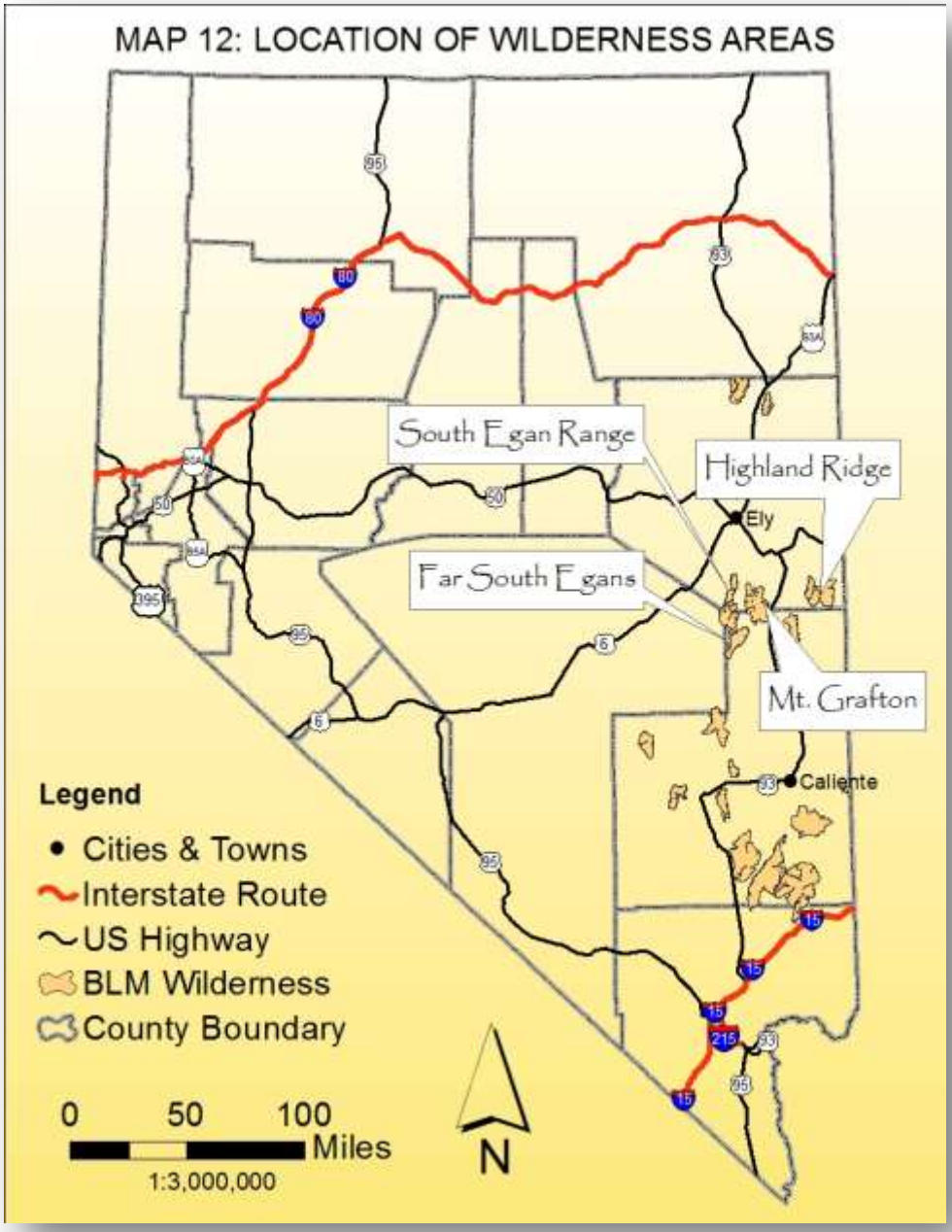
***Future Activities***

The following list of activities must be part of the plan implementation; however, project-specific environmental analysis may be required because they are analyzed in the EA associated with this WMP:

- Non-conforming fire management and suppression actions or ES & R actions.
- Trail projects including:
  - Trailhead development.
  - New trail construction.
  - Major trail reconstruction or stabilization.
- New vehicle staging area.
- Management of social conditions;
  - Visitor use regulations and/or supplemental rules.
  - Group size limits.
  - New sign or kiosk installation.
- Large weed control projects, such as herbicide use for noxious and invasive plant species control.
- Riparian area restoration needed to mitigate wild horse and livestock grazing impacts.
- Vegetation restoration projects.

- Wildlife projects.
- Research on natural or cultural resources.

# Environmental Assessment
# Highland Ridge, Mount Grafton, South Egan Range & Far South Egan Wilderness Management Plan



## Introduction and Background

The BLM Ely District Office proposes to adopt and implement a Wilderness Management Plan (WMP) for the Highland Ridge, Mount Grafton, South Egan Range and Far South Egans Wilderness during fiscal year 2013. Mount Grafton, the Far South Egans and the South Egan Range Wilderness areas were former wilderness study areas. The Far South Egans Wilderness was designated in the Lincoln County Conservation, Recreation and Development Act (LCCRDA, Public Law 108-424, January 20, 2004) and the remaining three areas by the White Pine County Conservation, Recreation and Development Act of 2006 (WPCCRDA; Public Law 109-432, December 7, 2006).

Wilderness actions described in the first half of this document, the WMP, form the Proposed Action analyzed herein. The Proposed Action will be analyzed against a No Action alternative that is considered a continuation of current management. Section 4(b) of the Wilderness Act requires administering agencies to preserve wilderness character. Land uses and activities that are inconsistent with this legislative guidance are prohibited within the designated areas.

BLM is required to manage the wilderness areas according to standards that were not in effect when the lands were previously managed under FLPMA for multiple use. As such, the No Action Alternative contains the minimum land use restrictions deemed necessary to protect and preserve wilderness character and to comply with applicable laws and regulations.

The analysis in this EA will focus mainly on the Proposed Action's discretionary management actions to determine: 1) whether the actions individually and cumulatively fulfill legislative requirements to protect and preserve wilderness character, 2) whether the actions individually or cumulatively involve significant environmental effects.

***Purpose and Need***
The purpose of the WMP is to implement guidelines and actions designed to preserve wilderness character and protect and enhance wilderness character by identifying conditions and opportunities that will be managed for over at least the next ten years, or as changes in wilderness character and/or resource conditions require.

The Proposed Action is authorized by Section 4(b) of the Wilderness Act, which requires administering agencies to preserve wilderness character. In furtherance of this mandate, Section 1.4.C. of BLM Manual 6340 (Management of Designated Wilderness Areas) requires BLM District and Field Managers, among other things, to develop and implement land use and activity-level plans addressing wilderness areas that conform to the Wilderness Act, the establishing legislation, and BLM wilderness policies and guidance.

Based on the analysis herein, the BLM authorized officer will decide whether to manage the wilderness areas strictly according to legislative and regulatory requirements, or whether to implement a management plan that provides heightened management and discretionary opportunities to ensure adequate protection and preservation of resources and values, as well as mitigation for existing and future impacts to those resources and values.

Insufficient wildness character management in the target area has been identified as the need for the purpose of the wilderness management plan.

The EA will focus on the potential environmental effects of discretionary management actions, as well as their effect on wilderness character. Based on their potential effects, the authorized officer will decide whether to implement some or all of the proposed discretionary actions.

***Relationship to Planning***
This WMP has been analyzed within the scope of the Ely Resource Management Plan (2008) and has been found to be in conformance with the goals, objectives, and decisions of the Decision Summary and Record of Decision.

BLM planning regulations (43 Code of Federal Regulations 1610.3.2[a]) require that BLM resource management plans be consistent with officially approved plans of other federal, state, local, and tribal governments to the extent those plans are consistent with federal laws and regulations applicable to public lands. Although this regulation does not apply to other official plans created after the land use plan is implemented, the BLM strives for management decisions to be consistent with other official plans.

***Compliance with Executive Orders, Laws, Regulations, and State Statutes***
Management actions contained in the WMP comply with requirements of the Wilderness Act and the enabling WPCCRDA and LCCRDA as well as other applicable laws, regulations, and executive orders.

***Relationship to Manuals, Guidelines and Handbooks***
The proposed action and alternative action are in conformance with the following guidelines and manuals:

- Congressional Grazing Guidelines (House Report No. 101-405, Appendix A).
- Congressional Wildlife Management Guidelines (House Report No. 101-405).
- Management of Designated Wilderness Areas (BLM Manual 6340).
- Wilderness Management Plans (BLM Manual 8561).
- Burned Area Emergency Stabilization and Rehabilitation (BLM Handbook H1742-I).

- Travel and Transportation Planning (BLM Manual 1626).

***Consistency with Existing BLM Land Use Plans***

The Proposed Action conforms to the goals, objectives, and decisions of the Ely District Approved Resource Management Plan (2008) and is consistent with the goals, objectives, and decisions in the Master Plan for Lincoln County Nevada (2007), the White Pine County Public Land Use Plan (2007) and the Lincoln County Public Land Policy Plan (2010).

***Issues***

Issues addressed in this EA were identified through internal and public scoping during the development of the Wilderness Management Plan, which is the proposed action. Internal scoping was done via meetings and written communications with BLM resource specialists. Public scoping was conducted in the form of public workshops, meetings, written letters, email, and by BLM staff. For details, see the Wilderness Issues section on Page 8 of the WMP.

All issues and concerns received through internal and external scoping that relate to wilderness resource conditions were considered during the development of the alternatives. Certain issues and concerns were judged to be out of the scope of this analysis.

## Description of the Proposed Action & the No Action Alternatives

### Proposed Action

The Wilderness Management Plan (WMP), the first half of this document, is proposed for implementation and is the Proposed Action. It consists of the following Wilderness Management Categories, fully described in the WMP, that relate to either specific resources or resource programs administered by the Ely BLM District Office. These categories are briefly described in the Environmental Assessment with a reference to the detailed description contained within the WMP. Certain Wilderness Management Categories contain site-specific proposed actions. The remaining actions outline general guidelines for each non-wilderness resource program operating within wilderness. Although the Plan would not administer these resource programs, resource activity plans have been evaluated to ensure conformity with laws, management goals, and objectives for these wilderness areas.

### No Action

The No Action alternative briefly describes differences within each category if a wilderness management plan was not adopted. Under this alternative, management of the wilderness would be considered on a case-by-case basis as directed by the Ely Resource Management Plan as well as guidance from 43 CFR 6300 and the National BLM Wilderness policy as set forth in BLM Manual 6340 (BLM, 2012). Management would remain generally passive, and react only as issues arise. All other programs operating within wilderness would operate without consolidated guidance and all new action would be considered in a separate environmental analysis, following the requirements of the National Environmental Policy Act.

## Management of Noxious and Non-Native Invasive Weed

***Proposed Action***

Current noxious and invasive weeds near wilderness include, but may not be limited to Spotted knapweed (noxious, A), Russian knapweed, Hoary Cress, Salt Cedar, Black hebane, Poison Hemlock, hoary cress and areas of cheatgrass. Management emphasis in wilderness would be placed on controlling small infestations with the potential to spread and displace native plants. Treatments for large infestations (defined by the BLM Ely District Weeds Program) would be considered separately. Site-specific actions would treat known infestations of salt cedar. Treatment methods include hand pulling, herbicides, biological control, reseeding, and alternatives such as targeted grazing. The detailed description, including treatment methods, is found in the WMP starting on Page 17.

***No Action***

There is currently no existing management plan with which to treat invasive grasses such as cheatgrass in wilderness. Noxious weeds would be treated on a case-by-case basis as per the District Noxious Weed Plan and BLM Manual 6340. The BLM's noxious weed classification system (which is described in the BLM Manual 9015 Integrated Pest Management) would be consulted in setting priorities for weed control.

## Management of Livestock Grazing

***Proposed Action***

Grazing would continue under federal regulations to meet the Northeastern Great Basin and Mojave – Southern Great Basin Resource Advisory Council Standards for their respective areas. Activities and the necessary facilities used to support livestock grazing would be permitted to continue in wilderness. Planning related to grazing operations would be guided by the Congressional Grazing Guidelines (House Report 105-405 Appendix A, 1990) and the BLM Manual 6340 (Management of Designated Wilderness Areas). Site-specific actions are developed by evaluating the administrative access needs on specific grazing allotments. Detailed description, including maps and tables, is found in the WMP starting on Page 18.

***No Action***

No difference from the proposed action except all requests would be required to have a site-specific EA for each action.

## Management of Small-Scale Surface Disturbances

***Proposed Action***

Disturbances fall into two categories with common characteristics: small-site disturbances including abandoned developments, mining claims, and dispersed campsites; and linear disturbances created by motorized vehicle traffic that are largely denuded of vegetation. Linear disturbances will be decommissioned and rehabilitated and small-site disturbances will be rehabilitated. Environmental Assessment (EA) NV-040-08-17 (White Pine County Wilderness Ground Disturbance Reclamation Plan), as well as the EA associated with this Plan, may be referenced for rehabilitation for decommissioning of former vehicle routes and rehabilitating small-site disturbances. Methods include decompaction, scarifying/pitting, recontouring, vertical mulching, erosion control, desert varnish colorant, and vegetative restoration. The WMP provides a detailed description starting on Page 20 and depiction in Maps 2-5.

***No Action***

Based on routine monitoring, reclamation activities would occur as necessary on a case-by-case basis according to methods and standard operating procedures as outlined in the two wilderness disturbance EAs: White Pine County Wilderness Ground Disturbance Reclamation Plan (NV-040-08-17) and Wilderness Disturbance Reclamation Environmental Assessment (NV-040-05-010).

## Management and Designation of Trails

***Proposed Action***

The proposed action identifies specific designated trails and details how designated and foot-worn hiking paths will be managed. The WMP provides a detailed description, including trail standards starting on Page 22 and depiction in Maps 6 & 7.

***No Action***

No trails would be designated, but 6.5 miles in Highland Ridge, 300' in the Far South Egans and 7.5 miles in the South Egan Range Wildernesses– would be treated as foot-worn hiking paths and be rehabilitated according to primitive standards and existing BLM policy. Cattle or game trails would also be treated as foot-worn paths. The game or cattle paths would not be displayed or described on BLM maps or brochures and would be monitored according to existing BLM policy.

## Management of Vehicle Access Points and Designation of Staging Areas

***Proposed Action***

The proposed action outlines management actions designed to protect wilderness character near heavily used access points into wilderness now and in the future. This section also describes maintenance levels on cherry stems. Detailed description, including maps, is found in the WMP starting on Page 26.

***No Action***

Visitors would be able to park their vehicles and access wilderness from any public point outside of the wilderness boundary. No vehicle staging areas would be designated or defined to direct recreational use to most desired and suitable access points.

## Management of Signs

***Proposed Action***

The proposed action outlines general guidelines for any future sign placement. Current kiosk and informational sign placement will be based on details from the document DOI-BLM-NV-L000-2009-003-CX. Signs around wilderness include key entrance signs, kiosks, directional signs, and wilderness access signs. There would be no further sign development beyond the Wilderness Management Plan. See Page 28 for details.

***No Action***

No difference from the Proposed Action.

## Management of Vegetation Restoration

***Proposed Action***

Vegetation restoration project proposals would be considered as described within the proposed action. The Mount Grafton Wilderness area treatments have been previously approved with the South Steptoe Valley Watershed Restoration Plan (DOI-BLM-NV-L020-2011-0013) and the Cave Valley and Lake Valley Watershed Restoration Plan (DOI-BLM-L020-2011-0021). These treatments are included within the proposed action for the WMP and incorporated by reference from Chapter Two of the previously mentioned environmental analyses. See Page 30 for details.

***No Action***

There are no treatments proposed in the WMP. It could be anticipated that the current trajectory of vegetation to move away from the reference condition would continue.

## Management of Wildlife

***Proposed Action***

Management of wildlife is the responsibility of the Nevada Department of Wildlife. Management of wildlife habitat is the responsibility of the BLM. Over the life of this plan it may be necessary to implement wildlife management activities to prevent degradation or enhance wilderness characteristics by promoting healthy, viable, and more naturally distributed wildlife populations and/or their habitats. Detailed guidelines are found in the WMP starting on Page 32. Categories related to wildlife management are as follows:

- *Wildlife Water Developments*
- *Wildlife Relocation Activities*
- *Wildlife Damage Management*
- *Collar retrieval*
- *Riparian & Stream Improvement*

***No Action***

A comprehensive wilderness management plan would not guide wildlife related management categories. Activities within these wilderness areas would be conducted in conformance with the current (2012) and subsequent BLM-NDOW Memorandum of Understanding (MOU) and guided by White Pine County Conservation, Recreation and Development Act (WPCCRDA) (2006), as well as BLM-APHIS MOU (2012) and BLM Manual 6340 (Management of Designated Wilderness).

## Management of Herd Areas

***Proposed Action***

The BLM Ely District Office Wild Horse Program's activity plans guide the management of wild horses. Gathers may occur within wilderness to remove wild horses. See Page 35 in the WMP for more wild horse management guidelines.

***No Action***

No difference from the proposed action.

## Management of Fire Suppression, Fuels and Emergency Stabilization and Rehabilitation

***Proposed Action***

Fire management objectives in these wilderness areas would be structured in accordance with the 2008 Ely District Fire Management Plan (FMP). If this FMP is updated over the life of this Plan, the new policies would be followed. Following fire, Emergency Stabilization and Rehabilitation (ES & R) activities may be undertaken in accordance with current Department of Interior policy (620 DM 3 Wildland Fire Management Burned Area Emergency Stabilization and Rehabilitation) and Bureau of Land Management policy (H-1742-1 Burned Areas Emergency Stabilization and Rehabilitation Handbook). BLM Manual 6340 provides detailed categories related to fire management are as follows:

- *Fire Use Guidelines*
- *Fire Suppression Guidelines*
- *Suppression Activity Damage*
- *Emergency Stabilization and Rehabilitation Activities*

Detailed maps are found in the WMP starting on Page 36.

***No Action***

Fire management activities would occur without the guidance of a comprehensive wilderness management plan.

## Protection of Archeological Resources and Historic Properties

***Proposed Action***

In addition to federal laws, protection of cultural resources for all BLM Ely District Office resource programs is further guided by the Cultural Resource Inventory General Guidelines (as currently published by the Nevada State Office) and the State Protocol Agreement between the BLM and the Nevada State Historic Preservation Office. Protection of cultural resources includes the identification, evaluation, and preservation of archaeological sites, and involves both monitoring and inventory. The proposed management plan will not alter the current management of archeological resources and historic properties, and will be incompliance with all applicable federal laws, including Section 106 of the National Historic Preservation Act. Guidelines for the protection of cultural resources are found in the WMP starting on Page 40. Site-specific actions would occur under this alternative.

***No Action***

With or without adoption of this plan, management of archeological resources and historic properties would not change. All laws regarding the protection of these resources, such as the Archaeological Resources Protection Act of 1979 and the National Historic Preservation Act of 1966, would apply. The proposed site-specific actions would not occur.

## Management of Recreation Opportunities

***Proposed Action***

Recreation activities include hunting, trapping, shed antler collection, horseback riding, caving, climbing, hiking, and backpacking. BLM staff and volunteers monitoring wilderness would be given instructions on the identification of human effects that would be considered unattended personal property or refuse. Unattended personal property not associated with an active camp, including traditional geocaches, would be removed by BLM personnel, and temporarily held at the appropriate BLM District or Field Office. Detailed guidelines for current and potential future management related to these activities are found in the WMP starting on Page 42.

***No Action***

Current laws, policies, and guidelines would be followed without the guidance of a comprehensive wilderness management plan.

## Visitor Education, Interpretation & Law Enforcement

***Proposed Action***

On- and off-site interpretive information regarding natural and cultural resources and recreation opportunities in wilderness would be located on informational signs outside of wilderness, in brochures, on BLM recreation maps, and at the BLM Ely District Office website. Enforcement of wilderness laws, federal regulations, and resource protection services would be performed by uniformed BLM Law Enforcement Rangers on foot or horseback and along the perimeter using motorized vehicles. Detailed guidelines are found in the WMP starting on Page 46.

***No Action***

The BLM has developed a wilderness public education plan for programs related to all designated wilderness in Lincoln County. This plan would be adopted for White Pine County and implemented without the guidance of a comprehensive wilderness management plan. Current laws, policies, and guidelines would be followed without the guidance of a comprehensive wilderness management plan.

## Commercial Use Restrictions

***Proposed Action***

Section 4(c) of the Wilderness Act (1964) prohibits commercial enterprises within wilderness, with the exception of those commercial services listed in Section 4(d) of the Wilderness Act. Details on commercial uses allowed in wilderness, including guide services, are found in the WMP starting on Page 47.

***No Action***

There would be no difference from the proposed action.

## Management of Research

***Proposed Action***

Research proposals investigating indigenous plant communities, wildlife, cultural resources, and the human dimensions of wilderness would be considered. Additional guidelines for the types of research proposals and subsequent approval within wilderness are found in the WMP starting on Page 48.

***No Action***

Scientific research proposals would be considered that adhere to current laws, policies, and guidelines, but would be implemented without the guidance of a comprehensive wilderness management plan.

## Management of Valid Rights

***Proposed Action***

The BLM would adhere to Nevada state water law and could seek to acquire water rights to sustain riparian habitat, provide water to wildlife, or support recreation. Any inholdings or edge holdings whether acquired by purchase or gift would be preserved as wilderness. For details see the WMP starting on Page 49.

***No Action***

No difference from the proposed action.

## Military Operations

***Proposed Action***

Military training exercises would not be located within wilderness. Guidelines for handling military operations would distinguish between emergency and non-emergency situations. Non-emergency incidents include release of low-level flares, recovery of aircraft parts or retrieval of non-operational ordinances. Emergency situations include downed aircraft or pilot and some classes of live ordinance. Details for potential military operations are found in the WMP starting on Page 50.

***No Action***

Current laws, policies, and guidelines would be followed without the guidance of a comprehensive wilderness management plan.

## Interagency Relationship - Great Basin National Park

***Proposed Action***

The relationship between the BLM and the National Park Service would be guided by a proposed MOU. No MOU is in place. See details on Page 50.

***No Action***

Current laws, policies, and guidelines would be followed without the guidance of a comprehensive wilderness management plan.

**No other action alternatives were needed to address unresolved conflicts concerning uses of available resources.**

## Affected Environment and Environmental Consequences

### Introduction

The scope of this EA comprises the Highland Ridge, Mount Grafton, South Egan Range and Far South Egans Wilderness areas located in White Pine, Lincoln and Nye Counties in the Central Basin and Range ecoregion. The BLM's NEPA Handbook (H-1790-1) requires that all EAs address specific resources or concerns of the human environment. The list of elements contained in the handbook has been expanded by BLM Instruction Memoranda and Executive Orders. These mandatory items along with the rationale for including or not including them in this analysis are listed in Table 5 below. Resources not adversely affected will not be considered further in this document.

### Resources/Concerns Considered for Analysis

The following items have been evaluated for the potential for 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. Following the table, each analyzed item is organized into two parts: Affected Environment and Environmental Consequences.

*Table 5. Resources/Concerns Considered including Supplemental Authorities.*

| Resource/Concern | Issue(s) Analyzed? (Y/N) | Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis |
|---|---|---|
| Air Quality | N | Proposed Action would not increase air pollutant concentrations. |
| Cultural Resources | N | All ground disturbing activities will be subject to National Historic Preservation Act (1966) Section 106 review and, if needed, SHPO consultation as per BLM Nevada's implementation of the Protocol for cultural resources. |
| Environmental Justice | N | No minority or low-income groups would be affected by disproportionately high and adverse health or environmental effects. |
| Fire Management | Y | Impacts assessed in the EA. |
| Federally Threated and Endangered Species | N | No federally listed plants or animals in wilderness. |
| Fish and Wildlife | Y | Impacts assessed in the EA. |
| Floodplains | N | Resource present but not affected. |
| Forest and Rangeland (HFRA only) | N | Project does not meet HFRA criteria. |
| Grazing Uses | Y | Impacts assessed in EA. |
| Invasive Non-native Plant Species (includes noxious weeds) | Y | Impacts assessed in the EA. |
| Land Uses | N | Designation of wilderness, not this wilderness management plan, affects land uses. |
| Migratory Birds | N | Following the BLM interim management guidance for the Migratory Bird Treaty Act would prevent impacts. |
| Mineral Resources | N | No open mine claims existed at the time of wilderness designation. |
| Native American Religious Concerns | N | No concerns presented at this time. |
| Paleontological Resources | N | No known sites of high scientific value are known. |
| Recreation Uses | Y | Impacts assessed in the EA. |
| Special Designations other than Designated Wilderness | N | None present. |

| Resource/Concern | Issue(s) Analyzed? (Y/N) | Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis |
|---|---|---|
| Special Status Animal Species | Y | Impacts are assessed in the EA. |
| Special Status Plant Species | Y | Proposed action may impact undiscovered individual plants. |
| Vegetation/Soils/Watershed | Y | Constructing staging areas and route decommissioning would affect small areas of vegetation. Soils would not be destroyed or removed and watershed function would not be affected. |
| Vegetative Resources (Forest or Seed Products) | N | The Wilderness Act does not allow forest or seed products to be sold. |
| VRM | N | The proposed action is consistent with Visual Resource Management (VRM) Class I objectives for wilderness. The proposed action (except route decommissioning) would not be visible from any road and the level of change to the landscape is low. |
| Wastes, Hazardous or Solid | N | No wastes are anticipated. |
| Water Quality, Drinking/Ground | N | No action to affect. |
| Water Resources (Water Rights) | N | BLM is subject to State of Nevada water rights laws. |
| Wetlands/Riparian Zones | N | Resource is not present. |
| Wild Horses | N | Resource is not present. |
| Wilderness | Y | Proposed actions seek to maintain, restore, or enhance wilderness character. |

# Effects Analysis

## Fire Management

***Affected Environment***

The BLM's objective regarding fire management is to manage wildland and prescribed fires as one of the tools in the treatment of vegetation communities and watersheds to achieve the desired future condition for vegetation, watersheds, and other resource programs (BLM 2008). The overall emphasis of managing fire in wilderness is to allow the frequency and intensity of an ecosystems natural fire regime to play its inherent role in that system.

The fire management units (FMUs) that overlap these wilderness areas are displayed in Map 12 and described in Table 6 below. The primary goals of these FMUs are to employ wildland and prescribed fire, as well as non-fire treatments, in an effort to improve watershed cover conditions and to hinder the spread of non-native invasive annual grasses.

All wilderness areas are characterized as Fire Regime Condition Class (FRCC) 2 which is described as being at a moderate risk of losing key ecosystem components. See Appendix D for a summary of the FRCC ratings and vegetation communities within each of the wilderness areas.

While there has not been fire history studies conducted in all of the wilderness areas, there have been several done within the great basin and the region of these wilderness areas. In general the studies have determined the fire return intervals have lengthened following the European settlement of the great basin. These changes to the fire return interval are commonly attributed to past grazing practices and fire suppression (Gruell 1994, Gruell 1999, Kitchen 2012).

***Environmental Consequences***

*Impacts of Proposed Action*

Impacts from fire management activities include visual impact from retardant, but the use of retardant potentially reduces surface disturbance from line construction as well as limits fire size. Localized impacts to vegetation may occur if motorized access is granted for a specific fire. However, Minimum Impact Suppression Tactics (MIST) would be followed in an effort to minimize impacts to wilderness character. Actions deemed necessary by the Incident Commander for public and firefighter safety could cause short-term impacts to resources such as vegetation, wildlife, and weeds.

Post-fire Emergency Stabilization and/or Rehabilitation seeding or planting treatments, if successful, would benefit wilderness by restoring natural vegetation communities or establishing a less fire-prone community if non-native species are approved. Fire management planning may be altered in order to protect cultural resources, which could hinder fire management objectives.

The re-introduction of fire to the landscape through the use of prescribed fire and allowing naturally ignited fires to burn would further enhance the naturalness of the wilderness. The implementation of prescribed fires would minimize the risk of negative impacts resulting from wildfire as well as increase the rate at which the desired future condition would be achieved. As the departure of the wilderness areas decrease wildfire would be allowed to play a more natural role within the system and decrease the amount of human suppression of wildland fires within wilderness area.

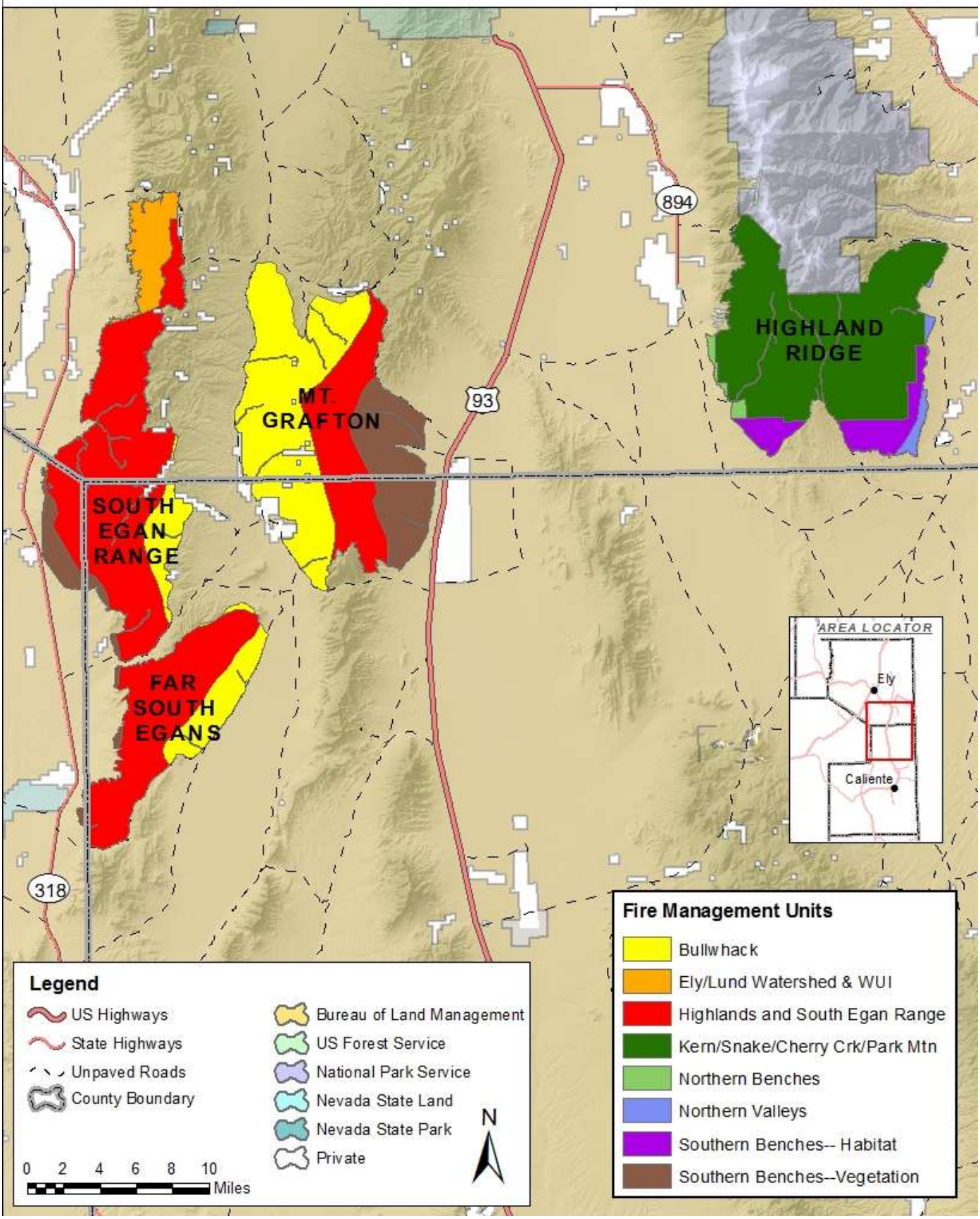
*Impacts of No Action*

Impacts would be the similar to the Proposed Action because fire management is guided by its own program activity plans that are currently in compliance with all applicable wilderness policies.

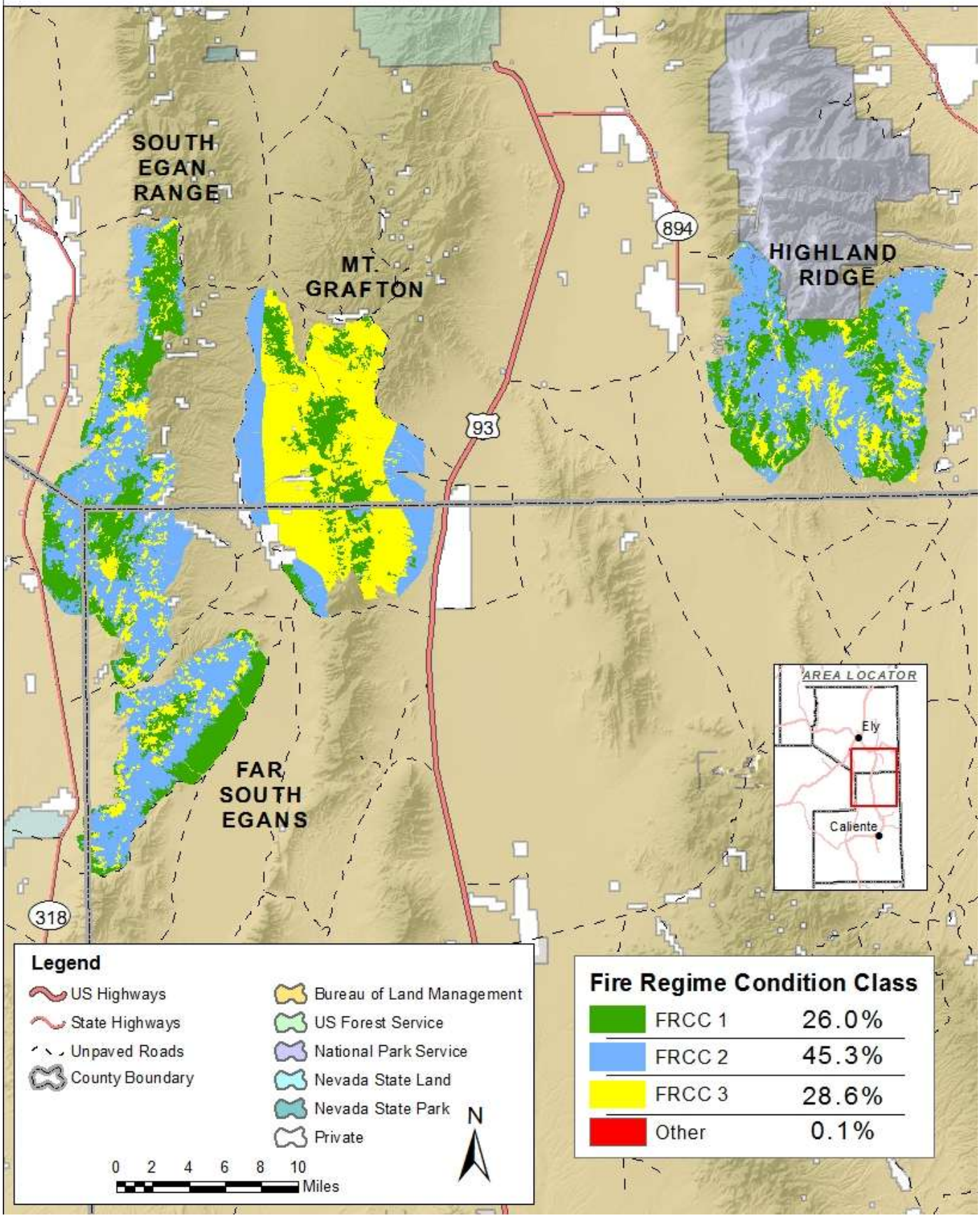
*Table 6. Fire Management Units (FMUs) within the four wilderness areas*.

| Wilderness Area | FMU Name | FMU Type* | FMU Acres Within Wilderness by Percent |
|---|---|---|---|
| Highland Ridge | Northern Benches | High Habitat Value | 2% |
| | Kern/Snake/Cherry Creek/Park Mtn | High Habitat Value | 83.5% |
| | Southern Benches – High Habitat Value | High Habitat Value | 12% |
| | Northern Valleys | Vegetation | 2.5% |
| Mount Grafton | Bullwhack | High Habitat Value | 50% |
| | Highlands & South Egan Range | High Habitat Value | 27% |
| | Northern Benches | High Habitat Value | 23% |
| South Egan Range | Highlands & South Egan Range | High Habitat Value | 73% |
| | Ely/Lund Watershed & WUI | High Habitat Value | 12% |
| | Bullwhack | High Habitat Value | 8% |
| | Southern Benches | Vegetation | 7% |
| Far South Egans | Highlands & South Egan Range | High Value Habitat | 75% |
| | Bullwhack | High Value Habitat | 23% |
| | Southern Benches | Vegetation | 2% |

# MAP 12: FIRE MANAGEMENT UNITS



# MAP 13 - FIRE REGIME CONDITION CLASS



## Fish and Wildlife

***Affected Environment***

Wildlife species characteristic of the Great Basin are supported by the diverse habitat types found in wilderness. Key habitats, as defined in the Nevada Wildlife Action Plan (2006), can be used to infer likely occurrences of wildlife species assemblages when survey data is lacking, as is the case for many species in these wilderness areas. Key Habitats include primarily lower montane woodlands and sagebrush and Inter-mountain conifer forests and woodlands (Nevada Wildlife Plan Action Team 2006).

The Highland Ridge Wilderness has 7 springs within or adjacent and no perennial streams. Mount Grafton contains 3 perennial streams and 16 springs. As of 1984 fish surveys, both in Geyser Creek and North Creek in the Mount Grafton Wilderness contain populations of rainbow and brook trout. The South Egan Range contains no perennial streams and 7 springs. The Far South Egans Wilderness contains no perennial streams, and no developed or undeveloped springs. Perennial streams, springs and riparian areas provide very important water sources, forage and habitat for all wildlife.

Small game and furbearers in the project area include black-tailed jackrabbit (*Lepus californicus*), gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus baileyi*), mountain lion (Puma concolor) and coyote (*Canis latrans*). Other animals that can be found in these regions include golden eagle (*Aquila chrysaetos)*, prairie falcon (*Falco mexicanus)*, northern Goshawk (*Accipiter gentilis)*, red-tailed hawk, short-eared owl (*Asio flammeus) and s*agebrush Lizard. Nongame species of mammals, reptiles, and birds are diverse and provide the prey base for the predators of the area.

*Big Game*

The big game species that occupy these areas are Rocky Mountain elk (*Cervus elaphus*), mule deer (*Odocoileus hemionus*), Pronghorn antelope (*Antelocapra americana*) and Rocky Mountain and desert bighorn sheep (*Ovis canadensis canadensis or canadensis nelsoni*). Table 7 below displays the acreage of big game habitat in each wilderness.

*Table 7. Acreages of big game habitat in each wilderness.*

| Big Game | Wilderness | Year Round (acres) | Crucial Summer (acres) | Crucial Winter (acres) |
|---|---|---|---|---|
| Rocky Mountain Elk | Mount Grafton | 78,722 | 35,723 | 0 |
| | Highland Range | 48,446 | 5,206 | 0 |
| | South Egans | 67,222 | 0 | 0 |
| | Far South Egans | 36,299 | 0 | 0 |
| Mule Deer | Mount Grafton | 32,695 | 46,027 | 0 |
| | Highland Range | 47,241 | 298 | 2,108 |
| | South Egans | 6,438 | 60,785 | 0 |
| | Far South Egans | 10,366 | 25,933 | 0 |
| Pronghorn | Mount Grafton | 19,291 | 0 | 0 |
| | Highland Range | 5,540 | 0 | 0 |
| | South Egans | 4,303 | 0 | 0 |
| | Far South Egans | 5,345 | 0 | 0 |
| Rocky Mountain Bighorn Sheep | Mount Grafton | 0 | 0 | 0 |
| | Highland Range | 35,957 | 0 | 0 |
| | South Egans | 0 | 0 | 0 |
| | Far South Egans | 0 | 0 | 0 |
| Desert Bighorn Sheep | Mount Grafton | 32,294 | 0 | 0 |
| | Highland Range | 0 | 0 | 0 |
| | South Egans | 17,567 | 0 | 0 |
| | Far South Egans | 21,862 | 0 | 0 |

*Rocky Mountain Elk* – Elk eat grasses and forbs during the spring and summer and supplement their diet with tree bark and shrubs in the winter. Elk breed in the fall when the bulls gather cows and calves into small groups or harems.

*Mule Deer* – Deer generally browse on forbs, grasses, and shrubs depending on the time of year. For instance, forbs and grasses are most important in spring and summer while shrubs are most utilized during winter and the dry summer months.

*Pronghorn Antelope* – The lower slopes of the three wilderness areas provides the low shrub habitat preferred by pronghorn. They eat a wide range of plants including sagebrush, rabbitbrush, cheatgrass and Indian rice grass.

*Rocky Mountain and Desert Bighorn Sheep* – The steep, rocky terrain of the Highland Ridge Wilderness provides habitat the sheep desire to help avoid predators such as coyote, eagle and mountain lions. Their diet depends upon grasses and shrubs. The male's distinctive horns can weigh up to 30 pounds. The Highland Ridge Wilderness contains 35,957 acres of occupied Rocky Mountain Bighorn Sheep habitat.

*Desert Big Horn Bighorn Sheep* – Bighorn sheep preferred habitat is steep slopes on, or near mountains, with a clear view of the surrounding area, therefore the mountains and cliffs of several wilderness areas are ideal. Their diet depends upon grasses and shrubs. The male's distinctive horns can weigh up to 30 pounds.

*Upland Game*
Upland game species primarily consist of blue grouse (*Dendragapus obscurus*) and chukar (*Alectoris chukar*).

> *Blue Grouse* – In the warm months blue grouse eat seeds, berries and insects whereas during the colder months they will eat conifer needles. During mating season the male blue grouse will call out with a booming hoot that can be heard for miles while displaying his neck sac and fanning out his tail.
>
> *Chukar* – This species from the pheasant family was originally introduced from Pakistan as an upland game bird. It can be found on rocky hillsides or open and flat desert with sparse grassy vegetation. They primarily eat seeds but will forage on some insects (Christensen 1996).

*Migratory and Resident Birds*
Common migrant bird species occurring in the project area include:
black throated grey warbler (*Dendroica negrescens*), sage sparrow (*Amphispiza belli*), sage thrasher (*Oreoscoptes montanus*), vesper sparrow (*Pooecetes gramineus*), Cassin's finch (*Carpodacus cassinii*), green tailed towhee (*Pipilo chlorurus*).

Common resident bird species include:
juniper titmouse (*Baeolophus ridgwayi*), Clark's nutcracker (*Nucifraga columbiana*), red-breasted nuthatch (Sitta Canadensis) and Brewer's sparrow (Spizella breweri).

***Environmental Consequences***
*Impacts of Proposed Action*
Authorized livestock activities and ground-disturbing methods relating to fire management activities, vegetation treatments, noxious and invasive weed treatments, emergency stabilization and rehabilitation, route decommissioning, construction of trails and staging areas and water development removal or maintenance could have localized, short term impacts on behavior and movement of individuals. Wildlife would be displaced, however once these actions have concluded, wildlife would return to the area.

In the long-term, vegetation treatments, noxious and invasive weed treatments, and emergency stabilization and rehabilitation would improve habitat for all wildlife by increasing native plant composition for forage and cover, as well as increasing habitat diversity. Treatments that remove encroaching trees from riparian areas, sagebrush communities, and aspen stands will improve habitat for all wildlife. Route decommissioning and restoration will reduce habitat fragmentation in the wilderness for all wildlife species. Repairing or upgrading Pickup, Wildcat #2, and Robber's Roost water developments would better distribute big game throughout the wilderness areas and relieve pressure on riparian vegetation and soils at natural water sources.

Big game and migratory bird timing stipulations outlined in the Proposed Action of the WMP will lessen impacts to both.

*Impacts of No Action*

In general, the impacts of fire management and emergency stabilization and rehabilitation would be the same as the Proposed Action because they are guided by their own resource programs and may still occur in wilderness. Sagebrush communities and aspen stands, would benefit from vegetation treatments by continuing to reduce tree encroachment for wildlife that depend on them. Not treating noxious and invasive weeds may replace native grasses and forbs over time decreasing forage and habitat, as well as increase fire intensity and frequency, potentially resulting in long-term loss of wildlife habitat. Not repairing wildlife water developments will concentrate big game in smaller areas and increase use on natural water sources which may create impacts to riparian plants and soils.

*Clark's Nutcracker, South Egan Range Wilderness*

## Grazing Uses

***Affected Environment***

Livestock grazing allotments in the Highland Ridge, Mount Grafton, South Egan Range and Far South Egans Wilderness areas are managed entirely by the Ely District Office. Most of the eighteen allotments are managed through the Schell Field Office, though Hardy Spring & Shingle Pass allotments are managed through the Egan Field office (See Table 8 and Maps 2-5). Animal Unit Months (AUMs) not included in Table 8 that may be associated with the allotments include historic suspended, as well as mandatory and voluntary non-use AUMs, for conservation and protection purposes. Livestock numbers may vary based on rotational grazing systems and the terms and conditions of the individual term grazing permits.

Range developments currently exist in support of rangeland health and the management of livestock grazing. Existing range developments identified through administrative records and field reconnaissance within the wilderness areas are depicted in Maps 2 – 5.

The grazing permittee is responsible for maintenance of all livestock grazing facilities in the wilderness areas by cooperative agreements.

*Table 8. Grazing Allotments overlapping Wilderness.*

| Wilderness Area | Allotment | Total Wilderness Acres | Season of Use | Total AUMs* |
|---|---|---|---|---|
| Highland Ridge | Baker Creek | 1,182 | Sheep 12/1-7/30<br>Cattle 11/1-6/10 | 4,313 |
| | South Spring Valley | 3,889 | Sheep<br>5/1-6/15 and 9/1-9/30<br>Cattle<br>2/1-6/15 | 6,329 |
| | North Chokecherry | 399 | 10/15-5/15 | 770 |
| | Murphy Wash | 43,935 | 6/5 – 9/10 | 728 |
| | Lexington (FS) | 11,239 | Closed | |
| | Hamblin Valley | 6,675 | 11/1-5/31 | 8,177 |
| | Chokecherry (FS) | 9,570 | Closed | |
| Mount Grafton | Cattle Camp/Cave Valley | 25,664 | 5/15-11/30 | 6,878 |
| | Cave Valley Ranch | 21,773 | 5/1-10/31 | 2,402 |
| | Geyser Ranch | 31,312 | 3/1-2/28 | 12,308 |

| Wilderness Area | Allotment | Total Wilderness Acres | Season of Use | Total AUMs* |
|---|---|---|---|---|
| South Egan Range | Brown Knoll | 2,542 | 4/1-5/15 | 161 |
| | Chimney Rock | 10,289 | 5/1-11/1 | 684 |
| | Hardy Spring | 15,069 | 10/15-5/15 | 3,478 |
| | Rock Canyon | 425 | 11/1-2/28 and 3/15-5/15 | 432 |
| | Sheep Pass | 13,514 | 4/1-12/31 | 1,095 |
| | Shingle Pass | 24,814 | 5/15-10/30 | 2,724 |
| | Six Mile Ranch | 157 | 4/1-4/30 and 9/15-2/28 | 162 |
| | Sunnyside | 406 | 6/1-3/31 | 5,402 |
| Far South Egans | Shingle Pass | 11,839 | 5/15 - 10/30 | 2,724 |
| | Sunnyside | 24,460 | 6/1 to 3/31 | 5,402 |

*AUMs are for the entire allotment (wilderness and non-wilderness).

***Environmental Consequences***

*Impacts of Proposed Action*

The Proposed Action for management of livestock grazing provides specific guidance for the maintenance of facilities and activities in support of a livestock grazing program in contrast to the No Action. Administrative access routes would be clearly defined and regular maintenance of structures in support of livestock grazing would be distinguished from emergency operations. This may enhance the ability of the BLM to manage livestock grazing activities within wilderness and eliminate time delays in approval for access to maintain range developments and respond to emergency situations. The installation of gates would allow for permittee access to the range developments while preventing illegal vehicle incursions and reducing vandalism to range developments. Maintenance and removal techniques and activity is being analyzed within site-specific EA(s).

The proposed action may create temporary localized impacts to other resources. The proposed action may affect the "undeveloped" character of the wilderness resource, recreationists seeking a wilderness experience, individual wildlife species in the vicinity, and has the potential to increase the spread of invasive, non-native plant species. Wildlife may benefit from the maintenance of rangeland water developments as they provide additional sources of water.

*Impacts of No Action*

Administrative access and maintenance needs for livestock grazing operations would occur on a case-by-case basis. No administrative access routes would be designated and access gates would not be installed. Impacts to and from other resources would not differ from the proposed action.

## Invasive Non-native Plant Species (includes noxious weeds)

***Affected Environment***

Noxious and non-native invasive weeds are frequent obstacles to managing wilderness character in the Central Basin Ecoregion. Non-native invasive species are defined by Executive Order 13112 as "an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health." Alien refers to a species that did not evolve in the environment in which it is found. Noxious weeds are any plant designated by a Federal, State, or County government as injurious to public health, agriculture, recreation, wildlife, or property (Sheley, Petroff, and Borman 1999).

Noxious weeds in Nevada are classified by the Nevada Department of Agriculture and the Plant Protection Act (2000) administered by the United States Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS). Category A weeds are weeds that are generally not found or that are limited in distribution throughout the State. Such weeds are subject to active exclusion from the State, active eradication wherever found, and active eradication from the premises of a dealer of nursery stock. Category B weeds are weeds that are generally established in scattered populations in some counties of the State. Such weeds are subject to active exclusion where possible and active eradication from the premises of a dealer of nursery stock. Category C weeds are weeds that are generally established and generally widespread in many counties of the State. Such weeds are subject to active eradication from the premises of a dealer of nursery stock.

Highland Ridge Wilderness has one documented location of spotted knapweed on the John's Wash cherrystem. Within the immediate vicinity of Mount Grafton Wilderness are Black henbane, white top/hoary cress, Spotted Knapweed and Salt Cedar. Nearby the South Egan Range are locations of Black Henbane, and Russian Knapweed.

Cheatgrass (*Bromus tectorum*) is currently found in a few areas at low density throughout both wilderness areas. This invasive annual grass displaces native perennial shrub, grass, and forb species because of its ability to germinate quicker and earlier than native species, thus outcompeting natives for water and nutrients. Cheatgrass is also adapted to recurring fires that are perpetuated in part by the fine dead fuels that it leaves behind. In general, native plants have a difficult time thriving in these altered fire regimes.

A risk assessment for noxious weeds was conducted for these wilderness areas. For this project, the risk factor is low. A risk rating of moderate requires the development of preventative management measures for the proposed project to reduce the risk of introduction or spread of noxious weeds into the area.

***Environmental Consequences***

*Impacts of Proposed Action*

In general, the management actions outlined in this plan apply best management practices and standard operating procedures that are focused on preventing the spread of weeds by vectors such as vehicles or equipment. The ability to detect noxious and invasive weeds would be enhanced over the No Action alternative through a greater emphasis on regular wilderness monitoring. Weed treatment procedures within these areas would be clearly defined and compatible with limiting or eliminating noxious and invasive weeds. High-use staging areas and designated trails could be infested by weeds through vehicle or human vectors.

The continued presence and anticipated increase of recreational activities, including hunting, camping, hiking, and horse packing, may contribute to the spread of noxious and invasive species as a result of

trampling of native species and the possibility of spreading noxious and invasive seeds into wilderness. Pack stock animals used for recreational horseback riding and routine livestock maintenance would be fed with packed-in, certified weed-free feed, decreasing their contribution to weed infestation problems and the impact of incidental recreational horse browsing on vegetation.

Rehabilitation of small-scale disturbances would include methods such as decompaction, scarifying, and pitting soil that may stimulate the growth of noxious and invasive weeds. Future approved vegetation restoration projects may cause small, local disturbances that could increase local noxious and invasive weed populations. Allowable motorized access could occur through emergency stabilization and rehabilitation, wildlife management, livestock permittee administrative access, or fire-management; such access may cause disturbances that encourage weed establishment, or may introduce additional weeds into the wilderness.

Livestock grazing management seeks to achieve or maintain desired rangeland health and healthy rangelands are less vulnerable to weed infestations. However, livestock can carry seeds and plant parts of noxious and invasive weed species. Monitoring of high risk areas should minimize possible infestations. Cattle would generally be excluded from areas of new revegetation until deemed successful to prevent livestock from trampling and grazing young plants (BLM 2008b).

*Impacts of No Action*

Weed introduction from individuals hiking and from vehicles along cherry-stemmed routes and wilderness boundary roads may occur. Weed monitoring would occur approximately every 5 years along roads, cherry-stemmed routes, and around springs reasonably accessible from roads. Compared to the proposed action, weed treatment would be sporadic and would not occur in a timely manner. Additionally, when weeds are found, site-specific NEPA analysis would not be guided by the treatment options and priorities outlined in the proposed action, further slowing down the ability to treat weeds in a timely manner.

## Recreation Uses

***Affected Environment***

The four wilderness areas lie in remote central Nevada, about a 4 hour drive from Las Vegas. Although the precise amount of annual visitation is unknown, it is presumed to be low. Recreational activities include hiking, camping, climbing, enjoying scenery, nature study and hunting. The wilderness areas range in elevation from 5,000 feet to the 10,991 foot summit of Mount Grafton. The rugged peaks, cliffs, and remote canyons offer destinations for hikers and climbers. There is a summit register atop Mount Grafton. There are no known geocaches, or letterboxes in any of the wilderness areas.

Less difficult hiking opportunities can be found on the wilderness areas' outer edges. An unknown number of trails exist which were created by wildlife and livestock. Hunting occurs for Rocky Mountain elk, mule deer, and upland game birds including blue grouse. Availability of firewood for campfires is good; pinyon pine and juniper are prevalent across the four wilderness areas.

No permits are required to visit, and there are no group size limits or camping restrictions.

The majority of the wilderness areas provide the opportunity to experience a sense of remoteness and isolation. There are numerous draws, ravines, rocky outcrops, ridges, and canyons that create secluded locales. The wilderness areas' large area and low visitation combine to provide outstanding opportunities for

solitude. However, the lower open slopes of the mountains, and periodic sights and sounds of vehicles in adjacent lands and aircraft flying overhead, may decrease experiences of solitude. On the western portion of Far South Egans and the South Egan Range Wilderness areas opportunities for solitude are diminished due to the sights and sounds of State Route 318. Similarly, the eastern side of Mount Grafton is within sight and sound of Highway 93.

An unmaintained foot-worn hiking path of approximately 300 feet provides easy access to Whipple Cave from a nearby parking area outside of wilderness. Reaching the cave floor involves a 75-foot rappel from the roof of the cave, aided in part by two permanent fixed anchors near the ledge; the last 20-feet of the rappel is an overhang. A visitor self-register is located on the cave floor. Visitation to the cave is moderate due to the relative ease of access; however the technical climbing equipment and skills required may limit use within the cave itself.

***Environmental Consequences***

*Impacts of Proposed Action*

In the Highland Ridge Wilderness, 6.5 miles of trails will be designated, 2 vehicle staging areas and two signs will be installed. The short section of trail leading to Whipple Cave would be designated in the Far South Egans Wilderness.

With the redesign of the wildlife water developments, opportunities for wildlife viewing and hunting would be improved on the Far South Egans and Mount Grafton Wilderness areas.

The proposed action would provide hiking opportunities and protection of resources by concentrating impacts in those areas over No Action. Recreational use may create temporary localized impacts to wildlife through displacement of individual animals; however, the recreational experience may also be improved through increased opportunities to observe wildlife. Increased pedestrian, equestrian and vehicle traffic at trailheads has the potential to introduce invasive non-native plants, including noxious weeds. Creation of vehicle staging areas and sign installations would create small localized disturbances to vegetation and soils.

The wilderness resource would be enhanced by the Proposed Action as the majority of the four wilderness areas would not be accessed by designated trails. Off-trail travel would not be impacted. The experience of visitors seeking a more primitive and unconfined form of recreation would be enhanced, and opportunities for solitude would remain extensive. Signs/kiosks may increase protection of the wilderness resource and enhance visitors' experiences by providing recreationists with information and education, and creating staging areas may reduce instances of vehicle incursions. A monitoring system would be established to prevent or respond to degradation of trails, campsites, solitude, additional foot-worn hiking paths, and recreational impacts to other resources.

Recreational activities may be impacted by temporary closures of areas as a result of fire suppression activities, emergency stabilization and rehabilitation, and herbicide treatments of invasive non-native and noxious weed treatments.

*Impacts of No Action*

The No Action option would generally have similar impacts compared to the Proposed Action, however, impacts to recreation and wilderness resources may be more severe. Impacts of recreational use to wildlife resources, non-native invasive plants, including weeds, would be identical to the Proposed Action. No trails

would be designated; however, 211 miles of former vehicle routes would be available for hiking and equestrian use. The lack of designated trails may increase opportunities for recreationists seeking a primitive and unconfined type of recreation and increased opportunities for solitude. However, the absence of designated trails may result in numerous foot-worn hiking paths, which may increase disturbance to vegetation and soils.

There would be no vehicle staging area or barrier construction in the No Action, thereby eliminating short term localized impacts to vegetation and soils. The absence of these facilities may, however, result in widespread impacts to these resources from vehicles creating their own staging areas, and potentially driving into wilderness. The consequences of visitor impacts may detract from the wilderness setting if there is no monitoring system and strategy in place to deal with those impacts.

Impacts of other resources, including fire suppression activities, emergency stabilization and rehabilitation, and herbicide treatments of invasive non-native and noxious weed treatments would be the same as the Proposed Action.

## Special Status Animal Species

***Affected Environment***

According to BLM Manual 6840, *Special Status Species Management Manual*, special status species are defined as 1) species listed or proposed for listing under the Endangered Species Act (ESA) and 2) species requiring special management consideration to promote their conservation and reduce the likelihood and need for listing under the ESA, which are designated as Bureau sensitive by the State Director. Additionally, all federal candidate, proposed, and delisted species in the five years following delisting will be conserved as Bureau sensitive species (BLM 2008d).

Information on the occurrence and abundance of Nevada BLM special status species within the management area is currently lacking because no extensive surveys within wilderness have been conducted, however, populations may be discovered in the future. Table 9 lists the Nevada BLM special status wildlife species that may occur in the project area, along with its key habitat (BLM 2011).

***Environmental Consequences***

*Impacts of Proposed Action*

In general, impacts to special status animal species would generally be the same as described for fish and wildlife on Page 77. Vegetation treatments that remove encroaching trees in sagebrush communities, riparian areas, and aspen stands would benefit greater sage-grouse, northern goshawk, as well as other special status bird and bat species that rely on these communities. Nest and roost sites for birds and bats would be lost due to potential vegetation treatments; however there is sufficient habitat throughout the wilderness. Implementing the proposed action would not harm special status species populations nor cause them to become federally listed under the ESA.

Greater sage-grouse and migratory bird timing stipulations outlined in the Proposed Action of the WMP will lessen impacts to these species.

*Table 9. Nevada BLM Special Status Fish & Wildlife Species with Potential to Occur in the Project Area (BLM 2011).*

| BLM Special Status Animal Species | Scientific Name | Key Habitat |
|---|---|---|
| Bald Eagle | *Haliaeetus leucocephalus* | Lower Montane Woodland |
| Northern Goshawk | *Accipiter gentilis* | Sagebrush & Intermountain Conifer Forests & Woodlands |
| Golden Eagle | *Aquila chysaetos* | Sagebrush & Lower Montane Woodlands |
| Ferruginous Hawk | *Buteo regalis* | Sagebrush & Lower Montane Woodlands |
| Western Burrowing Owl | *Athene cunicularia* | Sagebrush |
| Greater Sage-Grouse | *Centrocercus urophasianus* | Sagebrush |
| Loggerhead Shrike | *Lanius ludovicianus* | Sagebrush |
| Black Rosy-Finch | *Leucosticte atrata* | Lower & Upper Montane Woodlands |
| Pinyon Jay | *Gymnorhinus cyanocephalus* | Lower Montane Woodlands |
| Lewis's Woodpecker | *Melanerpes lewis* | Intermountain Conifer Forests and Woodlands |
| Dark Kangaroo Mouse | *Microdipodops megacephalus* | Sagebrush |
| Pygmy Rabbit | *Brachylagus idahoensis* | Sagebrush |
| Long-eared Myotis | *Myotis evotis* | Lower Montane Woodlands & Intermountain Conifer Forests and Woodlands |
| Western Small-footed Myotis | *Myotis ciliolabrum* | Lower Montane Woodlands |
| Fringed Myotis | *Myotis thysanodes* | Lower Montane Woodlands |
| Townsend's Big-eared Bat | *Plecotus townsendii* | Lower Montane Woodlands |
| Spotted Bat | *Euderma maculatum* | Lower Montane Woodlands |
| Brazilian Free-tailed Bat | *Nyctinomops macrotis* | Lower Montane Woodlands |
| Hoary Bat | *Lasiurus cinereus* | Intermountain Conifer Forests and Woodlands |

*Impacts of No Action*
In general, the impacts of the no action alternative to special status animal species are the same as described for fish and wildlife on Page 77. Implementing the no action alternative would not cause these species to become listed under the ESA.

## Special Status Plant Species

***Affected Environment***
BLM special status plant species are defined according to BLM Manual 6840 (BLM 2008).

Information on the occurrence and abundance of Nevada BLM special status plant species within the project area is currently lacking because no extensive surveys within wilderness have been conducted, however, populations may be discovered in the future. Two populations of waxflower (*Jamesia tetrapetala*) have been documented in the Highland Ridge Wilderness. This plant inhabits alpine, subalpine limestone cliff, talus, and canyon areas. It is unknown if these populations are decreasing, increasing, or stable due to insufficient surveys and lack of information.

Nevada willowhead (Epilobium nevadense) has potential to occur in the project area.

***Environmental Consequences***
*Impacts of Proposed Action*
Destruction of known or undiscovered special status plant species could occur from wildland fire. Areas where known populations of waxflower or newly discovered special status plant species would be avoided by ground disturbing activities.

*Impacts of No Action*
Impacts from wildland fire would be the same as the proposed action. The existing waxflower populations and any undiscovered special status plant species would remain unchanged.

## Vegetation

***Affected Environment***
All four wilderness areas lie entirely within the Central Basin and Range Ecoregion (Great Basin). (U.S. Environmental Protection Agency 2007).

Biophysical setting (BPS) models have been developed for most major vegetation types. These models describe the vegetation, geography, biophysical characteristics, succession stages, disturbance regimes, and assumptions for each vegetation type (Havlina et al, 2010). Each biophysical setting model establishes a reference condition that is described as the potential vegetative community for a given site prior to European influence reflecting a range of natural disturbances. These reference conditions specify a range, in percentages, of several classes that describe the vegetation progression post-disturbance. The Ely District Resource Management Plan (RMP) utilized the BPS data in delineating the vegetative goals for the district. The percentages within the RMP vary slightly from the BPS models for certain vegetation types.

Mount Grafton Wilderness FRCC rating has been calculated at 50% departed or at the upper end of FRCC 2 (34-67%). This is described as representing a moderate risk of losing key ecosystem components. Highland Ridge Wilderness FRCC rating has been calculated at 51% departed or in the middle of FRCC 2 (34-67%). This is described as representing a moderate risk of losing key ecosystem components. Past studies within the South Snake Range have documented historical fire return intervals that are similar or are shorter than those utilized within the BPS models. Following European settlement the fire return intervals have increased dramatically. The change in the disturbance regime has been attributed to past grazing practices, fire suppression and the removal of the Native American ignition source (Gruell 1994, Gruell 1999, Kitchen 2012).

South Egan Range Wilderness FRCC rating has been calculated at 50% departed or in the middle of FRCC 2 (34-67%). This is described as representing a moderate risk of losing key ecosystem components. Far South Egans Wilderness FRCC rating has been calculated at 47% departed or in the middle of FRCC 2 (34-67%). This is described as representing a moderate risk of losing key ecosystem components. While there has not been any fire history studies identified, there have been several done within the Great Basin and the region of these wilderness areas. In general the studies have determined the fire return intervals have lengthened following the European settlement of the great basin. These changes to the fire return interval are commonly attributed to past grazing practices and fire suppression.

Appendix D lists the major BPS models within the wilderness areas as summarized by the FRCC rating.

***Environmental Consequences***

*Impacts of Proposed Action*

These actions are proposed on relatively disturbed sites, thus there would be nominal impacts to vegetation communities. Also, vehicle barriers would be constructed outside of wilderness to prevent vehicles from unauthorized travel inside wilderness, thus further limiting impacts to vegetation.

Very small amounts of vegetation may be temporarily impacted along cherry-stemmed or administrative access routes from authorized motorized access that may occur through future emergency stabilization and rehabilitation, wildlife management, grazing permittee administrative access, or fire management actions.

Approximately 207 miles (approximately 207 acres) of former vehicle routes will be decommissioned. Rehabilitating decommissioned routes will reduce or eliminate further unauthorized incursions and new plant growth will enhance the vegetation communities in proximity to these former routes.

Small areas of vegetation could be disturbed or destroyed if vegetation is cut back or removed to protect sensitive archaeological and historic resources, such as prehistoric rock art, from wildland fire.

Approved research on native plant communities, vegetation restoration projects, wildland fire for resource benefit and monitoring could improve and restore vegetation communities within wilderness. As departure is reduced fire frequency and severity would have a higher probability of occurring within the historic fire regime thereby creating a natural arrangement of vegetative communities and seral classes. These restoration activities would move vegetation closer to the reference condition thereby increasing the naturalness of the wilderness area.

The prohibition of geocaching would prevent disturbance to vegetation that could occur through object burial and the development of social trails relating to geocaching.

*Impacts of No Action*
Without the guidance of a management plan and subsequent monitoring, altered vegetation communities may persist or further degrade impacting wildlife habitat and increasing fire frequency and severity. Unmonitored recreational use of the wilderness areas could result in impacts to vegetation on foot-worn paths and at campsites. Not designating administrative access routes, staging areas, or pullouts, could lead to degradation of vegetative communities through an increase in motorized trespass and poor wilderness ethics from recreational users.

## Wilderness

***Affected Environment***
A Wilderness is an area designated by Congress and defined by the Wilderness Act of 1964 as a place that "(1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."

The Wilderness Management Plan addresses management of the 68,622 acre Highland Ridge, 78,743 acre Mount Grafton 67,214 acre South Egan Range and 51,480 Far South Egans Wilderness. Wilderness characteristics are described under four categories: untrammeled, natural, undeveloped, and having outstanding opportunities for solitude or primitive and unconfined recreation. Table 10, below, provides a summary of the affected environment for the wilderness areas for which data was available.

*Untrammeled*
Trammels are modern human controls or manipulations which hinder and restrict components or processes of wilderness. The few trammeling activities that exist include various measures in the management of wildland fire, weeds, and removal of vegetation due to livestock grazing. Additional obstructions are present in the form of authorized allotment fences, pipelines, water troughs, and wildlife water developments.

*Natural*
These areas appear be substantially free from the effects of modern civilization, having been primarily affected by the forces of nature, and their primeval character is mostly preserved. Non-native chukar partridge may be present in all four areas. Any weed infestations alter the natural component of wilderness.

*Undeveloped*
The wilderness areas have few permanent improvements or other evidence of modern human presence or occupation. Structures which occur include range developments such as fence lines, pipelines, water troughs and reservoirs, corrals, as well as wildlife water developments, abandoned mining claims, and former vehicle routes. Three wildlife water developments are located within Far South Egans. Few metal pieces and roadbeds are what remain of a shingle mill operation, once located in what is now Far South Egans Wilderness. A railroad bed with ties, metal boiler, unconfirmed stack of processed logs, and human effects such as boots, cans, and glass are left from a historic sawmill operation within Far South Egans. Other historic mine sites exist within the Mount Grafton Wilderness. A self-register box is located on the floor of Whipple Cave. Additionally, two permanent fixed anchors are located on the rock ledge at the Whipple Cave entrance.

*Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation*
The wilderness areas provide outstanding opportunities for people to experience solitude and primitive, unconfined recreation, including the values of inspiration and physical and mental challenge. Jagged peaks and ridges, and forested slopes and drainages in these areas provide excellent opportunities for solitude. The rugged terrain, broad canyons provide for primitive recreation opportunities such as hiking, camping, climbing, hunting, horseback riding, and nature study. Only the 14-day stay limit for camping in all four areas confines recreation opportunities.

***Environmental Consequences***
*Impacts of Proposed Action*

All activities that authorize the use of motorized and mechanized vehicles and equipment would result in temporary and localized short-term effects to all wilderness characteristics.

*Untrammeled*
Under this alternative, trammeling activities would continue in the wilderness areas to the same extent as under the No Action. These trammeling activities include control of fire, emergency stabilization and rehabilitation after a fire, vegetation restoration and control of non-native invasive plants. Trammeling developments include existing or upgraded wildlife water developments, and range developments. Although trammeling, these activities or developments are expected to enhance the natural character of the wilderness areas.

*Natural*
The natural and primeval character of the wilderness would be maintained or enhanced under the Proposed Action, and would be improved as compared to the No Action. The proposed action would provide definite direction for the control of noxious weeds, and would direct fire management actions, and emergency stabilization and rehabilitation to reduce the potential for conversion and dominance of introduced annual grasses. Designation of trails would be expected to better direct visitors in ways that would prevent degradation of natural resources and prevent widespread impacts to vegetation and soils.

*Aspen leaves in the Highland Ridge Wilderness*

*Undeveloped*

The proposed action would designate approximately 15 miles of trails. This is the optimal amount to simultaneously provide for recreational opportunities while protecting natural resources by directing the majority of visitors away from sensitive locations and preventing more widespread impacts. Decommissioning of former vehicle routes followed by vegetative restoration of those areas and the removal of non-functioning wildlife water developments would improve the undeveloped qualities of the wilderness. Administrative access routes would remain and would impact wilderness character. Removal of the mining shack and debris on the southwest side of Mount Grafton Wilderness would improve the undeveloped quality.

*Outstanding Opportunities for Solitude and Primitive, Unconfined Recreation*

Outstanding opportunities for solitude would be largely unaffected by the Proposed Action. By designating trails, visitation may increase in those areas, causing the ability to find solitude to diminish; however the locations of the designated trails are historic trail locations and/or known areas of scenic and recreational opportunities and over time use increases would be expected in those areas without trail designations. Solitude may remain impacted by military aircraft operations in airspace. Opportunities for primitive and unconfined recreation will remain outstanding throughout the wilderness. Trails may enhance the ability of some to enjoy primitive recreational opportunities. The Proposed Action allows for additional restrictions on recreation if monitoring indicates new damage to natural resources is occurring.

*Impacts of No Action*

*Untrammeled*

Impacts occurring to the untrammeled quality of wilderness would continue to the same extent as under the Proposed Action. These trammeling actions include suppression of fires, emergency stabilization and rehabilitation of vegetation after fires, and control on non-native invasive plants including noxious weeds. New activities that could create trammels would be considered on a case-by-case basis.

*Natural*

The naturalness and primeval character of wilderness would remain mostly unchanged under the No Action alternative. Invasive non-native plants including noxious weeds would remain and may spread in portions of the wilderness areas. Limited actions may be taken in fire management and emergency stabilization and rehabilitation to prevent further conversion of native to non-native vegetation communities compared to the Proposed Action. Lack of designated trails may cause impacts to new areas and resources such as vegetation and soils.

*Undeveloped*

No trails would be designated under the No Action; however former vehicle routes would be available for use by hikers and equestrians. The historic trails may continue to receive use, without the benefit of maintenance. Personal property, unauthorized structures, or installations would be removed as encountered as long as they are not culturally noteworthy. Removal of these items would maintain or improve the undeveloped character.

*Outstanding Opportunities for Solitude or Primitive, Unconfined Recreation*

Under the No Action, impacts to solitude, such as from military over flights would largely be the same as in the Proposed Action. Opportunities for primitive and unconfined recreation would remain outstanding throughout the wilderness areas. There would be no trail designation which may increase opportunities for solitude and primitive and unconfined recreation. No additional regulations would be implemented to confine or restrict recreational activities.

*Table 10. Summary of Developments in Wilderness*

| Wilderness Area | Fence lines (miles) | Pipelines (miles) | Mines | Water Troughs and Reservoirs | Wildlife Water Developments | Vehicle Routes (miles) |
|---|---|---|---|---|---|---|
| Highland Ridge | 1.2 | 0.05 | - | 21 | - | 58.9 |
| Mount Grafton | 13 | 0 | 3 | 11 | 3 | 105.6 |
| South Egan Range | 5.1 | - | 1 | 11 | 2 | 39.8 |
| Far South Egans | 0.19 | - | - | - | 3 | 2.9 |

## Cumulative Impacts

The purpose of the cumulative impacts analysis for the proposed action is to evaluate the combined, incremental effects of human activity within the scope of the project. The Ely RMP states that resource analysis will occur by watershed. The project area overlaps with seven hydro-geographic basins, which are within the Colorado River Basin region; therefore the scope of the cumulative analysis will be restricted to actions within these basins. See Map 1 for an overview of the area.

The Council on Environmental Quality (CEQ) regulations define scope and state that connected actions, cumulative actions, and similar actions should be included in the effects analysis (40 CFR 1508.25). With the exception of wildfire suppression, noxious weed and invasive species management, and emergency stabilization and rehabilitation, the scope of the cumulative effects analysis will be restricted to an area that includes a one-mile buffer around each of the wilderness areas. The one-mile distance equates to the proximity of human activities that may affect wilderness character. This distance was chosen to represent the visual and sound intrusion that could be carried to and from edges due to topography, as well as the heightened risk of wildfire, weed invasion, and non-native seeding that is in close proximity to the wilderness.

Actions related to wildfire suppression, noxious weed and invasive species management, and emergency stabilization and rehabilitation will include a scope that encompasses lands within the region that pose a threat to wilderness character.

The 1997 CEQ Handbook Guidelines for Assessing and Documenting Cumulative Impacts states that the cumulative effects analysis can be focused on issues and resource values identified during scoping that are of major importance. Relevant issues identified for this project include the following:

Past actions (includes activities that have occurred since designation):

- Large wildfires that threaten wilderness and non-wilderness
- Fire Suppression and ES&R actions
- Fence repair and construction
- Livestock grazing operations
- Wild Horse presence
- Sign installation
- Stream monitoring device

Current and ongoing activities:

- Livestock grazing operations
- Monitoring
- Wild Horse presence
- Commercial outfitting and guiding
- Recreation: camping, hunting and fishing
- Vegetation restoration activities planned in the South Steptoe and Cave Valley and Lake Valley Watershed plans

Future actions (includes those that are reasonably foreseeable within the project area):

- Large wildfires that threaten wilderness and non-wilderness values
- Inholding acquisitions
- Water development
- Development of staging areas
- Fuel treatments and fire breaks
- Travel Management Planning
- Maintenance and repair of access routes
- Vegetation restoration activities currently proposed within the South Spring and Hamblin Watershed Restoration Plan.

There are few activities in the Proposed Action that, when combined with other activities, result in a cumulative impact. These include:

1. Actions that may include motorized use.
2. Actions that may disturb soils, vegetation, or other natural or cultural resources.
3. Actions pertaining to land acquisition, and private and state land access and development.

Unauthorized motorized incursions into wilderness cause direct and indirect effects usually associated with noise and/or visitor experience and may affect untrammeled, undeveloped, solitude, and primitive wilderness character. Such operations pertain to grazing, emergency access situations, wildfire suppression, emergency stabilization and rehabilitation, treatment of large weed infestations, or vegetation manipulation. An example of the direct effect would be an authorized permittee entering a pasture to repair fence damage or for a large salt delivery. An estimated average of 20 incursions per year would occur within the wilderness areas, and the impact would be localized or limited in scope to the affected pasture(s) and area adjacent to the pasture (effects would not be realized outside of an estimated one-mile radius from the motorized activity, and no more than one mile from the wilderness boundary).

Cumulative impacts may result from activities that occur simultaneously even when separated by space (up to one mile). However, there is a low probability for this cumulative impact to occur due to the low frequency of motorized incursions into the wilderness. The impact is considered negligible and is related mostly to authorized livestock operations. An example of the cumulative impact would be a hunter traveling within a mile from the permittee at the same time and just outside the wilderness. The combined actions would result in an annual cumulative effect within a localized portion of wilderness (pasture).

Authorized actions in wilderness may involve disturbance to soils, vegetation, or other natural or cultural resources. Actions considered for their contribution to cumulative impacts to natural resources include wildfire suppression, emergency stabilization and rehabilitation, weed treatments, and livestock concentration areas.

A cumulative impact would only occur when two activities overlap in both time and space. There is a low probability for that to occur because such actions occurring within wilderness must be authorized by BLM. In addition, livestock grazing operations must adhere to Rangeland Health Standards designed to prevent effects to vegetation community and ecosystem health. The cumulative effect could be described through an example in which a livestock concentration area is located within the same seeding project area.

Other actions within wilderness that may have a direct effect include land acquisition, and private land access and development. BLM's acquisition of this property reduces or eliminates the likelihood of subsequent development that would reduce solitude.

Climate forecasts predict increasing heat and drought for the southwest United States may lead to the need for installation of additional wildlife water developments, which may increase trammeling and reduce the undeveloped character of wilderness, but will enhance the natural character by allowing some native wildlife to expand into suitable but water-limited habitat.

In conclusion, cumulative impacts associated with past, present, or reasonably foreseeable actions within the analysis area would have an estimated negligible, but positive effect. When added to other foreseeable actions in the analysis area, management actions included in the Proposed Action Alternative would preclude, minimize, or mitigate natural and human-caused impacts to natural resources and wilderness character.

### Monitoring Program

Monitoring of wilderness is a component of the Ely District Wilderness Program. Monitoring tracks the outcome of proposed activities on all wilderness characteristics, not just the one specific character that the activity was primarily intended to address. The Wilderness Management Plan contains a detailed monitoring section on starting on Page 55.

## Public Involvement

The Ely District Office mailed a Consultation, Cooperation, and Coordination Letter to individuals and organizations that have expressed an interest in recreation/wilderness related actions. Those receiving the Consultation, Cooperation, and Coordination Letter have had the opportunity to request from the Ely District Office more information regarding specific actions.
A Notice of Intent was sent in November, 2009.
Public meetings were hosted by the BLM from the winter of 2009 to the summer of 2011 to inform the public of the policies and regulations associated with Wilderness management. Input was solicited during these meetings and for several weeks afterward concerning wilderness-related issues and concerns, as well as the development of alternatives and management actions proposed in the WMP.

The Proposed Wilderness Management Plan was presented at a Tribal Coordination Meeting on September 2009; no comments or concerns were raised.

Meetings specifically for livestock grazing concerns were held in February 2010. A letter was also sent to appropriate grazing permittees asking for input on the BLM's assessment of access needs for range improvements.

# Consultation and Coordination

Nevada Department of Wildlife
Great Basin National Park
Southern Nevada Water Authority
Lincoln County
White Pine County
Wingfield Nevada Group
Wild Sheep Foundation
Nevada Outfitter & Guide Association

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# References

Barker, J. P. 1990. Cultural Resources Inventory General Guidelines. Bureau of Land Management, Nevada State Office, Reno. Fourth edition (revised).

BLM 2012. Manual 6340 - Management of BLM Wilderness. July 13, 2012.

BLM 2011. Updated Bureau of Land Management (BLM) Sensitive Species List for Nevada. Instruction Memorandum NV-2011-059. June 27, 2011.

BLM 2009. Wilderness Signs & Information Kiosks Categorical Exclusion. U.S. Department of the Interior, Bureau of Land Management, Ely District Office, Ely, Nevada.

BLM 2008. White Pine County Wilderness Ground Disturbance Reclamation Plan. U.S. Department of the Interior, Bureau of Land Management, Ely District Office, Ely, Nevada. April 2008.

BLM 2008b. Ely District Approved Resource Management Plan. U.S. Department of the Interior, Bureau of Land Management, Ely District Office, Ely, Nevada. November 2008.

BLM, 2008c. Ely Fire Management Plan U.S. Department of the Interior, Bureau of Land Management, Ely District Office, Ely, Nevada.

BLM 2008d. Manual 6840 – Special Status Species Management. December, 12, 2008.

BLM 2007. Proposed Resource Management Plan/Final Environmental Impact Statement for the Ely District. U.S. Department of the Interior, Bureau of Land Management, Ely District Office, Ely, Nevada. November 2007.

BLM 2004. Ely District Fire Management Plan. U.S. Department of the Interior, Bureau of Land Management, Ely District Office, Ely, Nevada.

Christensen, G.C. 1996. Chukar (*Alectoris chukar*). *In* The Birds of North America, No. 258 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists Union, Washington, D.C.

Congressional Grazing Guidelines (House Report 105-405 Appendix A, 1990).

Gruell, G.E., L. E. Eddleman and R. Jaindl. 1994. Fire History of the Pinyon-juniper Woodlands of Great Basin National Park. Technical Reprot NPS/PNROSU/NRTR-94/01. U.S. Department of the Interior, National Park Service, Pacific Northwest Region. 27 pp

Gruell, G. E. 1999. Historical and modern roles of fire in pinyon-juniper. Pages 24-28 in: S.B. Monsen and R. Stevens, complilers. Proceedings: ecology and management of pinyon –juniper communtieis within the Interior West: Sustaining and restoring a diverse ecosystem; 1997 September 15-18 Provo, UT. Proceedings RMRS-P-9. Ogden, UT: USDA Forest Service, Rocky Mountain Research Station.

Kitchen, Stanley G. 2011. Historical fire regime and forest variability on two eastern Great Basin fire-sheds (USA). Forest Ecology and Management 285 (2012) 53–66. USDA Forest Service, Rocky Mountain Research Station, Provo, UT.

Sheley, R.,J. Petroff, M.. Borman, 1999. Introduction to Biology and Management of Noxious Rangeland Weeds, Corvallis, OR.

U.S. Environmental Protection Agency. 2007. Western Ecology Division. Ecoregions of North America. Accessed at: http://www.epa.gov/wed/pages/ecoregions/level_iii.htm. Accessed on: November 12, 2009.

USGS National Gap Analysis Program. 2005. Southwest Regional GAP Analysis Project—Land Cover Descriptions. RS/GIS Laboratory, College of Natural Resources, Utah State University. Accessed at: http://earth.gis.usu.edu/swgap/data/atool/files/swgap_legend_desc.pdf

Wildlife Action Plan Team. 2006. Nevada Wildlife Action Plan. Nevada Department of Wildlife, Reno NV.

# APPENDICES

## APPENDIX A

## IDENTIFIED RANGE DEVELOPMENTS

Mount Grafton Wilderness

| Range Development | Type | Allotment T/R/S | Details |
|---|---|---|---|
| HGO Fence (S. of Wildcat Canyon) | Fence | b/t Cattle Camp/Cave Valley and Cave Valley Ranch | 4.3 miles |
| Cattle Camp Management Fence (North of Molly's Nipples) | Fence | Cattle Camp/Cave Valley | 1.1 miles |
| Cattle Camp Management Fence (South of Molly's Nipples) | Fence | Cattle Camp/Cave Valley | 3.9 miles |
| North Creek Riparian Fence (Off North Creek Road) | Fence | Geyser Ranch | 1.0 miles |
| Darrel Fence (South of Geyser Spring) | Fence | Geyser Ranch | 2.8 miles |
| H & CC Protection Fence (East of Robber's Roost) | Fence | Cattle Camp/Cave Valley (into Geyser Ranch) | 1.4 miles |
| Sagehen Trough | Trough & pipeline | Cave Valley Ranch T10N R64E Sec. 23 | (non-functioning) |
| Off Cave Valley Road - trough | Trough | Cattle Camp/ Cave Valley T10N R63E Sec. 12 | (non-functioning) |
| Robison Spring | Trough, pipeline | Cave Valley Ranch T9N R64E Sec. 25 | (non-functioning) |
| Deer Track Spring | trough, pipeline, pond | Geyser Ranch T10N R64E Sec. 12 | (pipeline, trough non-functional) |
| Campbell Spring | Pipeline, trough, reservoir | Geyser Ranch T10N R65E Sec. 18 | pipeline & reservoir in wilderness; trough in cherrystem |
| Reservoir (N) | Reservoir | Geyser Ranch T10N R65E Sec. 15 | Reservoir (non-functioning) |

| Range Development | Type | Allotment T/R/S | Details |
|---|---|---|---|
| Reservoir (NE) | reservoir | Geyser Ranch T10N R65E Sec. 23 | Reservoir (non-functioning) |
| Reservoir (SW) | reservoir | Geyser Ranch T10N R65E Sec. 22 | Reservoir (non-functioning) |
| Trough | Trough | T10N R64E Sec. 23 | |
| Cabin Spring trough & pipeline | Trough & pipeline | Cave Valley Ranch T11N R64E Sec. 11 | |
| Wall Spring Pipeline & Trough | Trough & pipeline | Cave Valley Ranch T10N R64E Sec. 1 | |
| Sheep Creek & Sheep Spring | ? | Cave Valley Ranch | |

Far South Egans

| Range Development | Type | Allotment T/R/S | Details |
|---|---|---|---|
| Hardy Spring Extension (off Shingle Pass Rd) | Fence | Sunnyside T08N R62E Sec. 25 | 0.2 miles |

South Egan Range Wilderness

| Range Development | Type | Allotment T/R/S | Details |
|---|---|---|---|
| Tony Allotment Fence & Extension (Schoolhouse fence) | Fence | Chimney Rock T11N R63E Sec. 31 | 0.8 miles |
| Sheep Pass Canyon Fence | Fence | Sheep Pass T10N R62 Sec. 12 and T10N R63 Sec. 7 | 2.0 miles (+ 1 mile in cherrystem) |
| Sheep Pass Canyon Fence (@ Beginning of cherrystem) | Fence | Sheep Pass T10N R62E Sec. 14 | 0.5 miles |
| "Haggerty Spring fence" | Fence | Sheep Pass T09N R63E Sec. 3, 4, 10 | 1.3 (+ 0.4 miles along boundary) |
| WGF Fence (N. of Long Canyon) | Fence | b/t Shingle Pass & Sheep Pass T10N R63E Sec. 28 | 0.3 miles |
| Whipple Seeding Fence (beginning of Ninemile) | Fence | Sheep Pass T10N R62E Sec. 22 | 0.2 miles |
| Nine Mile Fence | Fence | Shingle Pass T10N R62E Sec. 25, 26, 36 | 1.1 (+ 0.8 in cherrystem) |
| Trough at Parker Spring | Trough, pipeline | Shingle Pass T10N R62E Sec. 36 | Non-functioning trough (~60' of pipeline; non-functioning) |
| Cottonwood Spring (in Long Cyn cherrystem) | Pipeline | Shingle Pass T09N R62E Sec. 13 | 48' in Wilderness; remainder in cherrystem (trough in cherrystem) |
| Big Travis Spring Pipeline | Pipeline | Shingle Pass T09N R63E Sec. 17 | 70' pipeline in wilderness (pond, trough in cherrystem) |
| Pipeline (beg. Of Long canyon cherrystem) | Pipeline | Shingle Pass T09N R63E Sec. 6 | On edge of private - 15' on BLM |

Highland Ridge

| | | T/R/S | |
|---|---|---|---|
| Shoshone Hamblin Fence (W) | fence | T10N R69E Sec. 20 | 0.52 miles (Primitive – native & wire) |
| Shoshone Hamblin Fence (E) | fence | T10N R69E Sec.27 | 0.37 miles Non-primitive |
| Choke Cherry Drift Fence | fence | T10N R70E Sec. 4-5 | 0.39 miles (Non-primitive) |
| Big Spring Wash Corral or Exclosure? | Fence | Murphy Wash T11N R69E Sec. 28 | 0.08 miles in wilderness; mostly in cherrystem Primitive |
| Cedar Cabin Spring | Stock trough | Murphy Wash T11N R69E Sec. 27 | Spring box, pipeline, trough (in cherrystem: trough)z |
| head of John's Wash | Stock trough | Murphy Wash T11N R68E Sec. 25 | In cherrystem: Exclosure fence, head box, tank |
| Murphy Wash spring box | | Murphy Wash T11N R68E Sec. 35 | (trough in cherrystem) |
| Stock trough & spring box (John's Wash N) | Trough & box | Murphy Wash T11N R68E Sec. 36 | non-functioning |
| Stock trough & spring box (John's Wash S) | Trough & box | Murphy Wash T10N R68E Sec. 1 | non-functioning |
| Stock trough (west side of Murphy's Wash) | trough | Murphy Wash T11N R68E Sec. 26 | non-functioning |
| Corral | Corral | T10N R68E Sec. 36 | Historic? |
| IN CHERRYSTEM | | | |
| Exclosure, pipeline & trough at Spring at head of Murphy's Wash | | Murphy Wash T11N R68E Sec. 25 | Entirely within Cherrystem |
| Murphy's Wash Pipeline, stock tank at cabin & pond, tank & fence at beginning of cherrystem | | Murphy Wash T10N R68E Sec. 2 | Entirely within Cherrystem |
| Spring Box & stock trough at cherrystem junction (b/t Decathon & Big Wash) | Stock trough & spring box | Murphy Wash T10N R69E Sec. 4 | Non-functioning Entirely within Cherrystem |

## APPENDIX B

### DESCRIPTIONS OF PRIMARY ECOLOGICAL SYSTEMS PRESENT WITHIN WILDERNESS

*Great Basin Pinyon-Juniper Woodland*

This pattern typically occurs on the dry mountain ranges of the Central Basin and Range ecoregion and the eastern foothills of the Sierra Nevada, typically at lower elevations ranging from 5200 — 8500 feet. These woodlands tend to be dominated by a mix of singleleaf pinyon (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*). Shrubs include multiple species of sagebrush (*Artemesia spp*.), mountain mahogany (*Cercocarpus spp*.), and grasses, such as bluebunch wheatgrass (*Pseudoroegneria spicata*), Idaho fescue (*Festuca idahoensis*), and needle-and-thread grass (*Hesperostipa comata*).

*Inter-Mountain Basins Montane Sagebrush Steppe*

This ecological system includes sagebrush communities occurring at montane and subalpine elevations from 3280—9840 feet and is primarily composed of mountain big sagebrush (*Artemisia tridnetata ssp. vaseyana*) and related plants, as well as antelope bitterbrush (*Purshia tridentata*). Other common shrubs include snowberry (*Symphoricarpos spp.*), serviceberry (*Amelanchier spp.*), rubber rabbitbtush (*Ericameria nauseosa*), wild crab apple (*Peraphyllum ramosissimum*), wax currant (*Ribes cereum*), and yellow rabbitbrush (*Chrysothamnus viscidiflorus*). The herbaceous layer is abundant in most stands (over 25% cover), but also includes mountain big sagebrush (*Artemisia tridentata ssp. vaseyana*) shrublands. Common grasses include Idahoe fescue (Festuca idahoensis), needle-and-thread grass (*Hesperostipa comata*), muttongrass (*Poa fendleriana*), slender wheatgrass (*Elymus trachycaulus*), Sandberg bluegrass (*Poa secunda*), and spike fescue (*Leucopoa kingii*).

*Inter-Mountain Basins Big Sagebrush Shrubland*

This vegetation type typically occurs in broad basins between mountain ranges, plains, and foothills in soils which are typically deep, well-drained, and non-saline. These shrublands are dominated by big sagebrush (*Artemisia tridentata spp.*), however scattered Utah juniper (*Juniperus osteosperma*), greasewood (*Sarcobatus vermiculatus*), and saltbush (*Atriplex ssp*.) may be present in some stands. Yellow rabbitbrush (*Chrysothamnus viscidiflorus*) and mountain mahogany (*Cercocarpus spp*.) may be codominate species in disturbed areas. Several grass species such as Indian ricegrass (*Achnatherum hymenoides*) or wild rye (*Leymus cinereus*) may be common.

*Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland*

This vegetation type generally occurs from 1,970 feet to over 8,700 feet in elevation on rocky outcrops or escarpments and forms small- to large-patch stands in forested areas. This system includes both woodlands and shrublands dominated by mountain mahogany (*Cercocarpus ledifolius*), mountain big sagebrush (*Artemisia tridentata ssp. Vaseyana*), antelope bitter brush (*Purshia tridentate*), with species of bearberry or manzanita (*Arctostaphylos*), currant (*Ribes spp*.), or snowberry (*Symphoricarpos*) are often present.

*Great Basin Xeric Mixed Sagebrush Shrubland*

This ecological system occurs in the Great Basin on dry flats and plains, alluvial fans, rolling hills, rocky hillslopes, saddles and ridges at elevations between 3,200 and 8,500 feet. Sites are dry, often exposed to desiccating winds, with typically shallow, rocky, non-saline soils. Shrublands are dominated by black sagebrush (*Artemisia nova*), little sagebrush (*Artemisia arbuscula*) and may be codominated by Wyoming big sagebrush (*Artemisia tridentata ssp. Wyomingensis*) or rabbitbrush (*Chrysothamnus viscidiflorus*).

*Inter-Mountain Basins Subalpine Limber-Bristlecone Pine*

These open woodlands are typically found on high-elevation ridges and rocky slopes above subalpine forests and woodlands (8300-12,000 feet). Sites are harsh, exposed to desiccating winds with rocky substrates and a short growing season that limit plant growth. Stands are strongly dominated by limber pine (*Pinus flexilis*) and/or bristlecone pine

(*Pinus longaeva*). Single-leaf pinyon (*Pinus monophylla*) may be present in lower-elevation stands. Associated species may also include rosy pussytoes (*Antennaria rosea*), mountain mahogany (*Cercocarpus intricatus*), cushion buckwheat (*Eriogonum ovalifolium*), alpine fescue (*Festuca brachyphylla*), or wax currant (*Ribes cereum*).

### *Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland*

These are mixed-conifer forests of the Rocky Mountains west into the ranges of the Great Basin, occurring predominantly in cool ravines and on north-facing slopes. Elevations range from 4,000 to 10,800 feet. Douglas fir (*Pseudotsuga menziesii*) and white fir (Abies concolor) are most common canopy dominants, but Engelman spruce (*Picea engelmannii*), or ponderosa pine (Pinus ponderosa) may be present. This system includes mixed conifer/aspen (*Populus tremuloides*) stands.

(USGS National Gap Analysis Program, 2005)

## APPENDIX C

**SUMMARY OF EXISTING WATER RIGHTS WITHIN WILDERNESS.**

The information contained in this table was obtained through the State of Nevada Department of Conservation and Natural Resources Division of Water Resources Water Rights Database. This list may not be complete or legally accurate but is presented as a general overview. Points on map may not be exact.

| *Water Right Status and Permit Number* | *Use* | *Source* | *Township and Range** |
|---|---|---|---|
| Certificate<br>Application Number – 1710<br>Certificate Number - 203 | Irrigation | Lexington Canyon<br>Highland Ridge<br>Wilderness | NW ¼ NE ¼ Sec. 06<br>T11N R70E |
| Certificate<br>Application Number – 2567B<br>Certificate Number – 9294 | Irrigation | Lincoln Creek<br>Highland Ridge<br>Wilderness | SE ¼ NE ¼ Sec. 27<br>T12N R68E |
| Certificate<br>Application Number – 48724<br>Certificate Number – 12339 | Stock<br>Watering | Unnamed Spring<br>Highland Ridge<br>Wilderness | NW ¼ NE ¼ Sec. 15<br>T10N R68E |
| Vested Right<br>Application Number – V02915 | Stock<br>Watering | Unnamed Spring<br>Highland Ridge<br>Wilderness | NW ¼ NE ¼ Sec. 15<br>T10N R68E |
| Certificate<br>Application Number – 6167<br>Certificate Number – 1772 | Irrigation | Lexington Creek<br>Highland Ridge<br>Wilderness | NE ¼ NW ¼ Sec. 05<br>T11N R70E |
| Vested Right<br>Application Number – V01147 | Stock<br>Watering | Choke Cherry Spring #1<br>Highland Ridge<br>Wilderness | SW ¼ SE ¼ Sec. 24<br>T11N R69E |
| Vested Right<br>Application Number – V01148 | Stock<br>Watering | Chokecherry Spring<br>Highland Ridge<br>Wilderness | SW ¼ NE ¼ Sec. 25<br>T11N R69E |
| Vested Right<br>Application Number – V02836 | Stock<br>Watering | Swallow Creek<br>Highland Ridge<br>Wilderness | SW ¼ SE ¼ Sec. 03<br>T11N R68E |
| Vested Right<br>Application Number – V01675 | Stock<br>Watering | Brush Spring<br>Mount Grafton<br>Wilderness | SE ¼ SW ¼ Sec. 27<br>T10N R64E |
| Certificate<br>Application Number – 9720<br>Certificate Number – 2269 | Stock<br>Watering | Cabbin Spring (sic)<br>Mount Grafton<br>Wilderness | NW ¼ NE ¼ Sec. 14<br>T09N R64E |
| Vested Right<br>Application Number – V01698 | Stock<br>Watering | Cabbin Spring (sic)<br>Mount Grafton<br>Wilderness | NW ¼ NE ¼ Sec. 14<br>T09N R64E |

| *Water Right Status and Permit Number* | *Use* | *Source* | *Township and Range** |
|---|---|---|---|
| Vested Right<br>Application Number – V01697 | Stock Watering | Mahogany Spring<br>Mount Grafton Wilderness | NW ¼ SE ¼ Sec. 11<br>T09N R64E |
| Vested Right<br>Application Number – V09526 | Stock Watering | Cabin Spring<br>Mount Grafton Wilderness | SW ¼ SE ¼ Sec. 11<br>T09N R64E |
| Vested Right<br>Application Number – V01498 | Stock Watering | Campbell Spring<br>Mount Grafton Wilderness | NE ¼ NE ¼ Sec 18<br>T10N R65E |
| Vested Right<br>Application Number – V01699 | Stock Watering | Canyon Spring<br>Mount Grafton Wilderness | NE ¼ SW ¼ Sec. 14<br>T09N R64E |
| Vested Right<br>Application Number – V09527 | Stock Watering | Canyon Spring<br>Mount Grafton Wilderness | SE ¼ NW ¼ Sec. 13 T09N R64E |
| Certificate<br>Application Number – 9001<br>Certificate Number – 4209 | Domestic | Cave Spring<br>Mount Grafton Wilderness | SW ¼ NE ¼ Sec. 16<br>T09N R64E |
| Certificate<br>Application Number – 4881<br>Certificate Number – 1060 | Irrigation | Cave Spring<br>Mount Grafton Wilderness | SW ¼ NE ¼ Sec. 16<br>T09N R64E |
| Vested Right<br>Application Number – V01807 | Irrigation | Cave Valley or Sheep Creek<br>Mount Grafton Wilderness | NW ¼ SW ¼ Sec. 31<br>T10N R64E |
| Permit<br>Application Number – 73168 | Stock Watering | Cave Valley Well #2<br>Mount Grafton Wilderness | SW¼ NW ¼ Sec. 27<br>T09N R64E |
| Certificate<br>Application Number – 4993<br>Certificate Number – 905 | Stock Watering | Deer Track Spring<br>Mount Grafton Wilderness | SW ¼ SW ¼ Sec. 12<br>T10N R64E |
| Vested Right<br>Application Number – V01029 | Irrigation | Dupont Spring<br>Mount Grafton Wilderness | SE ¼ NE ¼ Sec.16 T09N R65E |
| Certificate<br>Application Number – 7496<br>Certificate Number – 2231 | Stock Watering | Graham Spring<br>Mount Grafton Wilderness | SW ¼ SE ¼ Sec. 05<br>T09N R65E |
| Vested Right<br>Application Number – V75779 | Quasi-Municipal | Homestead Well<br>Mount Grafton Wilderness | SE ¼ SE ¼ Sec. 05<br>T09N R64E |
| Certificate<br>Application Number – 7495<br>Certificate Number – 2230 | Stock Watering | Ledge Creek<br>Mount Grafton Wilderness | SW ¼ SW ¼ Sec. 29<br>T09N R65E |

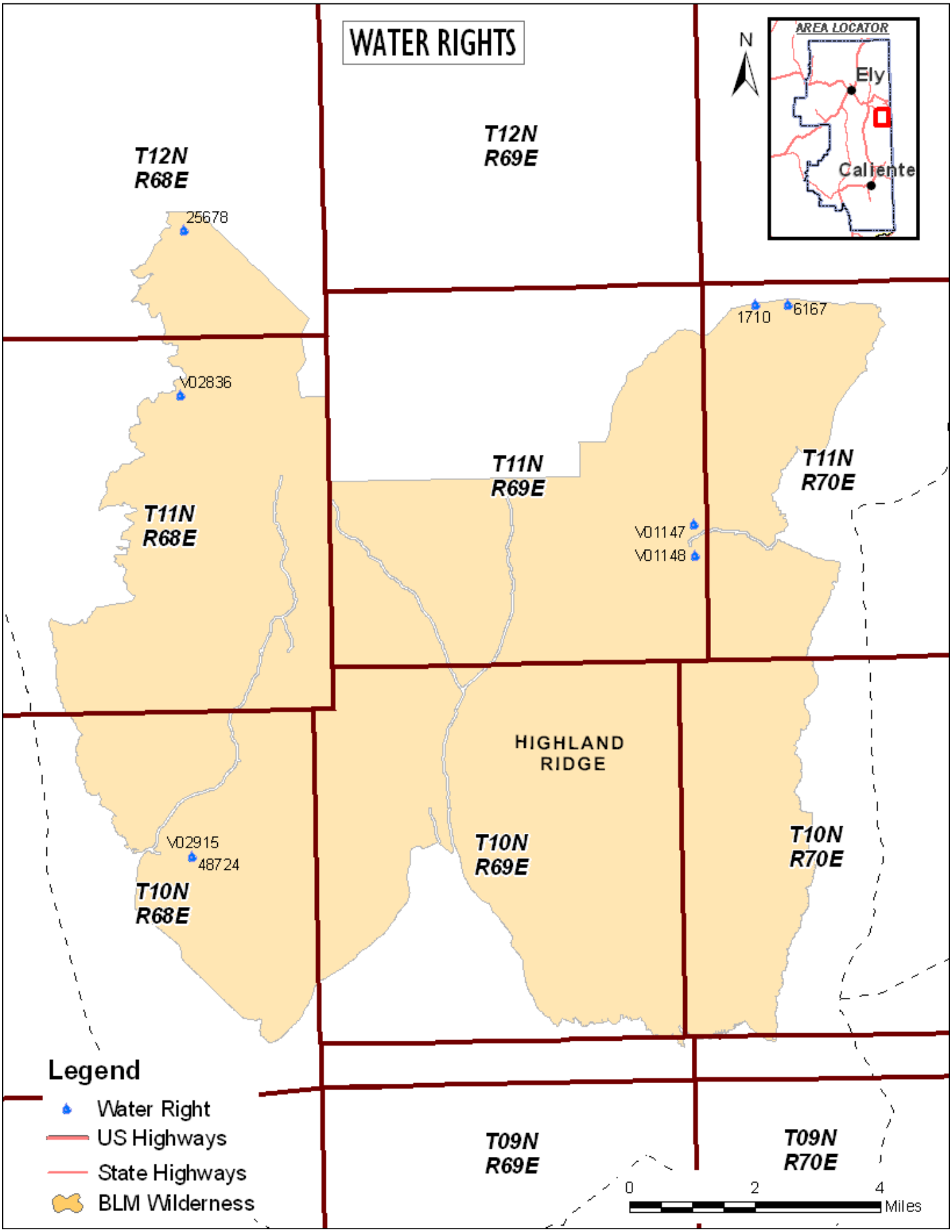
| *Water Right Status and Permit Number* | *Use* | *Source* | *Township and Range** |
|---|---|---|---|
| Certificate<br>Application Number – 5997<br>Certificate Number – 1907 | Mining and Milling | Mill Stream<br>Mount Grafton Wilderness | NE ¼ NW ¼ Sec. 05<br>T09N R65E |
| Certificate<br>Application Number – 7499<br>Certificate Number – 2232 | Stock Watering | Mill Creek<br>Mount Grafton Wilderness | NW ¼ NW ¼ Sec. 05<br>T09N R65E |
| Vested Right<br>Application Number – V01678 | Stock Watering | No. Branch Sheep Creek<br>Mount Grafton Wilderness | NE ¼ SE ¼ Sec. 34<br>T10N R64E |
| Vested Right<br>Application Number – V01681 | Stock Watering | North Creek<br>Mount Grafton Wilderness | NE ¼ NW ¼ Sec. 26<br>T10N R64E |
| Certificate<br>Application Number – 21744<br>Certificate Number – 7703 | Irrigation | North/Sheep Creek<br>Mount Grafton Wilderness | NE ¼ NE ¼ Sec. 28<br>T10N R65E |
| Certificate<br>Application Number – 3193<br>Certificate Number – 389 | Stock Watering | Patterson Spring<br>Mount Grafton Wilderness | SE ¼ SE ¼ Sec. 30<br>T09N R65E |
| Certificate<br>Application Number – 7482<br>Certificate Number – 2227 | Stock Watering | Sheep Creek<br>Mount Grafton Wilderness | SE ¼ SE ¼ Sec. 30<br>T09N R65E |
| Certificate<br>Application Number – 7484<br>Certificate Number – 2229 | Stock Watering | Quaker Spring<br>Mount Grafton Wilderness | SW ¼ NE ¼ Sec. 07<br>T09N R65E |
| Vested Right<br>Application Number – V01659 | Stock Watering | Quartzite Spring No. 1<br>Mount Grafton Wilderness | SE ¼ SE ¼ Sec. 22<br>T10N R64E |
| Vested Right<br>Application Number – V01660 | Stock Watering | Quartzite Spring #2<br>Mount Grafton Wilderness | NW ¼ SE ¼ Sec. 22<br>T10N R64E |
| Vested Right<br>Application Number – V09525 | Stock Watering | Quartzite Spring #2<br>Mount Grafton Wilderness | NW ¼ SE ¼ Sec. 22<br>T10N R64E |
| Certificate<br>Application Number – 13102<br>Certificate Number – 4059 | Stock Watering | Robber's Roost Spring<br>Mount Grafton Wilderness | NE ¼ SE ¼ Sec. 33<br>T11N R64E |
| Vested Right<br>Application Number – V01679 | Stock Watering | So. Branch Sheep Creek<br>Mount Grafton Wilderness | NW ¼ NW ¼ Sec. 02<br>T09N R64E |
| Vested Right<br>Application Number – V09523 | Stock Watering | S. Branch Sheep Creek<br>Mount Grafton Wilderness | NW ¼ NW ¼ Sec. 02<br>T09N R64E |

| *Water Right Status and Permit Number* | *Use* | *Source* | *Township and Range** |
|---|---|---|---|
| Vested Right<br>Application Number – V01658 | Stock<br>Watering | Sage Hen Spring<br>Mount Grafton<br>Wilderness | SW ¼ NW ¼ Sec. 23<br>T10N R64E |
| Vested Right<br>Application Number – V09524 | Stock<br>Watering | SageHen Spring<br>Mount Grafton<br>Wilderness | NW ¼ NW ¼ Sec. 23<br>T10N R64E |
| Certificate<br>Application Number – 7480<br>Certificate Number – 2225 | Stock<br>Watering | Schwartz Spring<br>Mount Grafton<br>Wilderness | SW ¼ SW ¼ Sec. 20<br>T09N R65E |
| Certificate<br>Application Number – 7481<br>Certificate Number – 2226 | Stock<br>Watering | Schwartz Tunnel Spring<br>Mount Grafton<br>Wilderness | NE ¼ SW ¼ Sec. 19<br>T09N R65E |
| Vested Right<br>Application Number – V01680 | Stock<br>Watering | Sheep Creek<br>Mount Grafton<br>Wilderness | NW ¼ NE ¼ Sec. 04<br>T09N R64E |
| Certificate<br>Application Number – 9721<br>Certificate Number – 2270 | Stock<br>Watering | Wall Spring<br>Mount Grafton<br>Wilderness | SW ¼ SW ¼ Sec. 02<br>T09N R64E |
| Vested Right<br>Application Number – V01696 | Stock<br>Watering | Wall Spring<br>Mount Grafton<br>Wilderness | SW ¼ SW ¼ Sec. 02<br>T09N R64E |
| Vested Right<br>Application Number – V09522 | Stock<br>Watering | Wall Spring<br>Mount Grafton<br>Wilderness | SW ¼ SE ¼ Sec. 02<br>T09N R64E |
| Certificate<br>Application Number – 7483<br>Certificate Number – 2228 | Stock<br>Watering | White Rock Spring<br>Mount Grafton<br>Wilderness | SW ¼ NE ¼ Sec. 18<br>T09N R65E |
| Vested Right<br>Application Number – V01559 | Stock<br>Watering | Wild Cat Spring<br>Mount Grafton<br>Wilderness | NW ¼ SW ¼ Sec. 10<br>T10N R64E |
| Vested Right<br>Application Number – V01415 | Stock<br>Watering | Barrel Springs<br>South Egan Range<br>Wilderness | NW ¼ SW ¼ Sec. 17<br>T11N R63E |
| Vested Right<br>Application Number – V09232 | Stock<br>Watering | Big Canyon Spring<br>South Egan Range<br>Wilderness | NW ¼ SE ¼ Sec. 12<br>T09N R62E |
| Vested Right<br>Application Number – V09234 | Stock<br>Watering | Big Spring<br>South Egan Range<br>Wilderness | NE ¼ NE ¼ Sec. 32<br>T09N R63E |
| Permit<br>Application Number – 46426 | Stock<br>Watering | Blue Spring<br>South Egan Range<br>Wilderness | NE ¼ SE ¼ Sec. 24<br>T10N R62E |

| *Water Right Status and Permit Number* | *Use* | *Source* | *Township and Range** |
|---|---|---|---|
| Vested Right<br>Application Number – V01333 | Stock<br>Watering | Camp Spring<br>South Egan Range<br>Wilderness | SE ¼ SW ¼ Sec. 16<br>T12N R63E |
| Vested Right<br>Application Number – V09236 | Stock<br>Watering | Cottonwood Spring<br>South Egan Range<br>Wilderness | SE ¼ NW ¼ Sec. 13<br>T09N R62E |
| Vested Right<br>Application Number – V01486 | Stock<br>Watering | Currant Springs<br>South Egan Range<br>Wilderness | NE ¼ SE ¼ Sec. 20<br>T11N R63E |
| Vested Right<br>Application Number – V01332 | Stock<br>Watering | Unnamed (Hendrix)<br>Spring<br>South Egan Range<br>Wilderness | NW ¼ SE ¼ Sec. 28<br>T12N R63E |
| Vested Right<br>Application Number – V01792 | Stock<br>Watering | First Sawmill Spring<br>South Egan Range<br>Wilderness | NW ¼ SE ¼ Sec. 28<br>T12N R63E |
| Certificate<br>Application Number – 3119<br>Certificate Number – 1979 | Stock<br>Watering | Hole in the Bank Spring<br>South Egan Range<br>Wilderness | NE ¼ NE ¼ Sec. 04<br>T11N R63E |
| Vested Right<br>Application Number – V02100 | Stock<br>Watering | Parker Spring<br>South Egan Range<br>Wilderness | NW ¼ NW ¼ Sec. 13<br>T09N R62E |
| Certificate<br>Application Number – 3141<br>Certificate Number – 2333 | Stock<br>Watering | Reid Spring<br>South Egan Range<br>Wilderness | SE ¼ NW ¼ Sec. 17<br>T11N R63E |
| Certificate<br>Application Number – 5747<br>Certificate Number – 707 | Stock<br>Watering | School House Spring<br>South Egan Range<br>Wilderness | SW ¼ SE ¼ Sec. 30<br>T11N R63E |
| Vested Right<br>Application Number – V01416 | Stock<br>Watering | Summit Spring<br>South Egan Range<br>Wilderness | NE ¼ SE ¼ Sec. 30<br>T11N R63E |
| Vested Right<br>Application Number – V01791 | Stock<br>Watering | Third Saw Mill Spring<br>South Egan Range<br>Wilderness | SW ¼ SE ¼ Sec. 16<br>T12N R63E |
| Permit<br>Application Number -- 46427 | Stock<br>Watering | Unnamed Spring<br>South Egan Range<br>Wilderness | NE ¼ SE ¼ Sec. 23<br>T10N R62E |
| Vested Right<br>Application Number – V02087 | Stock<br>Watering | West Parker Range<br>Spring<br>South Egan Range<br>Wilderness | NW ¼ NW ¼ Sec. 03<br>T09N R62E |
| Certificate<br>Application Number – 15453<br>Certificate Number – 4587 | Stock<br>Watering | White Knoll Spring<br>South Egan Range<br>Wilderness | SW ¼ SE ¼ Sec. 30<br>T12N R63E |

| *Water Right Status and Permit Number* | *Use* | *Source* | *Township and Range** |
|---|---|---|---|
| Certificate<br>Application Number – 66123<br>Certificate Number – 16617 | Stock<br>Watering | Cave Valley Well<br>Far South Egans<br>Wilderness | NW ¼ SE ¼ Sec. 15<br>T07N R63E |
| Certificate<br>Application Number – 66125<br>Certificate Number – 16619 | Stock<br>Watering | Sawmill Well<br>Far South Egans<br>Wilderness | SE ¼ SW ¼ Sec. 30<br>T08N R64E |

*This list may include water right that are not actually within wilderness and may not include points that do lie in wilderness.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Caliente
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R69E
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6167
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T11N
R69E
T11N
R70E
T11N
R68E
V01147
V01148
HIGHLAND
RIDGE
V02915
48724
T10N
R69E
T10N
R70E
T10N
R68E
Legend
Water Right
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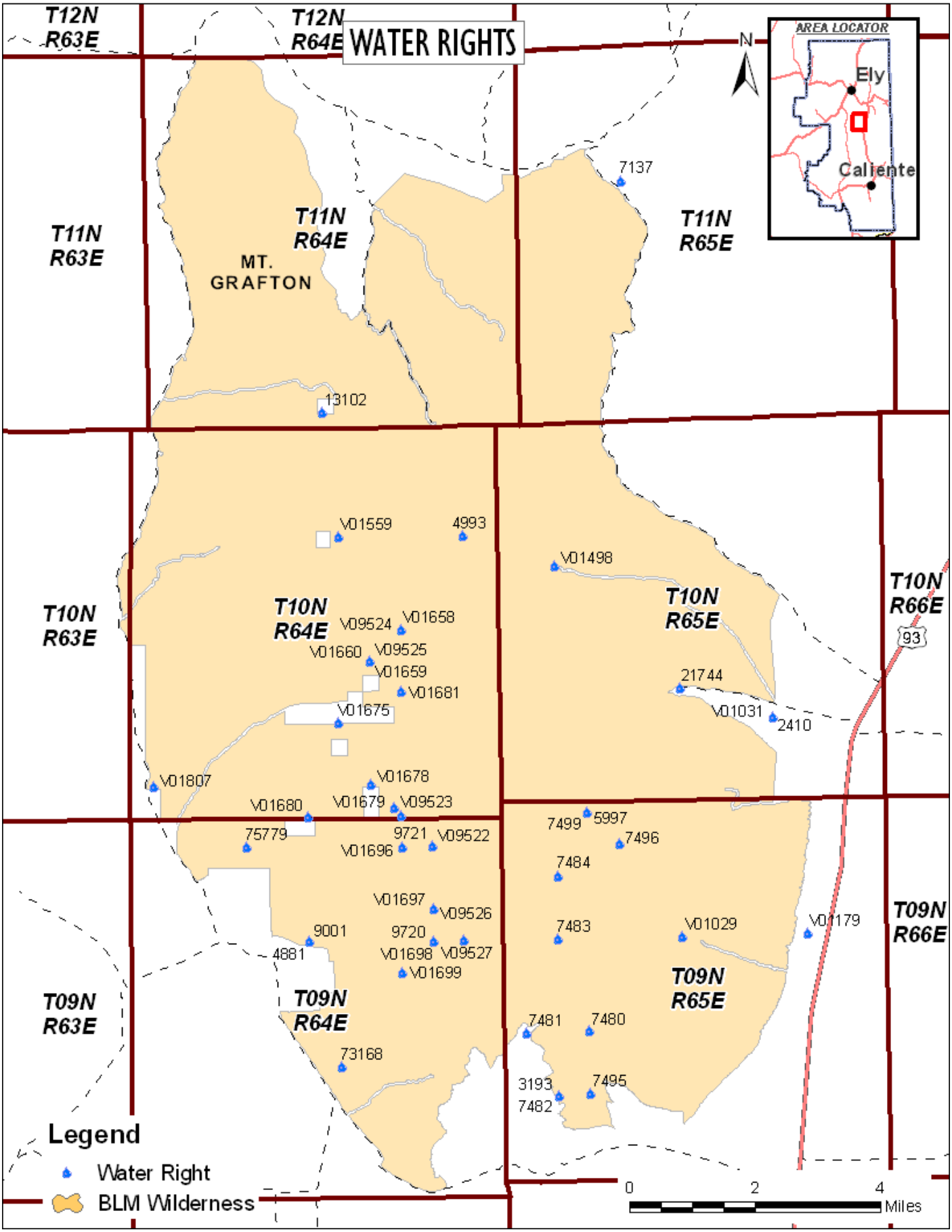
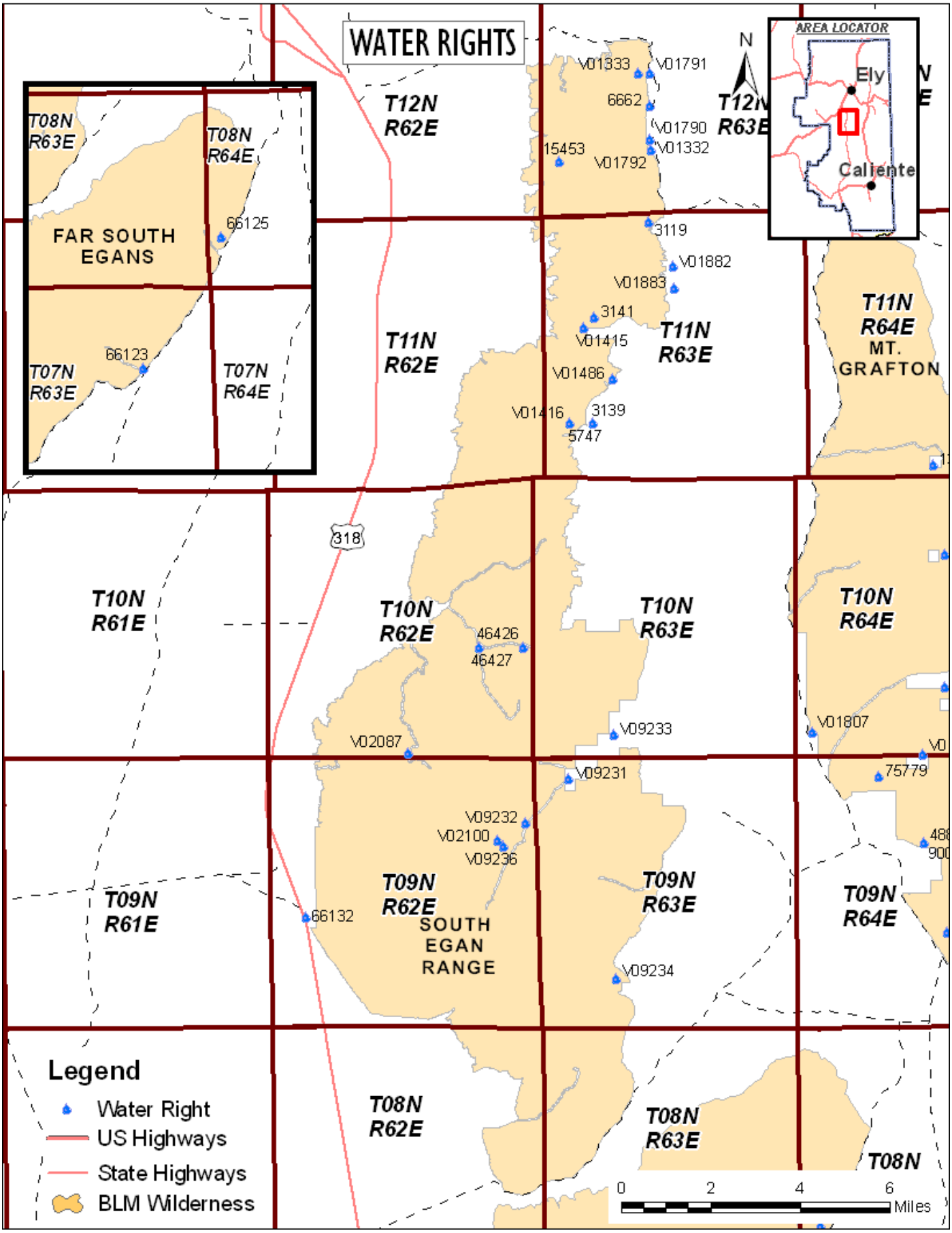
State Highways
BLM Wilderness
T09N
R69E
T09N
R70E
0
2
4
Miles




[HR/MG/SER/FSE – WMP &EA 114]


WATER RIGHTS
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Ely
Caliente
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T08N R63E
T08N R64E
FAR SOUTH EGANS
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T07N R63E
T07N R64E
T12N R62E
T12N R63E
T11N R62E
T11N R63E
T11N R64E
MT. GRAFTON
V01333
V01791
6662
V01790
V01332
15453
V01792
3119
V01882
V01883
3141
V01415
V01486
V01416
3139
5747
318
T10N R61E
T10N R62E
T10N R63E
T10N R64E
46426
46427
V09233
V01807
V02087
V09231
75779
V09232
V02100
V09236
T09N R61E
T09N R62E
T09N R63E
T09N R64E
66132
SOUTH EGAN RANGE
V09234
T08N R62E
T08N R63E
T08N
Legend
Water Right
US Highways
State Highways
BLM Wilderness
0
2
4
6
Miles

## APPENDIX D

### WILDERNESS CONDITION CLASSES.

Within wilderness, the FRCC rating is one indicator that may be used to determine if vegetation treatments are needed to restore naturalness. Assessing FRCC can help guide management objectives and set priorities for treatments. The classification is based on a relative measure describing the degree of departure from the historical natural disturbance regime (reference condition) for a given biophysical setting (BPS). This departure is described as changes to one or more of the following ecological components: vegetation characteristics (species composition, structural stages, stand age, canopy closure and mosaic pattern); fuel composition; fire frequency, severity and pattern; and other associated disturbances (e.g. insects and disease mortality, grazing and drought).

Biophysical setting models have been developed for most major vegetation types. These models describe the vegetation, geography, biophysical characteristics, succession stages, disturbance regimes, and assumptions for each vegetation type (Havlina et al, 2010). Each biophysical setting model establishes a reference condition that is described as the potential vegetative community for a given site prior to European influence reflecting a range of natural disturbances. These reference conditions specify a range, in percentages, of several classes that describe the vegetation progression post-disturbance. The Ely District Resource Management Plan utilized the BPS data in delineating the vegetative goals for the district. The percentages within the RMP vary slightly from the BPS models for certain vegetation types.

There are three FRCC classes used to describe the departure from reference BPS conditions. The three classes are based on low (0-33% departure; FRCC1), moderate (34-66% departure; FRCC2) and high (67-100% departure; FRCC3) departure from central tendency of the natural (historical) regime. Low departure is considered to be within the natural (historical) range of variability, while moderate and high departures are outside the range of variability. The FRCC rating is accompanied by indicators of the potential risks that may result. FRCC 1 is desired for each BPS and for the Ely District.

The FRCC rating will be refined over time as better information is collected or the rating is improved through natural or planned disturbances occur within the wilderness area. Prior to utilization of the FRCC rating for vegetation treatment identification, the BPS data for the wilderness area would be refined by field checking the vegetative conditions present within the wilderness areas. The FRCC calculation would be corrected based upon the new data. The FRCC would then be used to determine the current departure. The current departure may indicate the need to consider treatments in order to return the vegetation to the historical range of variability both for the wilderness as a whole and by vegetation model.

Wilderness Condition classes

| LANDSCAPE FRCC | | | STRATA FRCC | | | STAND FRCC | | |
|---|---|---|---|---|---|---|---|---|
| | Departure | FRCC Rating | | Departure | FRCC Rating | | Departure | FRCC Rating |
| Mt Grafton Wilderness | 56% | 2 | ROCKY MOUNTAIN ASPEN FOREST AND WOODLAND | 46% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 53% | 2 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | GREAT BASIN PINYON JUNIPER WOODLAND | 50% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 50% | 2 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | ROCKY MOUNTAIN MESIC MONTANE MIXED CONIFER FOREST | 69% | 3 | SERAL CLASS A | 62% | 2 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 85% | 3 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | INTER-MOUNTAIN BASINS ASPEN-MIXED CONIFER FOREST AND WOODLAND | 48% | 2 | SERAL CLASS A | 1% | 1 |
| | | | | | | SERAL CLASS B | 51% | 2 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | INTER-MOUNTIAN BASINS MOUNTAIN MAHOGANY WOODLAND AND SHRUBLAND | 36% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 17% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 17% | 1 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | GREAT BASIN XERIC MIXED SAGEBRUSH SHRUBLAND | 61% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 29% | 2 |
| | | | | | | SERAL CLASS D | 79% | 3 |
| | | | | | | SERAL CLASS U | 100% | 3 |
| | | | INTER-MOUNTAIN BASIN BIG SAGEBRUSH | 52% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 36% | 2 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | SHRUBLAND | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 100% | 3 |
| | | | ROCKY MOUNTAIN LOWER MONTANE-FOOTHILL SHRUBLAND | 77% | 3 | SERAL CLASS A | 58% | 2 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 76% | 3 |
| | | | | | | SERAL CLASS U | 100% | 3 |
| | | | INTER-MOUNTAIN BASINS MONTANE SAGEBRUSH STEPPE | 57% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 12% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 100% | 3 |

| LANDSCAPE FRCC | | | STRATA FRCC | | | STAND FRCC | | |
|---|---|---|---|---|---|---|---|---|
| | Departure | FRCC Rating | | Departure | FRCC Rating | | Departure | FRCC Rating |
| Highland Ridge Wilderness | 53% | 2 | ROCKY MOUNTAIN ASPEN FOREST AND WOODLAND | 41% | 2 | SERAL CLASS A | 26% | 2 |
| | | | | | | SERAL CLASS B | 48% | 2 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | GREAT BASIN PINYON JUNIPER WOODLAND | 37% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 36% | 2 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | ROCKY MOUNTAIN MESIC MONTANE MIXED CONIFER FOREST | 58% | 2 | SERAL CLASS A | 41% | 2 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 84% | 3 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | INTER-MOUNTAIN BASINS ASPEN-MIXED CONIFER FOREST AND WOODLAND | 43% | 2 | SERAL CLASS A | 7% | 2 |
| | | | | | | SERAL CLASS B | 51% | 2 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | INTER-MOUNTIAN BASINS MOUNTAIN MAHOGANY WOODLAND AND SHRUBLAND | 47% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 40% | 2 |
| | | | | | | SERAL CLASS U | 0% | 0 |
| | | | GREAT BASIN XERIC MIXED SAGEBRUSH SHRUBLAND | 61% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 80% | 2 |
| | | | | | | SERAL CLASS U | 100% | 3 |
| | | | INTER-MOUNTAIN BASIN BIG SAGEBRUSH SHRUBLAND | 52% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 44% | 2 |
| | | | | | | SERAL CLASS D | 0% | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 100% | 3 |
| | | | INTER-MOUNTAIN BASINS MONTANE SAGEBRUSH STEPPE | 61% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 38% | 2 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 100% | 3 |

| LANDSCAPE FRCC | | | STRATA FRCC | | | STAND FRCC | | |
|---|---|---|---|---|---|---|---|---|
| | Departure | FRCC Rating | | Departure | FRCC Rating | | Departure | FRCC Rating |
| South Egan Wilderness | 50% | 2 | ROCKY MOUNTAIN ASPEN FOREST AND WOODLAND | 42% | 2 | SERAL CLASS A | 62% | 2 |
| | | | | | | SERAL CLASS B | 37% | 2 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | GREAT BASIN PINYON JUNIPER WOODLAND | 43% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 49% | 2 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | ROCKY MOUNTAIN MESIC MONTANE MIXED CONIFER FOREST | 49% | 2 | SERAL CLASS A | 57% | 2 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 70% | 2 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | INTER-MOUNTAIN BASINS ASPEN-MIXED CONIFER FOREST AND WOODLAND | 49% | 2 | SERAL CLASS A | 13% | 2 |
| | | | | | | SERAL CLASS B | 52% | 2 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | INTER-MOUNTIAN BASINS MOUNTAIN MAHOGANY WOODLAND AND SHRUBLAND | 40% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 33% | 2 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 21% | 2 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | GREAT BASIN XERIC MIXED SAGEBRUSH SHRUBLAND | 70% | 3 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 82% | 3 |
| | | | | | | SERAL CLASS U | 100% | 3 |
| | | | INTER-MOUNTAIN BASIN BIG | 51% | 2 | SERAL CLASS A | 0% | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | SAGEBRUSH SHRUBLAND | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 4% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 100% | 3 |
| | | | ROCKY MOUNTAIN LOWER MONTANE-FOOTHILL SHRUBLAND | 72% | 3 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS U | 100% | 3 |
| | | | INTER-MOUNTAIN BASINS MONTANE SAGEBRUSH STEPPE | 58% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 32% | 2 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 100% | 3 |

| LANDSCAPE FRCC | | | STRATA FRCC | | | STAND FRCC | | |
|---|---|---|---|---|---|---|---|---|
| | Departure | FRCC Rating | | Departure | FRCC Rating | | Departure | FRCC Rating |
| Far South Egan Wilderness | 47% | 2 | ROCKY MOUNTAIN ASPEN FOREST AND WOODLAND | 35% | 2 | SERAL CLASS A | 61% | 2 |
| | | | | | | SERAL CLASS B | 25% | 2 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | GREAT BASIN PINYON JUNIPER WOODLAND | 32% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 3% | 1 |
| | | | | | | SERAL CLASS E | 22% | 2 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | ROCKY MOUNTAIN MESIC MONTANE MIXED CONIFER FOREST | 53% | 2 | SERAL CLASS A | 55% | 2 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 76% | 2 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | INTER-MOUNTAIN BASINS ASPEN-MIXED CONIFER FOREST AND WOODLAND | 37% | 2 | SERAL CLASS A | 59% | 2 |
| | | | | | | SERAL CLASS B | 37% | 2 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | INTER-MOUNTIAN BASINS MOUNTAIN MAHOGANY WOODLAND AND SHRUBLAND | 42% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 62% | 2 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 4% | 1 |
| | | | | | | SERAL CLASS U | 0% | 1 |
| | | | GREAT BASIN XERIC MIXED SAGEBRUSH SHRUBLAND | 64% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 83% | 3 |
| | | | | | | SERAL CLASS U | 100% | 3 |
| | | | INTER-MOUNTAIN BASIN BIG SAGEBRUSH SHRUBLAND | 54% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 100% | 3 |
| | | | INTER-MOUNTAIN BASINS MONTANE SAGEBRUSH STEPPE | 59% | 2 | SERAL CLASS A | 0% | 1 |
| | | | | | | SERAL CLASS B | 0% | 1 |
| | | | | | | SERAL CLASS C | 0% | 1 |
| | | | | | | SERAL CLASS D | 0% | 1 |
| | | | | | | SERAL CLASS E | 0% | 1 |
| | | | | | | SERAL CLASS U | 100% | 3 |

# FINDING OF NO SIGNIFICANT IMPACT
# For the
# Highland Ridge, Mount Grafton, South Egan Range and Far South Egans Wilderness Management Plan

## Bureau of Land Management
## Environmental Assessment # DOI-BLM-NV-L000-2009-0012-EA

**Finding of No Significant Impact:**

I have reviewed Environmental Assessment (EA), dated August 13, 2013. After consideration of the environmental impacts as described in the EA, which is incorporated herein, I have determined that the proposed action (wilderness management plan) as described in the EA will not significantly affect the quality of the human environment and that an environmental impact statement (EIS) is not required. This finding and conclusion is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 Code of Federal Regulations 1508.27), both with regard to the context and the intensity of impacts described in the EA.

**Context:**

The Highland Ridge, Mount Grafton, South Egan Range and Far South Egans Wilderness Areas are part of the National Wilderness Preservation System. These areas are of most interest to residents in Nevada, California and Utah.

**Intensity:**

1) Impacts that may be both beneficial and adverse.

   The environmental assessment has considered both beneficial and adverse impacts of the wilderness management plan. On the whole, the plan will result in enhancements to the wilderness characteristics of naturalness, opportunities for primitive recreation, and various special features including cultural resources. Preserving a more natural system is considered improving the quality of the human environment through proactive management, and is not considered a significant effect both in the short or long term.

2) The degree to which the proposed action affects public health or safety.

   Implementation components of the proposed wilderness management plan will not result in potentially substantial or adverse impacts to public health and safety.

3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

   The action areas are within and adjacent to designated wilderness. These four areas were designated for their unique characteristics including high scenic qualities, diverse cultural resources, important wildlife habitat, and opportunities for solitude and primitive recreational pursuits.

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The effects of implementing decisions of the wilderness management plan are well known and documented and not highly controversial in that wilderness management plans are essential to maintaining the natural condition of wilderness as required by the Wilderness Act. The methods chosen to complete implementation actions are accepted methods to meet resource and management objectives and are not considered highly controversial.

5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

There are no effects of the proposed action identified in the EA which are considered uncertain or involve unknown risks. All actions proposed to be employed are accepted standard practices.

6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The proposed action does not establish a precedent for future actions with significant effects and does not represent a decision in principle about a future consideration.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

No significant cumulative impacts have been identified in the EA.

8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

The proposed action will not cause the loss or destruction of significant scientific, cultural or historical resources.

9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

There are no known federally listed species in these four wildernesses.

10) Whether the action threatens a violation of Federal, State, or local law or requirement imposed for the protection of the environment.

The proposed action will not violate or threaten to violate any Federal, State, or local law or requirement imposed for the protection of the environment.

**Approved by:** __/s/ Rosemary Thomas_____ __8/14/13_____

Rosemary Thomas — Date

District Manager

Ely District Office

# DECISION RECORD
# For the
# Highland Ridge, Mount Grafton, South Egan Range and Far South Egans Wilderness Management Plan

## Bureau of Land Management
## Environmental Assessment # DOI-BLM-NV-L000-2009-0012-EA

**Decision:**

It is my decision to approve and implement the wilderness management plan for the Highland Ridge, Mount Grafton, South Egan Range and Far South Egans Wildernesses (which is the proposed action and contains all identified mitigation measures). The proposed action is in conformance with the Ely Resource Management Plan and Final Environmental Impact Statement (2008).

**Legal Compliance:**

- The Wilderness Act of 1964 (16 U.S.C. §§ 1131-1136, September 3, 1964, as amended 1978).
- The Federal Land Policy and Management Act of 1976 (43 U.S.C. §§ 1701-1782, October 21, 1976, as amended 1978, 1984, 1986, 1988, 1990-1992, 1994 and 1996).
- The National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4347, January 1, 1970, as amended 1975 and 1994).
- The Lincoln County Conservation, Recreation and Development Act of 2004 (Public Law 108-424).
- The White Pine County Conservation, Recreation and Development Act of 2006 (public Law 109-432).
- The Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544, December 28, 1973, as amended 1976-1982, 1984, and 1988).
- Bald and Golden Eagle Protection Act (16 U.S.C. §§ 668-668d, June 8, 1940, as amended 1959, 1962, 1972, and 1978).
- Migratory Bird Treaty Act (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989).
- Executive Order 13186–Responsibilities of Federal Agencies to Protect Migratory Birds (2001).
- Management of Designated Wilderness Areas (43 CFR Part 6300).
- Recreation Management Restrictions: Occupancy Stay Limitation (43 CFR 8365.1-2(a) and Federal Register Notice NV-930-4333-02).
- Unlawful Manner of Camping Near Water Hole (Nevada Revised Statute 503.660).

**Public Involvement:**

A Notice of Proposed Action was mailed to known interested parties on October 2, 2009. Public scoping workshops were held in Lund, NV., Ely, NV. and Caliente, NV. on November 3, 4 and 5th, 2009. A meeting specifically for livestock grazing permittees was held on February 18, 2010. A 45-day public comment period for the final Plan and EA was initiated on May 14, 2013 which generated 37 formal written comments.

**Public Comment:**

All comments received during the management plan process comment period were given serious consideration. Some comments related to associated programs were not incorporated as they are beyond the scope of this plan. Changes were made to the plan based on significant public comments including but not limited to:

- Commercial enterprises in wilderness degrading wilderness values.
- Trail construction and access at trailheads and cherry stems.
- Natural water addressed or improved before artificial development.
- Private water rights and inholding access.
- Natural fire for resource benefit.
- Livestock grazing monitoring.
- Wildlife water development maintenance.

**Rationale For Decision:**

The purpose of creating a Wilderness Management Plan is to preserve the areas' wilderness characteristics by identifying the conditions and opportunities that will be managed for within the wilderness areas over a ten-year span. Wilderness Management Plans must be prepared for all wilderness areas on public lands. Management direction must be based on the pertinent objectives of the BLM wilderness management policy as identified in BLM manual-6340.

The need for the plan stems from the Wilderness Act of 1964, which defines wilderness and mandates that the primary management direction is to preserve wilderness character. The plan creates specific management guidance addressing resources and activities in these wilderness areas. Wilderness character is a complex idea and is not explicitly defined in the Wilderness Act; Wilderness characteristics are commonly described as:

- **Untrammeled** – area is unhindered and free from modern human control or manipulation.
- **Natural** – area appears to have been primarily affected by the forces of nature.
- **Undeveloped** – area is essentially without permanent improvements or human occupation and retains its primeval character.
- **Outstanding opportunities for solitude or a primitive and unconfined type of recreation** – area provides outstanding opportunities for people to experience solitude or primitive and unconfined recreation, including the values associated with physical and mental inspiration and challenge.
- **Supplemental values** – complementary features of scientific, educational, scenic, or historic values.

***The proposed action (wilderness management plan) was selected over the alternative because it met the need and objectives outlined in the plan. The proposed action has been analyzed and determined that there is no significant impact as referenced in the (FONSI) attached to the EA. The proposed plan will guide management so that the preservation objectives of the Wilderness Act can be met. The decision is also based on the fact that there was a finding of no significant impact.***

**Appeal Opportunities:**

All parties involved in the process will be notified by certified mail and will have 30 days after receiving notification to appeal the decision.

**Approved by:** __/s/ Rosemary Thomas_____ __8/14/13_____

Rosemary Thomas Date
District Manager
Ely District Office