

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

Preliminary Environmental Assessment
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Chief Mountain OHV Trail Management Plan

Location:
Chief Mountain Special Recreation Management Area
Lincoln County, Nevada

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CONTENTS

1.0 INTRODUCTION	1
1.1 Purpose and Need for Action	1
1.1.1 Decision to be Made	3
1.2 Conformance with BLM Land Use Plan	3
1.3 Relationship to Statutes, Regulations, or Other Plans	3
1.4 Scoping, Public Involvement, and Issues	4
2.0 DESCRIPTION OF ALTERNATIVES	7
2.1 Proposed Action Alternative	7
2.2 No Action Alternative	20
2.3 Alternatives Considered, but Eliminated from Further Analysis	20
3.0 AFFECTED ENVIRONMENT	22
3.1 Introduction	22
3.2 General Setting	25
3.3 Biological Resources	25
3.3.1 Wildlife	25
3.3.2 Vegetation	33
3.4 Land Use	37
3.5 Rangeland and Livestock Grazing	37
3.6 Active Mines and Mining Claims	38
3.7 Noxious and Invasive Weeds	38
3.8 Cultural Resources	43
3.9 Paleontological Resources	43
3.10 Wetland/Riparian Zones	44
3.11 Water Quality, Surface	44
3.12 Soils	44
4.0 ENVIRONMENTAL CONSEQUENCES	48
4.1 Introduction	48
4.2 Analysis Assumptions	48
4.3 Biological Resources	48
4.3.1 Wildlife	48
4.3.2 Vegetation	52
4.4 Land Use	53
4.5 Rangeland and Livestock Grazing	54
4.6 Active Mines and Mining Claims	54
4.7 Noxious and Invasive Weeds	55
4.8 Cultural Resources	56
4.9 Paleontological Resources	56
4.10 Wetlands/ Riparian Zones	57
4.11 Water Quality, Surface	57
4.12 Soils	58

5.0 CUMULATIVE IMPACTS	59
5.1 Action Alternative	61
5.1.1 Biological Resources.....	61
5.1.2 Land Use	62
5.1.3 Rangeland and Livestock Grazing	62
5.1.4 Active Mines and Mining Claims	62
5.1.5 Noxious Weeds	62
5.1.6 Cultural and Paleontological Resources.....	62
5.1.7 Riparian Zones, Surface Water Quality, and Soils.....	62
5.2 No Action Alternative	63
5.2.1 Biological Resources.....	63
5.2.2 Land Use	63
5.2.3 Rangeland and Livestock Grazing	63
5.2.4 Active Mines and Mining Claims	63
5.2.5 Noxious and Invasive Weeds	63
5.2.6 Cultural and Paleontological Resources.....	64
5.2.7 Riparian Zones, Surface Water Quality, and Soils.....	64
6.0 CONSULTATION AND COORDINATION	65
6.1 Introduction	65
6.2 Persons, Groups and Agencies Consulted	65
6.3 Summary of Public Participation.....	65
6.4 List of Preparers/ Reviewers	65
6.4.1 BLM:	65
6.4.2 Non-BLM:	66
7.0 REFERENCES AND ACRONYMS.....	67
7.1 References Cited.....	67
7.2 Acronyms	70

Appendix

A. Noxious Weed Risk Assessment

Figures

Figure 2.1. Existing and proposed trails.....	9
Figure 2.1.1. New single-track and ATV trail recommendations.	10
Figure 2.1.2. Routes recommended for rehabilitation.....	17
Figure 2.1.4. Trailheads within the SRMA.	18
Figure 3.3.1.1-1. Mule deer habitat within the SRMA.	27
Figure 3.3.1.1-2. Pronghorn habitat within the SRMA.....	28
Figure 3.3.1.1-3. Desert bighorn sheep habitat within the SRMA.	29
Figure 3.3.2. Vegetation communities within the SRMA.....	35
Figure 3.4. Land uses within the SRMA.....	39
Figure 3.5. Grazing allotments within the SRMA.	40
Figure 3.7. Noxious and invasive weed infestations within the SRMA.....	41
Figure 3.10. Water sources and soils within the SRMA.	45

Tables

Table 1.1. Lincoln County Silver State Trail Road Count Data, Chief Mountain SRMA	2
Table 2.1.2. Route Rehabilitation Summary	14
Table 3.1-1. Resources and Issues Considered and Excluded From Further Analysis	23
Table 3.1-2. Resources and Issues Requiring Detailed Analysis of Potential Impacts and Rationale for Analysis	24
Table 3.3.1. Breeding Birds Identified as Potentially Occurring in the SRMA	25
Table 3.3.1.2. Sensitive Animal Species	31
Table 3.3.2-1. SWReGAP Vegetation Communities and Acreages within SRMA.....	33
Table 3.3.2-2. Sensitive Plant Species	34
Table 3.5. Grazing Allotments within the SRMA.....	38
Table 3.7 Noxious and Invasive Species Known to Occur within SRMA.....	38
Table 4.3.1. Miles of Routes through Big-Game Key Habitat.....	50

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1.0 INTRODUCTION

The Bureau of Land Management (BLM) is proposing a system of Off-Highway Vehicle (OHV) recreational trails and facilities in the Chief Mountain Special Recreation Management Area (SRMA), located in Lincoln County, Nevada. In the BLM revised Land Use Planning Handbook, SRMAs are defined as administrative units where the existing or proposed recreation opportunities and characteristics of the recreation setting are recognized for their unique value, importance and/or distinctiveness, especially as compared to other areas used for recreation (H-1601-1). The Chief Mountain SRMA has been identified by the BLM Ely District Office to provide a range of recreational uses, particularly motorized. The Ely District Record of Decision (ROD) and Approved Resource Management Plan (RMP) limits motorized travel to existing roads and trails until site-specific plans and designations are complete (BLM 2008). The Chief Mountain SRMA will be managed for “limited” OHV use, where such use is restricted to designated roads and trails. There are approximately 370 miles of existing roads, routes, and trails in the Chief Mountain SRMA, and with expected increases in OHV recreation use in the future, the BLM has completed a trail development plan that designates a system of OHV trails based on existing routes, closures of certain existing segments, the creation of trailhead facilities and staging areas, and the creation of a limited amount of new trail (BLM 2011a). New trail routes would be minimal, utilizing currently disturbed areas and resulting in no net gain of trail mileage in the SRMA.

This Environmental Assessment (EA) has been prepared to analyze the BLM’s trail development proposal and is a site-specific analysis of potential impacts that could result from the implementation of a proposed or alternative action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA).

This document is tiered to, and incorporates by reference, the *Ely Proposed Resource Management Plan/ Final Environmental Impact Statement (RMP/FEIS)*, as well as the *Ely District Record of Decision and Approved Resource Management Plan (BLM 2007A, 2008)*. Should a determination be made that implementation of the proposed or alternative action would not result in “significant environmental impacts” or “significant environmental impacts beyond those already disclosed in the RMP”, a Finding of No Significant Impact (FONSI) will be prepared to document that determination, and a Decision Record issued providing the rationale for approving the chosen alternative.

1.1 Purpose and Need for Action

As noted in the Chief Mountain Trail Development Plan (BLM 2011), the Chief Mountain trail system action is being proposed to proactively guide management of the area for both current and future use. The trail system will be managed to ensure protection of resources and traditional land uses. Protection will be accomplished by establishing a trail network with public education (trail maps and signs, resource information, and closure, rules, and ethics signs), a system of monitoring for user and resource needs/impacts, identification of new trails and trailheads, and the rehabilitation of trail segments to protect resources. These actions will focus existing use and promote increased use in appropriate areas for OHV recreation.

Off-road recreation has increased substantially in the United States on BLM managed public land (BLM 2001). The Chief Mountain SRMA contains nearly 370 miles of existing roads and trails and is located approximately 150 miles north of Las Vegas, the largest city in Nevada. A large amount of critical tortoise habitat and dust abatement regulations near Las Vegas have limited OHV use in that area. OHV recreators have consequently been displaced to other regions, such as neighboring Lincoln County and the Chief Mountain SRMA. With increases in OHV popularity and few designated areas, users have created their own citizen trail and use areas, with no consideration for their sustainability or consistency.

Between 2000 and 2010, the population of Lincoln County increased by 28.3% (US Census Bureau 2010). Residential development near the Chief Mountain SRMA also increased, and nearly 10,000 acres of public land adjacent to the SRMA were identified as suitable for disposal by Title I of Public Law 108-424, of the Lincoln County Conservation, Recreation and Development Act of 2004 (LCCRDA). As that area becomes developed, the potential for conflicts to arise between private and public use may increase. As the demand for multiple uses on public land increases in the available space, the potential for conflicts among users increases. This may result in adverse impacts on natural and cultural resources as well as other authorized uses, such as livestock grazing (BLM 2007Aa, 2011a).

The Silver State OHV Trail is a 267 mile, long-distance trail system that was designated by Congress through the 2004 LCCRDA. The Chief Mountain SRMA is crossed by 38.7 miles of the Silver State Trail. Both the West and South Chief Mountain trailheads currently provide access to this trail. The Chief Mountain North trailhead did provide access to the trail, but was closed. The BLM has completed a management plan for the Silver State Trail that includes measures to evaluate and manage appropriate levels of use in order to minimize environmental impacts and prevent impacts to cultural resources (BLM 2007b).

Site-specific road and trail-use data are not available for the Chief Mountain area before 2009. Beginning in 2009, road counters have been in place at several trailheads and access points to the Lincoln County Silver State Trail, including three Chief Mountain trailheads (Table 1.2).

Table 1.1. Lincoln County Silver State Trail Road Count Data, Chief Mountain SRMA

Trail Count Location Name	Total Count: April–September 2009	Total Weekday Count / Mean Average Weekday	Total Weekend Count / Mean Average Weekend Day
Chief Mountain North	57	41 / 0.4	16 / 0.4
Chief Mountain South	393	174 / 1.8	219 / 5.8
Chief Mountain West	147	110 / 1.2	37 / 1.0
Total	597	325 / 3.4	272 / 7.2

Source: BLM (2009)

1.1.1 **Decision to be Made**

The proposed action is designed to manage the Chief Mountain OHV Trail System to meet the demands of current and future use while minimizing damage to cultural and natural resources, reducing user conflict, promoting public safety, providing public access, and enhancing user experience.

1.2 **Conformance with BLM Land Use Plan**

The proposed project is in conformance with the Ely District RMP (BLM 2008:78), which states that “management within special recreation management areas focuses on providing recreation opportunities that will not otherwise be available to the public, reducing conflicts among users, minimizing damage to resources, and reducing visitor health and safety problems.”

The proposed action is also in conformance with the following BLM goals and objectives for recreation (BLM 2009:79):

Goals: “Provide quality settings for developed and undeveloped recreation experiences and opportunities while protecting resources. Conduct an assessment of current and future off-highway vehicle demand, and plan for and balance the demand for this use with other multiple uses/users. Develop sustainable off-highway vehicle use areas to meet current and future demands, especially for urban interface areas.”

Objectives: “To provide a wide variety of recreation opportunities to satisfy a growing demand by a public seeking the open, undeveloped spaces that are characteristic of the planning area. To provide visitor information to familiarize people with recreational opportunities throughout the planning area and encourage minimum impact or “Leave No Trace” and “Tread Lightly” recreational skills and ethics for recreational activities.”

1.3 **Relationship to Statutes, Regulations, or Other Plans**

The Proposed Action is guided by the following laws and regulations:

- Section 202(c) of the *Federal Land Policy and Management Act of 1976* (FLMPA), which requires the BLM to “use and observe the principles of multiple use and sustained yield” in developing land use plans on public land (Public Law [PL] 94-579; 43 United States Code [USC] 1712).
- 43 Code of Federal Regulations (CFR) 8340, which provides standards for regulations governing use, special rules, designation criteria, designation procedures, designation changes, operating standards, and permit requirements.
- *Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands* (BLM 2001:3), which requires that management “provides for the public’s recreational needs,

protects resources, ensures the safety of the public, and minimizes conflicts among the various public land uses.”

- *Off-Highway Motorcycle and ATV Trails: Guidelines for Design, Construction, Maintenance, and User Satisfaction*, which provides trail design methods and standards as developed by the United States Forest Service (USFS) and the American Motorcyclist Association (Wernex 1994).
- *The Migratory Bird Treaty Act of 1918* [MBTA], as implemented by the Ely District Policy Management Actions for the Conservation of Migratory Birds in accordance with Executive Order (EO) 13186. This policy states that there is a “‘no activity’ period for all management actions in migratory bird habitat” from May 1 to July 15 “unless a survey is done to determine no migratory bird breeding or nesting is occurring in the area”
- EO 11644 as amended by EO 11989, which provides to “ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands.”
- Lincoln County Public Lands Plan, 2010, which includes policies on recreation and public land uses.
- BLM Land Use Planning Handbook, as revised, 2010, which provides guidance on preparing, amending, revising, maintaining, implementing, monitoring, and evaluating land use plans (BLM 2010).
- Protections for cactus, yucca, and Christmas tree species (Nevada Revised Statutes [NRS] 527.060-537. d120 and Nevada Administrative Code Chapter 527) by BLM and State of Nevada.

1.4 Scoping, Public Involvement, and Issues

An interdisciplinary team analyzed the potential consequences of the proposed action during internal scoping held on July 14, 2009. Data pertaining to potentially impacted resources was collected, compiled, and analyzed to identify resources of concern. The following issues were analyzed within this EA as a result of scoping:

- Biological Resources: (wildlife [including sensitive species and migratory birds] and vegetation);
- Land Use;
- Rangeland and Livestock Grazing;
- Active Mines and Mining Claims;
- Noxious and/or Invasive Species;
- Cultural Resources;
- Paleontological Resources;

- Wetlands/Riparian Zones;
- Surface Water Resources;
- Soils.

Issues considered and excluded as having no impact to resources include:

- Air Quality;
- Area of Critical Environmental Concern (ACEC);
- Environmental Justice;
- Farmlands, Prime or Unique;
- Forests and Rangeland (Healthy Forest Restoration Act only);
- Native American Religious and Other Concerns;
- Floodplains;
- Wastes, Hazardous or Solids;
- Water Quality, Drinking/Ground;
- Wild and Scenic Rivers;
- Wilderness/Wilderness Study Area;
- Visual Resources;
- Wild Horses;
- Public Health and Safety.

A public scoping period was held from October 6, 2009 to November 6, 2009. A public meeting was held on October 6th, 2009. Specialists evaluated the issues brought forward by the public, and determined if they warranted more detailed analysis.

Some of the public comments received expressed concern for the following items:

- Closing of trails and washes;
 - Sections 2.1 and 2.1.2 provide rationale for trail closure under the action plan.
- Designated use of trails;
 - Addressed in Section 2.3.1.
- Displacement of wild horses;
 - See Table 3.1-1.
- Accurate trail inventory and signing;
 - Trail inventory is described in Section 2.1. Signing is addressed in Section 2.1.3.
- Sensitive biological and cultural resources: (wildlife, soil, vegetation, springs);
 - Section 4.3 addressed impacts to wildlife and vegetation. Section 4.11 addresses springs.
- Maintenance and management of trail system and associated costs;
 - With exception of costs, addressed in Section 2.1 and throughout Chapter 4.
- Future monitoring of resource impacts/health;
 - Addressed in Section 2.1 and throughout Chapter 4.
- Connectivity, varying skill levels, and increased number of trail mile;
 - Addressed in Sections 2.1 and 2.1.1.1.
- Inclusion of all trails previously used by Special Recreation Permits;

- All previous SRP routes were considered and included if they met the purpose and need of the trail system, without potentially adversely impacting sensitive resources.
- Community partnership;
 - Addressed in Section 2.1.
- Expand trailheads;
 - Addressed in Section 2.1.4.
- Urban interface;
 - Addressed in Section 4.4.
- User conflicts, including effects to non-motorized recreation;
 - Addressed in Section 4.4
- Levels of acceptable disturbance;
 - There is not a BLM standard, but disturbance will be monitored and appropriate actions taken when necessary as directed under the applicable land use plans and BMPs.
- Spread and threat of noxious weeds;
 - Addressed in Section 4.7.
- Deer habitat disturbance;
 - Addressed in Section 4.3.1.1.
- User created trail development;
 - Addressed in Sections 2.1, 2.1.1.1, and 4.2.
- Signing for ATV/4X4/hiking/equestrian;
 - Addressed in Section 2.1.3.
- Consideration of “open” not “limited” use;
 - Addressed in Section 2.3.1
- Seasonal closures for wildlife;
 - Addressed in Sections 4.3.1 and 4.3.1.1.

Issues are further discussed or analyzed in chapters 3 and 4.

2.0 DESCRIPTION OF ALTERNATIVES

This chapter describes the alternatives that were developed to respond to the purpose and need of the proposed project to resolve the issues revealed in Chapter 1. The potential affected environment and consequences resulting from the implementation of each alternative are analyzed in Chapters 3 and 4 for each of the identified issues.

All existing roads and trails within the SRMA were analyzed for the identification of the Proposed Action Alternative. By evaluating routes with known avoidance areas, the Proposed Action Alternative was developed to provide more diverse, high-quality motorized recreation opportunities than are currently available. This was accomplished by selecting and recommending trail segments to provide continuous rides, varying levels of difficulty, and accommodations for parking and loading. In addition, it identifies which types of vehicles are allowed on each route. This alternative took into consideration sensitive resources when selecting trail segments, providing more avoidance of such resources than the No Action Alternative.

2.1 Proposed Action Alternative

The proposed action alternative would designate 329 miles of trail as full-sized vehicle, all-terrain vehicle (ATV), and/or motorized single-track in the Chief Mountain SRMA (Figure 2.1). This alternative allows for limited new trail construction, closure and rehabilitation of user-created trails not part of the system and/or affecting resources, and clear signage to encourage proper use. This alternative also allows for the construction of the Caliente trailhead with restroom facilities, information kiosk, parking, and fencing.

Under this action, existing routes not designated as closed or part of the trail system would remain open and continue to be managed as directed in the Ely RMP.

The BLM has worked directly with the Lincoln County trails coalition and received support from OHV user groups to help the planning process. The BLM performed a comprehensive road, trail, and route inventory of the entire SRMA from 2003 to 2008. Data were collected in the field by staff and volunteers and combined with aerial imagery.

The management objectives for the designation of trails include: sustainability, impact avoidance or minimization, user experience, shared-uses issues, and type of trail. Management and monitoring actions would be implemented to address impacts associated with trail designation and use. Maintenance activities and guidelines for implementing this action were developed to minimize further impacts. The BLM will purchase an ATV and safety equipment for the installation of carsonite trail markers. The ATV will also be used for future maintenance of the trails within the SRMA (BLM 2005a).

There are three trail categories defined in the Chief Mountain SRMA: motorized single-track, ATV-width, and full-sized OHV trails. Trails are further delineated by difficulty ratings being defined as easy, moderate, or technical depending on surface, grade, exposure, and distance from

populated sites. Easy trails are intended to be suitable for novice riders and those who don't have the skill or desire to ride more difficult trails. Easy trails are often used as mainline or "trunk" trails that provide the principal access to a larger trail system. Moderate trails are intended for a majority of the public. They require well developed skills and include trails that will at times prove challenging to the average rider. It is assumed that moderate-difficulty trails would be the public's most preferred trail. In any motorized trail network, a majority of the trails should be rated as moderate difficulty. Technical trails are intended for expert riders and dedicated enthusiasts. At times these trails may challenge the skill of the dedicated motorized vehicle enthusiast (BLM 2011a).

2.1.1 Development of new trails

Development of new trail routes is predicated upon meeting BLM management objectives, providing connectivity with existing routes, supplying loop opportunities, and minimizing proximity to known resource concerns. The selected trail segments currently exist as connector trails from unauthorized off-trail use.

Single-track trails will be constructed to a 24-inch-wide standard and ATV trails to a 50-inch-wide standard using established trail design methods, as developed by the USFS and by the American Motorcyclist Association (Wernex 1994). New trails will be designed to be meandering, sustainable, and self-draining where possible, minimizing erosion and future maintenance needs. Trail structures will be installed where necessary to minimize impacts to resources. Approximately 7 miles of single-track trails will be developed under this action, in 2 trail segments. Approximately 15.2 miles of ATV trails will be developed, in 7 trail segments (Figure 2.1.1). No new full-sized vehicle routes are being proposed at this time.

ATV trail recommendations:

Segment 0: 2.9 miles will provide connectivity between Red Rhyolite (ATV segment 33) and Gray Dome trails (ATV segment 28).

Segment 1: 7.7 miles will provide connectivity between ATV segments 50, 51, and 55.

Segment 2: 0.8 miles will provide connectivity between ATV segment 2 and full-sized vehicle segment 39.

Segment 3: 0.5 miles will provide connectivity between ATV segments 52 and 53.

Segment 4: 1.1 miles will provide connectivity between Silver State Trail (full-sized vehicle segment 75) and ATV segment 41.

Segment 5: 1 mile will provide connectivity between ATV segments 3 and 4.

Segment 6: 1.2 miles will provide connectivity between ATV recommended segment 0 and ATV segment 49.

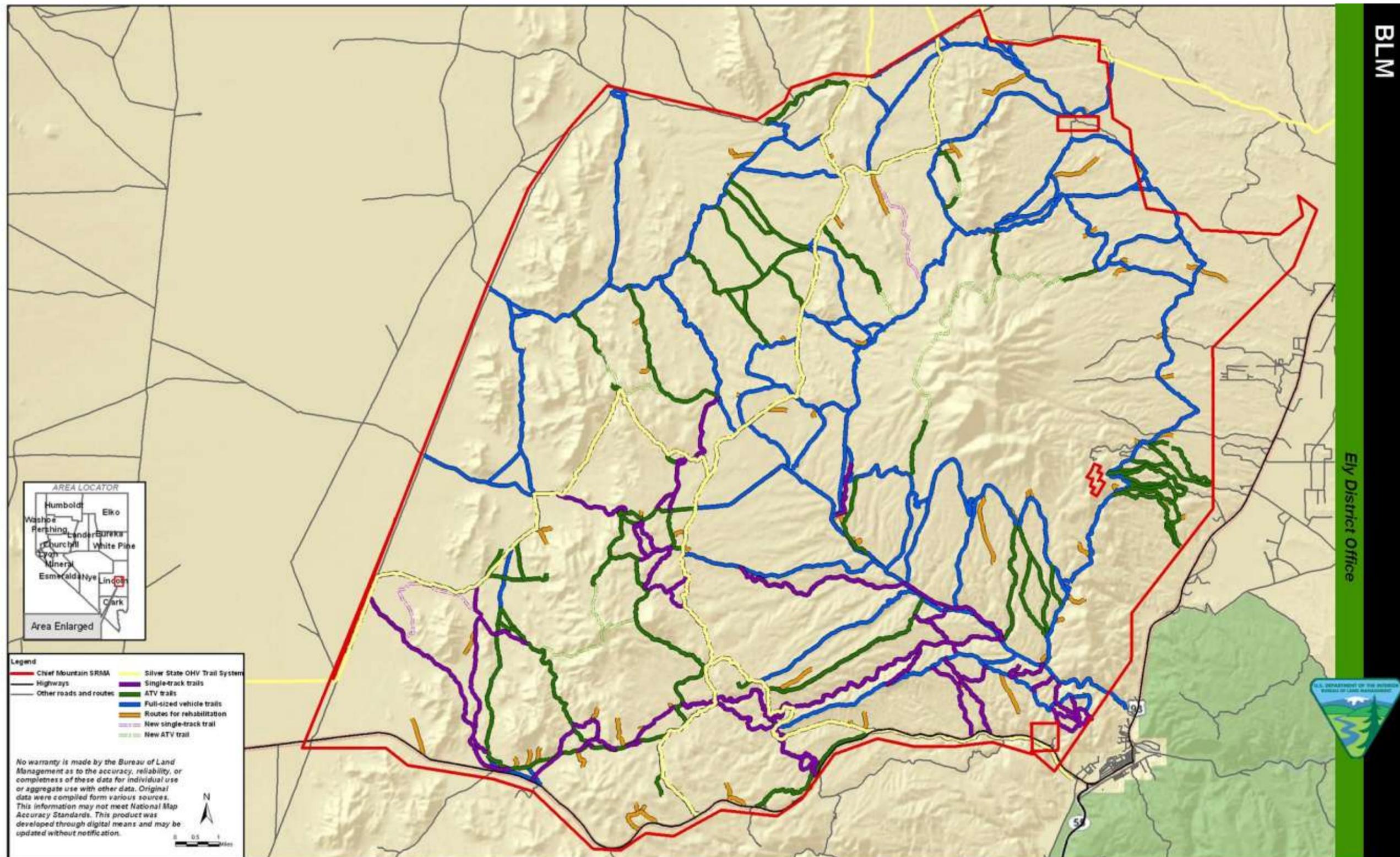


Figure 2.1. Existing and proposed trails.

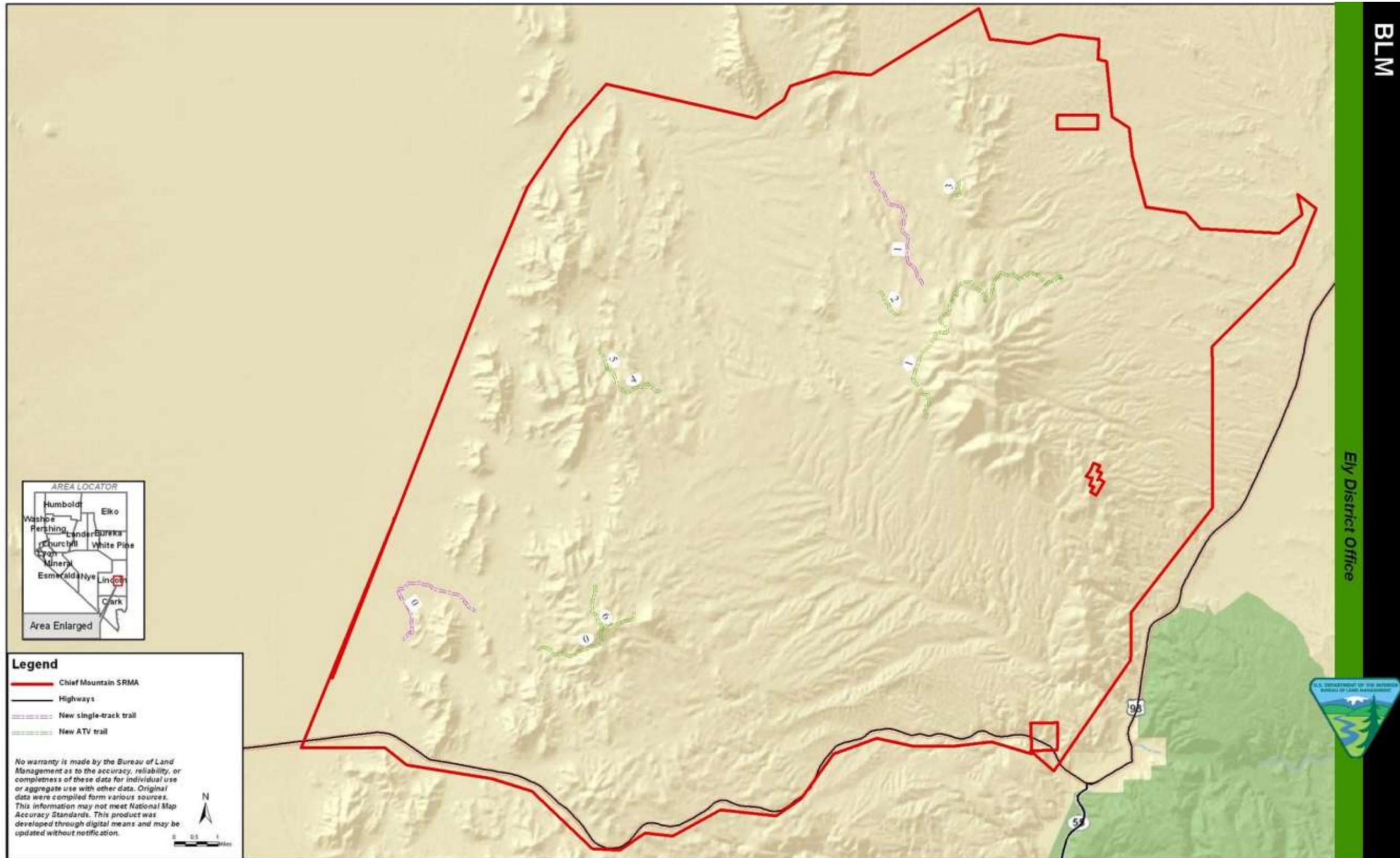


Figure 2.1.1. New single-track and ATV trail recommendations.

Single-track recommendations:

Segment 0: 3.6 miles will provide connectivity between single-track segments 22 and 25, as well as Silver State Trail (full-sized vehicle segment 75).

Segment 1: 3.3 miles will provide connectivity between full-sized vehicle segment 39 and Silver State Trail (full-sized vehicle segment 75).

2.1.1.1 Guidelines:

New trail construction will be carried out in accordance with the following guidelines as described in the BLM's Chief Mountain Trail Development Plan (2011a):

- All new trails will be two-way.
- In general, turn-outs will not be constructed. However, turn-outs will be constructed where topography or vegetation limit or prohibit two-way passing opportunities.
- At trail-road intersections, trail crossings will be designed to cross at a 90-degree angle to the road and to provide maximum sight distance. Trail alignment will be designed to slow the riders and reduce visual impacts.
- OHV cattle guards with bypass gates will be installed at all fence crossings.
- Any user-created trails that are not part of the designated trail system will be closed and rehabilitated.
- Soils exhibiting the potential for unacceptable levels of displacement or dust levels could be hardened or stabilized with gravel, concrete blocks, or other means.
- Trails will be constructed during periods of appropriate soil moisture to mitigate impacts to air quality.
- Trails will be designed following guidelines established by the USFS or by the American Motorcyclist Association (Wernex 1994).
- New trail corridors have been selected to avoid sensitive areas and private land.
- Vegetation removal will be as minimal as possible and managed for safety, including sight distances.
- Trails will be designed to reduce user speeds. They will be designed to be flowing and to create a high fun factor for OHV users, following the guidelines in Wernex (1994)
- Noxious weed infestations nearby proposed trail segments will be treated following best management practices (BMP) before marking the segments as trails.

2.1.2 Route Rehabilitation

In order to maintain access for the other uses in the SRMA, only a limited number of trail segments are recommended for rehabilitation. Recommendations correspond with segments that meet the following criteria: routes that have fallen out of use; routes not used for administrative purposes; routes not used by permittees; resource protection, improvement, or enhancement; recreation user benefits; and trail system enhancement. Based on existing geographic information system (GIS) data and field reconnaissance, the BLM is recommending 83 trail segments, totaling 20.8 miles, for rehabilitation or decommissioning to meet those management criteria as presented in Figure 2.1.2. (due to map scale, some segments are not labeled). Segments and reasons for rehabilitation are listed in Table 2.1.2.

2.1.2.1 Guidelines:

Rehabilitation actions will be in accordance with the Ely RMP best management practices, and will generally be conducted in the following order as needed:

- Administrative closure.
- Signage posting as closed.
- Installation of physical obstructions (gates, soil berms, etc.).
- Conversion to a smaller track width.
- Decompaction: Working the top few inches of the entire disturbed surface to relieve soil compaction.
- 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 revegetation.
- Recontouring: Reconfiguring/shaping the route to blend it with the adjacent, relatively undisturbed desert. This will involve the creation of small hummocks and banks, where appropriate, to mimic the surrounding landscape. Berms will be pulled in and the soil distributed across the disturbed surface. Vehicle tracks in sandy washes will be raked. This will lessen visual contrasts and provide a surface for natural revegetation.
- 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 will be gathered from areas near to the disturbances.
- Erosion control: Placing 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.

- Desert varnish colorant: Spraying disturbed rock surfaces to simulate the coloration of the surrounding desert varnish. Desert varnish colorants are chemical compounds comprising manganese, salts, and other ingredients used to simulate the natural desert varnish that is found on rock surfaces in arid environments. This substance will be applied sparingly, with the use of a sprayer, and only on disturbed rock surfaces that contrast sharply with the surrounding landscape.
- Vegetative restoration: This will involve planting, transplanting, and/or seeding as necessary to help stabilize soil, speed overall vegetative recovery, and camouflage evidence of disturbances.

Table 2.1.2. Route Rehabilitation Summary

Trail Attribute		Potentially Affected Resources			Trail Attribute		Potentially Affected Resources		
Trail Number	Length (miles)	Big Game	Springs	Other	Trail Number	Length (miles)	Big Game	Springs	Other
RR-0	0.95	X			RR-41	0.14	X		
RR-1	0.12	X			RR-42	0.31	X		
RR-2	0.06	X			RR-43	0.13			X
RR-3	0.17	X			RR-44	0.35			X
RR-4	0.19	X			RR-45	0.01			X
RR-5	0.20	X			RR-46	0.20			X
RR-6	0.10	X			RR-47	0.20	X	X	
RR-7	0.34	X			RR-48	0.06			X
RR-8	0.22	X			RR-49	0.04			X
RR-9	0.10	X			RR-50	0.25			X
RR-10	0.18	X			RR-51	0.03			X
RR-11	0.97	X			RR-52	0.34			X
RR-12	0.09	X			RR-53	0.25	X	X	
RR-13	0.83	X			RR-54	0.17			X
RR-14	0.18	X			RR-55	1.30	X		
RR-15	0.28	X			RR-56	0.03			X
RR-16	0.12	X			RR-57	0.37			X
RR-17	0.07	X			RR-58	0.03	X		
RR-18	0.15	X			RR-59	0.18			X
RR-19	0.24	X			RR-60	0.20	X		
RR-20	0.34	X			RR-61	0.48	X		
RR-21	0.59	X			RR-62	0.13	X		
RR-22	0.05	X			RR-63	0.09	X		
RR-23	0.11	X			RR-64	0.34			X
RR-24	0.11	X			RR-65	0.79	X		
RR-25	0.16	X			RR-66	0.08			X
RR-26	0.27	X	X		RR-67	0.11			X
RR-27	0.15	X			RR-68	0.24			X
RR-28	0.28	X			RR-69	0.34			X
RR-29	0.23	X			RR-70	0.10			X
RR-30	0.10	X			RR-71	0.59			X
RR-31	0.35			X	RR-72	0.70	X		
RR-32	0.19	X			RR-73	0.26	X		
RR-33	0.35	X			RR-74	0.39		X	
RR-34	0.11			X	RR-75	0.33	X		
RR-35	0.02	X			RR-76	0.18	X		
RR-36	0.02	X			RR-77	0.30			X
RR-37	0.18	X			RR-78	0.32			X
RR-38	0.18	X			RR-79	0.12			X
RR-39	0.15	X			RR-80	0.17			X
RR-40	0.09				RR-81	0.56			X

2.1.3 Trail Signing

Trail signage will provide clear directions of destinations to users, encouraging them to stay on designated routes. This will, in effect, decrease dispersal of impacts to resources throughout the region of the trail system. Various types of signs and markers will be installed according to current BLM policy and guidance for recreation and travel management signing. Trail markers will be placed along all full-sized vehicle trails, ATV trails, and motorized single-track trails. All designated routes associated with the Chief Mountain Trail Development Plan will be marked using fiberglass markers with appropriate information.

Other types of signs that will be installed include:

- Area and public land identification
- Entry kiosks and informational kiosks
- Bulletin boards
- Route numbers and the designation status of a route
- Area map boards

Informational kiosks will include an information board on Tread Lightly and Leave No Trace recreation ethics. Others may include detailed maps of the area indicating designated routes and difficulty levels. Bulletin boards will include seasonal information such as race schedules, educational events, fire hazards in the area, and temporary road conditions. These boards will be designed to educate users in a quick and effective manner since most users will only look at the kiosk briefly. Locations for kiosks, signs, and bulletin boards will be chosen to avoid sensitive natural and cultural resources. They will be located at trailheads and, in some cases, the interior. They will utilize previously disturbed sites and provide sufficient space for viewing to take place off of the trail.

Signage will be kept to the minimum necessary for management purposes, such as aiding resource protection, and providing information to the general public. Signage will be provided along US 93 to direct users to the appropriate trailhead locations that are selected to reduce conflict among private land holders and public land users. Trails will be signed at intersections and at any points which may be confusing to visitors. Information displayed on these signs will be designed to provide visitors with clear and correct understanding of the risks of cross-country travel and potential resource impacts resulting from the use of undesignated areas. This information will serve to reduce and prevent user conflicts. Through monitoring efforts, strategies will be developed to improve sign effectiveness. A sign inventory and database will be created to facilitate the tracking of sign location and maintenance. It is expected that during the first five years many signs will be removed or destroyed, and will require replacement. There will also be interpretation provided along the trails at important historic and natural sites to educate the public about the area and how they can help to preserve it for future generations.

2.1.4 Trailheads

Well-designed trailheads in the proper locations can contribute to the overall enjoyment and successful management of trail networks. Designating and hardening sites for parking and unloading would protect natural and cultural resources by encouraging users to remain within trailheads, rather than parking at pull-offs along the trail or nearby roads. In order for riders to enjoy a more primitive motorized experience, one without excessive numbers of users riding in one location, trailhead and campsite facilities should be designed to provide for the equivalent of four users per mile of trail (Wernex 1994). Combined trailhead facilities have been planned to provide for up to 400 trail users.

There are two existing trailheads associated with the Chief Mountain SRMA: Chief Mountain West and Chief Mountain South (Figure 2.1.4). Each of these trailheads can accommodate up to 20 haul vehicles and 10 individual vehicles. As vehicles typically carry from two to four motorcycles or ATVs each, each of these trailheads can accommodate between 60 and 120 riders. A third trailhead at the north end of the SRMA, Chief Mountain North, has been closed and the site rehabilitated because of difficulties associated with public access. Because overnight camping and trail riding are often enjoyed together, both the South and West trailheads accommodate camping by providing larger open spaces, vault toilets, campfire rings, and picnic tables and shelters. Additionally, both trailheads are far enough off the main paved access road to further enhance the camping experience.

Identification of the new Caliente trailhead location was based on several factors: proximity to pavement, communities, and the perimeter of the SRMA; resource concerns; connectivity to the Lincoln County Silver State Trail; access to existing roads and trails; and topography. Three locations were considered for future trailhead development: one northeast of the SRMA (Northeast Trailhead); one 3 miles north of the South Trailhead (Motorcycle Staging Area); and one south of U.S. 93 at the western edge of Caliente (Caliente Trailhead). All three potential locations would accommodate facilities that are consistent with elements of both the East and South trailheads. The Northeast and Motorcycle Staging Area have been eliminated from consideration and are discussed further in Section 2.3.2. The Caliente trailhead was chosen for further consideration and is discussed in Section 2.1.4.3.

As the number of users increases and the amount of motorized use grows in the SRMA, additional camping and/or staging area sites farther from paved roads within the SRMA should be considered to further disperse designated trail use and maintain the semi-primitive setting and undeveloped character of the area.

2.1.4.3 Caliente Trailhead

The location south of U.S. 93 along the western edge of Caliente would provide connectivity to the community of Caliente and the Silver State Trail. As this section of the Silver State Trail is limited to motorcycle and ATV traffic, this new trailhead layout focuses on providing the necessary facilities for ATV and motorcycle users. Further, with camping demands being met at the South and West trailheads, camping will not be accommodated at this location. Should demands for additional camping increase in the future, there is adequate room to the east and south on adjacent BLM-managed lands to expand facilities.

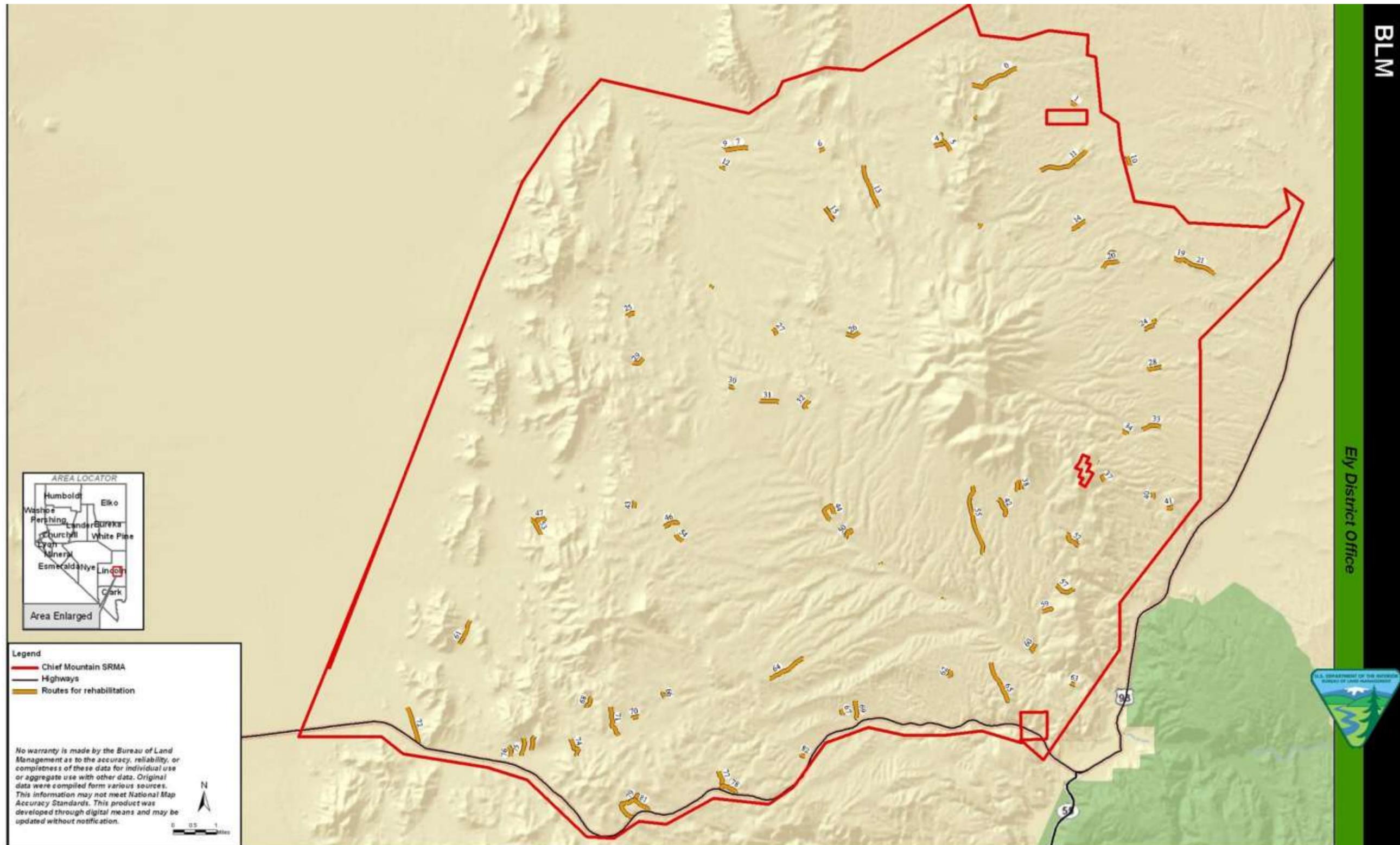


Figure 2.1.2. Routes recommended for rehabilitation.



Figure 2.1.4. Trailheads within the SRMA.

The Caliente trailhead site is currently located in a highly disturbed area with existing vehicle access on BLM lands across from the BLM Field Station office. In an area already utilized for motorized recreation, the trailhead is adjacent to the Silver State Trail, an existing circular dirt track, and a network of ATV and motorcycle tracks to the south and east. Although the trailhead is east of the Caliente target range, incoming and outgoing traffic associated with the trailhead would not interfere with current use of the target range.

Trailhead Components:

The trailhead site layout has been designed to accommodate up to 20 haul vehicles as well as 10 additional single vehicles without trailers. The trailhead will provide for motorcycle and ATV access to the Chief Mountain Trail network via the Lincoln County Silver State Trail. The trailhead will also include restroom facilities and information kiosks for area maps and educational materials. The trailhead will include the same design components as the existing trailheads. The trailhead has been located and designed to allow for future expansion if necessary, including the option for providing developed camping facilities. A short, easy oval loop ride is already located adjacent to the proposed trailhead that will provide opportunities for young and novice riders to practice.

Parking areas for OHV users must be designed differently. There is a need to provide adequate space and turning radii for larger vehicles towing trailers. The parking lot has been carefully designed to provide accessibility for these larger vehicles. There will be 20 pull-through lanes for the larger vehicles, including one Americans with Disabilities Act (ADA)-accessible stall. This will help to reduce congestion in the parking lot and provide sufficient space for people to unload their OHVs. There will also be another 10 stalls for extra vehicles, including one that is ADA-accessible. The parking area is large enough for users to load and unload ATVs and motorcycles. The trailhead will also include an unloading zone that is directly accessible to the trailhead, a kiosk, and other amenities.

A split-rail fence will surround the perimeter of the trailhead and parking lot to control access to the trails as well as protect the surrounding vegetation. There will also be bollards or other types of barriers located inside the parking area to keep people on the road and in the designated parking stalls. The fencing will help to create a sense of place and uniformity. It will cue the users into helping to maintain and respect the site.

There will be one Rocky Mountain Double Vault Toilet with Chase located at each trailhead (manufactured by CXT® Precast Products). The CXT toilets are designed to be odor-free. It is important to make sure that the south side of the toilet is free from obstructions such as trees, to allow for full sun exposure; otherwise the odor-free system will not function properly. Additionally, the toilet has been sited to meet the needs of the Chief Mountain SRMA trail users and not as a roadside facility for travelers along U.S. 93.

During times where trail use is expected to be heavy (summer holiday weekends), wash stations may be brought in to help prevent the spread of noxious and invasive species.

2.2 No Action Alternative

The No Action Alternative would result in a continuation of current conditions. The Chief Mountain OHV routes would not be designated as planned, but existing OHV use and the associated impacts would continue as is along all existing routes (Figure 2.2). The No Action Alternative forms the baseline against which the potential impact of the action alternative is compared.

2.2.1 Development of new trails

Under this action, no new trails would be developed.

2.2.2 Route Rehabilitation

Under this action, no trails would be closed and/or rehabilitated.

2.2.3 Trail Signing

Under this action, current trail signs would be maintained, but no additional signs would be added.

2.2.4 Trailheads

No new trailheads or associated amenities would be developed.

Notification of temporary closures would be provided to users by posting announcements on the BLM website, information kiosks, and signs in the area of the temporary closure.

2.3 Alternatives Considered, but Eliminated from Further Analysis

2.3.1 Trail Route

All existing and potential roads and trails were initially examined with resource data to identify potential risks. Routes showing potential conflict with resources of concern were eliminated from consideration.

An alternative suggested by the public was to close all routes in the planning area to motorized use. This action would maximize vegetation and soil stability while minimizing impacts to wildlife and cultural resources. This action would not meet access needs since BLM land is visited by a large host of users (ranchers, miners, hunters, fishermen, campers, wildlife viewers, sightseers, etc.) Access is necessary for BLM personnel to oversee resource management programs on public land including livestock grazing, mining, wildlife habitat management, watershed management, recreation management, and numerous other programs. Access also is

an important factor in fire suppression and fire management (BLM 2008). This action would not be consistent with the travel management goal in the Ely RMP to “Provide and maintain suitable access to public lands. Manage off-highway vehicle use to protect resource values, promote public safety, provide off-highway vehicle opportunities where appropriate, and minimize conflict.”

Another alternative suggested by the public was to designate the trail area as open to cross-country travel. The BLM considers an area “open” if OHV use is unrestricted and cross-country travel is authorized for recreational purpose. Areas are designated “limited” when restrictions must be imposed to meet resource management objectives. Cross-country travel is authorized within the SRMA when needed for safety, required for government (federal, state, and local) administrative needs, as authorized on a permit, for big game retrieval, or as otherwise officially approved (BLM 2008). The SRMA is an off-highway vehicle emphasis area. The Ely RMP/FEIS defines such areas as “not designated off-highway vehicle open areas. Within the special recreation management area, trails and routes would be designated for motorized recreational opportunities. Off-road motorized travel would not be permitted for recreational purposes (BLM 2007a).” Designating the entire SRMA as “open” would not be compatible with the Ely RMP’s designation of “limited.” Such designations must be changed through land use planning processes during RMP amendment or revision and, as such, is beyond the scope of this implementation process.

The above alternatives would not be consistent with the purpose and need of the trail plan; therefore no further analysis is necessary.

2.3.2 Trailheads

Northeast Trailhead

The location northeast of the SRMA would provide connectivity to the Lincoln County Silver State Trail and is in proximity to the community of Panaca and Cathedral Gorge State Park. There is adequate room for typical trailhead facilities as well as room for expansion to accommodate any future increase in use. Additionally, there are no significant resource concerns associated with the area. Although it is located along the Silver State Trail, the location is approximately 7 miles from the SRMA perimeter boundary and trail network. Because of the distance recreationists would have to travel simply to access the trail network, this location is not being considered for detailed site layout at this time.

Motorcycle Staging Area

A location north of the existing South Trailhead has been identified as a motorcycle/ATV use staging area. This location would work to spread out use and increase opportunities for a more primitive recreation experience. This location would allow visitors to trailer in from U.S. 93 and avoid full-sized vehicle traffic staging from the South Trailhead. It would allow for immediate access to the existing and proposed single-track trails while continuing to provide connectivity to the Lincoln County Silver State Trail. Although room is limited, space for larger vehicles, such as camper trailers, would not be necessary. Due to the proximity to an existing trailhead, and the limited demand for user-specific trailheads and staging areas within the SRMA, development of this location will be considered for later phases of development depending on future increases in use. This location is not being considered for detailed site layout at this time.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

This chapter presents the potentially affected existing environment (i.e., the physical, biological, social, and economic values and resources) occurring along the alternative routes. It also identifies those issues which are further analyzed in Chapter 4.

While many potential issues arise during scoping, not all of them warrant analysis. Issues raised through scoping are analyzed if:

- Analysis of the issue is necessary to make a reasoned choice between alternatives;
- The issue is significant (an issue associated with a significant impact, such as a potential violation of a law imposed to protect the environment);
- Analysis of the issue is necessary to determine if the direct or indirect impacts are themselves significant, or if it would add a measurable incremental impact to past, present and reasonably foreseeable actions that could have a cumulatively significant impact.

Potential impacts to the following resources/concerns were evaluated in accordance with criteria listed above to determine if detailed analysis was required. 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 District BLM in particular.

Based on consideration of the issues raised during BLM interdisciplinary meetings and public scoping for the proposed trail designation, in addition to guidance from NEPA and related statutes, the following issues were considered in the evaluation of the alternatives (Table 3.1-1).

Table 3.1-1. Resources and Issues Considered and Excluded From Further Analysis

Resource or Issue	Rationale
Air Quality	Air quality is not monitored in Lincoln County. There would be sporadic short-term increases in particulate matter from route use and construction. Consequences to the overall quality of the air are not of concern, and therefore will not be analyzed further.
ACECs	Resource not present in analysis area. The nearest ACEC occurs adjacent to the northeast portion of the SRMA (Schlesser's Pincushion ACEC).
Environmental Justice	No minority or low-income groups would be affected by disproportionately high and adverse health or environmental effects.
Farmlands, Prime or Unique.	Unique Farmlands do not occur in Nevada. Approximately 50 acres of Prime Farmland occurs within the SRMA. The Proposed Action or Alternatives would not alter the character or nature of the classified Prime Farmlands since the limiting factors are the application of sufficient irrigation water and reclamation of excessive salts.
Forests and Rangelands (Healthy Forest Restoration Act only)	Project does not meet Healthy Forest Restoration Act criteria.
Native American Religious Concerns	There are no known issues of concern with local tribes.
Floodplains	Resources not present in analysis area.
Wastes, Hazardous or Solids	Wastes may occur due to illegal dumping and spilling. "No dumping" signs would be posted along routes and at kiosks. Routes would be monitored for trash.
Water Quality, Drinking/Ground	Domestic water resources would not be encountered as they occur immediately outside the SRMA on private land on the South East corner. Trail use under the Proposed Action and Alternatives would not affect the spring source or the use of water.
Wild and Scenic Rivers	Resource not present in analysis area.
Wilderness/ Wilderness Study Area	Resource not present in analysis area.
Visual Resources	The analysis area occurs in regions that meet the criteria for Class II, III, and IV Visual Resource Management Classes. These classes allow for modification to the scenery (with Class IV allowing most). By adhering to guidelines and BMPs, no actions in the plan should violate the class criteria.
Wild horses	Individual horses may be affected by trail construction or use, but since most of the horses that had occurred in this area have been phased out, consequences to populations and behavior are not of concern. This area is no longer considered as part of a Horse Management Area.
Human Health and Safety	Addressed with design and management features.

Table 3.1-2. Resources and Issues Requiring Detailed Analysis of Potential Impacts and Rationale for Analysis

Resource or Issue	Rationale
Vegetation	Health and distribution may be affected.
Wildlife	Migratory birds, big game, and other wildlife species may be affected by trail use or construction.
Special Status Species	Sensitive plant and animal species may be affected by trail use or construction.
Cultural Resources	Historic and prehistoric sites, isolates, and artifacts may be impacted.
Paleontological Resources	Trilobite localities may be impacted.
Land Uses (including recreation and access)	Conflicts may arise between trail users and right of way (ROW) holders/land disposals/private land owners, especially in areas of urban interface due to trail use and access. Recreation users would benefit from improved access and management of recreational opportunities.
Livestock Grazing	Grazing may be impacted by changes in trail routes, vegetation, and/or soil.
Wetlands/Riparian Zones	Riparian resources exist within the SRMA, and may be impacted.
Soils	Soils may be impacted by increased trail use and disturbance for construction.
Water Quality, Surface	Springs and streams may be impacted.
Geology and Mineral Extraction	Mine claims may conflict with trail use.
Noxious and Invasive Weeds	GIS data indicate presence which could be enhanced by increased motor recreation.

3.2 General Setting

The Chief Mountain SRMA consists of 111,181 acres of public land located west of Caliente, Nevada and southeast of US Route 93. The area lies entirely within the Great Basin hydrologic and vegetation ecosystem, and contains vegetation communities associated with southern Nevada Mojave Desert Habitat.

3.3 Biological Resources

3.3.1. Wildlife

The project area provides habitat for a variety of wildlife species including reptiles and amphibians, birds, small mammals, and big game. Species range from common to those of concern or with special status.

Table 3.3.1 includes avian species that were confirmed, probably, or potentially breeding within or near the SRMA using survey blocks and/or incidental sightings of the Atlas of the Breeding Birds of Nevada (Floyd et al. 2007). Additional species not listed may be present within or near the SRMA. Raptors, such as golden eagles and prairie falcons may be found within the SRMA, and are protected by the State of Nevada (BLM 2005a).

Common mammals that may be found in the SRMA include coyote (*Canis latrans*), bobcat (*Lynx rufus*), mountain lion (*Felis concolor*), and various rodents and rabbits. Common reptile species include sagebrush lizard (*Sceloporus graciosus*), side-blotched lizard (*Uta stansburiana*), striped-whipsnake (*Coluber taeniatus*), and gopher snake (*Pituophis catenifer*) (BLM 2011a).

The Chief Mountain SRMA lies outside of Critical Desert Tortoise Habitat, and no other special status animals are known of in the area. There are 15 species that have been listed by the U.S. Fish and Wildlife Service as threatened or endangered in Lincoln County. Such species are provided protection by the Endangered Species Act of 1973, as amended (ESA). None of these species are identified as having potential to occur in the SRMA.

Table 3.3.1. Breeding Birds Identified as Potentially Occurring in the SRMA

Common Name	Scientific Name
Black-throated sparrow	<i>Amphispiza bilineata</i>
Western scrub-jay	<i>Aphelocoma californica</i>
Juniper titmouse	<i>Baeolophus ridgwayi</i>
Gambel's quail	<i>Callipepla gambelii</i>
House finch	<i>Carpodacus mexicanus</i>
Turkey vulture	<i>Cathartes aura</i>
Canyon wren	<i>Catherpes mexicanus</i>
Lark sparrow	<i>Chondestes grammacus</i>
Northern flicker	<i>Colaptes auratus</i>
Common raven	<i>Corvus corax</i>

Table 3.3.1. Breeding Birds Identified as Potentially Occurring in the SRMA (Continued)

Common Name	Scientific Name
Yellow-rumped warbler	<i>Dendroica coronata</i>
Yellow warbler	<i>Dendroica nigrescens</i>
Gray flycatcher	<i>Dendroica petechia</i>
Horned lark	<i>Empidonax wrightii</i>
Yellow-breasted chat*	<i>Eremophila alpestris</i>
Bullock's oriole	<i>Icteria virens</i>
Gray-headed junco	<i>Icterus bullockii</i>
Loggerhead shrike*	<i>Junco hyemalis caniceps</i>
Northern mockingbird	<i>Lanius ludovicianus</i>
Brown-headed cowbird	<i>Molothrus ater</i>
Ash-throated flycatcher	<i>Myiarchus cinerascens</i>
Common poorwill	<i>Phalaenoptilus nuttallii</i>
Black-headed grosbeak	<i>Pheucticus melanocephalus</i>
Hairy woodpecker	<i>Picoides villosus</i>
Spotted towhee	<i>Pipilo maculatus</i>
Mountain chickadee	<i>Poecile gambeli</i>
Blue-gray gnatcatcher	<i>Polioptila caerulea</i>
Black-tailed gnatcatcher	<i>Polioptila melanura</i>
Bushtit	<i>Psaltriparus minimus</i>
Rock wren	<i>Salpinctes obsoletus</i>
Western bluebird	<i>Sialia mexicana</i>
Black-chinned sparrow	<i>Spizella atrogularis</i>
Brewer's sparrow	<i>Spizella breweri</i>
Chipping sparrow	<i>Spizella passerina</i>
Violet-green swallow	<i>Tachycineta thalassina</i>
House wren	<i>Troglodytes aedon</i>
American robin	<i>Turdus migratorius</i>
Western kingbird	<i>Tyrannus verticalis</i>
Warbling vireo	<i>Vireo gilvus</i>
Gray vireo*	<i>Vireo vicinior</i>
Wilson's warbler	<i>Wilsonia pusilla</i>
Mourning dove	<i>Zenaida macroura</i>

* BLM sensitive species (BLM 2008)

3.3.1.1 Big Game

Mule deer (*Odocoileus hemionus*) and pronghorn antelope (*Antilocapra americana*) occur in the SRMA. Desert bighorn sheep (*Ovis Canadensis nelson*) can potentially be found in the SRMA. These species migrate between summer and winter ranges. Summer, winter, and general habitats for mule deer occur within the proposed trail designation area (Figure 3.3.1.1-1). General habitat for pronghorn along the eastern border of the SRMA would intersect with the proposed trail designation area (Figure 3.3.1.1-2). Suitable habitat for desert bighorn sheep occurs in the SRMA and intersects with proposed trail designation, but it is currently considered unoccupied (Figure 3.3.1.1-3).

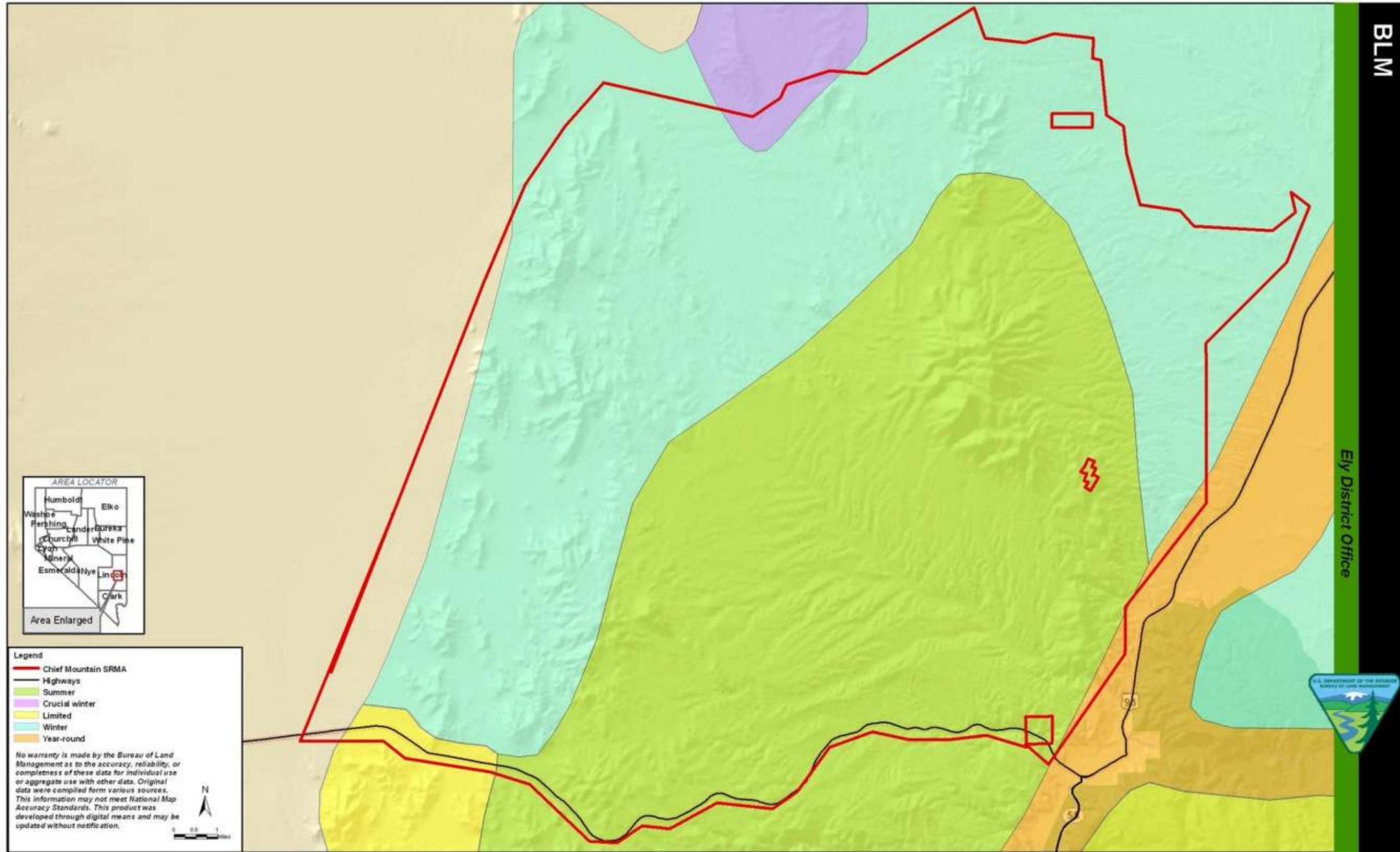


Figure 3.3.1.1-1. Mule deer habitat within the SRMA.

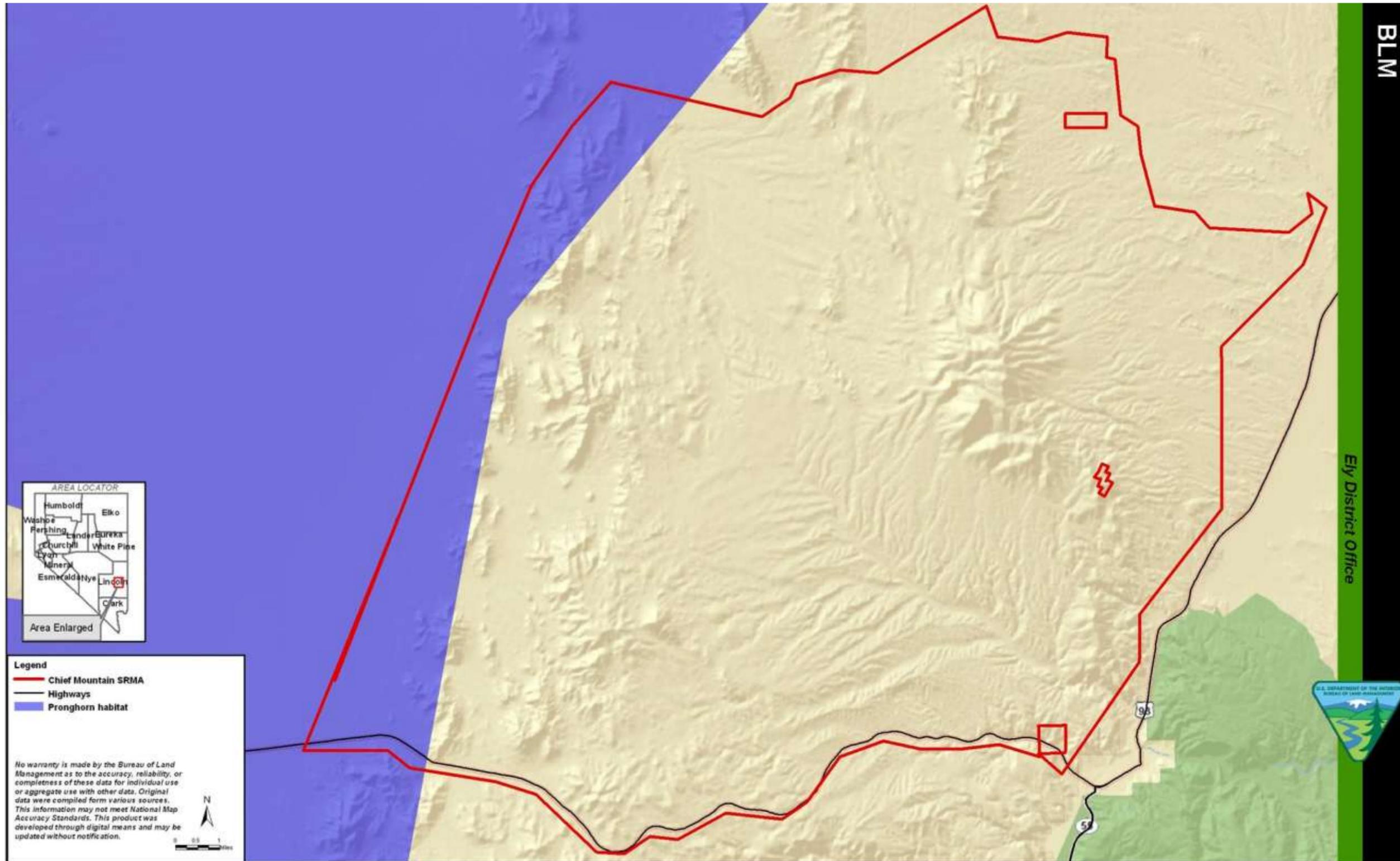


Figure 3.3.1.1-2. Pronghorn habitat within the SRMA.



Figure 3.3.1.1-3. Desert bighorn sheep habitat within the SRMA.

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3.3.1.2 Sensitive Species

Sensitive species that may occur in or near the SRMA are listed in table 3.3.1.2. The BLM Manual 6840.06 E describes special status factors for listing species not already listed by federal or state government as protected, proposed, or candidate species (BLM 2008). NRS 501 provides protection for those species that are on the protected list for the State of Nevada and are considered Special Status Species by the BLM.

Table 3.3.1.2. Sensitive Animal Species

Common Name	Scientific Name	BLM Status*†	State Status**	Potential for Occurrence within the SRMA§
Mollusks				
Grated tryonia	<i>Tryonia clathrata</i>	N	–	L
Insects				
White River wood nymph	<i>Cercyonis pegala pluvialis</i>	N	–	L
Pahranagat naucorid bug	<i>Pelocoris shoshone shoshone</i>	N	–	L
Fish				
Meadow Valley Wash desert sucker	<i>Catostomus clarki</i> ssp. (unnamed)	N	Yes	L
White River springfish	<i>Crenichthys baileyi baileyi</i>	S	Yes	L
Hiko White River springfish	<i>Crenichthys baileyi grandis</i>	S	Yes	L
Pahranagat roundtail chub	<i>Gila robusta jordani</i>	S	Yes	L
Virgin River spinedace	<i>Lepidomeda mollispinis mollispinis</i>	N	Yes	L
Big Spring spinedace	<i>Lepidomeda mollispinis pratensis</i>	S	Yes	L
Meadow Valley speckled dace	<i>Rhinichthys osculus</i> ssp. (unnamed)	N	Yes	L
Pahranagat speckled dace	<i>Rhinichthys osculus velifer</i>	N	Yes	L
Amphibians				
Southwestern toad	<i>Anaxyrus microscaphus</i>	N	–	L
Northern leopard frog	<i>Lithobates pipiens</i>	N	Yes	L
Reptiles				
Desert tortoise	<i>Gopherus agassizii</i>	N	Yes	L
Banded Gila monster	<i>Heloderma suspectum cinctum</i>	N	Yes	L
Common chuckwalla	<i>Sauromalus ater</i>	N	–	L
Mammals				
Pallid bat	<i>Antrozous pallidus</i>	N	–	M
Spotted bat	<i>Euderma maculatum</i>	S	Yes	M
Silver-haired bat	<i>Lasionycteris noctivagans</i>	N	–	M
Hoary bat	<i>Lasiurus cinereus</i>	N	–	M

Table 3.3.1.2. Sensitive Animal Species (Continued)

Common Name	Scientific Name	BLM Status*†	State Status**	Potential for Occurrence within the SRMA§
Long-legged myotis	<i>Myotis volans</i>	N	–	M
Yuma myotis	<i>Myotis yumanensis</i>	N	–	M
Canyon bat	<i>Parastrellus hesperus</i>	N	–	M
Brazilian free-tailed bat	<i>Tadarida brasiliensis</i>	N	–	M
Birds				
Golden eagle	<i>Aquila chrysaetos</i>	N	Yes	H
Long-eared owl	<i>Asio otus</i>	N	Yes	M
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	N	Yes	M
Juniper titmouse	<i>Baeolophus griseus</i>	N	Yes	H
Ferruginous hawk	<i>Buteo regalis</i>	N	Yes	H
Swainson's hawk	<i>Buteo swainsoni</i>	N	Yes	H
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	S	Yes	L
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	S	Yes	L
Prairie falcon	<i>Falco mexicanus</i>	N	Yes	L
Greater sandhill crane	<i>Grus canadensis tabida</i>	N	Yes	L
Pinyon jay	<i>Gymnorhinus cyanocephalus</i>	N	Yes	H
Bald eagle	<i>Haliaeetus leucocephalus</i>	–	Yes	L
Yellow-breasted chat	<i>Icteria virens</i>	N	Yes	L
Western least bittern	<i>Ixobrychus exilis hesperis</i>	N	Yes	L
Loggerhead shrike	<i>Lanius ludovicianus</i>	N	Yes	H
Black rosy-finch	<i>Leucosticte atrata</i>	N	–	M
Long-billed curlew	<i>Numenius americanus</i>	N	Yes	L
Flammulated owl	<i>Otus flammeolus</i>	N	Yes	L
Phainopepla	<i>Phainopepla nitens</i>	N	Yes	L
Vesper sparrow	<i>Pooecetes gramineus</i>	N	Yes	L
Red-naped sapsucker	<i>Sphyrapicus nuchalis</i>	N	Yes	M
Crissal thrasher	<i>Toxostoma crissale</i>	N	Yes	M
Lucy's warbler	<i>Vermivora luciae</i>	N	Yes	H
Gray vireo	<i>Vireo vicinior</i>	N	Yes	H

* Status data taken from the Lincoln County Rare Species List (NNHP 2004); State Animal and Plant Watch List (NNHP 2010a); and State Animal and Plant at Risk Tracking List (NNHP 2010b).

† N = BLM Special Status (ESA candidate species); S = BLM Special Status (BLM State Office).

§ L = Low (unlikely to occur); M = Moderate (habitat is limited, may be used for foraging or passing through); H = High (observed on-site or habitat is widespread, likely nests and forages on site).

3.3.1.3 Migratory Birds

The USFWS considers a bird migratory if the species or family of bird lives, reproduces, or migrates within or across international borders at some point during its annual life cycle. The majority of the birds potentially inhabiting the SRMA are considered migratory species. The MBTA, as amended (16 USC 703 et seq.), protects all migratory birds, including any part, nest, or egg of such birds. All of the birds considered sensitive in the SRMA are protected by the MBTA. In addition to the MBTA and ESA, birds are protected under the Bald and Golden Eagle Protection Act of 1940, and EO 13186.

3.3.2. Vegetation

Data obtained from the U.S. Geological Survey (USGS 2004) indicate 19 vegetation types are present within the SRMA (Table 3.3.2-1). Vegetation is dominated by Sagebrush Shrubland, and to a lesser extent Pinyon-Juniper Woodland (Figure 3.3.2).

Table 3.3.2-1. SWReGAP Vegetation Communities and Acreages within SRMA.

Vegetation Community	Acres
Great Basin Foothill Lower Montane Riparian Woodland and Shrubland	15
Great Basin Pinyon-Juniper Woodland	14,924
Great Basin Xeric Mixed Sagebrush Shrubland	49,287
Inter-Mountain Basins Big Sagebrush Shrubland	30,088
Inter-Mountain Basins Big Sagebrush Steppe	61
Inter-Mountain Basins Montane Sagebrush Steppe	474
Inter-Mountain Basins Mixed Salt Desert Scrub	4,192
Inter-Mountain Basins Semi-Desert Grassland	75
Inter-Mountain Basins Semi-Desert Shrub Steppe	6,835
Inter-Mountain Basins Greasewood Flat	37
Inter-Mountain Basins Cliff and Canyon	178
Inter-Mountain Basins Wash	3
Invasive Annual and Biennial Forbland	7
Invasive Annual Grassland	54
Invasive Perennial Grassland	11
Invasive Southwest Riparian Woodland and Shrubland	9
Mojave Mid-Elevation Mixed Desert Scrub	4,132
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	236
Barren Lands/Nonspecific	12
Total	110,630

SWReGAP = Southwest Regional Gap Analysis Project
Source: USGS (2004)

Although no federally listed plant species are known to occur in the SRMA, 30 sensitive species are identified as potentially occurring in the SRMA (Table 3.3.2-2).

Table 3.3.2-2. Sensitive Plant Species

Common Name	Scientific Name	BLM Status*†	State Status*‡	Potential for Occurrence within the SRMA§
White bearpoppy	<i>Arctomecon merriamii</i>	N	–	L
Eastwood milkweed	<i>Asclepias eastwoodiana</i>	N	–	L
Sheep Range milkvetch	<i>Astragalus amphioxys</i> var. <i>musimonum</i>	N	–	L
Needle Mountains milkvetch	<i>Astragalus eurylobus</i>	N	–	H
Black woolypod	<i>Astragalus funereus</i>	N	–	L
Threecorner milkvetch	<i>Astragalus geyeri</i> var. <i>triquetrus</i>	S	CE	L
Gilman milkvetch	<i>Astragalus gilmanii</i>	N	–	L
Halfring milkvetch	<i>Astragalus mohavensis</i> var. <i>hemigyris</i>	S	CE	L
Long-calyx eggvetch	<i>Astragalus oophorus</i> var. <i>lonchocalyx</i>	N	–	L
Cane Spring suncup	<i>Camissonia megalantha</i>	N	–	L
Remote rabbitbrush	<i>Chrysothamnus eremobius</i>	N	–	L
White River catseye	<i>Cryptantha welshii</i>	N	–	L
Sanicle biscuitroot	<i>Cymopterus riplei</i> var. <i>saniculoides</i>	N	–	L
Nevada willowherb	<i>Epilobium nevadense</i>	N	–	L
Sheep fleabane	<i>Erigeron ovinus</i>	N	–	L
Clokey buckwheat	<i>Eriogonum heermannii</i> var. <i>clokeyi</i>	N	–	L
Scarlet buckwheat	<i>Eriogonum phoeniceum</i>	N	–	L
Sticky buckwheat	<i>Eriogonum viscidulum</i>	S	CE	L
Rock purpusia	<i>Ivesia arizonica</i> var. <i>saxosa</i>	N	–	L
Waxflower	<i>Jamesia tetrapetala</i>	N	–	L
Pioche blazingstar	<i>Mentzelia argillicola</i>	N	–	L
Tiehm blazingstar	<i>Mentzelia tiehmii</i>	N	–	L
Tunnel Springs beardtongue	<i>Penstemon concinnus</i>	N	–	L
Beatley scorpionflower	<i>Phacelia beatleyae</i>	N	–	L
Clarke phacelia	<i>Phacelia filiae</i>	N	–	L
Parish phacelia	<i>Phacelia parishii</i>	N	–	L
Pygmy poreleaf	<i>Porophyllum pygmaeum</i>	N	–	L
Schlesser pincushion	<i>Sclerocactus schlesseri</i>	N	CY	M
Ute lady's tresses	<i>Spiranthes diluvialis</i>	S	CE	L
Currant Summit clover	<i>Trifolium andinum</i> var. <i>podocephalum</i>	N	–	L

* Status data taken from the Lincoln County Rare Species List (NNHP 2004); State Animal and Plant Watch List (NNHP 2010a); and State Animal and Plant at Risk Tracking List (NNHP 2010b).

† N = BLM Special Status (ESA candidate species); S = BLM Special Status (BLM State Office).

‡ CE = State Critically Endangered; CY = Protected as a cactus, yucca, or Christmas tree (NRS 527.060–.120); Yes = State-protected.

§ L = Low (unlikely to occur); M = Moderate (habitat is limited, may be used for foraging or passing through); H = High (observed on-site or habitat is widespread, likely nests and forages on site).

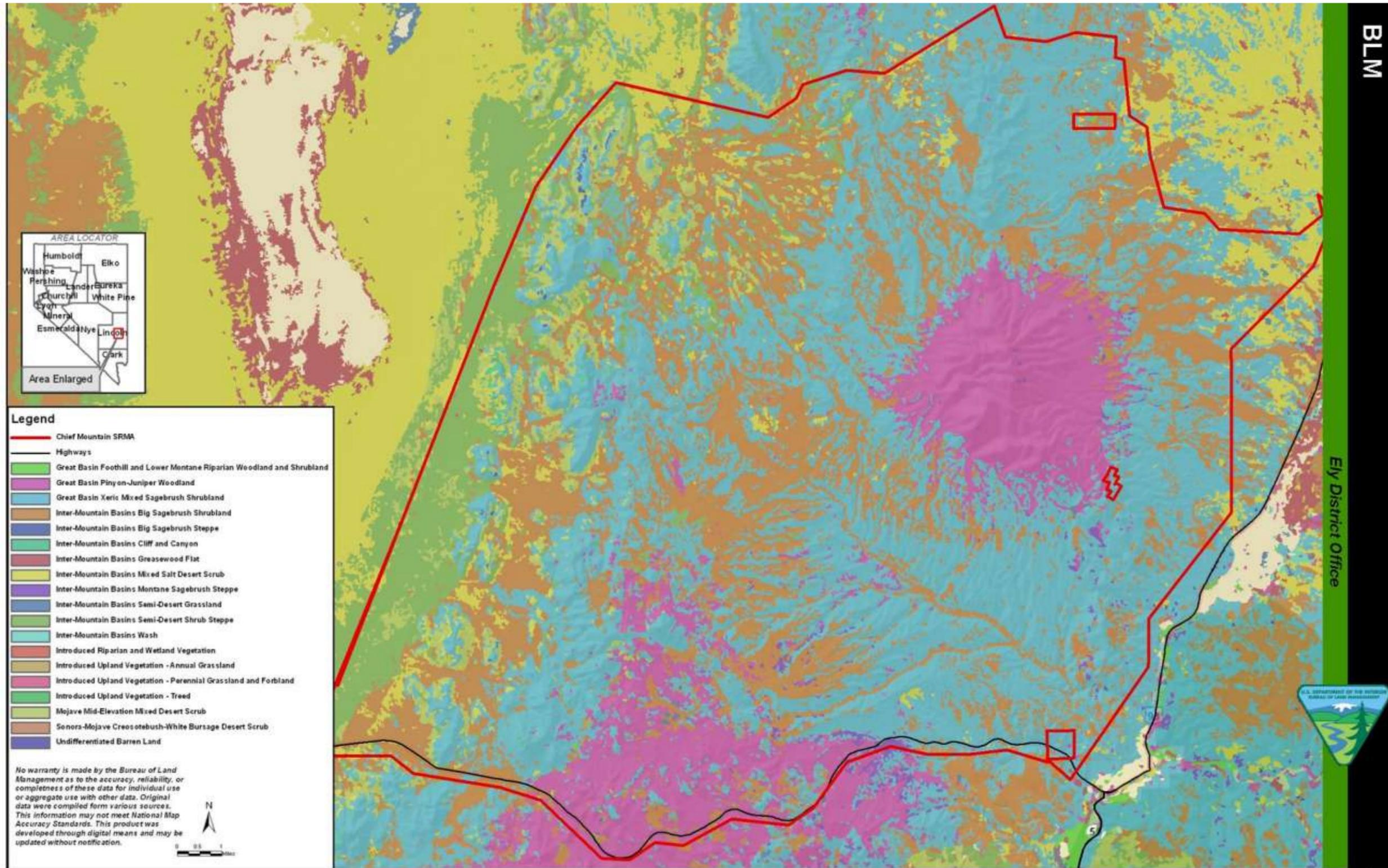


Figure 3.3.2. Vegetation communities within the SRMA.

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3.4 Land Use

The Chief Mountain SRMA is administered by the BLM Caliente Field Office, and managed for multiple uses providing opportunities for recreation, utility right-of-ways (ROWs), mining, wildlife habitat, conservation, and grazing, in addition to other resource values and activities (Figure 3.4).

There are two ROWs that cross the SRMA, and two just outside its boundary. Three parcels of privately owned land are within the SRMA. The Ely RMP identifies lands surrounding Caliente as being available for future disposal and subsequent private development. One of the conditions of land disposal required in the RMP is “LR-17: Maintain access to recreation areas” (BLM 2008:68). The BLM working with the community will stipulate that there is a need for adequate access ROWs into the SRMA.

No special designation areas occur within the SRMA. This plan would have no impacts on water rights. The area is visited by users for rock hounding, trilobite collecting, camping, hunting, and both event organized and casual OHV riding. Non-motorized visitation has not been monitored in this area, so no specific data on such recreational use exist. Special Recreation Permits (SRPs) authorize commercial guided recreational activities in the planning area.

3.5 Rangeland and Livestock Grazing

Livestock grazing is one of the chief uses of land in the SRMA. The BLM manages the number of livestock on each allotment by tracking Animal Unit Months (AUMs). An AUM is the amount of forage required to maintain a cow, cow and calf less than six months old, a bull, or five sheep for one month. In Nevada, an AUM is the equivalent of 1,000 pounds of dried forage. The BLM determines the number of AUMs available on each allotment based on forage studies and rangeland health evaluations.

There are currently 11 grazing allotments in the SRMA, used for both cattle and sheep grazing (Table 3.5, Figure 3.5). Grazing use for these allotments is managed in accordance with *The Standards and Guidelines for Grazing Administrations* developed by the Nevada Mojave-Southern Great Basin Area Resource Advisory Council (RAC) (43 CFR 4180). Allotments are generally grazed for a set period of time and may include year-round grazing, with livestock rotating based on terms of the permit. Management of grazing areas requires installation and maintenance of roads, fences, gates, cattle guards, and corrals. To supply livestock with drinking water, pipelines, troughs, and water haul sites may be set up.

Table 3.5. Grazing Allotments within the SRMA

Allotment Name	Active Cattle AUMs	Active Sheep AUMs
Bennett Spring	0	3,498
Black Canyon	0	1,105
Caliente	40	0
Cliff Springs	2,043	0
Comet	214	0
Ely Springs Sheep	1,802	0
Highland Peak	0	3,704
Highway	118	0
Klondike	0	678
Oak Springs	9,268	0
Rocky Hills (RWH)	0	0

Source: BLM (2005b).

3.6 Active Mines and Mining Claims

There are a number of mining claims within the SRMA (Figure 3.4). A mining claim is a parcel of land where a claimant has a right to develop and extract a discovered valuable mineral deposit. Mine claims can be located anywhere on public land open to mineral entry, but typically do not give the claimant exclusive rights to the surface resources or the right to block access to other users.

3.7 Noxious and Invasive Weeds

In Nevada, noxious weed species are designated as Category A, B, or C based on determinations made by the State Noxious Weed Coordinator. These categories indicate a weed's degree of establishment within Nevada, potential for eradication, and a land manager's legal obligation for treatment. A weed is considered noxious by the State of Nevada if the species "is, or liable to be, detrimental or destructive and difficult to control or eradicate" (NRS 555.005). Category A species are not well established and can be successfully treated. Category B species may be abundant in certain areas, but not well established throughout Nevada. There are reasonable treatment options for such species. Generally, all Category A and B species population are required to be treated when identified. Category C species are generally well established and widespread throughout the state and treatment is done at the discretion of the state quarantine officer. The authority to treat noxious weeds is provided by NRS 555.150-180.

BLM noxious weed GIS data indicate that there are 3 known species of noxious weed within the SRMA: spotted knapweed (*Centaurea stoebe* ssp. *micranthos*), a Category A species; Scotch thistle (*Onopordum acanthium*), a Category B noxious weed; and saltcedar (*Tamarix ramosissima*), a Category C species (Table 3.7). Such species have the potential to upset native plant life and diversity, reduce forage for livestock and wildlife species, interfere with natural aquatic systems, and cause soil and stream degradation (USFS 2006a, 2006b, 2006c)

Table 3.7 Noxious and Invasive Species Known to Occur within SRMA

Common Name	Scientific Name	Category
spotted knapweed	<i>Centaurea stoebe</i> ssp. <i>Micranthos</i>	A
Scotch thistle	<i>Onopordum acanthium</i>	B
saltcedar	<i>Tamarix ramosissima</i>	C

Source: BLM (2011a) Trail Development Plan.

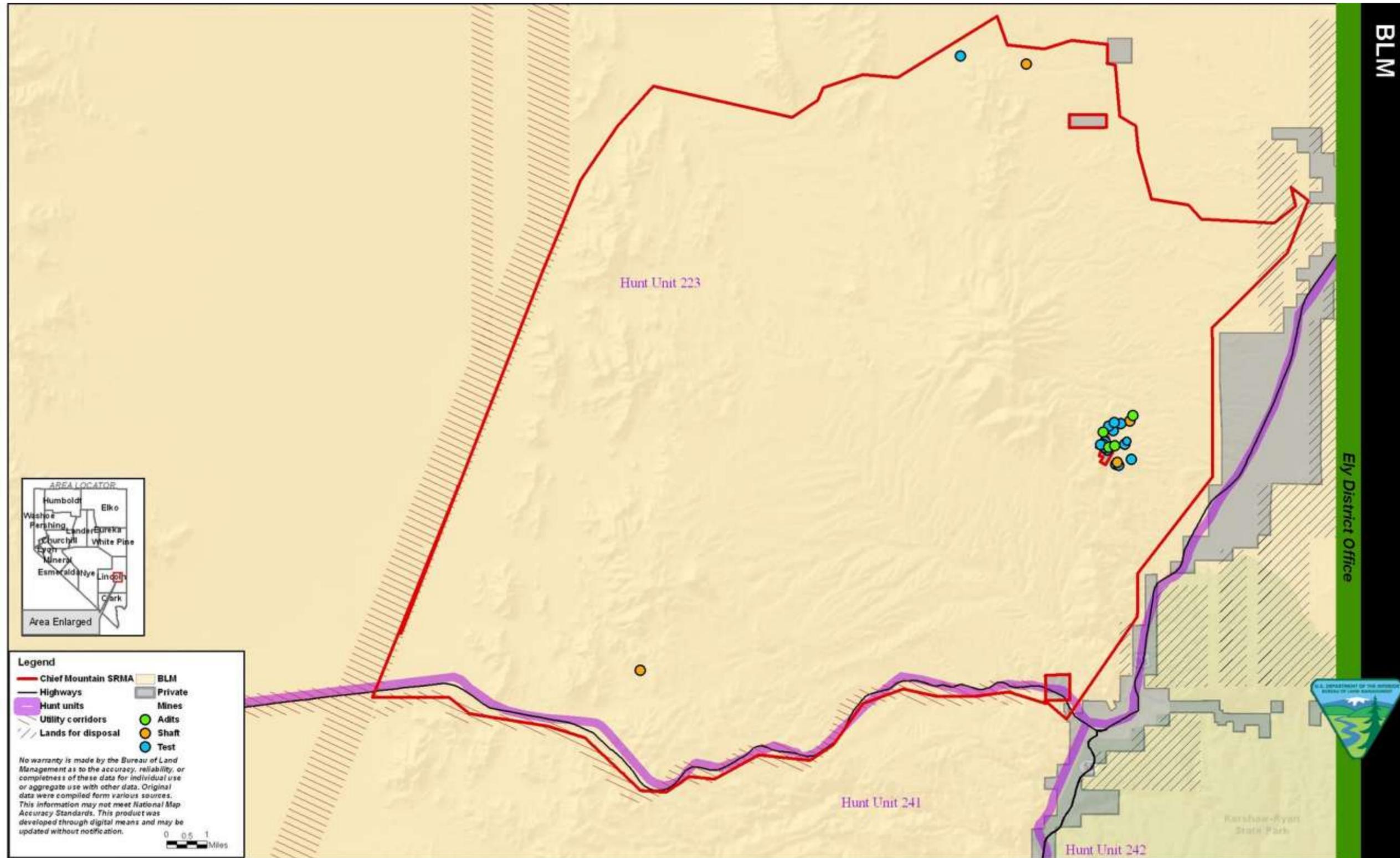


Figure 3.4. Land uses within the SRMA.

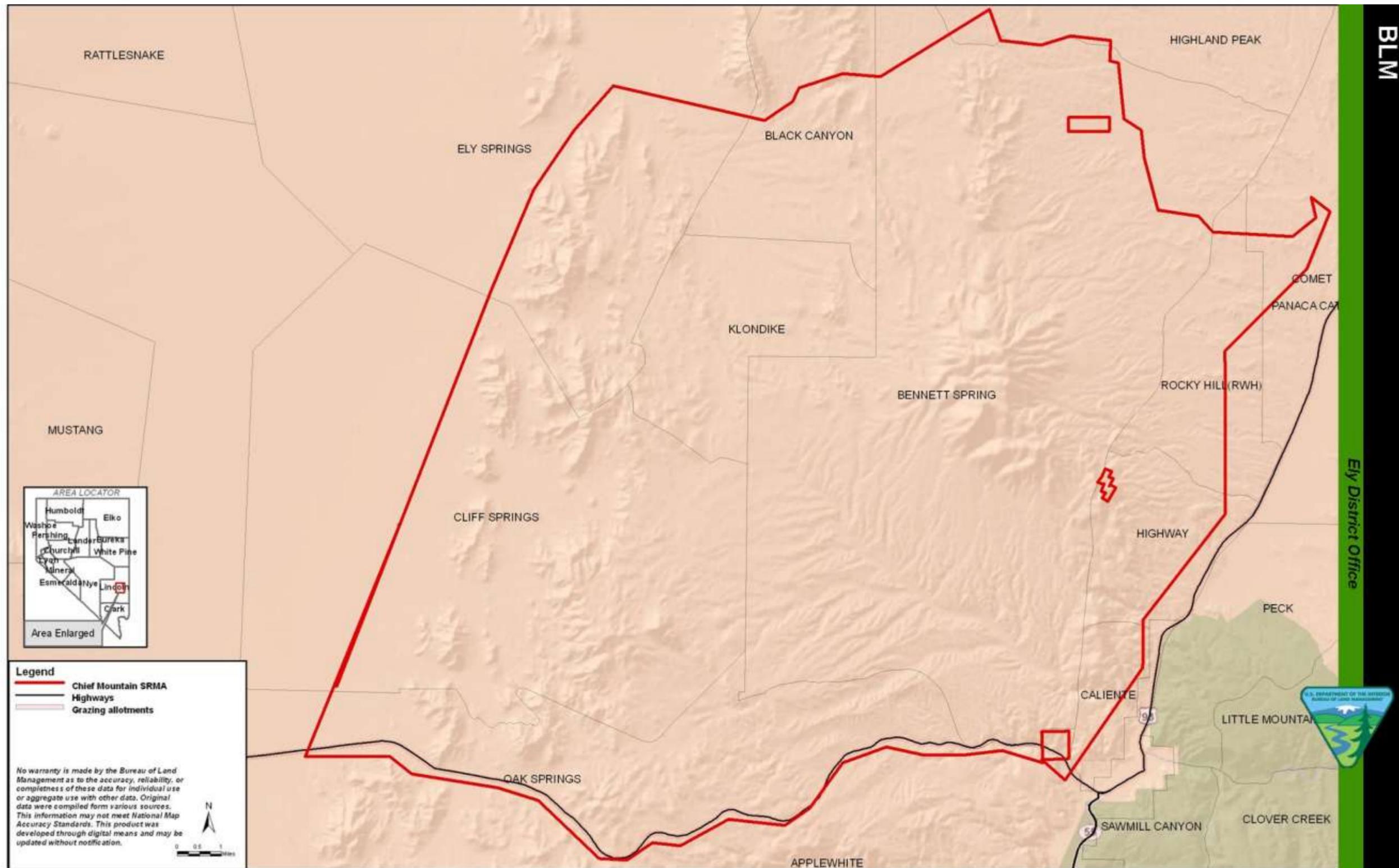


Figure 3.5. Grazing allotments within the SRMA.

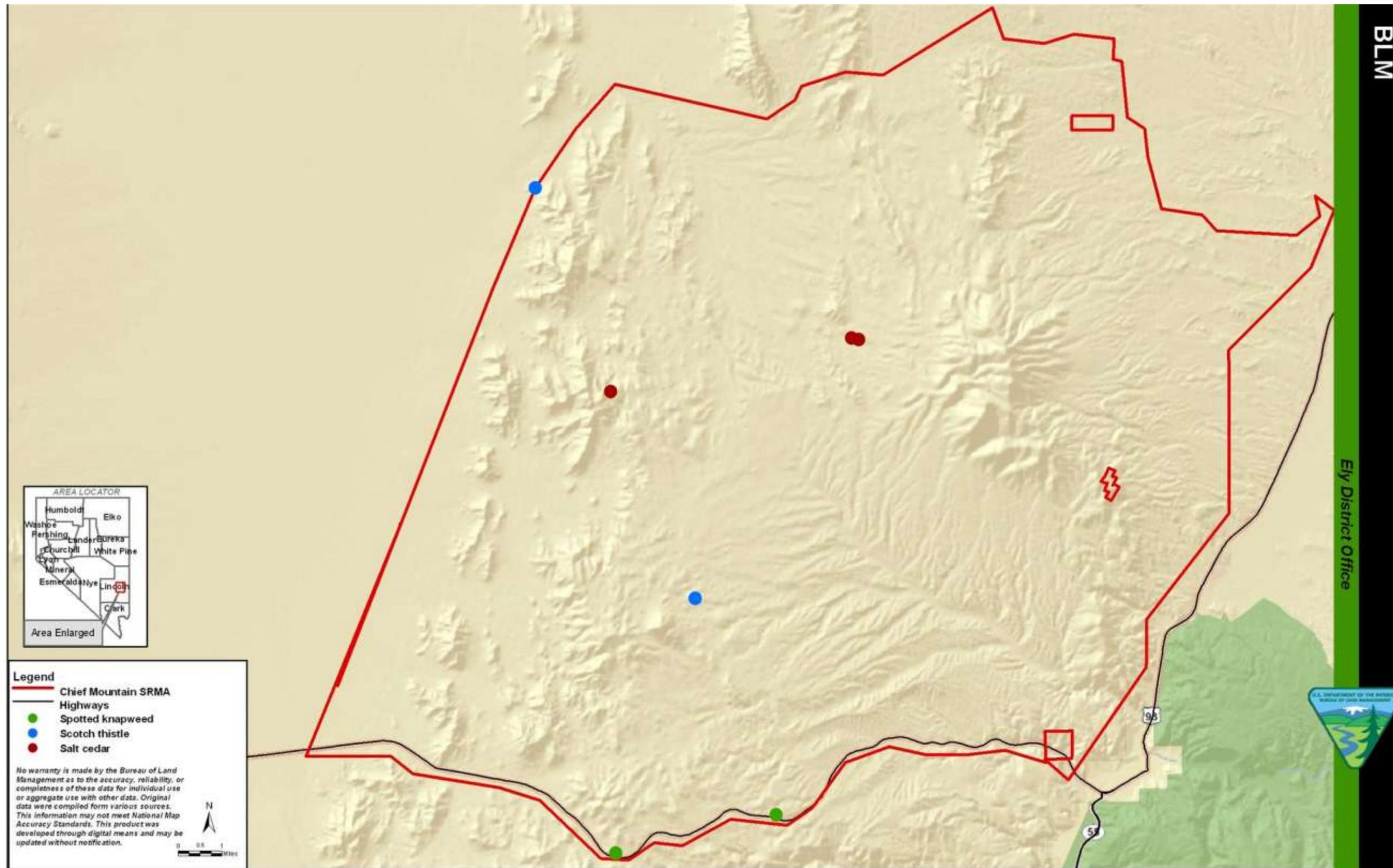


Figure 3.7. Noxious and invasive weed infestations within the SRMA.

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3.8 Cultural Resources

Management of cultural resources is directed by two laws: the National Historic Preservation Act of 1966, as amended in 2000 (NHPA), and the Archeological Resources Protection Act of 1979 (ARPA). Section 106 of the NHPA requires government agencies to take into account the effects of their actions on properties listed or eligible for listing in the National Register of Historic Places (NRHP). Cultural resources must be evaluated and inventoried to determine eligibility as NRHP property.

Cultural resources that meet the eligibility criteria for listing in the NRHP are considered “significant” resources and must be taken into consideration during the planning of federal projects. Federal agencies are also required to consider the effects of their actions on sites, areas, and other resources (e.g., plants) that are of religious significance to Native Americans as established under the American Indian Religious Freedom Act (Public Law [PL] 95-341). Native American graves and burial grounds are protected by the Native American Graves Protection and Repatriation Act (PL 101-601).

There have been up to 31 different cultural resources inventories conducted within the SRMA. These were done in accordance with NEPA, NHPA, and respective implementing regulations and guidelines (36 CFR 60, 36 CFR 800). Through these inventories 16 prehistoric sites, 10 historic sites, and 2 sites with both historic and prehistoric artifacts have been detected. Also, 8 prehistoric isolates and 9 historic isolates were found in the SRMA (BLM 2005).

Prehistoric sites and isolates include lithic material, lithic scatters, two rock art sites, and ground stone and flaked lithic tools (BLM 2005). Historic isolates include bottles, cans, horseshoes, insulators, and other historic trash scatters. Historic sites include a ranch and a charcoal oven. It is expected there are sites associated with mining in the area as well: shafts, adits, campsites, roads, etc.

3.9 Paleontological Resources

Paleontological resources are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. These fossils are considered nonrenewable because the organisms they represent no longer exist.

Professional standards for the assessment and mitigation of adverse impacts to paleontological resources have been established by the Society of Vertebrate Paleontology Conformable Impact Mitigation Guidelines Committee (1995).

The BLM has authority to manage and protect paleontological resources under the FLPMA, NEPA, and various sections of Part 43 of the Code of Federal Regulations. The resources are further protected by the Federal Antiquities Act of 1906 and the Paleontological Resources Preservation Act of 2009.

Two trilobite localities with the Pioche shale formation are known to be located in the SRMA. Additional locations are likely to be found within the SRMA because of the broadly distributed Pioche shale formation (Tschanz and Pampeyan 1970). No other fossil resources are known.

3.10 Wetland/Riparian Zones

Riparian-wetland areas are categorized as either lentic (standing water) or lotic (running water). BLM policy and regulations (43 CFR 4180) require that all riparian-wetland systems on public land meet or exceed proper functioning condition. Lotic systems with streamside riparian areas are functioning properly when adequate vegetation, large, woody debris, or rock is present to dissipate stream energy associated with high-water flows. Lentic systems, or wetlands, are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release, as indicated by the presence of plant species and cover appropriate to the site characteristics (BLM 1998).

Riparian areas are indicated by surface water sources, and in this region surface water comes primarily in the form of springs and streams. Riparian zones occur within the analysis area near existing road segments (Figure 3.10). While riparian zones occupy only a small portion of the landscape in the area, they wield an important influence on ecological functions, typically supporting the majority of biodiversity in such areas (Levick et al., 2008).

3.11 Water Quality, Surface

Management of water in the Ely RMP decision area is directed by the Clean Water Act as amended (P.L. 10 0-4), and is administered by the Nevada Division of Environmental Protection. Water resources are extremely important to ecological function, especially in arid locations like the SRMA. As described above, riparian-wetland areas are dependent on surface water in this region.

Surface water in the analysis area consists of springs or ephemeral and intermittent streams. Ephemeral streams flow in direct response to precipitation with channels always above the water table. An intermittent stream flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow in mountainous areas (BLM 1998). Most streams that occur on BLM-administered public land within the Ely RMP planning area are ephemeral (BLM 2007a). There are numerous washes that do not support riparian vegetation, and merely provide a channel for water during storm events. A limited number of springs and water sources occur within the SRMA, some near existing routes.

3.12 Soils

The analysis area occurs on geology typical of the Basin and Range Providence. The following soil orders are found within the SRMA: Aridisols, Entisols, and Mollisols. Aridisols are soils that develop in arid ecosystems. Entisols lack soil development and typically are shallow or sandy. Mollisols have a thick, dark, fertile surface layer. The following descriptions of soil

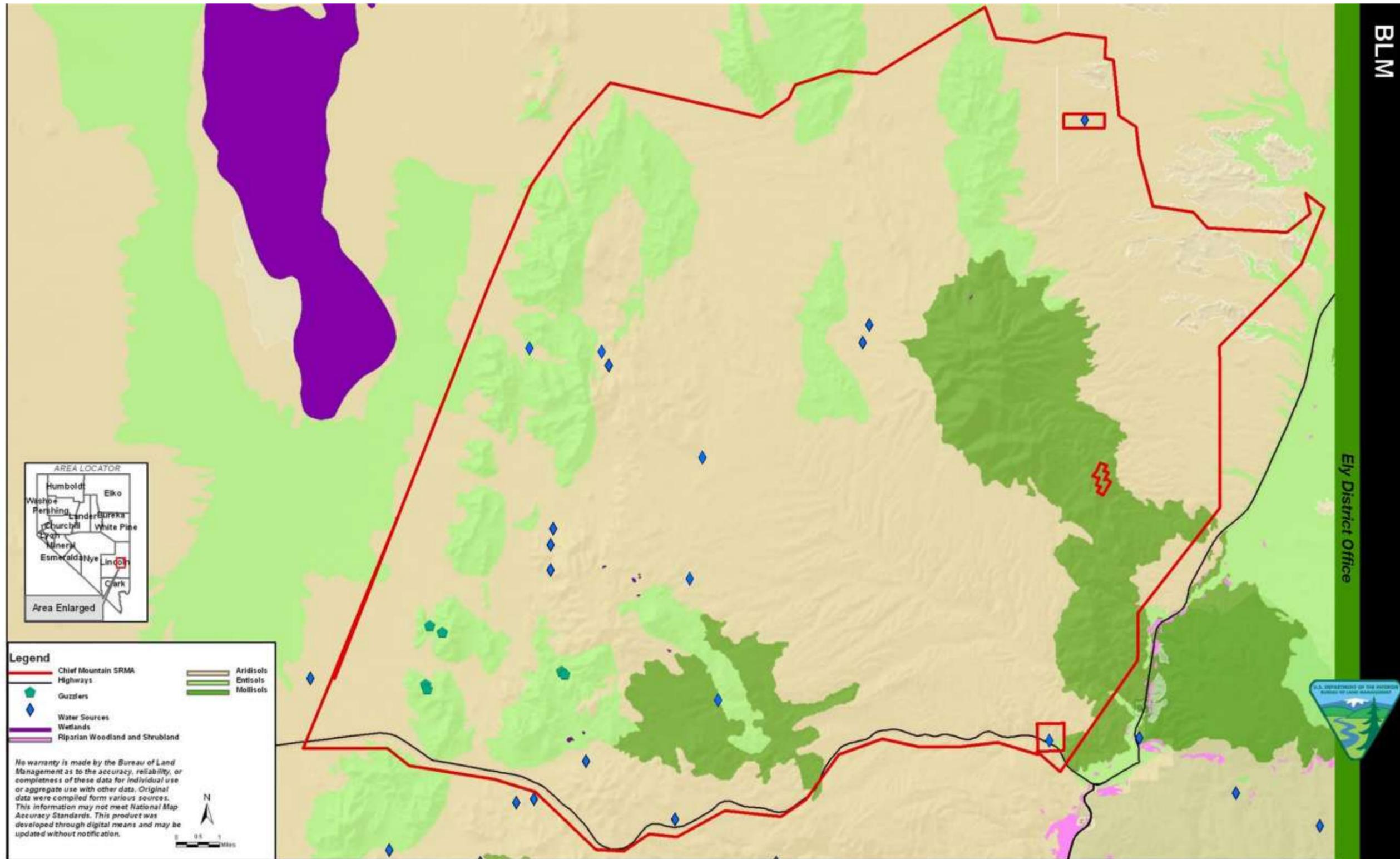


Figure 3.10. Water sources and soils within the SRMA.

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characteristics within the analysis area are based on the major SWReGAP ecological systems identified in Section 3.3.2-1, as described by USGS GAP (2004).

The majority of the project is associated with the Great Basin Xeric Mixed Sagebrush Shrubland ecological system which occurs on alluvial fans, rolling hills, rocky hill slopes, saddles, and ridges. This system typically has shallow, rocky, non-saline soils. A significant portion of the area is associated with the Inter-Mountains Big Sagebrush Shrubland which typically occurs in broad basins between mountain ranges, plains and foothills. This system typically has deep, well-drained and non-saline soils. The Great Basin Pinyon-Juniper Woodland system occurs on deep to shallow, stony, sandy loam soils.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Introduction

This chapter presents the anticipated environmental consequences from designation of the proposed action alternative or the no action alternative as described in Chapter 2.

4.2 Analysis Assumptions

- An increase in overall OHV use of the trail and its amenities would occur under both alternatives (due to recreation trends and restrictions in nearby areas), but would be more pronounced under the proposed action alternative (due to more accommodations for such activities).
- Dispersed use would be greater under the no action alternative (due to users creating their own loop opportunities and loading areas), but would still occur under the proposed action alternative.
- User created trails would be monitored and rehabilitated more readily under the proposed action alternative.
- Most trail users would comply with route designations as implemented under the proposed action alternative (due to the creation of loop opportunities, trailhead amenities, and adequate trail lengths).
- The use of trailheads by users would focus access to the trail system away from access points with more potential conflict (such as near private holdings).
- The BLM would have enough personnel and resources to implement the proposed action alternative.

4.3 Biological Resources

4.3.1 Wildlife

Wildlife is impacted by trails from habitat fragmentation caused by trails crossing the landscape. Reduced habitat connectivity can affect movement and dispersal. Noise associated with OHV riding can also impact wildlife (Ouren et al., 2007). Small mammal species and reptiles have limited mobility, and risk being run over by OHVs. Avian species show a wide range of reactions to habitat disturbance, from site abandonment to habituation (Hamann et al., 1999). Ground nesting birds can be significantly impacted by OHV trail use through indirect displacement and direct nest disturbance or crushing.

Proposed Action Alternative

A direct impact to wildlife would be increased mortality to reptiles, small mammals, and big game due to increased OHV collisions. Other impacts may include disturbance and destruction to habitat, increased spread of noxious weeds along designated routes, and/or increased contact with humans and their noise from recreation activity. Ground disturbing activities from rehabilitation or development of trail segments and amenities may impact individual animals in the area of disturbance. Conversely, rehabilitation of closed routes could result in increased habitat suitability by decreasing fragmentation, human presence, and the spread of noxious weeds to those areas.

These changes may indirectly impact wildlife by altering mortality, behavior, and/or distribution. Increased OHV use, even on existing roads may increase habitat fragmentation in the project area, affecting game species distribution, and small animal and plant subpopulations (Trombulak and Frissell, 2000). Under this action, OHV use would be focused on designated trails, and would make it easier for wildlife to predict human presence. The spring and summer seasons are often important reproductive times for wildlife. OHV travel at this time may disturb young or nesting wildlife. Seasonal closures may be necessary and will be determined on a case-by-case basis.

No Action Alternative

Direct impacts to wildlife under this action would be similar to the proposed action alternative. Increased mortality to wildlife may occur due to increased off-trail use, as animals aren't able to habituate to avoid traffic. For the same reason, wildlife may sporadically and unpredictably be impacted by human contact. Increased habitat fragmentation and the spread of noxious weeds to previously undisturbed areas could degrade habitat for wildlife.

These changes may indirectly impact wildlife by altering mortality, behavior, and/or distribution. The spring and summer seasons are often important reproductive times for wildlife. OHV travel at this time may disturb young or nesting wildlife.

4.3.1.1 Big Game

Mule deer and pronghorn use much of the trail area for year-round, summer, and winter range. Distances through big-game key habitat types are summarized in Table 4.3.1. Although both plans cross through general pronghorn habitat, neither crosses crucial habitat. According to the Nevada Department of Wildlife's 2009-2010 Big Game Status report, mule deer populations in this area were considered stable and pronghorn populations were slightly below expected. Although no Desert Bighorn habitat in the area is currently occupied, in the future, if domestic sheep grazing were no longer occurring, the habitat might be considered for bighorn management (BLM 2008).

Table 4.3.1. Miles of Routes through Big-Game Key Habitat

	No Action Alternative (miles)	Proposed Action Alternative (miles)
Mule deer Critical Summer Range	246.0	239.7
Mule deer Critical Winter Range	4.9	3.9

Source: Ely RMP 2008, U.S. Department of Commerce, U.S. Census Bureau, Geography Division 2010.

Impacts of OHV use to game animals are variable and uncertain. Wisdom et al. (2004) found that mule deer in Northeastern Oregon did not significantly change movement rates or flight responses when encountering ATVs compared to encountering hikers, cyclers, or equestrians. Manley et al. (2004) found that an animal's ability to retrieve food and conserve energy can be negatively affected by OHV disturbance. A number of studies have found similar and contrasting results.

Proposed Action Alternative

Increased traffic on trails may affect big game through habitat displacement, reduced forage at construction sites, and increased risk of mortality due to collisions. An increased human presence may cause increased energy expenditure and interfere with behavior as individual animals avoid existing roads. However, designating routes and eliminating user-created trails would make for more predictable usage, which may decrease energy expenditure on avoidance (Hellmund Associates, 1998). Educating the public at kiosks about the possibility of encounters can help mitigate impacts. The amount of habitat affected under this action alternative would decrease by decreasing the length of the trail, but increased use of the trail could increase habitat displacement. Habitat would be changed by new construction, and would not provide the current level of forage or cover, but would still be available to the deer.

Impacts would have greater intensity through crucial habitat types as identified in the Ely RMP/FEIS and ROD (BLM 2007a, 2008). There is a decrease of 7.3 mi for the proposed action alternative in trail length through crucial mule deer habitat. Seasonal closure from November to April would give protection to wintering wildlife in crucial mule deer winter range. Winter closure would help protect resource damage by preventing ruts and other damages derived from wet and muddy driving conditions. These together would enhance wildlife populations and habitat. No new trail development is proposed through crucial winter mule deer habitat.

Indirect long-term impacts to big game would include an increased risk for the spread of noxious and/or invasive species along the route due to increased use. This would result in decreased quality of vegetation available to big game along the trail. This impact is addressed by monitoring/treating infestations, installation of wash stations during heavy use, and providing trail users with educational tools.

Routes associated with this alternative were selected to avoid springs and guzzlers, which are important to big game species. However, this alternative would create a new ATV trail segment adjacent to a spring, which may impact big game use of the water source. Implementing the guidelines described in Chapter 2, and routing the trail an adequate distance from the spring can minimize impacts. Under this alternative, four trail segments that currently impact springs would be rehabilitated, improving those resources for big game.

No Action Alternative

Under this alternative recreators may be more inclined to disperse into undisturbed habitat and create more user-created trail. This may happen accidentally due to lack of signage and/or education. It may result purposely from trails posing hazards or lacking connectivity, varying difficulty, and/or enforcement. As a result, direct and indirect impacts to wildlife would be similar to those of the action alternative, but habitat fragmentation and decreased quality may increase due to more unmonitored trail creation and the subsequent spread of noxious or invasive species. Due to the unpredictability of human encounters, game distribution and disturbance could be impacted. Because there would be more existing road and trail used by OHVs (versus designated), the impacts would affect a larger amount of trail.

Four trail segments that approach springs would be left open under this alternative, which can adversely impact big game.

4.3.1.2 Sensitive Animal Species

Adverse impacts to sensitive species would be possible under both actions, and most pronounced in the area adjacent to trail. Impacts would be similar to those found under Section 4.3.1 covering general wildlife. Sensitive animal species may be more impacted than other wildlife if future populations are not viable due to impacts from disturbance (Ouren 2007).

Proposed Action Alternative

Under this alternative, sensitive species would be impacted much the same as other wildlife. The rehabilitation of routes and minimization of off-trail use would improve habitat in those areas and reduce direct mortality due to collisions or burrow destruction. Ground nests and burrows would be more protected from being caved-in from off-trail travel. However, nests and burrows located in or on designated routes would continue to be impacted by OHV travel.

No Action Alternative

This alternative would make it highly likely that such impacts occur regularly away from designated trail due to high potential for off-trail travel. The impacts would be more than under the action alternative due to the increase of trail length.

4.3.1.3 Migratory Birds

For impact analysis, the entire SRMA is considered as potential migratory bird species habitat. The primary migratory bird nesting season occurs from early April to mid-July. Peak OHV use begins in May and ends by October, leading to risks of nesting hindrance for migratory species in May, June, and early July. Migratory species of birds respond similarly to OHV use as non-migratory species, ranging from nest abandonment to habituation.

Proposed Action Alternative

Noise would increase significantly at the proposed trailhead. However, under this alternative, dispersed camping would be reduced which would reduce the overall noise effect to migratory birds by making the disturbance predictable and localized. The rehabilitation of routes and minimization of off-trail travel would prevent further disturbance to migratory birds and habitat, and improve conditions in rehabilitated areas.

Ground nesting bird species, such as the ferruginous hawk and western burrowing owl, would benefit from the restriction of OHVs to designated routes. This is because the birds would nest away from the trail, and off-trail use would be decreased. This would help minimize nest disturbance or crushing.

Construction of the trailhead and trail segments would be done to minimize impacts to migratory species. Construction would not occur during breeding and nesting season for migratory birds, or pre-construction surveys would be performed and the appropriate buffers placed around active nests until young birds fledge. Surveys for raptors would be performed for construction any time of the year, and appropriate buffers or re-routes applied.

No Action Alternative

Ground nesting birds would be more impacted under this alternative compared to the action alternative because OHV travel would not be as focused, and the risk to nest disturbance or crushing would be greater. More habitat area would be disturbed due to the increase in overall trail length under this alternative.

4.3.2 Vegetation

Vegetation viability is affected by soil compaction which results from repeated OHV passage. It restricts root growth, and decreases infiltration of precipitation and oxygen availability (Lathrop and Rowland 1983). Soils on existing roads can be expected to already be somewhat compacted. Increased trampling could also occur from increased use as riders pull off the trail for breaks, to look around, or to read signs.

Proposed Action Alternative

Motorized travel on existing roads would have little impact to vegetation. The designation and signing of routes would help reduce the amount of off-trail travel and result in fewer impacts to vegetation, which would also help reduce the spread of noxious weeds. However, the increase in OHV use and human presence may increase the risk of noxious weed seeds along the trail. Under this alternative, monitoring, wash stations during heavy use, and educational outreach would address the impact. The overall reduced surface disturbance of the action alternative would prevent vegetation loss from crushing and soil compaction in undisturbed areas.

Vegetation on rehabilitated routes would improve. Vegetation on and around the proposed trailhead would be disturbed or destroyed during construction. By using a disturbed area for the trailhead site, removal and disturbance to vegetation would be minimized. Dispersed use of the

area for trailhead function would be reduced. Vegetation on and around the proposed new trail segments would be destroyed or disturbed during construction. The risk of crushing, soil, compaction, and noxious weed encroachment would increase at these sites. Utilizing existing unauthorized user-trails and employing mitigation measures would minimize such impacts.

No Action Alternative

Off-trail travel would crush or uproot vegetation, and leave tracks that others would see and follow, causing further disturbance to vegetation. The increase in off-trail travel would increase the impacts to vegetation. It would lead to the loss of vegetation and favor growth of plants that tolerate compacted soils and repeated physical disturbance, typically non-native invasive species (Ouren et al. 2007).

4.4 Land Use

ROWs, corridors, and private land could be affected by the increased traffic on trails and roads. In the future, land for disposal adjacent to the SRMA may change to private, and urban interface may be a concern. OHV use near urban areas to access the trail system may disturb owners. Conflicts may occur between OHV users and other SRMA users if use increases enough that trailheads become overcrowded. The noise and presence of OHVs may scare away wildlife interfering with wildlife viewing and hunting. It may also drown out natural sounds that non-motorized recreators pursue. It may also startle horses, livestock, and people as they drive by. The level of dust created by OHV use could reduce the quality of the recreational experience for non-motorized users briefly.

Proposed Action Alternative

Designation of the trail system would conform to the conditions set for previously issued ROWs. Traffic on County roads with public access will increase as use increases. Increased use of trail segments that are close to private land parcels may increase conflict between property owners and trail users, due to increased impacts to private property, and increased urban interface in the future may compound such conflicts. The designation of the trail system and placement of a right of way or easement could protect the resource from future development activities or disposals. Mitigation efforts could minimize this impact by providing trail users with directional signs to prevent off-trail use on private property. Signage explaining mandatory sharing rules and etiquette would be placed to help reduce conflict among recreators and other users. Trail routes would be monitored for impacts and closed or re-routed if deemed necessary.

Trailhead development would provide OHV recreators with convenient space to load/unload, and in the future may provide camping. This will increase such use at localized areas that occur on BLM land, minimizing uses of dispersed areas. Identifying an appropriate trailhead location that takes into account potential impacts to private lands, such as noise and dust, will minimize impacts to those holders.

The trailhead would also provide parking for non-motorized recreators of the area, although specific design considerations for other uses (such as equestrian) were not included in this plan. Increased OHV use may increase dust and vehicle noise exposure to non-motorized users. By

designating the trail system for OHV use, other recreators preferring to avoid OHV activity will be more able to do so.

No Action Alternative

Under this alternative, the area would continue to be managed as directed in the Ely RMP (2008), conforming to conditions set for previously issued ROWs. The lack of trailheads and clear route signage under this action may sustain dispersed use on undesignated routes and camping areas in unmanaged locations. Existing ROWs, corridors, and private property may be impacted due to the unmanaged traffic. In the future, such conflicts would be compounded if urban interface increased. Conflicts would continue among OHV users and non-motorized users who wish to avoid dust and noise.

4.5 Rangeland and Livestock Grazing

Proposed Action Alternative

Under this alternative, the increase in OHV traffic could impact rangeland and livestock by increasing the risk of damage to range improvements and habitat. Damage may include the reduction of available forage and the spread of noxious and invasive weeds. User-created trails could disturb livestock. Under this alternative, implementation guidelines offset these impacts.

Rehabilitation of routes near springs would improve rangeland. Forage would increase on rehabilitated areas, but decrease on newly constructed ones. Livestock may avoid areas of trail use, which may change distribution and utilization patterns. This may affect Allotment Management Plans (AMP). The increase in human contact may result in harassment to livestock. The installation of cattle guards and trail etiquette signs may decrease conflicts among trail users and livestock permittees.

No Action Alternative

Cattle guards would not be installed. Current conflict between grazer permittees and OHV users would continue. Unpredictable dispersed use trails would be a continuous disturbance to livestock. Because trail length would increase under this action, impacts from OHV use would be more intense.

4.6 Active Mines and Mining Claims

Proposed Action Alternative

Increases in traffic on routes used by miners could impact mining claims. By not closing routes used by mining, access to such areas will not be eliminated. Conflicts would be reduced by not designating the group of roads adjacent to the larger cluster of mine claims in the upper eastern portion of the SRMA.

No Action Alternative

Impacts to mines and mining claims would be greater under this alternative as trail users would not be encouraged to stay away from roads surrounding the majority of the mines, as there would not be designated routes avoiding those roads.

4.7 Noxious and Invasive Weeds

The weed risk assessment rated the project as moderate and is included in Appendix A. This rating signifies that “possible adverse effects on sites and possible expansion of infestation within the project area is “expected to occur” and that “preventative management measures for the proposed project to reduce the risk of introduction or spread of noxious weeds into the area” is required. Preventing infestations of Class B weeds is a high priority in this area. Long-term programs for suppression and control of Class C weeds are needed.

Weed seeds can spread naturally, through wind and animals vectors. They can also be spread by humans through vehicles and apparel. Soil disturbance and removal of vegetation increases the susceptibility of plant communities to infestations of noxious and invasive weeds. Such weeds are highly competitive with native vegetation and can change the community composition and vegetative distribution.

Proposed Action Alternative

Short-term soil disturbance during the construction of new segments and the trailhead would increase the risk of noxious weed and invasive species encroachment to those areas. Following BMPS, infestations near the trail would be treated prior to designation. Monitoring of trail would be done, and treated as necessary. If necessary, certain trails may be closed during eradication and recovery.

The expected increase of trail use would increase the movement of weed seed by human activity. Educational efforts would be made to inform the public of techniques to prevent the spread of new noxious and invasive weeds. The installation of water stations during times of heavy use would reduce the spread of such weeds at those times. Designations and closures of routes would help reduce further spread of weeds into currently unaffected areas. Cross country travel would be deterred, reducing new disturbances that would be susceptible to weed invasions.

No Action Alternative

Conditions directing the distribution of noxious and invasive weeds would continue along current trends. Impacts would be similar to that of the action alternative, only there would be more miles of routes impacted, less information readily available to the public, and an increase in user trail proliferation. Under the no action alternative, there is a potential of further increasing the risk of noxious weed and invasive species encroachment.

4.8 Cultural Resources

Tribal representatives have been notified of the activity plan and invited to identify concerns within the project area pursuant to the NHPA of 1966 as amended (P.L. 89-665; 80 Stat. 915; 16 USC 470) and Executive Order 13007 signed May 24, 1996.

Surface disturbances such as reduced vegetation, soil compaction, soil displacement, and increased runoff would increase the risk of damage to known cultural material as well as undiscovered subsurface material. Increased use of the trail areas may result in increased risk of damages to, or theft of, cultural resources due to an increased human presence.

Proposed Action Alternative

Resources along proposed rehabilitated trails would be less likely to be damaged by vandalism or theft under the proposed action alternative than under the no action alternative.

Installation of cattle guards and the construction of trail segments and trailhead would require archeological inventory prior to and/or during excavation. If Class III inventories reveal archaeological or historic sites or artifacts at locations of new ground-disturbing activity, the action would be altered to avoid cultural resources. In this way, no additional cultural areas would be impacted by the action alternative.

The designation of routes will result in the focusing of OHV travel in appropriate areas, which will make monitoring for impacts more effective. The effects of OHV traffic on known cultural sites would be monitored and if impacts are shown, mitigation measures would be designed and employed. Trails may be re-routed or closed as necessary. The action alternative provides education to the public about such resources and the importance of protecting them.

No Action Alternative

Under this alternative, direct impacts to cultural resource would occur at current levels, but any increases in OHV use would accelerate those impacts. Increases in the amount of surface area impacted by OHV use would increase the risk of damage or theft of cultural resources as they become exposed.

4.9 Paleontological Resources

Paleontological resources can be damaged or destroyed by surface disturbances. The fossil-bearing strata can also be damaged by such disturbances, impairing the scientific information derived from it. Exposure of paleontological resources to air and other elements can also cause disintegration. OHVs may directly run resources over, or erode the soil so that they are exposed.

Proposed Action Alternative

Surface disturbance during construction of trail and trailhead could directly impact paleontological resources by damaging or destructing fossils and/or the stratigraphic

environment in which they are found. This alternative has the beneficial effect of focusing OHV use to the designated trail, minimizing the risk of off-trail use. Off-trail use increases surface disturbance, which may increase impacts to paleontological resources. Increased use of the trail area may result in increased risk of damages to or theft of paleontological resources. The effects of OHV traffic on known paleontological sites would be monitored and if impacts are shown, mitigation measures would be employed. The action alternative provides monitoring of such trails to manage impacts to these resources. It also provides education to the public about such resources and the importance of protecting them.

No Action Alternative

Under this alternative, direct impacts to paleontological resources would be maximized due to the increased amount of surface area impacted by OHV use on existing trail and future user-created routes. The risk of theft to paleontological resources would be less than the action alternative, due to a decrease in trail users.

4.10 Wetlands/ Riparian Zones

Riparian zones can be directly impacted by trampling, and indirectly through increases in soil erosion leading to siltation and bank destabilization. Severe impacts to water, shade, bank stabilization, soil, or vegetation can result in deterioration of the whole zone. Once destroyed, continued OHV use can prevent recovery of the habitat.

Proposed Action Alternative

Increased use of trails adjacent to riparian areas may increase impacts indirectly through trail erosion contributing to sedimentation. However, signing and the dissemination of maps and policies would minimize off-trail use through riparian areas, offsetting some of the erosion problems. Under this alternative, trails adjacent to riparian-wetland areas would be monitored, and re-routed or closed if determined necessary.

No Action Alternative

Under this alternative, no re-routes, rehabilitations, or improvements would occur, and OHV travel would continue as is in riparian areas. No OHV user education would be posted to deter users from dispersing near riparian areas. OHV users would continue to travel near and through water sources, potentially affecting riparian vegetation by trampling. Increases in OHV use in the SRMA would compound impacts.

4.11 Water Quality, Surface

Surface water quality can be impacted by surface disturbance caused by OHV use. The trampling and removal of vegetation leaves soil exposed to erosive forces, such as wind and precipitation run off. Such erosion can lead to increased sediment loads in water sources. The removal of shade can alter water temperature. The ability of soil to store water can be reduced, leading to reductions in water tables.

Proposed Action Alternative

Under this alternative, the construction of new trail segments and the trailhead would create new bare surfaces exposed to erosive forces, increasing the potential for sedimentation from such areas. This impact can be thwarted by locating these features in areas appropriate for such use, and by implementing the design features described in section 2.1.1. This alternative would rehabilitate 1.11 miles of trail currently affecting spring sources. Rehabilitated segments would eventually become revegetated and soil integrity restored. Further impacts to water quality would be minimized by the increased monitoring, route rehabilitation or re-routing, and design criteria. Wildlife-friendly fencing may be installed to protect resources if deemed necessary.

No Action Alternative

Under this alternative present erosion rates would continue to impact water quality. Increased road density from off-trail use would accelerate impacts, especially if users create trails through water sources. The trail segments identified as impacting springs would not be rehabilitated, and water quality would continue to be degraded in those areas.

4.12 Soils

OHV use impacts soils by the removal of vegetation which results in reduced soil stability and increased exposure to erosion forces. Compaction and rutting can result from intense OHV use and/or OHV use in wet conditions. Damages to soil can lead to the spread of noxious and invasive species, reduced forage and habitat for wildlife and livestock, increased risk of damage to cultural and paleontological resources, and increased sedimentation in surface water resources.

Proposed Action Alternative

Construction of the new trailhead and trail segments would temporarily increase soil erosion, disturbance, and compaction in those immediate areas. Such impacts may be mitigated by design guidelines and by choosing areas currently disturbed. The rehabilitation of trails proposed by this alternative will improve soil stability in those areas as vegetation becomes reestablished. Reduction in uncontrolled recreational use of roads, trails, and rangelands would reduce dispersed compaction and accelerated erosion. This alternative would concentrate use to a limited number of trails, making monitoring and mitigation of erosion more feasible.

No Action Alternative

Under this alternative, soil erosion and displacement would occur at current levels, and increase with increases in area use. Dispersed camping and trail proliferation would lead to more erosion as more surface area becomes affected. The maintenance and improvements to existing routes would not occur or would occur at lesser extent than under the Proposed Action Alternative.

5.0 CUMULATIVE IMPACTS

As required under NEPA and the regulations implementing NEPA, this section analyzes potential cumulative impacts from past, present, and reasonably foreseeable future actions combined with the Proposed Action within the area analyzed for impacts in Chapter 4 specific to the resources for which cumulative impacts may be anticipated. A cumulative impact is defined as “the impact which results from the incremental impact of the action, decision, or project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 Code of Federal Regulations 1508.7)

Past Actions:

- The area has traditionally been used for recreation (both motorized and non-motorized), livestock grazing, and mining.
- Most roads built before the 1990s largely accommodated mining operations and supplied local communities in the Ely RMP planning area.
- OHV recreational pursuits have contributed to the proliferation of more routes and no attempts have been made to resolve problems stemming from such use.
- Range improvements were developed throughout the area in association with livestock grazing and wildlife habitat enhancement.
- The Environmental Assessment analyzing the Silver State Trail through Lincoln County (and portions of the Chief Mountain SRMA) was submitted and a FONSI published. The Congressionally designated trail was connected to existing trails at multiple locations in the SRMA.
- The BLM has permitted a number of competitive motor cycle events in the area, following EA evaluations.
- Expansion of pinyon and juniper trees, and other woody species’ expansion over the past 150 years has increased the number of trees in woodlands, shrub lands, and grasslands.
- Noxious and invasive weeds have spread in the area.
- 138 fires occurred within the SRMA between 1980 and 2009. The largest fire occurred in 2006 and totaled 330 acres. There were 6 fires of 10 acres or more, and the majority of these fires were 0.1 acres or less. One fire occurred in 2011 and burned less than 0.1 acres. Most of the fires occurred in the southern and eastern portions of the SRMA.
- In 2006, a water facility ROW was issued in the SRMA and in 2007 it closed.

- Two film permits were issued within the SRMA for an off-highway truck and buggy race in 2011, and for the Land Rover Adventure Challenge in 2008.
- In the early 1980's three different individuals applied for Desert Land Acts, and were denied in the late 1980's.

Present Actions:

- Large areas of BLM-managed land in Clark County are being closed to OHV use to protect the desert tortoise and air quality, shifting recreation use to Lincoln and White Pine counties, specifically along highway 93 between Oak Springs Summit and Caliente. There have been no actions taken by the BLM to manage casual OHV use in this area.
- Approximately 110,839 acres are currently available for grazing in the decision area. Approximately 33,427 AUMs are permitted in the area, with approximately 22,470 AUMs in use.
- Pinyon and juniper trees and other woody species are expected to continue expansion into woodlands, grasslands and shrub lands.
- Noxious and invasive weeds will continue to remain a concern as they continue to spread on both private and public land.
- Current ROWs within the SRMA include power transmission lines, telephone fiber optics, and water facilities.
- The Department of Energy rail corridor withdrawal was approved in 2005, and expires in December of 2015.
- Over 57,000 acres are identified as suitable for disposal in Lincoln County. Land is zoned for 5 acre plots.

Foreseeable Future Actions:

- Increased use of the trail area may necessitate more trailheads, directional signs, camp grounds, and/or amenities in the future. Site-specific NEPA analysis would be required for such developments.
- Demand for OHV recreation will grow in Lincoln County with increasing restrictions in Clark County. As one of the closest developed OHV use areas to Las Vegas, the Chief Mountain trails will experience increased use.
- Organizations may request to hold events on the SRMA. Each event would require NEPA analysis.

- The demand for recreation use in the Ely RMP planning area is expected to continue increasing through the next 20 years.
- Unchecked OHV use will lead to additional spread of noxious and invasive weeds, impacts to riparian areas, and habitat fragmentation.
- Pinyon and juniper trees and other woody species are expected to continue expansion into woodlands, grasslands and shrub lands.
- With a majority of the area in Fire Regime Condition Class (FRCC) 2 and 3, it is expected that future fires are likely to become larger with higher fire intensity and severity with the increasing density of pinyon and juniper tree species.
- Noxious and invasive weeds will continue to remain a concern as they continue to spread on both private and public land.
- As a county with a small private base land, Lincoln County may experience high pressure to disposal of lands if the economy picks up.

5.1 Action Alternative

The action plan is expected to address current and future public and administrative access needs, protect resources, minimize user conflict, and promote public safety. Employing the action alternative would address the slow process of resource degradation which would otherwise produce long term adverse impacts.

5.1.1 Biological Resources

5.1.1.1 Wildlife

Localized disturbance would occur adjacent to the trail system. Increased use of OHV trails could lead to changes in wildlife behavior and/or distributions. Such changes could lead to impacts on wildlife viewing and hunting in the area. Wildlife would continue to be impacted by activities described above. Minimal cumulative impacts would be expected considering management and design features associated with this alternative.

5.1.1.2 Vegetation

Past and present actions have led to vegetation loss and disturbance, and the introduction of noxious and invasive weeds. Only minor effects on vegetation where trails and roads already exist would be expected. New trail segments and trail head construction would damage or destroy vegetation. This would be minimized by using previously disturbed areas. The expected increase in trail users would increase the risk of weed spread. The treatment and monitoring of noxious and invasive weeds associated with this plan would minimize the cumulative impact of noxious weed spread in the SRMA.

5.1.2 Land Use

The expected increase in motorized OHV recreation could possibly lead to increased conflicts among land uses in the area. In the future, pressure to dispose of lands may increase and conflicts may arise between private land and public land uses. The lands located near the Chief Mountain Area will be highly desirable for sale due to the view lots and existing county access off US 93. Implementation of signage explaining rules and trail etiquette, as well as the increased focus of the trail and trail access, will help minimize these impacts. This would be accomplished by dispersing trail use throughout the SRMA, focusing access at trailheads, and providing users with trails of varying difficulty.

5.1.3 Rangeland and Livestock Grazing

Increased use of OHV trails could lead to changes in livestock distribution and forage utilization. These changes could lead to future changes in AMP. The installation of range improvements and focused trail use would minimize impacts of trail proliferation and human presence.

5.1.4 Active Mines and Mining Claims

Increases in traffic on routes used for mines and mining claims may cause conflict between users. Not designating routes near some mines, providing education on trail rules and etiquette, and reducing off-trail use would mitigate these impacts.

5.1.5 Noxious Weeds

Noxious weeds would continue to spread due to present and future conditions or events including wildlife, livestock grazing, mining activity, and general or special recreation use. Weeds may spread more significantly with increases in OHV traffic and human presence. The implementation of mitigation measures under the action plan would slow, and in some instances may stop, the spread of such weed infestations, and address current ones.

5.1.6 Cultural and Paleontological Resources

Past and present land uses have directly impacted cultural and paleontological resources through loss, modification, and/or disturbance of artifacts and sites. The increased use of OHVs and human presence would result in a cumulative contribution to the risk of indirect damages to these resources. A greater management presence in the area in the form of signs and markers, personnel conducting monitoring, and law enforcement would minimize this impact. If OHV riders confine use to trails, and the monitoring and mitigation measures are employed, the designation of the OHV trail should have only a slight impact on cultural and paleontological resources in the project area.

5.1.7 Riparian Zones, Surface Water Quality, and Soils

Past and present land uses have impacted these resources through soil disturbance, which in turn impacts both riparian zones and surface water quality. Because the vast majority of this trail is located on soils that have previously been disturbed, and the limited amount of new surface

disturbance would be implemented to minimize impacts to these resources, no negative cumulative impacts are expected.

5.2 No Action Alternative

If no actions are implemented, the cumulative process of resource degradation would produce long term adverse impacts. Unmanaged trail proliferation could be expected to accumulate over time, causing accelerated impacts to biological, cultural, paleontological, riparian, surface water, and soil resources. Issues related to user conflict, resource protection, and public safety would not be addressed.

5.2.1 Biological Resources

5.2.1.1 Wildlife

Wildlife would continue to be impacted as it is currently, and over time the anticipated OHV activity and route proliferation and dispersal would likely add substantial impacts to wildlife.

5.2.1.2 Vegetation

Vegetation would continue to be impacted as it is currently, and over time the anticipated OHV activity and route proliferation and dispersal would likely add substantial impacts to vegetation.

5.2.2 Land Use

The increase in OHV use and trail proliferation could add impacts to land use over time in the manner of conflict among uses and at urban interface areas.

5.2.3 Rangeland and Livestock Grazing

No rangeland improvements would be implemented, and livestock would continue to be affected by the above actions. Increased trail use and proliferation may cause changes in livestock distribution and forage utilization. These changes could lead to future changes in AMPs.

5.2.4 Active Mines and Mining Claims

The increase in OHV use and trail proliferation could add impacts to land use over time in the manner of conflict among uses.

5.2.5 Noxious and Invasive Weeds

Noxious weeds would continue to spread, and over time add substantial impacts as weed seeds spread from increased human presence and route proliferation. There would be no weed control actions or monitoring.

5.2.6 Cultural and Paleontological Resources

Intense and off-trail use of the area would magnify the effects to paleontological and cultural resources by damaging material. The uncovering of undiscovered material would also increase due to an increase in disturbed surfaces, which could increase vandalism and/or looting.

5.2.7 Riparian Zones, Surface Water Quality, and Soils

Off-trail use would compound current impacts by increasing riparian vegetation and stream bank damages, which then would cause increased amounts of sediment loading to surface water sources. Route proliferation would increase the area of bare ground, exposing more soil to erosive forces.

6.0 CONSULTATION AND COORDINATION

6.1 Introduction

The issue identification section of Chapter 3 provides the rationale for issues that were considered but not analyzed further and identifies those issues analyzed in detail in Chapter 4. The issues were identified through the public and agency involvement process described in sections 6.2 and 6.3 below.

6.2 Persons, Groups and Agencies Consulted

Name	Purpose & Authority for Consultation or Coordination	Findings and Conclusions
Nevada State Historic Preservation Office (SHPO)	Consultation for undertakings as required by the National Historic Preservation Act (16 USC 1531)	The cultural survey report was sent to SHPO with a determination of no adverse effect. No response was received within 30 days from the submission of any of the reports. Consultation is therefore considered to be closed.

6.3 Summary of Public Participation

During preparation of the EA, the public was notified of the proposed action by posting the project on the [Ely District Office Website](#) and sending letters to members of the public who had expressed interest in being informed of this and/or similar actions. The preliminary Environmental Assessment was posted on the BLM Ely District website for a 30 day public review period beginning September 16, 2011. A public meeting was held October 6, 2009 and attended by 15 people. A public comment period was offered between October 6, 2009 and November 6, 2009.

In total, 20 submissions were received. Two were from government agencies (NDOW and Lincoln County), 3 were from non-government or special interest groups (Center for Biological Diversity, Wisconsin Off-Highway Vehicle Association, and Magic Valley ATV Riders Inc.), and 15 were from individuals (11 from Nevada, 4 unidentified).

6.4 List of Preparers/ Reviewers

6.4.1 BLM:

Name	Title	Resource Represented
Elizabeth Townley and Chris Linehan	Outdoor Recreation Planner	Recreation, Travel Management, Visual Resources

Name	Title	Resource Represented
Sheri Wysong	Planning and Environmental Coordinator	Air Quality, Environmental Justice, NEPA
Zachary Peterson	Forester	Forest Health, Forest/Woodland Products
Shirley Johnson	Rangeland Management Specialist	Rangelands Standards and Guidelines, Livestock Grazing Riparian/Wetlands,
Mark D'Aversa	Hydrologist	Water Resources, Soil Resources, Riparian/Wetlands
Alicia Styles	Wildlife Biologist	Fish and Wildlife, Special Status Species
Benjamin Noyes	Wild Horse Specialist	Wild Horses
Leslie Riley	Archaeologist	Cultural Resources, Paleontological Resources
Brenda Linnell	Realty Specialist	Lands/Energy
Alan Kunze	Geologist	Mineral Resources
Kyle Teel	Fire Ecologist	Fuels
Karen Prentice	Rehabilitation Manager	Emergency Stabilization and Rehabilitation
Mindy Seal	Natural Resource Specialist	Noxious and Invasive Species
Sam Styles	Wilderness Ranger	Special Designations
Melanie Peterson	Environmental Protection Specialist	Wastes, Hazardous and Solid, Human Health and Safety
Elvis Wall	Native American Coordinator	Native American Concerns
Erin Rajala	Outdoor Recreation Planner Recreation Program Lead	Review: Recreation, Visual Resources
Clint Wertz	Supervisory Natural Resource Specialist- Renewable Resources	Review: Land Use
(Thomas) Travis Young	Planning and Environmental Coordinator	General Review
Cameron Boyce	Range Management Specialist: Project Lead	General Review

6.4.2 Non-BLM:

Name	Title	Agency Represented
Martha J Roberts	Travel Management Intern	Great Basin Institute (GBI)
Mark Kimbrough	Recreation Specialist	GBI
Jerry Keir	Executive Director	GBI
Julie McKnight	NV BLM Land Health Assessment Project Lead	GBI
Ph.D. Lynn Zimmerman	Director of Research	GBI
Ph.D. Erin Goergen	Research Associate Program Director	GBI
Brad Hardenbrook	Supervisory Habitat Biologist	NDOW

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7.2 Acronyms

ACEC	Area of Critical Environmental Concern
ADA	Americans with Disabilities Act
AML	Appropriate Management Level
AMPs	Allotment Management Plans
ARPA	Archaeological Resources Protection Act
ATV	all-terrain vehicle
AUM	Animal Unit Month
BLM	Bureau of Land Management
BMP	best management practice
CFR	Code of Federal Regulations
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
FONSI	Finding of No Significant Impact
GIS	geographic information system
HMA	Herd Management Area
LCCRDA	Lincoln County Conservation, Recreation and Development Act
MBTA	Migratory Bird Treaty Act
NDOW	Nevada Department of Wildlife
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NNHP	Nevada Natural Heritage Program
NRHP	National Register of Historic Places
OHV	off-highway vehicle
PL	Public Law

RAC	Resource Advisory Council
RFFS	Reasonably Foreseeable Future Action
RMP	Resource Management Plan
ROD	Record of Decision
ROW	right-of-way
SHPO	State Historic Preservation Office
SRMA	Special Recreation Management Area
SWReGAP	Southwest Regional Gap Analysis Project
USC	United States Code
USFS	United States Forest Service
USGS	United States Geological Survey

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Appendix A

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Chief Mountain Recreation Area Management Plan Lincoln County, Nevada

On August 24, 2011 a Noxious & Invasive Weed Risk Assessment was completed for the Chief Mountain Recreation Area Management Plan (RAMP) in Lincoln County, NV. The Ely District Office proposes to produce a RAMP for the Chief Mountain Special Recreation Management Area (SRMA). The Proposed Action and Management Plan have been completed by SWCA Environmental Consultants. The Proposed Action would include designation and identification of routes for OHV use. The management plan also includes actions such as signing routes; construction of new routes; re-routes of existing trails; designation of routes by use; new trailheads or expansion of existing trailheads; and general management guidance. This assessment was requested for the associated Environmental Assessment. The Chief Mountain SRMA covers 111,181 acres to the northwest of Caliente.

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

<i>Centaurea stoebe</i>	Spotted knapweed
<i>Onopordum acanthium</i>	Scotch thistle
<i>Tamarix spp.</i>	Salt cedar

The project area was last inventoried for noxious weeds in 2008. The following undocumented weeds are also probably scattered along roads in the area:

<i>Arctium minus</i>	Common burdock
<i>Bromus diandrus</i>	Ripgut brome
<i>Bromus rubens</i>	Red brome
<i>Bromus tectorum</i>	Cheatgrass
<i>Ceratocephala testiculata</i>	Bur buttercup
<i>Erodium cicutarium</i>	Filaree
<i>Kochia scoparia</i>	Kochia
<i>Halogeton glomeratus</i>	Halogeton
<i>Marrubium vulgare</i>	Horehound
<i>Salsola kali</i>	Russian thistle
<i>Sysimbrium altissimum</i>	Tumble mustard
<i>Tragopogon dubius</i>	Yellow salsify
<i>Verbascum thapsus</i>	Common mullein

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

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

For this project, the factor rates as Moderate (7) at the present time. It is likely that OHV activity in the project area will introduce invasive species or facilitate the spread of weeds already established in the project area. However, through partnerships with user groups and interpretive signage that includes photos, descriptions, and management concerns for weeds, awareness of weed problems will be increased. This will have an effect that reaches beyond the boundaries of the Chief Mountain SRMA by educating users and altering behavior that they carry with them to other areas. A noxious weed inventory is required for all new trail construction and any trail rehabilitation before work can begin. Following established best management practices, noxious weed infestations adjacent to any proposed trail segments will be treated prior to marking the segments as trails.

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

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

This project rates as High (6) at the present time. The consequences from the spread of noxious weeds in the project area are limited. The area was chosen as a SRMA based on its lack of critical species and habitat. Much of the area is already departed from the potential natural vegetation of the site with the eastern slopes showing a Fire Regime Condition Class (FRCC) of 3 (high-level departure), and the western slopes with a FRCC of 2 (mid-level departure).

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

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (42). This indicates that the project can proceed as planned as long as the following measures are followed:

- Continue to use integrated weed management to treat weed infestations and use principles of integrated pest management to meet management objectives and to reestablish resistant and resilient native vegetation communities.
- Develop weed management plans that address weed vectors, minimize the movement of weeds within public lands, consider disturbance regimes, and address existing weed infestations.
- When manual weed control is conducted, remove the cut weeds and weed parts and dispose of them in a manner designed to kill seeds and weed parts.
- All straw, hay, straw/hay, or other organic products used for reclamation or stabilization activities, must be certified as free of plant species listed on the Nevada noxious weed list or specifically identified by the Ely District Office.
- Where appropriate, inspect source sites such as borrow pits, fill sources, or gravel pits used to supply inorganic materials for construction, maintenance, or reclamation to ensure they are free of plant species listed on the Nevada noxious weed list or specifically identified by the Ely District Office. Inspections will be conducted by a weed scientist or qualified biologist.
- Where appropriate, vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; for emergency fire suppression; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. Vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Vehicles used for emergency fire suppression will be cleaned as a part of check-in and demobilization procedures. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the Ely District Office Weed Coordinator or designated contact person.
- To minimize the transport of soil-borne noxious weed seeds, roots, or rhizomes, infested soils or materials will not be moved and redistributed on weed-free or relatively weed-free areas. In areas where infestations are identified or noted and infested soils, rock, or overburden must be moved, these materials will be salvaged and stockpiled adjacent to the area from which they were stripped. Appropriate measures will be taken to minimize wind and water erosion of these stockpiles. During reclamation, the materials will be returned to the area from which they were stripped.
- Determine seed mixes on a site specific basis dependant on the probability of successful establishment. Use native and adapted species that compete with annual invasive species or meet other objectives.

- For soil disturbing actions that will require reclamation, salvage and stockpile all available growth medium prior to surface disturbances. Seed stockpiles if they are to be left for more than one growing season. Re-contour all disturbance areas to blend as nearly as possible with the natural topography prior to re-vegetation. Rip all compacted portions of the disturbance to an appropriate depth based on site characteristics. Establish an adequate seed bed to provide good seed-to-soil contact.
- Conduct mixing of herbicides and rinsing of herbicide containers and spray equipment only in areas that are a safe distance from environmentally sensitive areas and points of entry to bodies of water (storm drains, irrigation ditches, streams, lakes, or wells).
- Keep removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g. using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.)
- Generally, conduct reclamation with native seeds that are representative of the indigenous species present in the adjacent habitat. Document rationale for potential seeding with selected nonnative species. Possible exceptions would include use of nonnative species for a temporary cover crop to out-compete weeds. In all cases, ensure seed mixes are approved by the BLM Authorized Officer prior to planting.
- Certify that all interim and final seed mixes, hay, straw, and hay/straw products are free of plant species listed on the Nevada noxious weed list.
- When maintaining unpaved roads on BLM-administered lands, avoid the unnecessary disturbance of adjacent native vegetation and spread of weeds. Grade roads shoulders or barrow ditches only when necessary to provide for adequate drainage. Minimize the width of grading operations. The BLM Authorized Officer will meet with equipment operators to ensure that they understand this objective.
- Consider nozzle type, nozzle size, boom pressure, and adjuvant use and take appropriate measures for each herbicide application project to reduce the chance of chemical drift.
- All applications of approved pesticides will be conducted only by certified pesticide applicators or by personnel under the direct supervision of a certified applicator.
- Prior to commencing any chemical control program, and on a daily basis for the duration of the project, the certified applicator will provide a suitable safety briefing to all personnel working with or in the vicinity of the herbicide application. This briefing will include safe handling, spill prevention, cleanup, and first aid procedures.
- Areas treated with pesticides will be adequately posted to notify the public of the activity and of safe re-entry dates, if a public notification requirement is specified on the label of the product applied. The public notice signs will be at least 8 ½" x 11" in size and will contain the date of application and the date of safe re-entry.

- Whenever possible, hand spraying of herbicides is preferred over other methods at heavily used recreation sites (i.e., campgrounds, trailheads, etc.).

Reviewed by:

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Date

Map:

